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TESI DI LAUREA

ANALISI SPERIMENTALE DELLA DENSITÀ DI REFRIGERANTI A BASSO IMPATTO AMBIENTALE

Relatore: PROF. CLAUDIO ZILIO

Correlatore: ING. LAURA FEDELE

ING. SERGIO BOBBO

Laureando: MATTEO SECURO

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Sommario

Questa tesi sperimentale è finalizzata alla determinazione della densità di un nuovo fluido refrigerante appartenente alla classe delle idro-fluoro-olefine (HFOs), del quale non sono attualmente presenti dati in letteratura.

La necessità di caratterizzare questo tipo di fluido, conosciuto con la sigla commerciale R1243zf, è legata al suo bassissimo impatto ambientale identificato da un basso indice di riscaldamento globale (presumibilmente simile a quello degli altri fluidi, già studiati, appartenenti a tale classe).

L'attenzione verso questa tipologia di refrigeranti è cresciuta a seguito dell'emanazione di recenti normative che pongono limiti restrittivi all'utilizzo di fluidi non rispettosi dell'ambiente.

Nel settore automobilistico il refrigerante attualmente in uso è nella maggior parte dei casi il tetrafluoroetano (R134a) che, avendo un GWP = 1430 (Comitato intergovernativo per i cambiamenti climatici IPCC 2007), sarà progressivamente sostituito.

Sempre in tema di phase-out, si vuole porre attenzione anche al settore della climatizzazione domestica dove attualmente viene utilizzata la miscela R410A, ritenuta anch'essa responsabile dell'aumento dell'effetto serra.

Per la sua sostituzione è stato recentemente proposto di usare l'R32, fluido già noto perché è stato scoperto nel periodo in cui si cercava di risolvere il problema della distruzione dello strato di ozono. Fino ad ora questo refrigerante è stato utilizzato solamente in miscela e mai come fluido puro a causa della sua infiammabilità, ma cercando di superare tali limiti si pensa di usarlo, date le sue caratteristiche favorevoli nei confronti del ridotto impatto ambientale.

Il presente lavoro di tesi inizia con una breve descrizione sulla storia dei fluidi refrigeranti e sui vari motivi che hanno portato alla loro scoperta e necessità di utilizzo. Si passa ad elencare i vari problemi legati all'impatto ambientale di assottigliamento dello strato di ozono e di effetto serra, responsabile del lento ma progressivo riscaldamento del nostro pianeta. Si riporta la designazione e la classificazione dei refrigeranti riguardante la sicurezza di impiego secondo lo standard ASHRAE seguita da una visione generale sulla normativa che ha segnato il cambiamento dei refrigeranti negli ultimi anni.

Nel secondo capitolo è poi posta l'attenzione sulla messa al bando dei refrigeranti attualmente in uso nel campo della climatizzazione domestica e degli autoveicoli con i possibili candidati per la loro sostituzione.

Nel terzo capitolo viene trattato il nuovo refrigerante R1243zf appartenente alla classe delle idro-fluoro-olefine (HFO) di cui fanno parte anche i fluidi recentemente studiati e proposti per la sostituzione dell'R134a, come l'R1234yf o l'R1234ze.
Sono brevemente richiamate anche le proprietà chimiche, di infiammabilità, di tossicità e naturalmente il loro impatto ambientale.

Nei capitoli successivi si passa alla descrizione dell'impianto sperimentale, con un capitolo dedicato alla descrizione del densimetro a tubo vibrante Anton-Paar 512P, di cui si riportano tutte le caratteristiche tecnologiche ed elettriche, ponendo attenzione alla sua calibrazione e alla descrizione su come va usato.

Segue successivamente la descrizione della procedura utilizzata per caricare il fluido frigorigeno da studiare all'interno dell'impianto, di come vengano rilevati e analizzati i dati acquisiti, e di come vengano confrontati i dati con un fluido noto per la verifica della correttezza dei dati rilevati.

Alla fine, a completamento del lavoro svolto, vengono riportati i dati sperimentali riguardanti la densità del liquido saturo, la modalità di estrapolazione della densità di saturazione e la regressione dei dati sperimentali con una apposita equazione.

Nell'ultimo capitolo viene svolta l'analisi termodinamica di un tipico ciclo frigorifero per il condizionamento dell'aria nelle applicazioni mobili, evidenziando i requisiti che un fluido frigorigeno deve avere dal punto di vista dell'efficienza energetica. Quindi, utilizzando R134a, R1234yf e R1243zf, vengono analizzate le prestazioni di tale ciclo tenendo costante la potenza frigorifera all'evaporatore.

Capitolo 1

I fluidi refrigeranti

1.1 Cenni storici ed evoluzione dei refrigeranti nel corso degli anni

La storia dei refrigeranti inizia nel 1834, pochi anni dopo che Carnot formulò le sue teorie sul ciclo frigorifero. Nel XIX secolo erano utilizzati i fluidi che definiamo "naturali": acqua, ammoniaca, anidride solforosa, anidride carbonica, eteri. Nel 1912 Linde propose il protossido d'azoto e qualche anno dopo venne messo in funzione un impianto frigorifero funzionante a etano e propano [1].

La pericolosità nell'utilizzare tali fluidi portò, negli anni trenta, all'introduzione sul mercato di nuovi fluidi refrigeranti, che garantivano una maggiore sicurezza d'uso. A partire dal 1930 fecero perciò la comparsa sul mercato i primi fluidi clorurati come: R11, R12 (CFC) e, successivamente, R22 e R502 (HCFC).

I clorofluorocarburi conosciuti con l'abbreviazione CFC, sono dei composti chimici formati da atomi di cloro, fluoro e carbonio, con una elevata stabilità chimica che ne favorì la loro diffusione nelle applicazioni del freddo. In quel periodo si puntò appunto all'utilizzo di fluidi che fossero stabili chimicamente, che avessero buone proprietà termodinamiche, non fossero tossici e infiammabili in modo da garantire sicurezza alle persone nel loro utilizzo. Cloro e Fluoro conferivano proprio queste caratteristiche e sono così entrati a far parte, in gran quantità, nella composizione dei fluidi refrigeranti utilizzati.

Nel 1974 due scienziati americani, Rowland e Molina, vinsero il premio Nobel per la Chimica con la loro teoria, secondo la quale il cloro contenuto nei CFC, agendo da elemento distruttore dello strato di ozono atmosferico causava l'assottigliamento di quest'ultimo permettendo così una maggiore incidenza dei raggi ultravioletti sulla Terra. Le esigenze ambientali richiedevano quindi l'eliminazione di questo elemento per evitare di aggravare ulteriormente le condizioni dello strato di ozono in continua diminuzione, ma le tecnologie allora disponibili non permisero di rinunciare in maniera cosi drastica a questo elemento, indispensabile, fino alle successive scoperte, per la produzione di refrigeranti. Si rimpiazzarono i CFC con gli HCFC (idro-cloro-fluoro-carburi) composti chimici formati da atomi di idrogeno, cloro, fluoro e carbonio. Questi nuovi composti avevano molte delle proprietà vantaggiose dei CFC, ma una minore stabilità chimica dovuta proprio alla minore quantità di cloro, sostituito con l'idrogeno e fluoro, che conferisce al fluido una minore vita atmosferica e una minore reattività con lo strato di ozono.

Ovviamente, la crescente esigenza di individuare possibili sostituti spinse i ricercatori a rivalutare i fluidi naturali prima scartati, come acqua e anidride carbonica, ed ad ottimizzare la tecnologia dei cicli alternativi (non necessariamente a compressione di vapore).

L'obiettivo di avere una tipologia di fluidi con potenziale di distruzione dell'ozono nullo è stato raggiunto con gli idrofluorocarburi HFC, in cui il cloro è stato completamente eliminato e sostituito dall'idrogeno.

Ciò ha portato ad un nuovo problema legato all'aumento della temperatura del pianeta causato in parte anche da questa nuova generazione di refrigeranti. Nel protocollo di Kyoto si sono stabilite, l'11 dicembre 1997, le quote di riduzione dei gas ad effetto serra. Questo ha aperto così un nuovo scenario nella storia dei refrigeranti, che oltre a non essere ozono-distruttori devono anche avere un valore di GWP < 150 per 100 anni (Global Warming Potential).

Purtroppo gli spazi all'interno dei quali ci si può muovere sono ben ristretti poiché è necessario:

- Eliminare il cloro dalla composizione dei fluidi frigoriferi per motivi di compatibilità ambientale;
- Evitare sostanze che contengano troppo idrogeno, perché potrebbero risultare infiammabili;

- Limitare la presenza di fluoro perchè è un elemento che conferisce stabilità alla molecola di refrigerante anche quando liberata in atmosfera e quindi contribuisce all'effetto di surriscaldamento della Terra (effetto serra).

Si è iniziato quindi a sperimentare nuove miscele di HFC ed idrocarburi con sempre maggiore interesse nella "riscoperta" dei fluidi naturali.

I principali produttori di questi ultimi, fra i quali la DuPont e la Honeywell, hanno risposto prontamente annunciando la produzione di nuovi fluidi come le HFO.

Purtroppo i dati presenti in letteratura sull'efficienza e la sicurezza d'uso sono soltanto indicativi, per cui è necessario un monitoraggio continuo delle loro proprietà per accumulare informazioni sufficienti a caratterizzarli in maniera opportuna.

1.2 Caratteristiche dei refrigeranti

Un fluido refrigerante ha il compito di trasferire in modo efficiente il calore da una sorgente calda ad una sorgente fredda.

Il trasferimento di energia può avvenire mediante scambio di calore latente (evaporazione, condensazione) e/o mediante scambio di calore sensibile (riscaldamento, raffreddamento).

Il postulato di Clausius afferma che è impossibile costruire una macchina operante secondo un processo ciclico il cui unico effetto sia il trasferimento di calore da un corpo a temperatura più bassa ad uno a temperatura più alta.

Perché questo accada si dovrà fornire energia al sistema e nello specifico sarà necessario realizzare un impianto a compressione di vapore.

In questi impianti i fluidi evolventi hanno temperature normali di ebollizione (NBP - normal boiling point) in genere molto più basse di quella ambiente. La loro evaporazione all'interno di un circuito chiuso produce così un effetto frigorifero dovuto all'asportazione di calore latente. Controllando la pressione di ebollizione (non necessariamente atmosferica), e quindi la sua temperatura, si rende l'effetto frigorifero adatto alla particolare esigenza.

Per garantire una funzionalità termodinamica adeguata, è opportuno che un refrigerante possieda [2] :

- elevata densità, sia allo stato gassoso che liquido;

- elevata entalpia di evaporazione;
- temperatura critica più alta possibile, compatibilmente con il livello della pressione di evaporazione e lontana dalle temperature operative;
- pressione di evaporazione non troppo bassa per non influenzare in modo negativo le portate volumetriche e le perdite di carico entrambe crescenti al diminuire della pressione di evaporazione;
- elevata capacità termica;
- elevata stabilità nelle condizioni di utilizzo;
- a parità di temperatura critica l'efficienza termodinamica dipende dalla forma delle curve limite.

Tra i vari tipi di fluidi refrigeranti il gruppo che fino ad oggi ha rivestito una grande importanza nelle applicazioni industriali è sicuramente quello degli idrocarburi alogenati (contenenti cloro, fluoro, bromo); questi sono ottenuti sostituendo atomi di cloro e fluoro ad alcuni atomi di idrogeno dei primi elementi degli idrocarburi della serie paraffinica. La loro grande stabilità ed inerzia chimica, la non infiammabilità, il livello di tossicità assai ridotto, e le loro proprietà termodinamiche compatibili con le varie applicazioni, hanno assicurato ad essi un ampio utilizzo nell'industria frigorifera.

L'unico CFC attualmente ancora utilizzato nelle applicazioni industriali è l'ammoniaca (R717).

I CFC e gli HCFC nel corso degli ultimi anni venivano utilizzati come propellenti nei prodotti nebulizzanti, come agenti espandenti in schiume plastiche cellulari o come detergenti nell'industria spaziale ed ottica o per l'elettronica fine.

Questo tipo di composto normalmente viene indicato con il nome di *freon*, ma tale definizione in realtà non risulta essere corretta, poiché questo è il nome commerciale dato dalla ditta DuPont ad alcuni composti di propria produzione.

1.3 Designazione ASHRAE dei refrigeranti

La classificazione dei refrigeranti riconosciuta a livello internazionale è basata sulle indicazioni date dalla normativa americana ASHRAE Standard 34-1992 *"Designazione e classificazione di sicurezza dei refrigeranti"*.

Questa designazione è stata successivamente rivista nel corso degli anni fino ad una versione quasi definitiva del 2007 [3].

I refrigeranti vengono identificati da una sigla che può essere rappresentata nel seguente modo : ***R - i - ii - iii - iv - v - vi***

La lettera R (che sta per "Refrigerant") è il suffisso della sigla identificativa del fluido frigorigeno; essa può essere sostituita anche dalle sigle come HCFC, HFC, HC che identificano la tipologia di refrigerante.

Il suffisso è un numero il cui significato è diverso a seconda che il refrigerante sia un fluido puro, una miscela, un composto organico o inorganico.

Per un fluido puro la designazione è data da una sigla costituita dalla lettera R e da due o tre cifre, come ad esempio R12 (CCl_3F, un CFC), e può essere seguito da lettere minuscole, come per l'R134a (CFH_2-CF_3, un HCFC). Vediamo più in dettaglio tutta la designazione:

- La prima cifra per un fluido puro ***" iii "*** indica il numero degli atomi di carbonio presenti diminuito di un'unità. In pratica con i derivati del propano vale 2, dell'etano 1 e con i derivati dal metano 0 e si omette, per questo in tal caso la sigla presenta due sole cifre.
- La seconda cifra ***" iv "*** indica il numero degli atomi di idrogeno presenti aumentato di un'unità. Quindi nel caso di CFC la seconda cifra (che diventa la prima per i derivati del metano) vale sempre 1, non essendoci atomi di idrogeno nella molecola.
- La terza cifra ***" vi "*** indica il numero degli atomi di fluoro presenti.
- Gli atomi di cloro (Cl) risultano di conseguenza determinati e si possono trovare in base alle cifre precedenti secondo la relazione seguente:
  $$Atomi\ di\ cloro = 2 \times Atomi\ di\ carbonio + 2 - (Atomi\ idrogeno + Atomi\ fluoro)$$
- La formula precedente non è più valida nel caso siano presenti doppi legami del carbonio e questo viene identificato nella posizione ***" ii "*** che indica il numero di legami doppi meno uno e se è uguale a 0 si omette.
- Nella posizione ***" i "*** si pone una lettera C in caso di derivati ciclici come ad esmepio RC318 (octofluorociclobutano), altrimenti si omette.
- Se il refrigerante contiene bromo (Br), il suffisso è seguito dalla lettera B e da un numero indicante gli atomi di bromo presenti (es: R12B1).

- In posizione ***" vi "*** si mette una o più lettere dell'alfabeto minuscole o una lettera maiuscola. Ciò è descritto in modo più dettagliato nelle righe seguenti:

Dal momento che i gas da R10 a R300 sono derivati dell'etano, propano o butano per sostituzione di atomi di idrogeno con cloro, fluoro, bromo, possono avere uguale composizione chimica ma diversa struttura molecolare (isomero). Per indicare quella scelta tra le varie strutture possibili, si aggiungono una o più lettere minuscole (per esempio R134a, R123b, R225eb). Normalmente si pone una "a" per denotare un isomero posizionale asimmetrico.

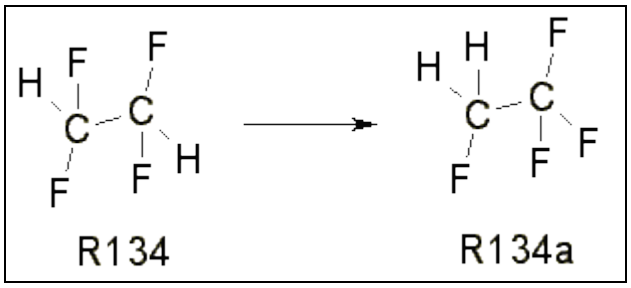

Figura 1.1: Isomeri dell'R134a

Oltre ai refrigeranti puri, vengono utilizzate anche miscele a più componenti raggruppate secondo la serie R400 (miscele zeotropiche) e la serie R500 (miscele azeotropiche). Le miscele azeotropiche hanno un comportamento uguale a quello di un fluido puro e quindi ad una pressione costante (all'evaporatore o condensatore) corrisponde un'unica temperatura di saturazione ma solo per una data concentrazione. E' questo il caso del R502 che è una miscela di R22 e R15 presenti a date concentrazioni. La maggior parte delle miscele sono invece zeotropiche cioè risentono della diversità delle curve di saturazione dei fluidi componenti e quindi, durante la condensazione o evaporazione a pressione costante, la temperatura varia in un certo intervallo. Fra le miscele zeotropiche un esempio può essere dato dall'R407C composta da R32, R125 ed R134a. Quando più miscele sono composte dai medesimi componenti, ma in percentuale massica diversa, essi vengono identificati mediante una lettera maiuscola posta dopo il suffisso numerico, proprio come in questo caso che troviamo la lettera C.

Accanto alla sigla può essere indicato il nome dei componenti la miscela in ordine crescente rispetto al loro punto d'ebollizione normale.
Altri esempi di miscele di fluidi frigorigeni sono:
R407 (R32 20%, R125 40%, R134a 40%)
R410A (R32 50%, R125 50%)
R500A (R12 73,8%, R152a 26,2%)
R508B (R23 46%, R116 54)

Troviamo anche i composti organici classificati con un numero appartenente alla sigla 600, dove troviamo l'isobutano R600a, che viene assegnato secondo un ordine numerico (eccezione fatta per il propano la cui sigla è R290).
I fluidi refrigeranti invece non derivati dagli idrocarburi, e quindi i fluidi naturali, sono infine raggruppati nella serie R700 dove le ultime due cifre indicano il peso molecolare del refrigerante. Si ha così, ad esempio, R717 (ammoniaca) e R744 (anidride carbonica).
I composti di sintesi contenenti bromo vengono generalmente classificati secondo un sistema a parte (tipo Halon 1301, Halon 2402, ecc.). In alcuni casi è però presente anche la corrispettiva sigla con la lettera R. In questo caso il numero di atomi di bromo presenti nel composto è espresso da una cifra che segue la lettera maiuscola B.

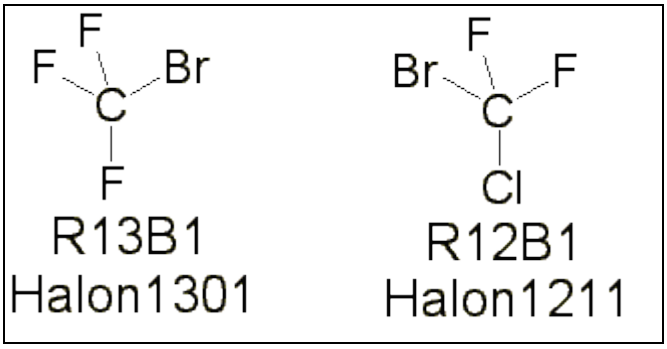

Figura 1.2 :Esempio di fluidi refrigeranti Halon

Anche per quanto riguarda la sicurezza di impiego dei fluidi frigorigeni si fa riferimento alla normativa ANSI/ASHRAE 34-1992, la quale considera gli aspetti relativi all'infiammabilità e alla tossicità.

I fluidi vengono identificati da due caratteri alfanumerici: il primo carattere è una lettera (A o B) e contraddistingue la tossicità, il secondo è una cifra (1, 2 o 3) ed è relativo alla infiammabilità.

Per la tossicità:

- Classe A: refrigeranti per i quali non è rilevata tossicità a concentrazioni ≤ a 400 ppm;
- Classe B: refrigeranti per i quali risulta evidente tossicità a concentrazioni ≤ a 400 ppm;

Per l' infiammabilità si fa riferimento al limite inferiore di infiammabilità che è la più bassa concentrazione in volume di vapore della miscela al di sotto della quale non si ha accensione in presenza di innesco per carenza di combustibile.
Si distinguono le seguenti classi:

- Classe 1: fluidi frigorigeni che non presentano propagazione di fiamma in aria a pressione atmosferica e ad una temperatura T=21°C;
- Classe 2: fluidi frigorigeni moderatamente infiammabili che presentano un limite inferiore di infiammabilità maggiore di 0.10 kg/m^3 alla temperatura di 21°C a pressione atmosferica, ed un calore di combustione inferiore a 19 kJ/kg;
- Classe 3: fluidi frigorigeni altamente infiammabili che presentano un limite inferiore di infiammabilità minore o uguale a 0.10 kg/m^3 alla temperatura di 21°C a pressione atmosferica, ed un calore di combustione inferiore a 19 kJ/kg;

Ultimamente è stata introdotta una nuova classe intermedia che viene identificata con "A2L" poiché i fluidi che vi appartengono hanno minore infiammabilità rispetto ai tradizionali A2. Di questa sottoclasse si discuterà nel capitolo 3.2.

1.4 Impatto ambientale

1.4.1 Buco dell'ozono

L'ozono (O_3) è la forma triatomica, molto meno stabile, dell'ossigeno (O_2). È un gas azzurrino presente a basse concentrazioni in tutta l'atmosfera. Lo strato di ozono presente nella stratosfera impedisce alla maggior parte della dannosa luce ultravioletta (UV) emessa dal sole di raggiungere la superficie terrestre.

Nel 1985 un gruppo di scienziati britannici pubblicò i risultati di una serie di misurazioni sull'atmosfera sovrastante l'Antartide [4]. Le misure si erano protratte per vari anni e mostravano che all'inizio della primavera antartica (cioè alla fine di settembre, primi di ottobre del nostro emisfero), quando il Sole riappariva all'orizzonte dopo la lunga notte australe, la quantità di ozono nell'alta atmosfera si riduceva drasticamente.

La scoperta venne in seguito confermata dall'analisi dei dati registrati dai satelliti negli anni precedenti a queste ultime rilevazioni, che delineavano una situazione ancora più preoccupante di quella che si poteva ricavare dalle misure effettuate a terra. Seguendo il fenomeno nel corso del tempo, si era infatti notato che l'assottigliamento dello strato di ozono continuava ad aumentare. Si parlò allora di "buco dell'ozono".

Si è successivamente individuato un assottigliamento della fascia di ozono anche in una piccola zona al polo Nord, sopra il Mare Artico, fatto che potrebbe portare a pensare alla formazione di un altro buco.

In effetti il fenomeno non rappresenta nient'altro che l'aspetto più evidente della generale e graduale diminuzione dell'ozono nella stratosfera. Il problema è estremamente importante in quanto una riduzione dell'effetto schermante dell'ozono comporta un conseguente aumento dei raggi UV che giungono sulla superficie della Terra. Nell'uomo l'eccessiva esposizione a questi raggi è correlata ad un aumento del rischio di cancro della pelle, generato a seguito delle mutazioni indotte nel DNA delle cellule epiteliali. I raggi ultravioletti possono causare inoltre una inibizione parziale della fotosintesi delle piante, causandone un rallentamento della crescita e, nel caso si tratti di piante coltivate, una diminuzione dei raccolti. I raggi UV possono anche diminuire l'attività fotosintetica del fitoplancton che si trova alla base della catena

alimentare marina, causando di conseguenza uno scompenso notevole a carico degli ecosistemi oceanici.

Il continuo e graduale impoverimento dell'ozono della stratosfera può essere senz'altro ricondotto alla presenza in atmosfera di un gran numero di composti chimici in grado di attaccare l'ozono. Queste sostanze vengono anche definite ODS, Ozone Depleting Substances (sostanze che distruggono l'ozono). Gli ODS sono generalmente molto stabili nella troposfera e si degradano solamente per l'intensa azione della luce ultravioletta nella stratosfera; quando si spezzano, rilasciano atomi di cloro e di bromo che danneggiano l'ozono.

Per avere un'idea quantitativa degli effetti causati dai composti ODS è stato concepito il potenziale di eliminazione dell'ozono (ODP, Ozone Depleting Potential), un indice che si riferisce all'ammontare della riduzione dell'ozono causata da un composto ODS. Per la precisione l'ODP viene determinato sulla base del numero di atomi di cloro e di bromo presenti nella molecola, dalla "vita" atmosferica del composto (il tempo totale di permanenza nell'atmosfera, che varia da pochi mesi a migliaia di anni) e dagli specifici meccanismi implicati nella sua degradazione.

L'ODP è il rapporto tra l'impatto sull'ozono di un composto chimico e l'impatto causato dall'R11 avente la stessa massa della sostanza presa in considerazione. Così l'ODP dell'R11 è definito pari a 1.

$$ODP = \frac{(\Delta O_3)}{(\Delta O_3)_{R11}} \tag{1.1}$$

Per avere una comprensione più ampia vediamo in maniera più dettagliata il meccanismo attraverso il quale si forma l'ozono.

Una molecola di ossigeno (O_2) assorbe un fotone di luce UV (hν) con una lunghezza d'onda (λ) di circa 200 nm e si dissocia in due atomi di ossigeno (O•):

$$O_2 + hv \rightarrow O\bullet + O\bullet \tag{1.2}$$

Ciascuno di questi può allora combinarsi con un'altra molecola di ossigeno per formare l'ozono, se la pressione (P) è abbastanza elevata (approssimativamente un millesimo di atmosfera) da stabilizzare la molecola di ozono appena formatasi:

$$O\bullet + O_2 + P \rightarrow O_3 + M \tag{1.3}$$

Maggiore è l'altitudine, più veloce è la reazione 1.2 (al disotto dei 20 km di quota, non ci sono fotoni a 200 nm in quanto essi sono stati tutti assorbiti dalla reazione 1.2). La velocità della reazione 2, tuttavia, è maggiore nelle vicinanze del suolo, dove la pressione atmosferica è più elevata. Di conseguenza, la massima quantità di ozono si forma all'incirca tra i 25 e i 30 km di altitudine.

Viene ora descritta la fase di distruzione dell'ozono.
In seguito alle radiazioni solari la molecola di ozono si scinde in una di ossigeno biatomico e in una in ossigeno monoatomico:

$$O_3 + radiaz.UV \rightarrow O_2 + O\bullet \ (filtro\ UV) \tag{1.4}$$

Durante la notte l'ossigeno monoatomico, essendo altamente reattivo, si combina con l'ozono per formare due molecole di ossigeno biatomico:

$$O_3 + O\bullet \rightarrow 2O_2 \tag{1.5}$$

L'equilibrio di queste reazioni fotochimiche è facilmente perturbato da molecole che possono interferire come i composti clorurati, bromurati e gli ossidi di azoto prodotti dall'attività antropica. In particolare i clorofluorocarburi (o CFC, utilizzati nei circuiti di refrigerazione dei frigoriferi e negli impianti di condizionamento) sono considerati i principali responsabili del buco nell'ozono.
L'ozono in particolare può essere distrutto cataliticamente da un certo numero di radicali liberi, i più importanti dei quali sono il radicale ossidrile (OH ·), il radicale ossido nitrico (NO ·), lo ione cloro (Cl·) e lo ione bromo (Br ·). Verifiche ulteriori hanno dimostrato che gli alogeni e i loro ioni atomici fluoro (F ·) e iodio (I ·) possono partecipare ad analoghi cicli catalitici, nonostante una chimica atmosferica che porta gli atomi di fluoro a reagire rapidamente formando HF, mentre le molecole organiche che contengono iodio reagiscono in bassa atmosfera a formare composti meno volatili e meno atti a raggiungere gli alti strati.
Il meccanismo della reazione è il seguente:

$$CFC \rightarrow Cl^{\bullet} + FC \tag{1.6}$$

$$Cl^{\bullet} + O_3 \rightarrow ClO + O_2 \tag{1.7}$$

$$ClO + O_3 \rightarrow ClO_2 + O_2 \tag{1.8}$$

$$ClO_2 + raggiUV \rightarrow Cl^{\bullet} + O_2 \tag{1.9}$$

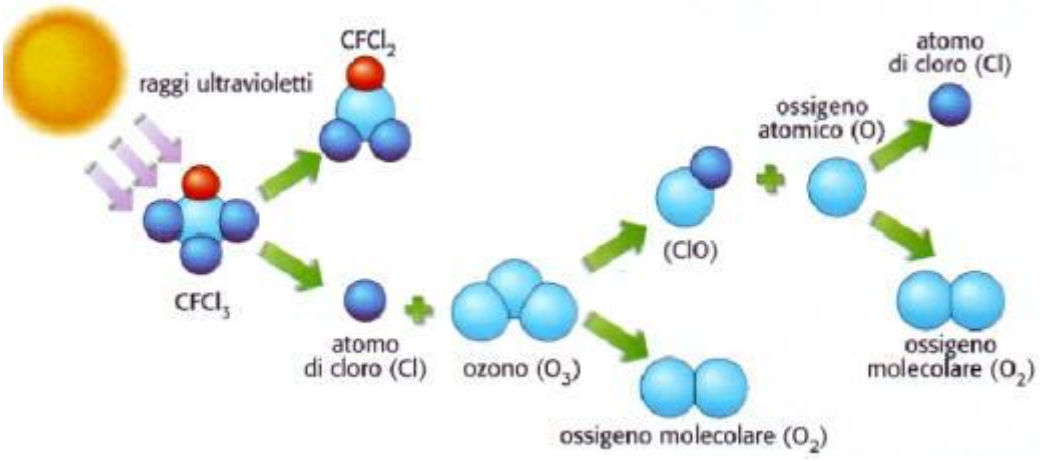

Figura 1.3: Reazioni chimiche che portano a distruggere lo strato di ozono

Il radicale monoatomico cloro si rigenera alla fine del ciclo, quindi può ripetere la sequenza di reazioni e reagire con altre molecole di ozono prima di disperdersi.

Una volta che il reale impatto dei CFC sulla diminuzione dell'ozono è risultato evidente, i governi hanno approvato delle norme volte a bloccare l'uso dei CFC, sostituendoli con specie alternative a più breve durata (HFC e HCFC), che col tempo avrebbero dovuto essere a loro volta gradualmente eliminati permettendo così una più rapida ripresa dello strato di ozono. Quest'anno (2012) infatti si è notato che la lacerazione dello strato di ozono ha registrato il secondo minimo degli ultimi 20 anni. Lo confermano i dati rilevati dai satelliti NASA e dell'Agenzia americana per l'atmosfera e gli oceani (NOAA) [5]. In media nel corso dell'anno l'estensione e' stata di 17.9 milioni di chilometri quadrati. Il record massimo in assoluto risale al 24 settembre 2006 (29,6 milioni di km quadri) e si ritiene che potrà chiudersi non prima del 2065. Dal 1° gennaio 2015 gli HCFC, i gas che hanno preso il posto dei CFC, principali imputati della distruzione dell'ozono, saranno anch'essi messi fuori produzione contribuendo così ad un recupero più veloce.

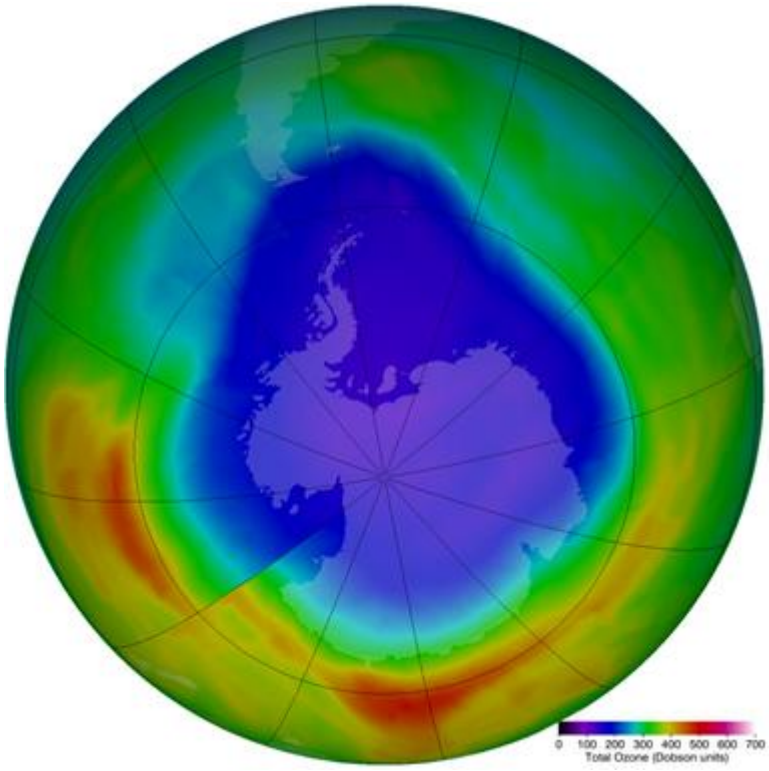

Figura 1.4: Superficie interessata dal buco dell'ozono in Antartide (Ottobre 2012) [5].

1.4.2 Effetto serra

Il riscaldamento globale, noto anche come effetto serra, si riferisce al fenomeno fisico che può portare al riscaldamento della superficie terrestre a livelli superiori rispetto a quelli naturali.

La maggior parte dell'energia del sole raggiunge la terra sotto forma di luce visibile, dopo essere passata attraverso l'atmosfera, parte di questa energia viene assorbita dalla superficie terrestre e, in questo processo, viene convertita in energia termica. La terra a sua volta irradia l'energia assorbita nell' atmosfera.

I gas serra presenti nell'atmosfera hanno la peculiarità di assorbire in modo notevole la radiazione infrarossa emessa dalla terra e contribuire ad un lento e progressivo riscaldamento della pianeta.

Tra questi gas troviamo: vapore d'acqua (H_2O), anidride carbonica (CO_2), metano (CH_4), biossido di azoto (N_2O), ozono (O_3) e alcuni dei fluidi frigorigeni come clorofluorocarburi CFC, idroclorofluorocarburi HCFC, idrofluorocarburi HFC, ecc..

Le concentrazioni di molti di questi gas a effetto serra sono cresciuti negli ultimi anni, principalmente a causa delle attività umane e ciò ha contribuito ad aumentare la temperatura della superficie terrestre portando così la comunità scientifica a prestare attenzione a tale problema. Dagli studi successivamente fatti è emersa una correlazione di tipo diretto tra l'aumento di gas serra e l'aumento della temperatura.

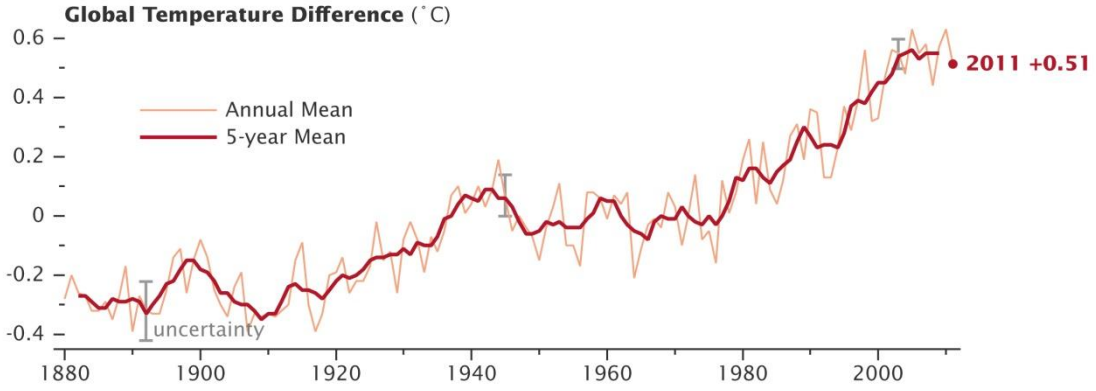

Figura 1.5: Andamento differenza di temperatura media globale dal 1880 al 2011 [6].

Per poter valutare il contributo di un qualsiasi fluido frigorigeno in base al suo potenziale di riscaldamento globale è stato definito l'indice GWP.

Il Global warming potential (GWP) è definito dall'Intergovernmental Panel on Climate Change (IPCC) come un indicatore che misura il contributo all'assorbimento delle radiazioni termiche solari da parte di un gas serra in un certo arco di tempo (es.100 anni) rispetto all'assorbimento di una uguale quantità di CO_2 (che viene presa come riferimento ed alla quale viene assegnato GWP pari a 1).

$$GWP = \frac{\int_0^t NFR\ dt}{\int_0^t NFR_{CO_2} dt} \tag{1.10}$$

dove *NFR* indica il coefficiente di assorbimento nell'infrarosso del gas osservato e *t* indica l'orizzonte temporale su cui si va a fare l'integrazione.

I GWP sono utilizzati come fattori di conversione per calcolare le emissioni di tutti i gas serra in emissioni di CO_2 equivalente.

La CO_{2eq} è l'unità di misura che permette di pesare insieme le emissioni dei vari gas serra aventi differenti effetti sul clima. Ad esempio il metano ha un potenziale di

riscaldamento 23 volte superiore rispetto alla CO_2 e per questo 1 t di metano viene contabilizzata come 23 t di CO_2 equivalente. Il fattore di conversione con il protossido d'azoto è ancora più impressionante: 1t di protossido di azoto equivale a 296 t di CO_{2eq}.

Gas	Denominazione	GWP_{100}
CO_2	Biossido di Carbonio	1
CH_4	Metano	23
NO_2	Protossido di Azoto	296
SF_6	Esafloruro di Zolfo	22200
CFC12	R12	10600
HFC134a	R134a	1430
HCFC22	R22	1700

Tabella1.1: Caratteristiche di alcuni fluidi [7].

Il GWP è un buon indicatore del riscaldamento globale ma non può essere ritenuto esauriente in quanto non tiene conto dell'impatto che avviene a monte e a valle del refrigerante (in centrale termica, per la produzione del gas, dell'energia elettrica necessaria al funzionamento, ecc.), pertanto l'AFEAS (Studio di accettabilità ambientale di fluidi alternativi) ha studiato un nuovo indice che tiene conto anche di questi fattori: il TEWI (Total Equivalent Warming Impact).
Il TEWI tiene conto non solo degli effetti diretti del refrigerante ma anche di quelli indiretti dovuti alle emissioni di CO_2 per la produzione di energia in centrale. Esso è pertanto la somma di due componenti: il primo è la CO_2 emessa in centrale per l'energia elettrica utilizzata dal climatizzatore nel corso della sua intera vita operativa, mentre il secondo stima le perdite di refrigerante.

$$TEWI = \left(m_f * GWP\right) + \left(\alpha_{CO_2} * E * T\right) \tag{1.9}$$

Dove:

- m_f = massa del refrigerante rilasciata in atmosfera durante tutta la vita dell'impianto;
- GWP = fattore di riscaldamento globale del refrigerante;

- α_{CO2} = massa di CO_2 emessa per produrre l'unità di energia elettrica consumata;
- E = energia elettrica utilizzata dal climatizzatore nell'unità di tempo;
- T = vita operativa stimata del climatizzatore;

Le tematiche legate al cambiamento climatico hanno assunto una rilevanza significativa all'interno del dibattito politico internazionale e hanno portato a considerare l'intero ciclo di vita del fluido refrigerante.

Viene quindi identificato l'impatto associato ad un prodotto (o servizio) in termini della quantità totale di "CO_{2eq}" che si genera per poter produrre, trattare e portare fino al punto vendita il prodotto stesso. Si tratta di una nuova terminologia utilizzata per indicare l'effetto serra potenziale di un sistema calcolato mediante l'analisi del ciclo di vita (Life Cycle Assessement, LCA), strumento che consente di quantificare i potenziali danni ambientali causati da prodotti, procedure o servizi durante tutto il loro ciclo di vita (dalle "immissioni" di risorse quali energia, materie prime, acqua alle "emissioni" nell'aria, nell'acqua e nel suolo).

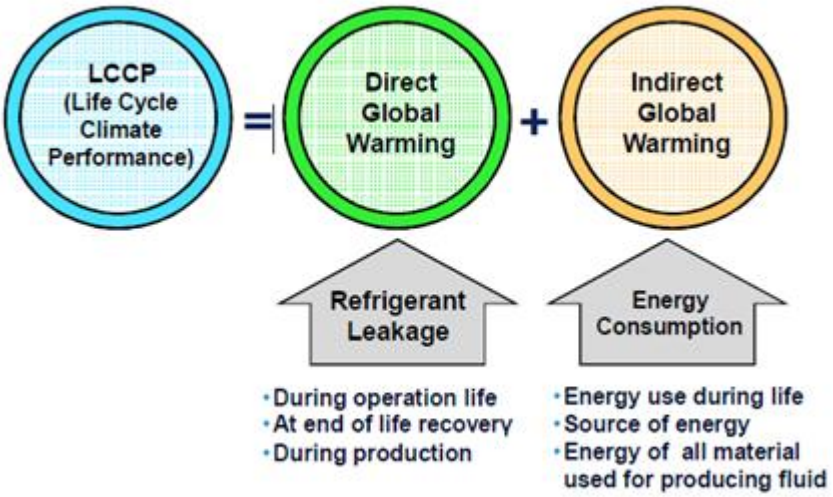

Figura 1.6: Metrica dell'LCCP [8].

Nonostante gli sforzi attualmente siano più focalizzati sulla ricerca di fluidi a basso GWP grazie alla semplicità nell'identificare l'impatto relativo all' emissione diretta del refrigerante, in realtà a volte è più importante riconoscere l'impatto dato dagli

effetti indiretti come ad esempio nelle applicazioni stazionarie di A/C dove l'emissione diretta è tipicamente non più del 5% del totale delle emissioni [8].
La figura 1.6 mostra come si va a considerare tutto il ciclo di vita di un fluido refrigerante e come esso vada ad impattare sull'ambiente (LCCP) per avere così una migliore metrica per la pesatura sia gli effetti diretti e indiretti.

1.4 Normative e Legislazione

I riferimenti di legge nazionali ed internazionali relativi alla produzione e all'utilizzo di sostanze nocive nei confronti dello strato di ozono e responsabili dell'effetto serra antropico riguardanti l'impiego dei fluidi frigorgeni sono [9]:

1.4.1 Protocollo di Monteral

Il protocollo di Montreal, firmato nel 1987, è stato il primo provvedimento internazionale adottato dai paesi industrializzati per limitare e poi eliminare la produzione di refrigeranti nocivi nei confronti dell'ozono stratosferico.
Inizialmente tale provvedimento riguardava solamente i CFC e gli Halon (agenti estinguenti per gli impianti antincendio). In seguito il protocollo è stato modificato più volte per aggiornare l'elenco delle sostanze considerate nocive (includendo anche gli HCFC) compresi i tempi e i modi previsti per la riduzione dell'utilizzo e della produzione di tali sostanze.
Riguardo ai CFC questo protocollo ha posto, per i paesi industrializzati, le cessazione della produzione dal 1996 ed il divieto di impiego dal 2000.
Per gli HCFC, invece, è stata prevista una graduale riduzione del fino al bando completo dal 1° gennaio 2015.

1.4.2 Protocollo di Kyoto

Il protocollo di Kyoto è un trattato internazionale in materia ambientale riguardante il riscaldamento globale sottoscritto nella città giapponese di Kyoto l'11 dicembre 1997 da più di 160 paesi in occasione della Conferenza COP3 della Convenzione quadro delle Nazioni Unite sui cambiamenti climatici (UNFCCC). Il trattato è entrato in vigore il 16 febbraio 2005, dopo la ratifica anche da parte della Russia. Il trattato prevede l'obbligo in capo ai paesi industrializzati di operare una riduzione delle emissioni di elementi inquinanti (biossido di carbonio ed altri cinque gas serra, ovvero metano, ossido di diazoto, idrofluorocarburi, fluorocarburi ed esafluoruro di zolfo) in una misura non inferiore al 5% rispetto alle emissioni registrate nel 1990, considerato come anno base, nel periodo 2008-2012. Il protocollo di Kyoto prevede il ricorso a meccanismi di mercato, i cosiddetti Meccanismi Flessibili; il principale meccanismo è il Meccanismo di Sviluppo Pulito. L'obiettivo dei Meccanismi Flessibili è di ridurre le emissioni al costo minimo possibile; in altre parole, a massimizzare le riduzioni ottenibili a parità di investimento.

Ad oggi, 174 Paesi e un'organizzazione di integrazione economica regionale (EEC) hanno ratificato il Protocollo o hanno avviato le procedure per la ratifica. Questi paesi contribuiscono per il 61,6% alle emissioni globali di gas serra.

L'India e la Cina, che hanno ratificato il protocollo, non sono tenute a ridurre le emissioni di anidride carbonica nel quadro del presente accordo, nonostante la loro popolazione relativamente grande. Cina, India e altri paesi in via di sviluppo sono stati esonerati dagli obblighi del protocollo di Kyoto perché essi non sono stati tra i principali responsabili delle emissioni di gas serra durante il periodo di industrializzazione che si crede stia provocando oggi il cambiamento climatico. I paesi non aderenti sono responsabili del 40% dell'emissione mondiale di gas serra [10].

Il che significa che siccome il pianeta è stato storicamente inquinato dai paesi industrializzati e solo nell'ultimo decennio dai paesi emergenti, la riduzione delle emissioni dei paesi industrializzati dovrà essere commisurata ad un fattore di "peso", opportuno calcolato in relazione al contributo storico degli ultimi due secoli.

Questo punto di vista dei paesi in via di sviluppa andrebbe quindi rivisto cercando di trovare un comune accordo per il bene del pianeta.

1.4.3 Legislazione europea

A livello comunitario i riferimenti legislativi sono:

Regolamento n. 2037/2000

Per quanto riguarda i fluidi CFC e HCFC, l'Unione Europea ha emanato, dal 1998, diversi regolamenti in materia; l'ultimo è stato il regolamento UE n. 2037 entrato in vigore il 1 gennaio 2000.

Riguardo ai CFC, esso ne vieta la produzione e l'utilizzo in qualsiasi impianto, sia nuovo che esistente. Per quanto concerne, invece, gli HCFC, il regolamento distingue tra produzione, immissione sul mercato e utilizzo di tali sostanze. Dal 2000 la produzione è stata congelata ai livelli del 1997 e sarà progressivamente ridotta fino al divieto nel 2025.

L'immissione sul mercato è stata limitata dal 2001 ed è diminuita fino al 2010 per essere poi non più consentita.

Il divieto di utilizzo degli HCFC come refrigeranti nei nuovi impianti è stato stabilito secondo un programma temporale differenziato in funzione del tipo di apparecchiature.

Il regolamento europeo ha inoltre stabilito una serie di prescrizioni concernenti la manutenzione degli impianti:

- L'uso degli HCFC vergini per la manutenzione è proibito dal 1° gennaio 2010 per tutte le apparecchiature esistenti, mentre l'utilizzo di quelli recuperati e riciclati verrà proibito dal 1° gennaio 2015 per qualsiasi applicazione;
- Nel corso delle operazioni di manutenzione e riparazione, o prima dello smantellamento o della messa fuori uso di apparecchiature di condizionamento e refrigerazione, i refrigeranti di tali impianti devono essere recuperati e distrutti con adeguate tecnologie oppure riciclati;
- Ogni stato membro dell'UE dovrà istituire corsi di qualificazione professionale per gli addetti al recupero con carica superiore ai 3 kg;
- Sarà prossima l'elaborazione di norme europee relative al controllo delle fughe delle sostanze fuoriuscite da apparecchiature ed impianti;
- Ogni anno produttori, importatori ed esportatori dovranno comunicare per ciascuna sostanza controllata i dati relativi alle quantità prodotte, riciclate, rigenerate, distrutte e stoccate;

- Sono previsti controlli, ispezioni e sanzioni in caso di violazione delle disposizioni.

Regolamento n. 842/2006

Per quanto riguarda i fluidi HFC, il riferimento legislativo è costituito dal regolamento n. 42 del 17 maggio 2006, pubblicato sulla G.U.U.E. del 14 giugno 2006, il quale stabilisce le regole comunitarie per rendere sicuro l'impiego dei tre gas fluorurati ad effetto serra (HFC, PFC ed esafluoruro di zolfo) disciplinati dal protocollo di Kyoto, e per vietarne in alcuni casi il commercio.

Le nuove regole prevedono un sistema di controllo periodico delle perdite a cura di operatori specializzati.

In particolare, le applicazioni contenenti 3 kg o più di gas fluorurati ad effetto serra devono essere controllate almeno una volta all'anno (questa disposizione non si applica alle apparecchiature con impianti ermeticamente sigillati, etichettati come tali e contenenti almeno 6 kg di gas fluorurati ad effetto serra); le applicazioni contenenti 30 kg o più devono essere controllate ogni 3 mesi. Inoltre, le apparecchiature devono essere controllate entro un mese dalla riparazione della perdita, per accertare che la riparazione sia stata efficace.

Gli operatori hanno la possibilità di predisporre il corretto recupero dei gas fluorurati ad effetto serra da parte di personale certificato, al fine di assicurare il riciclaggio, la rigenerazione o la distruzione: i requisiti di formazione e certificazione del personale sono definiti dei vari stati membri.

Inoltre i prodotti e le apparecchiature contenenti gas fluorurati ad effetto serra possono essere immessi in commercio solo se le denominazioni chimiche di tali composti sono identificate mediante un'etichetta che indica chiaramente che il prodotto o l'apparecchiatura contiene gas fluorurati disciplinati dal protocollo di Kyoto indicando la quantità presente.

La Comunità Europea ha inoltre posto gli attuali atti legislativi sui gas fluorurati (F-Gas):

- Dal 1° gennaio 2011 non è più concessa l'omologazione CE o nazionale per quei veicoli che nell'impianto di condizionamento contengono gas fluorurati ad effetto serra con potenziale di riscaldamento globale superiore a 150;
- Dal 1° gennaio 2017 i nuovi veicoli dotati di impianti di condizionamento contenenti gas fluorurati ad effetto serra con potenziale di riscaldamento globale superiore a 150 non saranno più immatricolabili e sarà pure vietata la loro vendita e messa in circolazione;

1.4.4 Legislazione italiana

In Italia, nell'intento di recepire quanto stabilito degli articoli 16 e 17 del regolamento europeo n 2037, sono stati emanati alcuni decreti predisposti dal ministero per l'ambiente.

Tra quelli presenti è importante citare il DPR n147 del 10 febbraio 2006 pubblicato sulla Gazzetta ufficiale che detta le modalità per il controllo ed il recupero delle fughe di sostanze lesive per lo stato di ozono stratosferico da apparecchiature di refrigerazione e di condizionamento, di cui al regolamento CE n 2037/2000.

Il regolamento prende in considerazione i fluidi CFC e HCFC, poiché lesivi per la fascia di ozono, ma non i fluidi HFC.

Il 20 aprile 2012 è stato pubblicato in Gazzetta Ufficiale il Decreto del Presidente della Repubblica 27 gennaio 2012, n. 43 recante attuazione del Regolamento (CE) n. 842/2006 del Parlamento europeo e del Consiglio del 17 maggio 2006 su taluni gas fluorurati ad effetto serra (G.U. n. 93 del 20 aprile 2012).

Gli aspetti più importanti del regolamento sono costituiti dai seguenti obblighi per i gestori di apparecchiature o impianti di refrigerazione e climatizzazione contenenti CFC e HCFC:

- Effettuare l'attività di recupero e riciclo con dispositivi conformi alla norma ISO 11650;
- Custodire un libretto di impianto dove devono essere registrate tutte le operazioni di verifica, manutenzione, recupero e riciclo;
- Controllo delle fughe con frequenza annuale per impianti con carica da 3 a 100 kg, semestrale per gli impianti con carica superiore a 100 kg;

- Possesso dei requisiti professionali minimi per il personale tecnico autorizzato, che devono ancora essere definiti da un apposito decreto.

Capitolo 2

Possibili refrigeranti per impianti di condizionamento d'aria "residenziali" e mobili

2.1 Il futuro dei refrigeranti

Come accennato nel sommario, questo lavoro di tesi vuole evidenziare la possibilità di sostituire i refrigeranti attualmente impiegati nella climatizzazione domestica e nei sistemi di condizionamento d'aria degli autoveicoli con refrigeranti alternativi.
La sostituzione è imposta dalla normativa che pretende il loro rimpiazzamento con fluidi a più basso GWP e aventi un minor impatto sul riscaldamento globale dato dal loro ciclo di vita (LCCP).
Si pone particolare attenzione alla sostituzione di:

- R410A per le unità di condizionamento aria (A/C) nel residenziale;
- R134a per i sistemi di condizionamento degli autoveicoli;

nel primo caso si pensa di usare il difluorometano (R32) mentre nel secondo i fluidi appartenenti alla classe delle idro-fluoro-olefine (*HFOs)* come fluidi sostitutivi.
Tutti i nuovi fluidi richiedono scelte di compromesso tra potenziale di riscaldamento globale (GWP), efficienza, sicurezza e costi.
Attualmente vi è ancora più pressione per la ricerca di un fluido refrigerante conveniente a basso GWP, in grado di sostenere l'efficienza e ridurre il fabbisogno di carica. La legislazione americana infatti impone nuovi e più elevati standard di

efficienza, che entreranno in vigore i primi di gennaio del 2015, e lo stesso ha fatto pure la Comunità Europea che ha emanato gli attuali vincoli normativi sugli F-Gas:

- Dal 1° gennaio 2011 non è più concessa l'omologazione CE o nazionale per quei veicoli che nell'impianto di condizionamento contengono gas fluorurati ad effetto serra con potenziale di riscaldamento globale superiore a 150;
- Dal 1° gennaio 2017 i nuovi veicoli dotati di impianti di condizionamento contenenti gas fluorurati ad effetto serra con potenziale di riscaldamento globale superiore a 150 non saranno più immatricolabili e sarà pure vietata la loro vendita e messa in circolazione;

In altri paesi, come ad esempio l'Australia, per diminuire l'utilizzo di refrigeranti ad alto GWP e incentivare lo studio per nuove soluzioni hanno imposto una tassa di 50$/kg per l' R410A.

La Figura 2.1 mostra l'andamento progressivo di riduzione di gas inquinanti e non rispettosi dell'ambiente nel corso degli anni secondo la Proposta Nord Americana (NAP) che interessa sia i paesi sviluppati che quelli e in via di sviluppo. Tuttavia, non vi è stato alcun accordo dai paesi in via di sviluppo come la Cina e India, dove l'HCFC22 è ancora il refrigerante predominante anche se è già stato oggetto di una eliminazione graduale a causa del suo alto potenziale di distruzione dell'ozono (ODP).

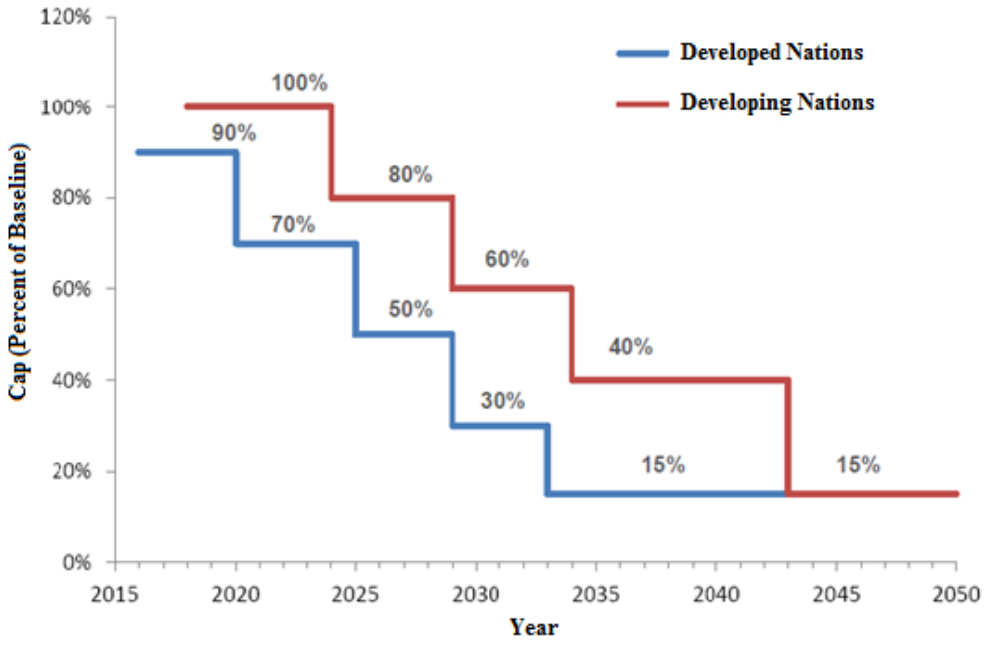

Figura 2.1: Proposta Nord Americana (NAP) sulla riduzione per steps dell'utilizzo dei refrigeranti ad alto GWP [11].

Nelle applicazioni residenziali di aria condizionata ultimamente sono stati fatti sforzi a livello mondiale per la ricerca di fluidi refrigeranti con proprietà tali da sostituire l'HFC410A, a causa del suo elevato GWP pari a 2100.

In relazione a questa esigenza la Cina ha proposto l'HFC32 che ha un GWP di 675 (68% di in meno rispetto all'R410A) e un costo inferiore rispetto R410A.

Gli Stati Uniti e altri Paesi hanno focalizzato la loro attenzione e studiato anche altri fluidi come le idro-fluoro-olefine (HFOs) R1234yf ed R1234ze.

L'R32, a differenza delle HFOs, non è un nuovo fluido refrigerante poiché è stato studiato durante il 1990, periodo in cui si era alla ricerca di una soluzione nei confronti del problema della distruzione dell'ozono, ma non è mai stato utilizzato come fluido puro a causa delle preoccupazioni legate alle sue caratteristiche di infiammabilità. Ma ora la richiesta di avere un basso GWP, probabilmente, richiede di accattare tali vincoli di infiammabilità per i fluidi refrigeranti.

HFC32 e HFO sono entrambi fluidi leggermente infiammabili che l'ASHRAE ha identificato aggiungendo una nuova classe di infiammabilità definita con A2L [3].

L'AHRI (Air Conditioning, Heating and Refigeration Institute) ha lanciato dal Luglio 2011 a livello mondiale un programma di valutazione di refrigeranti a basso GWP (LGWP AREP) per riunire le risorse del settore in modo da poter fare le valutazioni test dei sistemi, considerando più di quaranta candidati a basso GWP per le varie applicazioni. La maggior parte di questi candidati sono l'R32 puro o in miscela con altri fluidi, HFO1234yf o HFO1234ze [11].

La Tabella 2.1 riassume i candidati sia in base alla loro classificazione ASHRAE che al loro gruppo di sicurezza e i relativi refrigeranti di base che intendono sostituire (classificati senza nessun ordine particolare). Questi refrigeranti rappresentano i possibili candidati per la sostituzione dei fluidi quali l'R22 (o il suo equivalente HFC), R134a, R404A e R410A. Alcuni dei candidati in Tabella 2.1 sono ancora in fase di sviluppo.

Baseline Refrigerants	**Alternative Refrigerant Candidates Classifications according to ASHRAE Standard 34**			**Others**
	A1	**A2L**	**A3**	
R-134a	AC5X, ARM-41a, D4Y, N-13a, N-13b, Opteon™XP10	AC5, R-1234yf, R-1234ze(E), ARM-42a	R-290+R-600a (40%+60%), R-600a	
R-404A	ARM-32a, N-40a, N-40b, DR-33	ARM-31a, ARM-30a, D2Y-65, L-40, R-32, R-32+R-134a (50%+50%), DR-7	R-290	R-744
R-410A		R-32, ARM-70a, D2Y-60, DR-5, HPR1A L-41a, L-41b, R-32+R-134a (95%+5%), R-32+R-152a (95%+5%)		R-744
R-22/R-407C	ARM-32a, LTR4X, N-20	D52Y, L-20, LTR6A	R-290	R-1270, R-717

Tabella 2.1: fluidi refrigeranti attuali e i possibili loro sostituti classificati in base al loro grado di sicurezza definito dall'ASHRAE [12].

Tra i fluidi a basso GWP troviamo anche i refrigeranti naturali quali:

- l'anidride carbonica CO_2 (R744) che è caratterizzata da un GWP unitario ma che può essere considerato nullo qualora tale fluido venga recuperato come scarto da altre lavorazioni industriali. Tra gli altri aspetti positivi, che ne favoriscono l'impiego. È bene ricordare la non infiammabilità, l'atossicità e la compatibilità con i più comuni oli minerali. L'unico aspetto negativo riguarda la temperatura critica estremamente bassa (T_c = 31.1°C). Ciò impone l'impiego di cicli trans-critici con pressione di condensazione P_c fino a 100 bar, limitando l'efficienza del ciclo e complicando la progettazione strutturale

dell'impianto di climatizzazione. Queste pressioni, infatti, sono circa otto volte maggiori di quelle impiegate attualmente nei sistemi con R134a, e questo impone una radicale riprogettazione del sistema di condizionamento.

- L'ammoniaca (R717) è un refrigerante di classe A1 secondo lo standard 34 ASHRAE. L'unica ragione per la quale è posto nella categoria "Altri" della Tabella 2.1 è dovuto al fatto che questo refrigerante come la CO_2 richiederebbe una intensiva riprogettazione del sistema, e quindi non rientrerebbe tra i fluidi più adatti alla sostituzione dei quelli utilizzati nei sistemi di condizionamento attuali.

Per completare l'ampia visuale sui fluidi frigorigeni, in Figura 2.2, vengono rappresentate anche le classificazioni di sicurezza dei fluidi secondo ASHRAE standard 34, 2010.

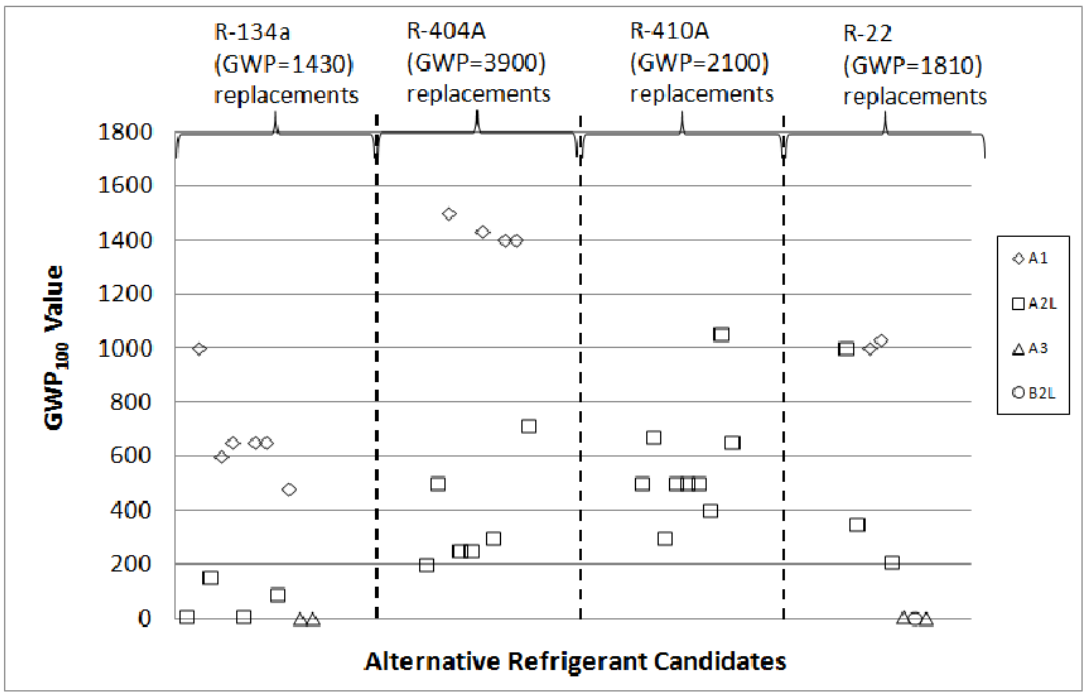

Figura 2.2: GWP dei fluidi candidati alla sostituzione dei refrigeranti oggi usati [12].

Dalla figura 2.2 si può notare che i candidati con valori di GWP, dati da IPCC AR4 (2007), relativamente bassi sono classificati come limite inferiore di infiammabilità (A2L), o superiore di infiammabilità (A3). I candidati non infiammabili (A1) hanno valori di GWP relativamente più elevati rispetto ai candidati A2L e A3. Non sono stati proposti per AREP i candidati con (A2).

Per la sostituzione dell'R410A tutti i candidati sono classificati come A2L.

2.2 Proprietà di Confronto tra R32 e R410A

I punti a favore dell'R32 possono essere riassunti sulla base di un confronto delle proprietà teoriche che troviamo in Tabella 2.2:

- L'R32 costa molto meno rispetto all'R410A;
- È già disponibile in grandi volumi a livello globale dato che la miscela R410A è composta per il 50% da R32;
- La temperatura critica è più alta dell'8% e ciò consente di ottenere migliori prestazioni alle alte condizioni ambientali;
- Hanno entrambi una pressione simile e quindi circa lo stesso rapporto di pressione, ciò consentirebbe una sostituzione iniziale senza dover fare una riprogettazione significativa di tutto l'impianto;
- Densità del liquido è inferiore del 9% quindi la carica del sistema sarà minore;
- Densità del vapore è inferiore del 28%, la perdita di carico è di circa il 50% in meno;
- Capacità volumetrica maggiore, nonostante il flusso di massa sia inferiore del 28% a causa del calore latente circa 43-50% superiore;
- Conducibilità termica del liquido 41% più elevata, alto coefficiente di trasmissione del calore;
- Non essendoci glide di temperatura, essendo un fluido puro, è possibile ottimizzare lo scambiatore di calore riducendo le dimensioni per ottenere così una ulteriore riduzione di carica;

Gli svantaggi dell'R32 rispetto alla miscela R410A sono:

- Ha un grado di infiammabilità lieve A2L (è difficile trovare un fluido con un basso GWP e con le caratteristiche di A1 equivalenti a fluido non infiammabile);
- Maggiore temperatura all'uscita dal compressore a causa del più alto calore specifico del vapore;

- È richiesto un nuovo tipo di olio in quanto l'R32 non è miscelabile con gli esteri di poliolio (POE) [13];

Parametri	Unità	R410A		R32	
Temperatura Critica	K	344.51		351.26	
Temperatura	K	316.48	283.15	316.48	283.15
Pressione del vapore di saturazione	kPa	2620.3	1084.8	2685.8	1106.9
Densità del liquido di saturazione	kg/m^3	954.1	1128.4	876.1	1019.7
Densità del vapore di saturazione	kg/m^3	114.3	41.9	80.8	30.2
Calore latente	kJ/kg	151.8	208.6	228.6	299.1
Calore specifico del liquido	kJ/(kg*K)	2.022	1.578	2.239	1.804
Calore specifico del vapore	kJ/(kg*K)	1.988	1.235	2.114	1.369
Conducibilità termica del liquido	W/m^2	0.259	0.319	0.3679	0.451
Viscosità del liquido	Pa/s	7.62*10-5	1.43*10-4	9.08*10-5	1.34*10-5
Viscosità del vapore	Pa/s	1.52*10-5	1.19*10-5	1.34*10-5	1.19*10-5

Tabella 2.2: Proprietà alle condizioni di saturazione di R32 e R410A per la temperatura di condensazione di 43.33 °C (316.48 K) e di evaporazione di 10 °C (283.15 K) da (Refprop 9.0) [11].

Nel complesso, l'R32 sembra offrire più vantaggi che svantaggi. Il suo costo inferiore inoltre incentiva molto lo studio per far fronte agli svantaggi che comporta un suo utilizzo.

2.3 Proprietà di Confronto tra le HFO e R134a

La comunità scientifica ha individuato come possibili candidati alla sostituzione dell'R134a i fluidi "naturali" e le HFO (Hydro-Fluoro-Olefin).
In particolare, le ricerche tecniche si sono focalizzate sullo studio e sulla caratterizzazione delle proprietà chimico-fisiche dell'R152a, R744 e alcune HFO [14].
L'R152a è un HFC caratterizzato da un GWP pari a 140. Pur avendo un modesto impatto ambientale, presenta un'ottima efficienza del ciclo, ed è completamente compatibile con gli impianti che utilizzano attualmente l'R134a.
I problemi che ne hanno frenato l'utilizzo sono in parte legati alla leggera infiammabilità del fluido che imporrebbe una riprogettazione di parti dell'impianto

per far fronte a tale problema; inoltre la limitata differenza dal GWP minimo consentito dalla normativa attuale ne limita gli investimenti e i possibili sviluppi, se si prevedono scenari più restrittivi in un prossimo futuro.

Gli isomeri fluorurati di propene più studiati, fino ad ora, sono l'R1234yf e R1234ze. Sono stati proposti dalle aziende produttrici come la DuPont per sostituire l'R134a negli impianti esistenti. In particolare l'R1234yf sembra essere attualmente il candidato migliore dato il suo GWP bassissimo pari a quattro e un ODP nullo. Esso è stato studiato per valutarne la pericolosità e la compatibilità con gli altri materiali ed è stato utilizzato anche nei circuiti test per valutare le modifiche che sarebbe necessario apportare agli impianti.

Parametri	Unità	R134a		R1234yf	
Temperatura Critica	K	374.21		367.85	
Pressione Critica	kPa	4059.3		3382.2	
Densità Critica	kg/m^3	511.9		475.55	
Massa Molare	kg/kmol	102.03		114.04	
Temperatura	K	313.15	278.15	313.15	278.15
Pressione di saturazione del vapore	kPa	1016.6	349.66	1018.4	372.92
Densità del liquido saturo	kg/m^3	1146.7	1278.1	1033.8	1160.4
Densità del vapore saturo	kg/m^3	50.085	17.131	57.753	20.744
Calore latente	kJ/kg	163.02	194.74	132.27	160.02

Tabella 2.3: Proprietà alle condizioni di saturazione per R134a e R1234yf (Refprop 9.0).

Conoscere le proprietà chimico-fisiche di un fluido è di fondamentale importanza per il corretto dimensionamento degli organi impiegati in un ciclo frigorifero a compressione di vapore e per valutare se è possibile o meno procedere con la fase di sostituzione tra due diversi fluidi nello stesso impianto.

Dai dati riportati in tabella 2.3 si può osservare che la densità dell'R1234yf è inferiore rispetto a quella dell'R134a, sarà necessaria una minore carica di fluido refrigerante nell'impianto a parità di potenza frigorifera da erogare all'evaporatore. Ciò comporta dei risparmi sia dal punto di vista economico che ambientale poiché in caso di fughe si ha una minor dispersione di refrigerante.

Capitolo 3

HFO1243zf

Gli HFOs sono una nuova classe di fluidi refrigeranti, caratterizzati da un basso GWP (Global Warming Potential).
Sono stati creati con lo scopo di rispettare i limiti imposti dal Parlamento Europeo in seguito all'emanazione del regolamento n. 842/2006 precedentemente citato.

3.1 Derivati fluorurati del propene

I derivati fluorurati del propene contengono un doppio legame carbonio-carbonio e possono essere chiamati anche come olefine.
Per tale motivo, oltre alla designazione R (per i refrigeranti), i derivati fluorurati del propene possono essere identificati con i prefissi HFO (idrofluoro-olefina), HFA (idrofluoro-alchene) o HFC (idrofluoro-carbonio).
Tra questi derivati del propene abbiamo che degli isomeri che sono molecole che, pur avendo uguale formula molecolare, presentano proprietà chimico-fisiche diverse.
La classificazione dei refrigeranti si basa sullo standard ANSI/ASHRAE 34 "Designazione e classificazione di sicurezza dei refrigeranti". In particolare per gli isomeri fluorurati di propene la designazione contiene quatto cifre seguite da due o tre lettere.
Le cifre indicano sinteticamente la composizione chimica del composto:

- La prima cifra indica il numero di legami doppi di carbonio;

- La seconda cifra indica il numero degli atomi di carbonio diminuito di uno, omesso se pari a zero;
- La terza cifra indica il numero degli atomi di idrogeno aumentato di uno;
- La quarta cifra indica il numero di atomi di fluoro;
- Le lettere indicano il tipo di isomero ottenuto dalla stessa formula.

La tabella 3.1 riassume lo schema di numerazione per le prime due lettere aggiuntive che distinguono gli isomeri fluorurati di propene.

La prima lettera aggiuntiva si riferisce alla sostituzione sul carbonio centrale		La seconda lettera si riferisce al gruppo di sostituzione del carbonio terminale di metilene.	
Gruppo di sostituzione	Lettera	Gruppo di sostituzione	Lettera
-Cl	*x*	$=CCl_2$	*a*
-F	*y*	*=CClF*	*b*
-H	*z*	*=CF2*	*c*
		=CHCl	*d*
		=CHF	*e*
		$=CH_2$	*f*

Tabella 3.1: Scheda dei suffissi proposti per gli isomeri di propene [14].

Affinchè un isomero fluorurato di propene abbia un valore ODP nullo è necessario che la prima lettera aggiuntiva sia y oppure z e la seconda lettera sia c e o f ossia non ci sia la presenza di cloro nella formula.

La presenza di un legame doppio carbonio-carbonio, può dare luogo a degli stereoisomeri, ossia degli isomeri con lo stesso legame, ma con diverse disposizioni geometriche. Nel caso degli isomeri fluorurati di propene si hanno degli stereoisomeri se la seconda lettera è "e".

Per esempio, l'R1234ye presenta due isomeri dato che gli atomi di idrogeno e di fluoro sono collegati al carbonio terminale e possono così essere disposti sia attraverso il legame doppio carbonio-carbonio da ciascuno di essi (designati con una lettera aggiuntiva "E" dal tedesco "*entgegen*"che significa "*opposto*") sia sullo stesso lato del legame doppio carbonio-carbonio (designati con una lettera aggiuntiva "Z" dal tedesco "*zusammen*"che significa "*insieme*"). La Figura 3.1 mostra i due stereoisomeri dell'R1234ye.

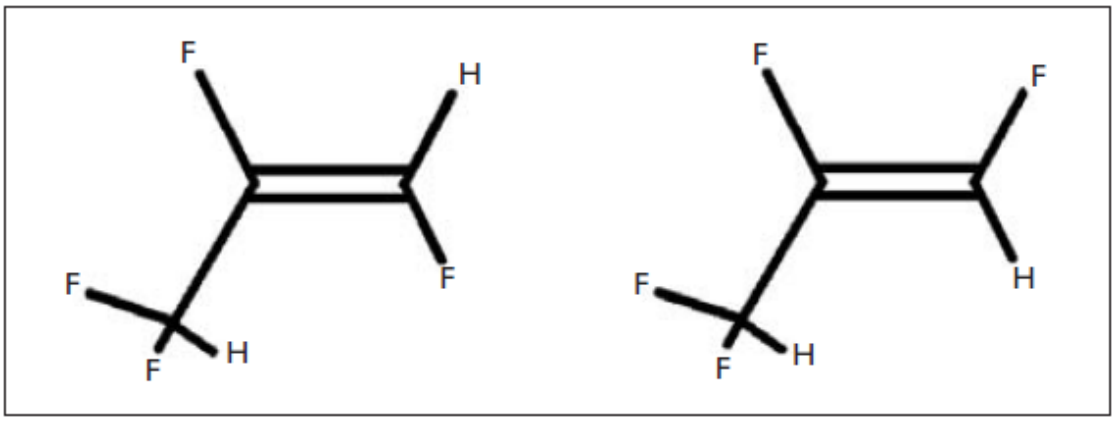

Figura 3.1: Stereoisomeri per l'R1234ye. A sinistra l'R1234ye "E" mentre a destra l'R1234ye "Z" [14].

Tra i possibili isomeri fluorurati di propene studiati e conosciuti nel campo della chimica, gli isomeri con base 1252 (4H/2F) e con base 1261 (5H/1F), non sono stati presi in considerazione come possibili refrigeranti di impiego commerciale a causa della loro certa infiammabilità.
La Tabella 3.2 riporta tutti i rimanenti possibili isomeri fluorurati del propene con la base 1225 (1H/5F), 1234 (2H/4F) e 1243 (3H/3F).

Base	Possibili isomeri fluorurati di propene
R-1225	R-1225ye(E), R-1225ye(Z), R-1225yc, R-1225zc
R-1234	R-1234yc, R-1234ye(E), R-1234ye(Z), R-1234yf, R-1234zc, R-1234ze(E), R-1234ze(Z)
R-1243	R-1243ye(E), R-1243ye(Z), R-1243yc, R-1243yf, R-1243zc, R-1243ze(E), R-1243ze(Z), R-1243zf

Tabella 3.2: Tutti i 19 possibili isomeri fluorurati di propene per le basi 1225, 1234, 1243 [13].

Anche se non è facile fare previsioni si può pensare che, andando ad aumentare gli atomi di idrogeno e di fluoro l'infiammabilità della miscela aumenta, gli isomeri R1225 e R1243 avranno quindi una maggior infiammabilità.

3.2 Proprietà chimiche: infiammabilità e tossicità

I refrigeranti, come già accennato, sono classificati secondo la normativa ASHRAE sotto il più recente standard 34 sia per quanto riguarda le caratteristiche di infiammabilità e tossicità che in base alle loro rispettive variabili di infiammabilità, come la velocità di fiamma, limite inferiore di infiammabilità (LFL) e di calore di combustione.

La velocità di fiamma è la variabile utilizzata per classificare i refrigeranti tra la classe 2 e la nuova classe 2L.

La Figura 3.2 sottostante mostra la velocità di fiamma dei vari refrigeranti (compresi R32 e le HFO).

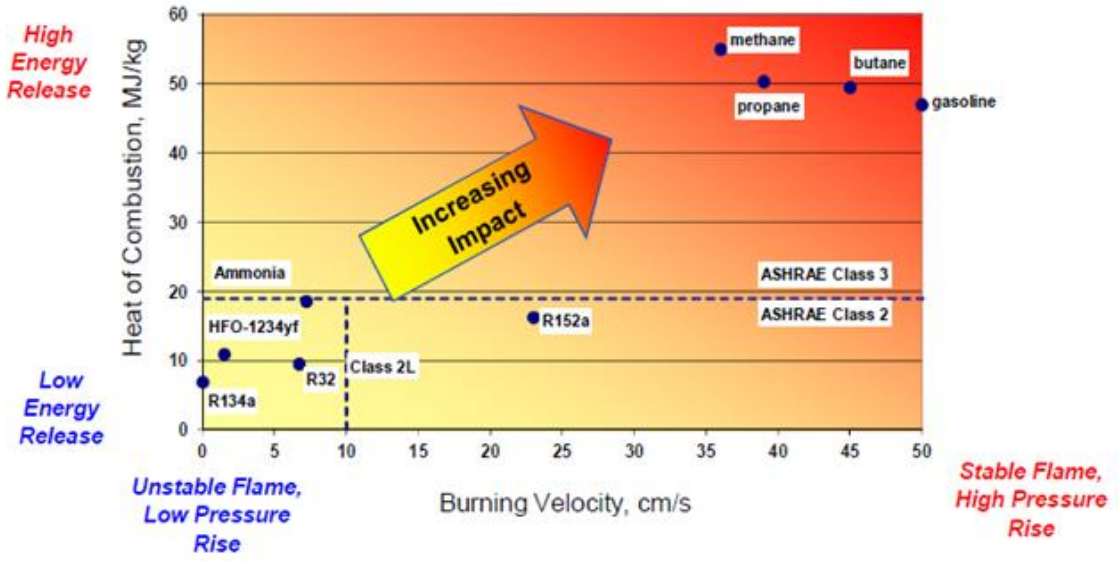

Figura 3.2: Velocità di fiamma dei vari refrigeranti [11].

Tutti i refrigeranti con una velocità di fiamma inferiore a 10 cm/s sono stati recentemente classificati come "2L" da ASHRAE 34, introducendo così due nuove categorie di refrigeranti, A2L e B2L come riportato in Tabella 3.3.

Nella tabella 3.3 si riporta la classificazione dei refrigeranti in base alla loro designazione per quanto riguarda la sicurezza.

Gruppo di sicurezza dei refrigeranti (ASHRAE 34 e ISO 817)		
	Bassa Tossicità	Alta tossicità
Non Infiammabile	A1	B1 (include R123)
2L	A2L (include R1234yf)	B2L (include ammoniaca)
Bassa Infiammabilità	A2	B2
Alta infiammabilità	A3 (include idrocarburi)	B3

Tabella 3.3: Gruppo di sicurezza del fluidi refrigeranti con la nuova classe A2L [11]

Come accennato in precedenza, la mancanza di standard e di codici per il nuovo grado di infiammabilità lieve (A2L) non consente la loro rapida commercializzazione. Diversi sforzi sono stati fatti dal comitato attualmente in corso a livello globale negli Stati Uniti, Europa e Cina per accelerare lo sviluppo di questi standards A2L (Standard ASHRAE 15 e 34, 471 e UL 1995, IEC 60335-2, ISO 5149, pr EN 378-2) per applicazioni degli impianti di climatizzazione d'aria.
La maggior parte di questi standard sono basati sulla definizione della carica massima ammissibile in base a una perdita non superiore al 25% del limite inferiore di infiammabilità (LFL) del refrigerante A2L e se lo spazio è ventilato o non ventilato. Spazi di installazione ristretti come possono essere alcuni casi nel privato per gli impianti di A/C richiedono alcune restrizioni sulle applicazioni e/o modifiche.
L'R32, R1234yf, R1234ze e presumibilmente l'R1243zf hanno LFL comparabili pari a circa 0.3 kg/m^3.

Tre livelli di carica, m1, m2, m3, sono proposti in base alla classe di infiammabilità e a seconda se lo spazio è o no ventilato [11]:

- m1 = 1.5 * (4 m^3) * LFL (3.1)
- m2 = 1.5 * (26 m^3) * LFL (3. 2)
- m3 = 1.5 * (130 m^3) * LFL (3. 3)

Dove, LFL è il limite inferiore di infiammabilità in kg/m^3 per il refrigerante utilizzato.

- Se la quantità di carica nel sistema (M) è inferiore a m1 devono essere soddisfatti i requisiti minimi per i refrigeranti infiammabili;
- Quando il livello di carica (M) è maggiore di m1 e minore di m2, vanno applicate ulteriori restrizioni alle dimensioni del luogo di installazione;

- Se la quantità di carica (M) è maggiore di m2 e minore di m3 si ottengono i requisiti attraverso una ventilazione supplementare;
- Se la quantità di carica (M) è maggiore di m3 si applicano le norme nazionali;

Il fattore di moltiplicazione 1.5 è stato specificamente proposto per refrigeranti A2L per tenere conto delle caratteristiche di infiammabilità inferiori dei refrigeranti rispetto alla classe A2. La proposta di utilizzare tale fattore è però oggetto di discussione e può essere rivisto al rialzo fino a 2.0 o 3.0 a seconda di nuovi dati messi a disposizione su questi refrigeranti.

L'equazione per il livello di carica massima consentita per gli spazi non ventilati se la carica (M) è compresa tra m1 e m2, è il seguente anche se è in corso di valutazione:

$$M_{max} = 2.5 \times (LFL)^{5/4} * h0 * (A)^{1/2} \quad (3.\ 4)$$

Dove:

A = stanza in m2;

LFL = limite inferiore di infiammabilità (LFL) in kg/m^3;

h0 = altezza di installazione dell'apparecchio in m:

0.6 m per piano posizione;

1.8 m per il montaggio a parete;

1.0 m per finestra montata;

2.2 m per il montaggio a soffitto;

Nessuna delle quattro equazioni riportate sono definitive, vari gruppi di lavoro in Europa e negli Stati Uniti stanno attivamente perseguendo la messa a punto di questi documenti. Tuttavia, senza questi standard A2L, il settore è a rischio nel senso che non riuscirà a soddisfare ogni fase potenziale futura per l'attuazione di soluzioni a basso GWP.

Un altro parametro importante per un fluido refrigerante è la tossicità che risulta molto più difficile da stimare in modo pratico, tuttavia, la conoscenza di questi parametri influenzerà molto lo sviluppo e la commercializzazione si questi nuovi potenziali fluidi refrigeranti [14].

Come riferito nella scheda di sicurezza dell'R1243zf (presente in appendice) da parte dell'azienda produttrice Mexichem Fluor, la sua bassa tossicità acuta e la sua eventuale alta concentrazione in uno spazio chiuso a causa di eventuali perdite, può causare nelle persone una anormale aritmia cardiaca, effetti anestetici e asfissia. Può causare anche irritazione alla pelle, agli occhi e alle vie respiratorie.

3.3 Il fluido R1243zf

Tra i refrigeranti a basso GWP attualmente perseguiti troviamo alcuni isomeri fluorurati del propene, tra i quali ci sono anche alcune miscele di gas fluorurati ed isomeri di propilene che possiedono modesti valori di GWP.
Fra questi, i refrigeranti attualmente più studiati sono R1234yf e R1234ze, mentre per quanto riguarda l'R1243zf (3,3,3-Trifluoropropene $CF_3CH=CH_2$) gli unici dati presenti in letteratura sono dei dati sulla pressione di vapore che coprono la gamma di temperature da 255.89 a 378.59 K [17].

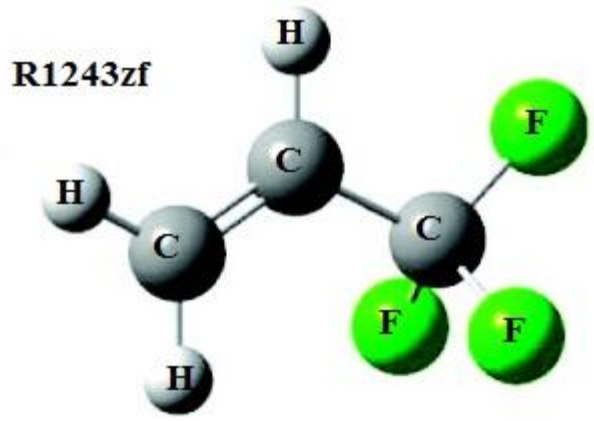

Figura 3.3: Struttura chimica del fluido HFO1243zf [18].

L'articolo riporta inoltre la temperatura critica, la pressione critica e fornisce un'equazione di regressione per la pressione di vapore.
Recentemente sono stati fatti nuovi studi sulla pressione del vapore per la gamma di temperatura da 233.80 a 372.86 K da due laboratori diversi al fine di ampliare le conoscenze sull'R1243zf [16].

Inoltre, [16] fornisce una stima della sua temperatura di ebollizione normale (NBP), una nuova stima della sua pressione critica e due correlazioni di pressione di vapore per R1243zf.

Il 3,3,3-tetrafluoroprop-1-ene (R1243zf) è quindi un potenziale refrigerante alternativo, soprattutto come componente di miscele a causa della sua leggera infiammabilità. Si stima abbia un potenziale di riscaldamento globale di circa 10 o meno cioè circa lo stesso ordine di grandezza di R1234yf. Queste considerazioni sono basate sul fatto che le due molecole hanno costanti di velocità simili per le reazioni con OH [18] e dal fatto che hanno simile struttura molecolare, tra cui la presenza del doppio legame carbonio-carbonio.

Vengono riportate in tabella 3.4 le caratteristiche di tale fluido refrigerante.

Parametri	Unità	R1234yf	R1243ze
Temperatura Critica	K	367.85	378.59
Pressione Critica	kPa	3382.2	3630.6
Densità Critica	kg/m^3	475.55	422.58
Massa Molare	kg/kmol	114.04	96.05
Punto di ebollizione normale	K	245.15	247.73
LFL		6.2%	4.5%
UFL		12.3%	16%

Tabella 3.4: Proprietà chimiche dei fluidi R1234yf e R1243zf.

Dalla tabella 3.4 si può notare la grande similarità tra i due fluidi e ciò potrebbe portare a prendere in considerazione anche l'alternativa dell'R1243zf dato il suo possibile minor costo di produzione in quanto attualmente nessuna azienda ha dei brevetti per la sua produzione e quindi potrebbe essere prodotto da più aziende rendendo il suo prezzo più appetibile per la grande concorrenzialità che si instaurerebbe.

Capitolo 4

Densimetro a tubo vibrante

Il densimetro a tubo vibrante è uno strumento di misura che consente di determinare la densità di un fluido, sia esso allo stato liquido o vapore.
La densità è determinata per fissati valori di pressione e temperatura, compresi in intervalli definiti dai componenti costituenti lo strumento che saranno analizzati successivamente.

La vibrazione del tubo ad U del densimetro viene trasdotta in un segnale elettrico proporzionale al valore di densità del fluido in esame. Ciò è definito dal principio di funzionamento del densimetro basato sulla modifica della frequenza di oscillazione, che cambia a seconda del fluido introdotto nel tubo vibrante poiché ogni fluido ha caratteristiche e densità differenti dagli altri fluidi. La frequenza di oscillazione dipende infatti dal tipo di gas o di liquido presente nell'oscillatore.

Il densimetro è costituito da un tubo ad U paragonabile ad un sistema lineare vibrante Figura 4.1.

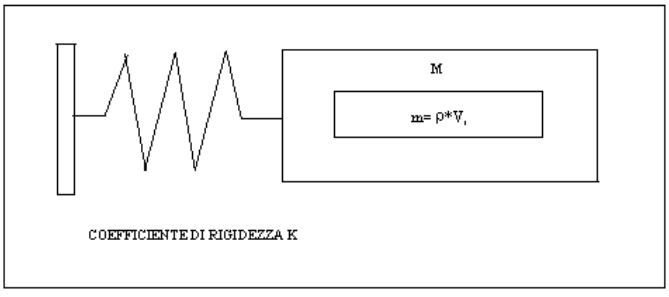

Figura 4.1: Schema sul principio del tubo vibrante.

Il tubo vibrante viene eccitato, alla sua estremità libera, da due convertitori-magneto-dinamici: in regime di funzionamento l'oscillazione del tubo è sinusoidale, di ampiezza costante e frequenza dipendente dalla sua massa. I segnali generati dai convertitori sono onde quadrate di ampiezza costante e il caratterizzate da un periodo che si può verificare essere omotetico a quello del tubo.

Questo sistema presenta una rigidezza di coefficiente di rigidezza K ed è soggetto, sotto l'azione di una eccitazione meccanica, ad una vibrazione di moto armonico non smorzato di periodo τ, [s^{-1}].

Vedremo nel paragrafo successivo la trattazione analitica per correlare il periodo di vibrazione del densimetro al valore di densità corrispondente.

Per ottenere misure di densità attendibili è necessario che l'oscillatore risulti completamente riempito dalla sostanza campione senza presentare vuoti che ne falserebbero i risultati.

Il densimetro è avvolto esternamente da una camicia che permette di mantenere la temperatura desiderata all'interno della cella di misura grazie allo scorrere di un fluido termostatato. La camicia racchiude un'ampolla in cui è contenuto del gas ad alta conducibilità termica nel quale è immerso il "tubo ad U vibrante".

Il tubo vibrante può essere in quarzo, vetro o acciaio, a seconda delle pressioni di esercizio richieste; viene posto in vibrazione tramite l'utilizzo di un trasduttore.

4.1 Trattazione analitica della misura di densità

La conoscenza della frequenza di oscillazione del sistema di misura, per la determinazione della densità, è il punto di partenza della trattazione analitica.
Questa trattazione richiede la conoscenza di un modello schematico composto da un'asta di lunghezza *l*, con densità lineare costante μ ($\mu = m/l$ con m massa dell'asta), avente una estremità fissata ad un blocco di massa molto più grande rispetto a quella dell'asta.

L'asta posta in vibrazione genera delle oscillazioni smorzate la cui frequenza:

$$\upsilon = \frac{1}{2\pi l}\sqrt{\frac{k}{\mu}} \tag{4.1}$$

con *k* si intende la costante di elasticità caratteristica dell'asta.

L'inverso della frequenza è noto come periodo di oscillazione del sistema "τ".

La seguente relazione mostra la proporzionalità diretta tra il quadrato del periodo di oscillazione e la densità dell'asta:

$$\tau^2 = \frac{4\pi^2 l^2}{k}\mu \tag{4.2}$$

Il tubo vibrante cavo del densimetro, associabile al modello appena descritto, ha un volume interno pari a V =1[cm^3] che viene riempito a seconda dei casi con fluidi di varia densità,

La densità lineare del dispositivo può essere vista come somma di due contributi:

$$\mu = \frac{m_{tubo}}{l} + \frac{m_{liquido}}{l} \tag{4.3}$$

Moltiplicando e dividendo l'ultimo termine a secondo membro per la sezione S del tubo si ottiene:

$$\mu = \frac{m_{tubo}}{l} + \frac{m_{liquido}}{l} = \frac{m_{tubo}}{l} + \frac{Sm_{liquido}}{V} = \frac{m_{tubo}}{l} + S\rho_{liquido} \tag{4.4}$$

Che sostituita in (4.2), porta ad una relazione lineare tra il quadrato del periodo di oscillazione e la densità del fluido campione presente nel tubo:

$$\tau^2 = \frac{4\pi^2 l^2}{k}\left(\frac{m_{tubo}}{l} + S\rho_{liq}\right) = \frac{4\pi^2 l m_{tubo}}{k} + \frac{4\pi^2 l^2 S}{k}\rho_{liq} \tag{4.5}$$

In quest'ultima espressione tutti i termini,ad eccezione del periodo di oscillazione del tubo ad U (τ) e della densità del fluido in esame (ρ), sono costanti strumentali pertanto risulta conveniente porre:

$$\begin{cases} C_1 = \dfrac{4\pi^2 l m_{tubo}}{k} \\ C_2 = \dfrac{4\pi^2 l^2 S}{k} \end{cases}$$

esplicitando poi la dipendenza lineare tra il quadrato del periodo di oscillazione e la densità del fluido:

$$\tau^2 = C_1 + C_2\rho_{liq} \tag{4.6}$$

da cui si può infine ricavare la densità del liquido in esame:

$$\rho_{liq} = A\tau^2 + B \tag{4.7}$$

Le costanti *A* e *B* vengono ricavate sperimentalmente nella fase di calibrazione, precedente alle misure del fluido campione, misurando i periodi di oscillazione del tubo vibrante riempito con due fluidi di riferimento aventi densità nota.

Per la calibrazione si eseguono inizialmente le misure, alle temperature di interesse, con vuoto e acqua (fluidi calibratori) in modo da determinare l'intervallo di calibrazione dentro il quale dovranno essere compresi i valori di densità del fluido campione [20].

Al posto di vuoto ed acqua come fluidi calibratori potevano essere usati altri fluidi ma, nel nostro caso, si è preferita tale scelta che verrà spiegata nel successivo capitolo.

È utile fare questa taratura in quanto il periodo di vibrazione del tubo può variare di una piccola quantità col passare del tempo a causa delle sollecitazioni a cui esso è sottoposto e dall'età dei materiali.

Serve anche per tener conto degli effetti della pressione e della temperatura sul tubo poiché influenzano la frequenza di risonanza in tre modi:

1). Il tubo espande (si dilata) con l'aumentare della temperatura e si abbassa la frequenza di risonanza;

2). Il tubo diventa meno rigido con l'aumentare della temperatura e si abbassa la frequenza di risonanza;

3). Il raggio del tubo aumenta e la lunghezza del tubo diminuisce con l'aumento della pressione e aumenta la frequenza di risonanza.

La risposta dello strumento quindi non è lineare e pertanto l'incertezza associata alla formulazione analitica è tanto migliore quanto i punti di calibrazione risultano prossimi ai valori di densità incognita.

Tuttavia secondo uno studio presente in letteratura [21] è possibile calcolare, con l'equazione (4.7), la densità dei fluidi che presentano un valore esterno all'intervallo di calibrazione.

4.1.1 Calcolo delle densità in funzione della pressione e della temperatura

La densità del fluido campione può essere calcolata,in modo indiretto, ricavando le costanti A e B. Esse, funzioni dei periodi di oscillazione del tubo vibrante e delle

densità dei fluidi usati per la calibrazione, possono essere calcolate usando le seguenti formule:

$$A = \frac{\rho_1 - \rho_2}{\tau_1^2 - \tau_2^2}$$

$$B = \frac{\tau_2^2 \rho_1 - \tau_1^2 \rho_2}{\tau_1^2 - \tau_2^2}$$

ottenute andando a risolvere un sistema di due equazioni tipo (4.7).

Le proprietà indicate dai pedici 1 e 2 rappresentano i valori di densità noti e dei periodi di oscillazione misurati con i due fluidi test alla pressione e alla temperatura di interesse.

Partendo dalla formula (4.7) e sostituendo al suo interno il valore calcolato delle costanti *A* e *B* dopo semplici passaggi matematici si ottiene l'equazione di uso pratico da impiegare per il calcolo della densità:

$$\rho = A(\tau^2 - \tau_1^2) + \rho_1 \tag{4.8}$$

Questo procedimento è valido solo per una fissata pressione e temperatura in cui le due costanti sono state calcolate.

Per misurare la densità in ampi intervalli di temperatura e di pressione, bisogna apportare delle modifiche alla formula analitica precedente (4.7) ottenendo così la seguente formula modificata [20] :

$$\tau^2 = C_1 * \rho + C_2 = (a + b * p + c * p^2) * \rho + C_2 \tag{4.9}$$

Dove:

ρ densità della sostanza campione [kg/m^3]

τ periodo di oscillazione del tubo a U [ms]

L'equazione generale (4.9), tenendo conto che la temperatura è un parametro che rimane costante nel corso delle misure sperimentali.

Rappresentando l'equazione (4.9) nel piano $(\rho; \tau^2)$, come in Figura (4.2), si individuano i punti legati ai due fluidi calibratori, uno per il limite inferiore e uno per il limite superiore del campo di densità nota, attraverso i quali si traccia una retta.

Graficamente si riesce subito ad assegnare il valore a C_2 che rappresenta il valore dell'intercetta della retta con l'asse delle ordinate.

Impiegato il vuoto, avente densità pari a zero, come fluido calibratore, otteniamo:

$$C_2 = \tau_0^2;$$

C_1 rappresenta una regressione quadratica dell'influenza del parametro pressione nei confronti della densità.

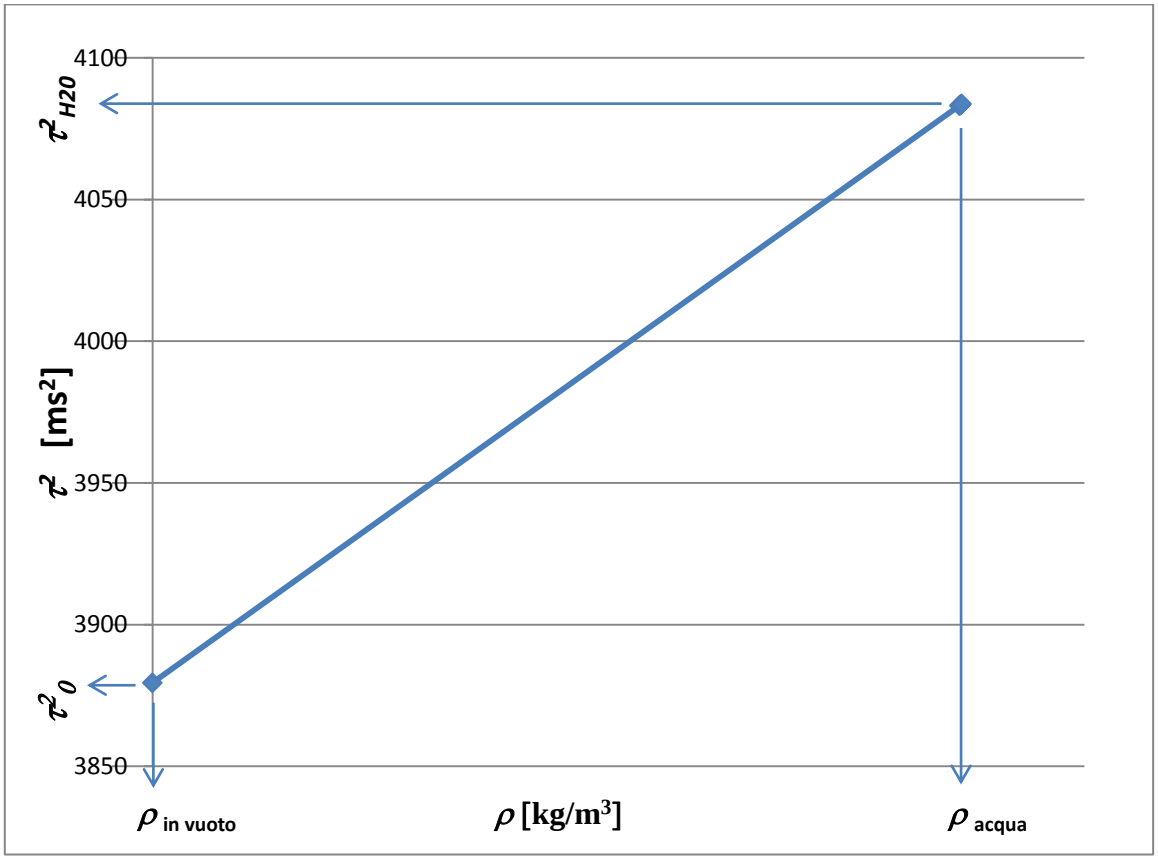

Figura 4.2: Curva interpolante della densità secondo la formula (4.9).

Ecco un esempio semplificativo per determinare la densità e le costanti di calibrazione dell'equazione (4.9) partendo dai dati presenti nella tabella sottostante(4.1):

T	p	t	ρ_{H2O}	τ_{vuoto}
[°C]	[KPa]	[ms]	[Kg/m^3]	[ms]
30.00	1128.1	4083.159	996.1	3879.497
30.00	2964.7	4083.354	997.0	
30.00	5008.3	4083.566	997.9	
30.00	7043.2	4083.778	998.7	

Tabella 4.1: Esempio per determinare densità e costanti di calibrazione.

- Osservando il grafico di Figura 4.2 e dal valore del periodo in vuoto si ricava la costante C_2: ρ= 0 [kg/m^3] → $C_2 = \tau_0^2 = 15050484.04$ [ms^2]
- Dall'equazione (4.9) per ogni coppia di valori $(\tau_{H_20}^2; \rho_{H_2O})$ si calcolano i valori che assume la costante C_1 al variare della pressione:
  p=1128.098 [kPa] ρ_{H_2O}=996.113[kg/m^3] → C_1 =1627.999 [(ms^2*m^3)/kg]
- La regressione quadratica tra le coppie di valori ($p;C_1$) consente di calcolare anche le seguenti costanti:
  a= 1627.8456 b= 1.36*10^{-4} c= 8.94*10^{-11}

l'equazione di calcolo sviluppata con i dati dell'esempio si presenta come:

$$\tau^2 = (1627.8456 + 1.3559 * 10^{-4} * p + 8.94 * 10^{-11} * p^2) * \rho + 15050484.0414$$

4.2 Densimetro Anton Paar DMA 512P

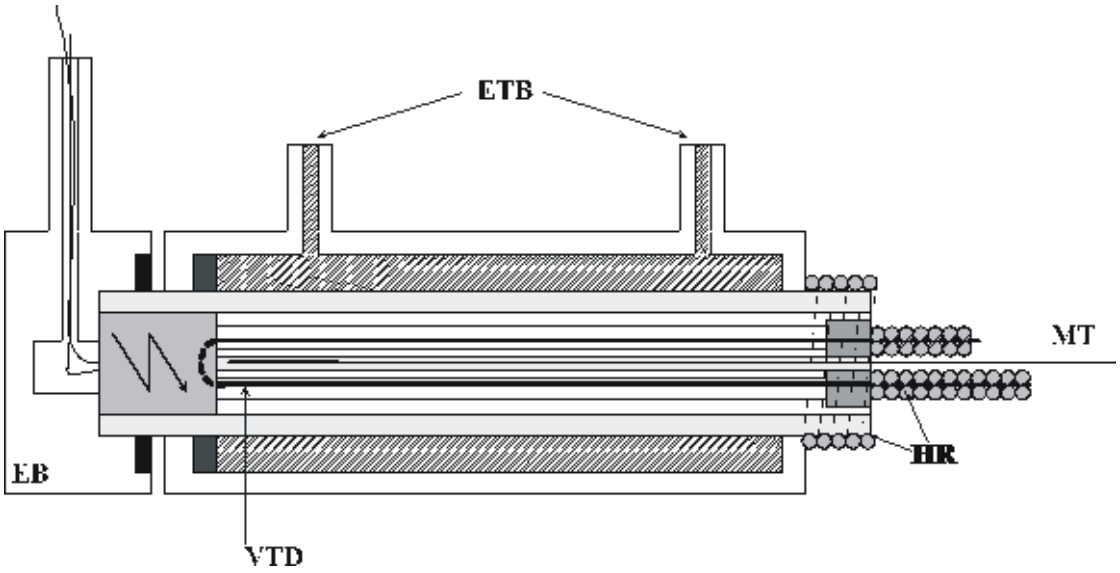

Figura 4.3: Schema densimetro a tubo vibrante Anton-Paar 512P [20].

Il tipo di densimetro a disposizione per eseguire queste prove sperimentali è il modello Anton Paar 512P, è utilizzato per misurare la densità dei fluidi frigorigeni in fase liquida. E' realizzato con componenti tali che permettono di effettuare misure di densità in condizioni di elevata pressione e temperatura.

Il tubo vibrante è realizzato in acciaio inossidabile, con uno spessore di parete si circa 0.3 mm e con un diametro interno di 2.4 mm.

Per quanto riguarda la pressione, lo strumento può essere usato fino a valori di 700 bar senza la necessità di prendere particolari precauzioni.

La massima temperatura operativa è invece limitata dai sistemi di tenuta interni alla cella di misura realizzati in materiale plastico (Viton).

Questo tipo di materiale permette di lavorare in modo continuo,all'interno del range di temperature compreso tra i 263.15K(-10°C) e i 423.15K(+150°C) e, solo per brevi periodi,consente di arrivare alla temperatura limite di 453.15K(+180°C).

È bene ricordare che, per avere una maggior ripetibilità della misura, effettuando variazioni di 10°C di temperatura, è consigliabile aspettare circa un'ora prima di iniziare le nuove rilevazioni della densità permettendo così di ottenere una oscillazione del valore di temperatura entro un intervallo di ±0.005 °C.[20]

Questo strumento è caratterizzato dalla presenza di due circuiti:

- Per il controllo della temperatura della cella di misura.

  E' collegato ad un bagno termostatico che può usare acqua per temperature comprese tra i 278.15K (5°C) e i 353.15K (80°C), mentre per temperature superiori è consigliabile usare glicole trietilenico o polietilenico.
- Per il controllo della temperatura della logica di comando, ed elaborazione dei dati interni allo strumento. Questo circuito, si trova nella parte posteriore dello strumento, risulta necessario quando si effettuano misure a temperature superiori a 313K (40°C).

La logica di controllo elettronico e di amplificazione garantisce un'ampiezza di oscillazione del tubo cavo costante anche in condizioni di misure estreme, nei confronti della temperatura o della pressione di esercizio.

Il densimetro è dotato anche di una pompa a membrana ausiliaria, azionabile manualmente dall'operatore, per asportare l'eventuale presenza di aria formatasi all'interno dello strumento, che in particolari condizioni termo-igrometriche può generare condensa, rischiosa per l'integrità dell'apparato elettronico.

DATI DENSIMETRO Anton Paar DMA 512P caratteristiche principali

Risoluzione: la risoluzione della misura di densità dipende principalmente dalla risoluzione impiegata nella misura del periodo τ di oscillazione del tubo vibrante. Essa è pari a: $1 \times 10^{-5} \ \frac{g}{cm^3}$
Temperature operative 263,15K - 423,15K (-10 ÷ +150°C) per misure continue Fino a 453,1K (+180°C) per misure di breve durata
Pressione operativa 0÷700 bar
Volume cella di misura 1cm^3

Il valore di risoluzione presente in tabella è relativo al sistema elettronico di rilevazione del periodo di oscillazione del tubo vibrante, tramite un unità di valutazione e acquisizione Anton-Paar mPDS 2000[22]

Capitolo 5

Impianto di misura e descrizione della procedura sperimentale

L'impianto permette di misurare sperimentalmente la densità di un fluido allo stato liquido compresso ed è strutturato in modo tale da mantenere costanti nel tempo sia la temperatura che la pressione.
La stabilità di questi parametri è fondamentale per poter acquisire ed elaborare i dati relativi al periodo di oscillazione del tubo ad U vibrante, e correlarli ai valori di densità corrispondenti cercando naturalmente di avere la minor incertezza possibile.
L'instabilità della temperatura e della pressione sono purtroppo la prima fonte di errore che si verifica nelle misure.

Uno schema concettuale dell'impianto usato è rappresentato in figura (5.1)
Lo strumento Anton-Paar DMA 512P che è stato utilizzato per misurare in modo indiretto la densità è indicato in figura con (VTD).

Al densimetro è collegata una resistenza scaldante avvolta attorno al blocco del sistema ed è indicata con (HR). La resistenza percorsa da corrente elettrica e modulata da un PID serve per evitare ci siano fughe di calore con l'ambiente esterno, soprattutto per le misure alle alte temperature $T \geq 303.15\text{K}$ (30°C). Le fughe di calore si hanno per la differenza di temperatura tra la cella di misura a temperatura più alta e l'ambiente a temperatura più bassa. Queste fughe di calore non permettono di mantenere la temperatura imposta all'interno della cella, grazie alla resistenza posta

esternamente si riesce a contenere la differenza di temperatura e limitare così le fughe di calore verso l'esterno.

Quando le misure sono fatte a temperature $T < 303.15K$ (30°C) ci troviamo nel caso opposto infatti ora è l'ambiente esterno a trovarsi ad una temperatura superiore rispetto a quella del blocco ma la differenza di temperatura è così piccola che i minimi ingressi di calore non vanno ad influenzare le misure.

Per rilevare la temperatura della cella del densimetro si utilizza una termoresistenza Pt 100Ω a 0°C indicata con (MT).

Tra gli altri componenti dell'impianto troviamo poi il sistema di acquisizione dati (DAC), il multimetro digitale (M), il bagno termostatato ad acqua (LTB), la bombola di fluido campione (SB), il misuratore di pressione Druck DPI 145 Multi-Function Pressure Indicator (PG), la pompa meccanica bistadio per il vuoto (VP), le pompe a siringa Isco D series syringe pumps: modello 260D (SP), la bombola di azoto (NC).

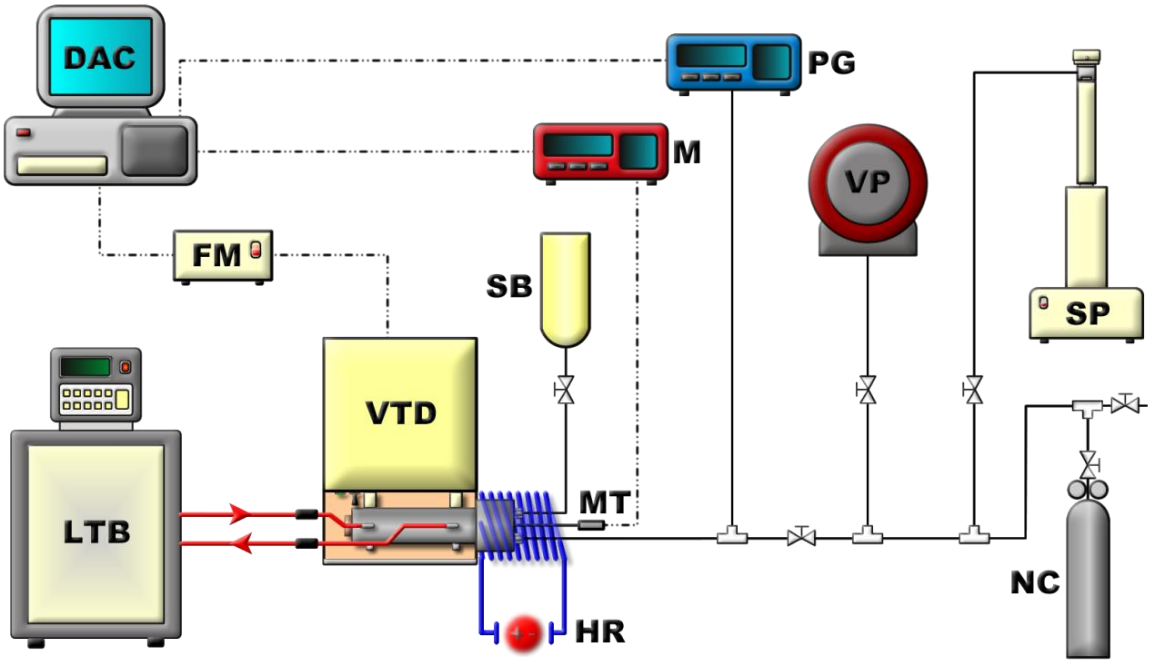

Figura 5.1: Schema dell'impianto utilizzato per la misure sperimentali di densità [23].

Il sistema di acquisizione dati (DAC) utilizza un software sviluppato in ambiente LabView® e consente di monitorare in tempo reale l'andamento dei seguenti parametri:

- Pressione assoluta, ottenuta come somma della pressione relativa dell'impianto con il misuratore di pressione (PG) e della pressione barometrica;
- Temperatura della cella del densimetro vibrante, misurata con una termo-resistenza (MT) Pt 100Ω a 273.15K (0°C);
- Temperatura del blocco di misura;
- Periodo di oscillazione del densimetro, rilevato con l'ausilio di un frequenzimetro digitale (PM);
- Variazione di pressione tra due letture successive;
- La densità del fluido campione che è possibile visualizzare solo se sono già state calcolate le costanti di calibrazione;

Tutti questi parametri vengono visualizzati in tempo reale attraverso l'ausilio di grafici separati che si aggiornano ogni 5 secondi, tempo necessario per non avere perdita di informazioni dai vari strumenti elettronici collegati al PC, garantendo così una risposta stabile e veritiera.
I grafici permettono all'operatore di valutare la bontà della misura per avere la massima stabilità.

Accertata la stabilità dei parametri, il software consente di registrarli in formato ASCII permettendo così l'acquisizione in modo continuo dei dati e la possibilità di una successiva analisi ed elaborazione.

5.1 Descrizione della procedura sperimentale

La procedura sperimentale per determinare la densità dei refrigeranti allo stato liquido prevede i seguenti passaggi:

- Pulizia dell'impianto, verifica delle tenute e controllo di tutto il sistema di misura;
- Calibrazione del sistema in vuoto;
- Calibrazione del sistema con acqua bi-distillata;
- Carica del fluido frigorigeno allo stato liquido e misura del periodo di oscillazione del densimetro;

- Ricalibrazione con vuoto e acqua come verifica della calibrazione e controllo dei dati raccolti;

Di seguito si descrivono in modo dettagliato i vari steps appena elencati.

5.1.1 Pulizia preliminare e verifica di tenuta dell'impianto

Anche se l'impianto dopo ogni campagna di misura viene pulito e messo in vuoto, è necessaria una pulizia preventiva prima della sua messa in funzione per evitare spiacevoli inconvenienti nel corso delle misure.
Con l'acetone si puliscono i tubi e i vari collegamenti meccanici, successivamente utilizzando un flusso di azoto puro si rimuove l'acetone e eventuali residui delle sostanze precedentemente testate.

Eseguita questa procedura si passa alla verifica di tenuta dell'impianto caricando azoto e comprimendolo, con l'ausilio delle pompe a siringa, fino ad arrivare ad una pressione di 35000 kPa (350 bar).
L'azoto avendo molecole di piccole dimensioni, rispetto a quelle degli altri fluidi test, è particolarmente indicato per la verifica di tenuta dell'impianto in quanto è più soggetto a fughe attraverso i vari organi di tenuta come gli snodi a T e i raccordi delle giunzioni.
Bagnando queste zone con un fluido rilevatore Leak-Chek, si possono identificare eventuali fuoriuscite di azoto grazie alla formazione di bolle o micro bolle a seconda dell'entità della perdita.

Si può così intervenire cambiando guarnizioni, stringendo meglio le ghiere di collegamento o nel caso peggiore arrivare anche alla loro sostituzione che comporta il taglio del tubo e la sostituzione dei componenti che permettono la tenuta.

La tenuta dei vari snodi a T e dei raccordi di chiusura avviene per deformazione elastica dei tubicini da 1/8 in.
Questi tubi terminano con una sezione conica e, quando vengono inseriti sulla sede, la tenuta viene effettuata per deformazione elastica delle due superfici poste a contatto tra loro e chiuse da una ghiera avvitata sull'apposita sede filettata.

È bene inoltre controllare che l'interfaccia tra le varie strumentazioni elettroniche e il PC funzioni correttamente utilizzando il software appositamente sviluppato.

5.1.2 Taratura con vuoto

Come accennato nel capitolo precedente, per ricavare in modo indiretto la densità del fluido campione è necessaria la conoscenza delle costanti di calibrazione che permettono di confrontare il periodo di oscillazione del densimetro riempito di refrigerante campione, con il periodo determinato con i fluidi calibratori.

Per ottenere le condizioni necessarie per eseguire la prima taratura si usa un compressore meccanico, dotato di girante a due stadi, che permette di arrivare a circa 0.08 kPa ($8*10^{-1}$ mbar) come grado di vuoto.

Si lascia funzionare il compressore per almeno un paio di giornate, in modo da garantire un buon grado di vuoto, per asportare la maggior quantità possibile di molecole d'aria e eventuali altre molecole rimaste intrappolate nel densimetro o nel resto dell'impianto.

Per rilevare il grado di vuoto raggiunto si utilizza un misuratore posto a valle della pompa (VP), questo strumento AGP100 si basa sul principio PIRANI, ovvero funziona utilizzando il principio della conduttività termica in cui il tasso di perdita di calore da un filamento riscaldato è subordinato alla pressione del gas intorno al filamento.

L'elemento sensibile è costituito da un filamento di tungsteno inserito in un ponte di Wheastone, che viene riscaldato dal passaggio di corrente e la temperatura raggiunta corrisponde al punto di equilibrio tra il riscaldamento dovuto all'effetto Joule e la potenza dissipata per effetto della conducibilità termica del gas.

Lo strumento è in grado di misurare la pressione fino a 10^{-3} mbar ed è stato calibrato per l'utilizzo nell'azoto ed esegue letture corrette con aria secca,ossigeno e ossido di carbonio.

Tutto ciò è stato reso necessario poiché il misuratore di pressione (PG), avendo un campo di funzionamento con intervallo $0 \div 35000\ \mathrm{kPa}_{\mathrm{relativi}}$, non è in grado di misurare il grado di vuoto.

Il vuoto è stato scelto come fluido calibratore, valido per il limite inferiore dell'intervallo entro cui dovrà cadere la densità del refrigerante da analizzare, poiché

ad esso è associata una densità di circa $0\frac{kg}{m^3}$, con un livello di precisione maggiore rispetto a qualsiasi altra taratura eseguita con un fluido noto.

5.1.3 Carica dell'acqua e procedura di taratura

Come secondo fluido per completare la procedura di taratura, e calcolare le costanti di calibrazione C_1 e C_2, si usa acqua bi-distillata come fluido di densità nota perché grazie alla sua estrema purezza permette di ottenere un valore di densità nota con il minimo valore di incertezza.
La densità dell'acqua viene calcolata con la formula proposta da Wagner e Pruss [24].

Prima di caricare l'acqua all'interno dell'impianto, si deve inserirla in una contenitore di volume $V\approx 0.3$litri e resistente alla pressione.
Si collega la bombola di piccole dimensioni ad un compressore a vuoto, simile a quello usato per fare il vuoto nell'impianto di misura, in modo da estrarre l'aria presente all'interno e eventuali incondensabili disciolti nell'acqua.
Garantito il corretto grado di vuoto, ottenuto in circa mezza giornata, si collega la bombola all'impianto attraverso un apposito raccordo posizionandola capovolta e fissata ad un treppiede esterno per garantirne la stabilità.
Lasciato del tempo per riportare l'impianto in vuoto, in seguito all'ingresso inevitabile di aria durante la fase di allacciamento della boccetta (SB), si carica l'acqua aprendo la valvola principale che si trova posizionata nella parte bassa della boccetta capovolta.
L'acqua inizialmente entra per la piccola differenza di pressione tra boccetta e impianto poi, aprendo la valvola posta nella parte alta della boccetta capovolta, l'acqua viene introdotta grazie all'azione di spinta della pressione atmosferica che porta così a riempire completamente il tubo a U del densimetro.
In questo modo si evita l'ingresso di aria che altererebbe il periodo di oscillazione del tubo.

Nella fase di carica dell'acqua si deve chiudere la valvola intermedia del circuito che separa la parte delle pompe da quella del densimetro e del misuratore di pressione.
Le molecole dell'acqua hanno la capacità di aderire alle pareti dei condotti e dei dispositivi attraverso cui è fatta fluire e ciò ne influenza la facilità di pulizia.

Non pulire correttamente, asportando tutte le molecole d'acqua, comporterebbe la contaminazione successiva del refrigerante da introdurre e quindi si andrebbero a falsare le misure.
Per evitare che l'acqua vada a finire all'interno delle pompe, dispositivi difficili da pulire, si carica dell'azoto nella parte di circuito delle pompe e solo successivamente si può poi aprire la valvola precedentemente chiusa, in modo tale che l'azoto crei una barriera a contatto con l'acqua.
Successivamente si potrà comprimere l'acqua in modo indiretto grazie alla compressione diretta dell'azoto, compresso a sua volta dalle pompe, potendo così fare le misure di taratura con l'acqua.

Dopo aver caricato l'acqua i vari passaggi da eseguire in successione sono:

- Si collega la bombola di azoto alla valvola di carica fissata con un condotto alla pompa a siringa.
  Si riempie l'impianto con l'azoto e solo dopo aver aperto la valvola a monte del misuratore di pressione si può comprimere l'azoto fino alla massima pressione operativa ($P_{max} \approx 35000$ kPa);
- Si attende che la temperatura della cella del densimetro e del blocco si portino alle condizioni di stabilità corrispondenti alla temperatura in cui si vuole fare la misura;
- Si fa scendere la pressione dell'impianto, verificando che l'espansione del fluido all'interno dei tubi non influenzi la temperatura della cella del densimetro.
  Per ottenere delle misure in condizioni quasi-statiche si deve agire manualmente sulla velocità di discesa della pompa per cercare di avere una discesa a velocità costante e con un salto di pressione $\Delta P \leq 30$ kPa tra due misure successive. Solo in questo caso si riesce ad ottenere una misura corretta.

Conoscere la pressione alla quale si deve caricare l'azoto all'interno del cilindro delle pompe è un parametro fondamentale del processo di misura.
Avendo a disposizione due pompe a siringa disposte in parallelo, si parte posizionando una pompa sul suo punto morto inferiore e una sul suo punto morto

superiore in modo che nella successiva fase di discesa si possa usare il volume della seconda pompa per continuare l'espansione.

Sapendo che il punto morto inferiore corrisponde al minimo valore di pressione raggiungibile all'interno del circuito nella fase di discesa, è bene conoscere la pressione con cui va caricato l'impianto soprattutto nel caso in cui sia necessario eseguire misure di densità a pressioni inferiori a quelle di carica (proprio come è il caso in esame).

La pressione di carica non deve quindi essere troppo bassa altrimenti comprimendo l'azoto si rischia di non arrivare ai 35000 kPa corrispondenti alla massima pressione operativa dalla quale iniziano le misure.

Al tempo stesso la pressione di carica non deve essere troppo elevata perché sarebbe richiesto un volume di espansione troppo grande e non arriveremmo in prossimità della pressione atmosferica a fine della discesa.

Nell'impianto in esame, tenendo conto degli aspetti appena elencati, la pressione di carica corretta è di 1500÷2000 kPa. Con questo valore di pressione si riesce a raggiungere a fine compressione la massima pressione operativa di 35000 kPa e in fase di espansione, usufruendo del volume della seconda pompa a disposizione si arriva fino a 750 ÷ 1000 kPa.

Per raggiungere la pressione prossima a quella atmosferica, si esegue l'espansione finale agendo sulla valvola attraverso la quale è avvenuta la carica dell'azoto aprendo l'impianto all'atmosfera.

La valvola in questione è però una valvola on-off e non una valvola di regolazione, ma le perdite di carico che si verificano nel condotto che collega la valvola alla pompa permettono di regolare la velocità di discesa della pressione, non andando ad influenzare la temperatura della cella, per portare a termine la misura.

5.1.4 Carica del fluido refrigerante e procedura per la misura del periodo di oscillazione

Eseguite le misure del periodo di oscillazione per le e otto le isoterme con entrambi i fluidi calibratori è necessario fare una nuova pulizia dell'impianto. Dopo aver svuotato l'impianto dall'acqua con l'ausilio di un flusso di azoto, si passa alla pulizia con l'acetone che trascina le molecole d'acqua rimaste permettendo la loro completa rimozione.
Un successivo flusso di azoto permette l'evacuazione dell'acetone e la sua evaporazione.
Si fa una nuova prova di tenuta comprimendo l'azoto a 35000 kPa e utilizzando il fluido rilevatore Leak-Chek per trovare eventuali perdite soprattutto in corrispondenza delle ghiere precedentemente svitate per la pulizia dell'impianto.
L'impianto va successivamente messo in vuoto per una giornata.

Per una ulteriore verifica di tenuta, con l'impianto in vuoto, si può mettere dell'acetone nelle zone dei raccordi più soggette a fughe. Nel caso ci fossero infiltrazioni di acetone all'interno dell'impianto lo si noterebbe grazie al repentino movimento che avrebbe l'ago indicatore del grado di vuoto.

Si può infine procedere con la carica dei fluidi refrigeranti da studiare:

- Il fluido R1243zf (3,3,3-tetrafluoroprop-1-ene, $CF_3CH=CH_2$, CAS number 677-21-4) fornito dall'azienda Mexichem Fluor S.A. de C.V. avente una purezza dichiarata maggiore del 99.5% in frazione di massa.
- Il fluido R32 (CH_2F_2, Difluoromethane) fornito dall'azienda Ausimont con una purezza dichiarata maggiore del 99.99%.

Tra le misure dei due fluidi refrigernati è bene fare una ulteriore verifica di calibrazione con i passaggi già elencati nei paragrafi precedenti.

Il refrigerante è contenuto in un recipiente in pressione che è stato sottoposto a degasaggio. Si raffredda il contenitore con azoto liquido fino ad una temperatura inferiore al punto di solidificazione del refrigerante e con il compressore a vuoto si asportano gli incondensabili presenti all'interno della bombola. Per avere una buona degasazione si ripete tale operazione per un paio di volte.

Si collega la bombola di fluido refrigerante all'impianto e dopo essersi accertati di aver fatto un buon collegamento, si apre la valvola della bombola iniziando così l'introduzione del refrigerante che avviene abbassando il pistone di una delle due pompe a siringa, creando così una leggera depressione.

Per introdurre una discreta quantità di fluido refrigerante si va a scaldare la bombola con un "Convogliatore ad aria calda" fino alla temperatura di circa 307.15 K (34°C), caricando circa 40 g di fluido refrigerante R1243zf.

Allo stesso modo si fa per l'R32 del quale se ne è caricato circa 22 g.

Terminata la fase di carica si può staccare la bombola di refrigerante per poter poi iniziare le misurazioni.

Lavorando con fluido allo stato liquido, si riesce ad utilizzare una sola pompa per comprimerlo ed espanderlo.

Le misure sono state eseguite per otto isoterme alle temperature comprese tra i 283.15 K e i 353.15 K con intervalli di 10 K tra le misure consecutive.

Per ogni isoterma si fa variare la pressione dai 35000 kPa fino alla pressione prossima a quella di saturazione che è evidenziata dalla repentina variazione della pressione causata dalla comparsa di nucleazioni per ebollizione.

Oltre alla variazione della pressione è possibile notare anche la variazione del periodo e della temperatura al raggiungimento di pressioni prossime a quella di saturazione.

Questi andamenti, visibili dai grafici, sono dovuti all'evaporazione del fluido refrigerante che porta ad una condizione di non equilibrio, lo strumento non riesce a fare misure se è presente sia la fase liquida che la fase vapore.

Per garantire una costanza del valore di temperatura della cella di misura e del blocco, garantendo una misura con trasformazione quasi-statica, la pressione deve diminuire molto lentamente in modo tale da non superare la differenza $\Delta P \leq 15$ kPa tra due misure successive rilevate ogni 5 secondi.

Alla fine delle misure il sistema va svuotato e pulito, usando acetone e un flusso di azoto, messo in vuoto come verifica della pulizia eseguita.

5.1.5 Elaborazione dei dati raccolti

L'equazione necessaria per il calcolo della densità viene implementata con un software, EDens6_1_2011.vi, appositamente sviluppato in ambiente LabView®.
In questo programma, dopo aver selezionato gli intervalli di vuoto e acqua nei quali fare l'elaborazione dei dati, vengono calcolate le costanti di calibrazione usando l'equazione proposta da Wagner e Pruss [24] per il calcolo della densità dell'acqua bi-distillata, implementata in Refprop in funzione della temperatura.
Selezionando successivamente i dati del fluido campione, come output, otteniamo un documento in formato ASCII contenete i valori di densità del fluido assieme ai dati corrispondenti di temperatura, pressione e periodo di oscillazione.

5.2 Valutazione dell'incertezza di misura

I dati misurati sono soggetti alle seguenti incertezze:
Incertezza nell'equazione di Wagner e Pruss per l'acqua bi-distillata e incertezza nella fluttuazione del periodo di oscillazione per il vuoto. Queste incertezze, legate ai fluidi calibratori, variano la pendenza della retta nel piano $(\rho; \tau^2)$ modificando il valore della densità ottenuta dalla conversione del periodo di oscillazione.

Incertezza della calibrazione nell'equazione $\left[\frac{kg}{m^3}\right]$	
Incertezza dell'equazione di stato dell'acqua	0.14
Stabilità del periodo in vuoto	0.05
Deviazione per effetto della regressione quadratica	0.10
Totale incertezza	0.29

Tabella 5.1: Incertezza della calibrazione.

Incertezza sul periodo di oscillazione [μs]	
Stabilità della misura	0.020
Risoluzione dello strumento	0.001
Totale incertezza	0.021

Tabella 5.2: Incertezza sul periodo di oscillazione.

Incertezza della termoresistenza e del manometro digitale che, opportunamente tarati nei centri di taratura SIT, nel rilevare i rispettivi valori di temperatura e pressione devono avere una certa stabilità durate le operazioni di misura.

Incertezza misura di temperatura [K]	
Incertezza termo resistenza	0.050
Stabilità bagno termostatico	0.003
Totale incertezza	0.053

Tabella 5.3: Incertezza misura di temperatura.

Incertezza misura di pressione [kPa]	
Incertezza manometro digitale	20.0
Stabilità della misura	3.0
Totale incertezza	23.0

Tabella 5.4: Incertezza misura di pressione.

La somma di tutti gli effetti determina l'incertezza totale dei valori di densità calcolata:

Incertezza nel calcolo della densità $\left[\frac{kg}{m^3}\right]$	
Incertezza relativa alla pressione	0.2
Incertezza relativa alla temperatura	0.2
Incertezza relativa al periodo	0.1
Incertezza relativa alla calibrazione	0.3
Totale incertezza	0.8

Tabella 5.5: Incertezza nel calcolo della densità.

L'impianto a disposizione per le misure sperimentali consente di calcolare la densità con una incertezza di $0.8\,\frac{kg}{m^3}$.

Capitolo 6

Elaborazione dei dati sperimentali

In questo capitolo viene riportata una selezione dei dati di densità misurati per il fluido R1243zf con le formule di regressione e l'estrapolazione della densità critica.
Viene successivamente fatta una validazione dell'impianto usando come fluido l'R32 sia per verificare la correttezza dei dati rilevati dalla prova sperimentale sul fluido R1243zf, sia per ricontrollare i dati presenti in letteratura risalenti al 1991.

6.1 Fluido refrigerante R1243zf

6.1.1 Densità del fluido allo stato liquido compresso

In questo paragrafo vengono riportati una parte dei dati del fluido frigorigeno R1243zf studiato in fase di liquido compresso.
Per poter coprire in buona parte il campo di temperature, a cui il fluido può essere soggetto nelle applicazioni di utilizzo, si sono eseguite le campagne di acquisizione dei dati sperimentali partendo dalla temperatura T = 283.15 K fino alla T = 353.15 K ad intervalli di 10 K l'una dall'altra.
Per ogni isoterma viene fatta variare la pressione in modo continuo dal valore iniziale di 35000 kPa (350 bar) e scendendo fino a circa 200 kPa (2 bar) sopra la pressione di saturazione corrispondente alla temperatura su cui si sta eseguendo la misura. Si procede in questo modo a causa delle difficoltà operative che si incontrano in corrispondenza dei parametri di saturazione, il fluido infatti inizia ad evaporare e non

permette di avere un valore attendibile della densità ricavata dall'oscillazione del tubo vibrante.

I 20157 valori di densità misurati sono riportati in appendice C, mentre nelle tabelle dalla 6.1 fino alla 6.8 si presentano i dati selezionandoli, per ogni isoterma, con un intervallo di pressione di circa 1000 kPa.

Per una miglior comprensione viene riportato un grafico generale contenente tutte le isoterme e la curva di densità del liquido saturo Figura 6.1.

Da questa figura si nota un andamento regolare delle curve senza nessun trend dai punti misurati, ciò porta alla conclusione che il processo di acquisizione, avvenuto in modo continuo, dei valori di vibrazione del densimetro al variare della pressione, per un processo di espansione quasi statico, non influenza la procedura di misura e quindi la densità così determinata.

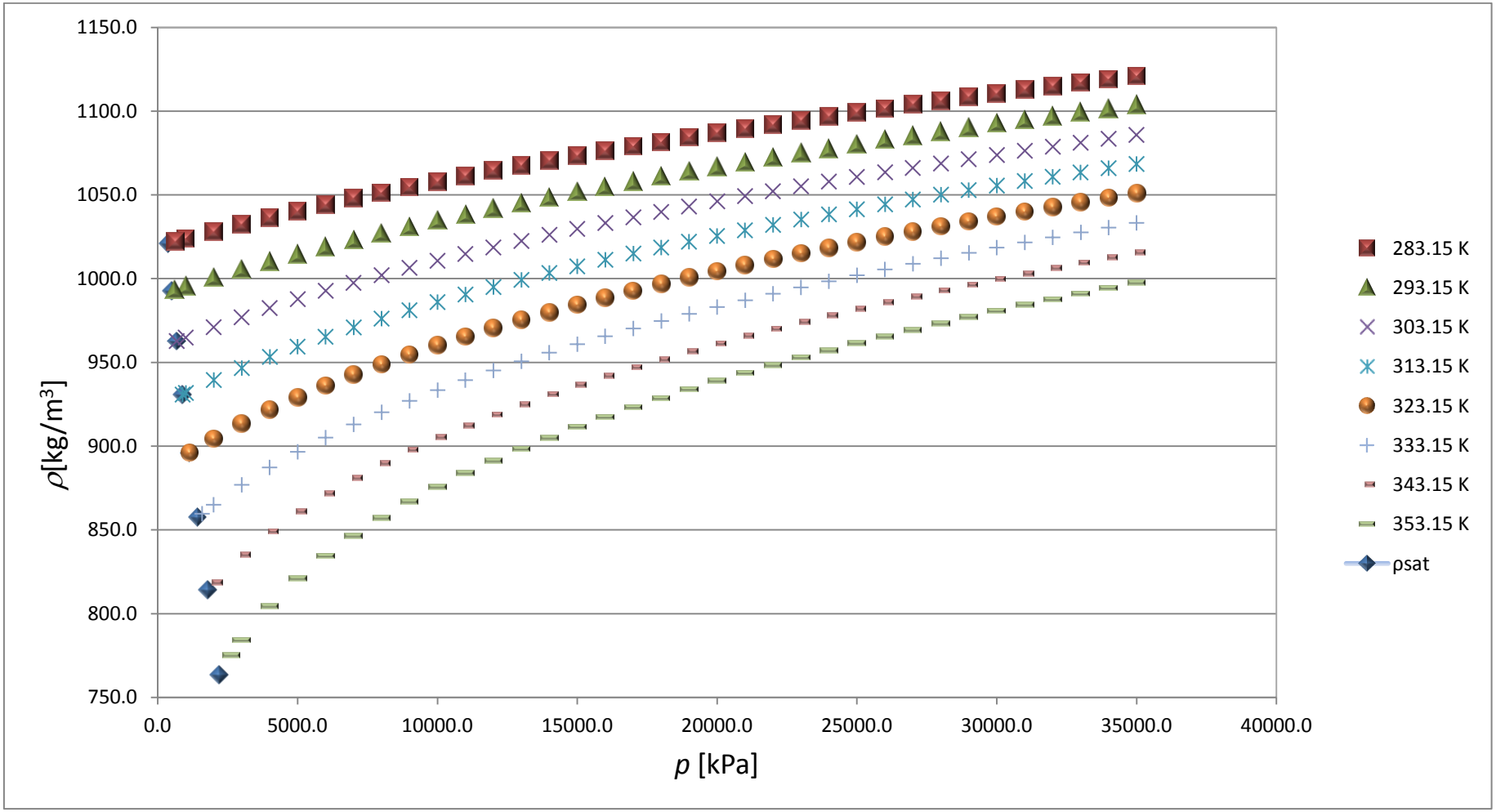

Figura 6.1: grafico complessivo nel piano (p;ρ) riportante tutte le isoterme e la curva della densità di saturazione estrapolata.

T	p	ρ	ρ_{Tait}	$\Delta\rho$	$\Delta\rho\%$
[K]	[kPa]	[kg/m^3]	[kg/m^3]	[kg/m^3]	
283.15	35007.8	1120.9	1120.7	-0.2	-0.02
283.15	34003.0	1118.8	1118.7	-0.2	-0.01
283.15	33008.2	1117.0	1116.7	-0.3	-0.03
283.15	32002.3	1114.7	1114.6	-0.1	-0.01
283.15	31011.9	1112.7	1112.6	-0.1	-0.01
283.15	30000.6	1110.5	1110.4	0.0	0.00
283.15	29005.8	1108.3	1108.3	0.0	0.00
283.15	28011.9	1106.1	1106.1	0.0	0.00
283.15	27012.6	1103.9	1103.9	0.0	0.00
283.15	26008.5	1101.4	1101.6	0.2	0.02
283.15	25006.4	1099.3	1099.3	0.0	0.00
283.15	24004.2	1096.8	1096.9	0.2	0.01
283.15	23001.0	1094.3	1094.5	0.2	0.02
283.15	22007.7	1091.9	1092.1	0.2	0.02
283.15	21011.6	1089.5	1089.6	0.1	0.01
283.15	20004.1	1086.8	1087.1	0.2	0.02
283.15	19008.7	1084.2	1084.5	0.3	0.03
283.16	18001.5	1081.4	1081.8	0.4	0.03
283.15	17004.8	1078.9	1079.1	0.2	0.02
283.15	16005.2	1076.1	1076.3	0.3	0.02
283.15	15004.2	1073.2	1073.5	0.2	0.02
283.15	14009.5	1070.4	1070.6	0.2	0.02
283.15	13010.2	1067.4	1067.6	0.2	0.02
283.15	12007.7	1064.4	1064.5	0.1	0.01
283.15	11011.8	1061.2	1061.4	0.2	0.02
283.15	10009.8	1057.8	1058.1	0.3	0.03
283.15	9005.5	1054.5	1054.8	0.2	0.02
283.15	8003.7	1051.2	1051.3	0.1	0.01
283.15	7010.2	1047.8	1047.8	0.0	0.00
283.15	6009.4	1044.0	1044.1	0.1	0.01
283.15	5000.9	1040.2	1040.3	0.2	0.02
283.15	4006.5	1036.3	1036.4	0.1	0.01
283.15	3001.1	1032.3	1032.3	0.0	0.00
283.15	2008.9	1028.0	1028.1	0.1	0.01
283.15	1000.2	1023.7	1023.7	0.0	0.00

Tabella 6.1: Densità fluido refrigerante R1243zf a T = 283.15 K (10 °C).

T	p	ρ	ρ_{Tait}	$\Delta\rho$	$\Delta\rho\%$
[K]	[kPa]	[kg/m^3]	[kg/m^3]	[kg/m^3]	
293.15	35001.8	1103.6	1102.8	-0.7	-0.06
293.15	34005.1	1101.3	1100.7	-0.5	-0.05
293.15	33003.9	1099.2	1098.6	-0.6	-0.06
293.15	32003.3	1096.9	1096.4	-0.5	-0.04
293.15	31004.7	1094.6	1094.2	-0.4	-0.04
293.15	30013.1	1092.4	1091.9	-0.5	-0.04
293.15	29004.8	1090.0	1089.6	-0.3	-0.03
293.15	28000.6	1087.4	1087.3	-0.2	-0.02
293.15	27006.1	1085.1	1084.9	-0.2	-0.02
293.15	26014.0	1082.8	1082.5	-0.3	-0.03
293.15	25007.1	1080.0	1080.0	0.0	0.00
293.15	24003.9	1077.4	1077.4	0.0	0.00
293.15	23009.5	1074.8	1074.8	0.0	0.00
293.15	22000.1	1072.1	1072.2	0.1	0.01
293.15	21015.0	1069.3	1069.5	0.2	0.02
293.15	20011.7	1066.6	1066.7	0.2	0.02
293.16	19010.2	1063.7	1063.9	0.2	0.02
293.15	18002.7	1060.7	1061.0	0.2	0.02
293.15	17011.4	1057.8	1058.0	0.2	0.02
293.15	16003.3	1054.7	1055.0	0.2	0.02
293.16	15010.8	1051.6	1051.8	0.2	0.02
293.16	14003.8	1048.3	1048.6	0.3	0.03
293.15	13010.5	1045.1	1045.3	0.2	0.02
293.16	12001.5	1041.7	1041.9	0.2	0.02
293.15	11010.7	1038.2	1038.4	0.2	0.02
293.16	10012.5	1034.6	1034.8	0.2	0.02
293.15	9004.6	1030.8	1031.0	0.2	0.02
293.16	8006.1	1027.0	1027.1	0.2	0.02
293.15	7009.3	1023.0	1023.1	0.2	0.02
293.16	6005.4	1018.8	1019.0	0.2	0.02
293.15	5007.6	1014.5	1014.6	0.1	0.01
293.16	4008.9	1010.0	1010.1	0.1	0.01
293.16	3007.5	1005.4	1005.4	0.0	0.00
293.16	2004.8	1000.4	1000.5	0.0	0.00
293.16	1011.5	995.3	995.3	0.0	0.00

Tabella 6.2: Densità fluido refrigerante R1243zf a T = 293.15 K (20 °C).

T	p	ρ	ρ_{Tait}	$\Delta\rho$	$\Delta\rho\%$
[K]	[kPa]	[kg/m^3]	[kg/m^3]	[kg/m^3]	
303.15	34999.8	1085.8	1085.1	-0.6	-0.06
303.15	34005.4	1083.5	1082.9	-0.6	-0.05
303.15	33005.8	1081.1	1080.6	-0.5	-0.05
303.15	32012.3	1078.7	1078.3	-0.4	-0.04
303.15	31010.2	1076.3	1075.9	-0.4	-0.04
303.15	30011.4	1073.8	1073.5	-0.3	-0.03
303.15	29001.8	1071.3	1071.0	-0.3	-0.03
303.15	28011.2	1068.7	1068.5	-0.2	-0.02
303.15	27001.5	1066.0	1065.9	-0.2	-0.02
303.15	26014.2	1063.5	1063.3	-0.2	-0.02
303.15	25002.2	1060.7	1060.6	-0.1	-0.01
303.16	24002.4	1057.9	1057.8	-0.1	-0.01
303.16	23007.3	1055.1	1055.0	-0.1	-0.01
303.16	22000.0	1052.1	1052.1	0.0	0.00
303.16	21004.8	1049.2	1049.2	0.0	0.00
303.16	20012.0	1046.1	1046.2	0.1	0.01
303.16	19001.7	1043.0	1043.1	0.1	0.01
303.16	18007.8	1039.8	1039.9	0.1	0.01
303.16	17014.0	1036.5	1036.7	0.1	0.01
303.15	16010.9	1033.2	1033.3	0.1	0.01
303.15	15004.6	1029.7	1029.8	0.2	0.02
303.15	14012.7	1026.1	1026.3	0.2	0.02
303.16	13010.0	1022.4	1022.6	0.2	0.02
303.15	12003.6	1018.6	1018.8	0.2	0.02
303.16	11003.6	1014.7	1014.8	0.2	0.02
303.16	10007.9	1010.6	1010.8	0.2	0.02
303.16	9006.1	1006.4	1006.5	0.1	0.01
303.16	8010.1	1002.0	1002.1	0.1	0.01
303.16	7003.1	997.4	997.5	0.1	0.01
303.16	6010.0	992.7	992.8	0.1	0.01
303.16	5012.2	987.7	987.8	0.0	0.00
303.16	4005.8	982.4	982.5	0.1	0.01
303.16	3001.5	976.9	976.9	0.0	0.00
303.16	2003.5	971.0	971.0	0.0	0.00
303.16	1003.8	964.8	964.8	0.0	0.00

Tabella 6.3: Densità fluido refrigerante R1243zf a T = 303.15 K (30 °C).

T	p	ρ	ρ_{Tait}	$\Delta\rho$	$\Delta\rho\%$
[K]	[kPa]	[kg/m^3]	[kg/m^3]	[kg/m^3]	
313.15	35004.0	1068.4	1067.5	-0.9	-0.08
313.15	34004.8	1065.9	1065.1	-0.8	-0.07
313.15	33000.5	1063.4	1062.6	-0.7	-0.07
313.15	32005.1	1060.8	1060.2	-0.6	-0.06
313.15	31008.8	1058.2	1057.6	-0.6	-0.06
313.15	30010.0	1055.5	1055.0	-0.5	-0.05
313.15	29001.6	1052.8	1052.3	-0.5	-0.04
313.15	28013.0	1050.1	1049.7	-0.4	-0.04
313.15	27006.1	1047.2	1046.9	-0.3	-0.03
313.15	26014.2	1044.3	1044.0	-0.3	-0.02
313.15	25002.8	1041.3	1041.1	-0.2	-0.02
313.15	24006.7	1038.3	1038.1	-0.2	-0.02
313.15	23013.7	1035.3	1035.1	-0.2	-0.01
313.15	22007.8	1032.0	1032.0	-0.1	-0.01
313.15	21000.7	1028.8	1028.7	-0.1	-0.01
313.15	20003.8	1025.4	1025.5	0.0	0.00
313.15	19000.1	1022.0	1022.0	0.0	0.00
313.15	18007.2	1018.5	1018.6	0.1	0.01
313.15	17014.5	1014.9	1015.0	0.1	0.01
313.15	16010.8	1011.2	1011.3	0.1	0.01
313.15	15005.5	1007.3	1007.4	0.1	0.01
313.15	14008.8	1003.3	1003.5	0.1	0.01
313.15	13010.7	999.2	999.4	0.2	0.02
313.15	12009.0	994.9	995.1	0.2	0.02
313.15	11008.8	990.5	990.7	0.2	0.02
313.15	10008.7	986.0	986.0	0.1	0.01
313.15	9005.4	981.1	981.2	0.1	0.01
313.15	8007.9	976.1	976.2	0.1	0.01
313.15	7013.0	970.8	970.9	0.0	0.00
313.15	6003.2	965.3	965.3	0.0	0.00
313.15	5003.0	959.4	959.4	0.0	0.00
313.15	4014.8	953.2	953.2	-0.1	-0.01
313.15	3010.5	946.6	946.5	-0.1	-0.01
313.15	2008.5	939.4	939.3	-0.1	-0.01
313.15	1011.2	931.7	931.6	-0.1	-0.01

Tabella 6.4: Densità fluido refrigerante R1243zf a T = 313.15 K (40 °C).

T	p	ρ	ρ_{Tait}	$\Delta\rho$	$\Delta\rho\%$
[K]	[kPa]	[kg/m^3]	[kg/m^3]	[kg/m^3]	
323.15	35011.6	1050.8	1050.0	-0.7	-0.07
323.15	34008.2	1048.1	1047.4	-0.7	-0.06
323.15	33001.8	1045.4	1044.8	-0.6	-0.06
323.15	32001.5	1042.6	1042.1	-0.5	-0.05
323.15	31002.4	1039.8	1039.4	-0.5	-0.05
323.15	30000.3	1036.9	1036.6	-0.4	-0.04
323.15	29000.6	1034.1	1033.7	-0.4	-0.04
323.15	28011.1	1031.1	1030.8	-0.3	-0.03
323.15	27000.8	1028.0	1027.8	-0.2	-0.02
323.15	26002.3	1024.9	1024.7	-0.1	-0.01
323.15	25005.5	1021.7	1021.6	-0.1	-0.01
323.15	24006.2	1018.4	1018.4	0.0	0.00
323.15	23004.9	1015.0	1015.0	0.0	0.00
323.15	22010.9	1011.6	1011.6	0.1	0.01
323.15	21005.1	1008.0	1008.1	0.1	0.01
323.15	20009.6	1004.3	1004.5	0.2	0.02
323.15	19001.6	1000.6	1000.8	0.2	0.02
323.15	18006.0	996.7	996.9	0.2	0.02
323.15	17000.6	992.7	992.9	0.3	0.03
323.15	16000.9	988.6	988.8	0.3	0.03
323.15	15005.6	984.3	984.6	0.3	0.03
323.15	14007.1	979.8	980.1	0.3	0.03
323.15	13001.7	975.2	975.5	0.3	0.03
323.15	12005.3	970.4	970.7	0.3	0.04
323.15	11005.0	965.3	965.7	0.3	0.04
323.15	10006.2	960.1	960.4	0.3	0.03
323.15	9000.4	954.6	954.8	0.3	0.03
323.15	8008.5	948.7	949.0	0.3	0.03
323.15	7004.0	942.6	942.8	0.2	0.02
323.15	6011.1	936.1	936.3	0.2	0.02
323.15	5008.4	929.0	929.2	0.2	0.02
323.15	4008.3	921.6	921.6	0.1	0.01
323.15	3011.2	913.4	913.4	0.0	0.00
323.15	2004.5	904.4	904.4	0.0	0.00
323.15	1142.9	895.9	895.9	0.0	0.00

Tabella 6.5: Densità fluido refrigerante R1243zf a T = 323.15 K (50 °C).

T	p	ρ	ρ_{Tait}	$\Delta\rho$	$\Delta\rho\%$
[K]	[kPa]	[kg/m^3]	[kg/m^3]	[kg/m^3]	
333.15	35004.0	1033.2	1032.5	-0.7	-0.07
333.15	34005.4	1030.4	1029.8	-0.6	-0.06
333.15	33015.8	1027.6	1027.0	-0.6	-0.06
333.15	32005.6	1024.6	1024.1	-0.5	-0.05
333.14	31009.6	1021.6	1021.1	-0.4	-0.04
333.15	30004.9	1018.5	1018.1	-0.4	-0.04
333.15	29012.8	1015.4	1015.1	-0.3	-0.03
333.15	28012.5	1012.1	1011.9	-0.2	-0.02
333.14	27010.7	1008.8	1008.6	-0.2	-0.02
333.15	26004.3	1005.4	1005.3	-0.1	-0.01
333.15	25009.6	1002.0	1001.9	-0.1	-0.01
333.15	24001.7	998.4	998.4	0.0	0.00
333.15	23003.6	994.7	994.7	0.0	0.00
333.15	22006.1	990.9	991.0	0.1	0.01
333.14	21012.7	987.0	987.2	0.2	0.02
333.15	20006.1	983.0	983.2	0.2	0.02
333.15	19009.5	978.9	979.1	0.2	0.02
333.14	18013.9	974.7	974.9	0.3	0.03
333.14	17009.9	970.2	970.5	0.3	0.03
333.14	16000.5	965.5	965.9	0.3	0.03
333.15	15009.5	960.8	961.1	0.3	0.03
333.14	14001.6	955.8	956.1	0.4	0.04
333.15	13009.5	950.6	951.0	0.4	0.04
333.15	12008.0	945.1	945.5	0.4	0.04
333.15	11001.7	939.4	939.7	0.4	0.04
333.15	10014.1	933.4	933.7	0.3	0.04
333.15	9009.8	927.0	927.3	0.3	0.03
333.15	8012.6	920.2	920.5	0.3	0.03
333.15	7009.8	912.9	913.1	0.2	0.02
333.15	6006.5	905.1	905.2	0.1	0.01
333.15	5008.7	896.6	896.6	0.0	0.01
333.14	4003.6	887.3	887.2	-0.1	-0.01
333.14	3007.9	876.9	876.8	-0.1	-0.01
333.14	2000.1	865.0	864.9	0.0	0.00
333.14	1590.0	859.6	859.6	0.0	0.00

Tabella 6.6: Densità fluido refrigerante R1243zf a T = 333.15 K (60 °C).

T	p	ρ	ρ_{Tait}	$\Delta\rho$	$\Delta\rho\%$
[K]	[kPa]	[kg/m^3]	[kg/m^3]	[kg/m^3]	
343.15	35002.5	1015.5	1015.0	-0.6	-0.06
343.15	34009.7	1012.6	1012.0	-0.5	-0.05
343.15	33002.1	1009.5	1009.0	-0.5	-0.05
343.15	32011.3	1006.3	1005.9	-0.4	-0.04
343.15	31012.3	1003.1	1002.7	-0.4	-0.04
343.15	30001.8	999.7	999.4	-0.3	-0.03
343.15	29010.9	996.4	996.1	-0.3	-0.03
343.15	28001.3	992.9	992.7	-0.2	-0.02
343.15	27002.9	989.3	989.1	-0.1	-0.01
343.15	26003.7	985.7	985.5	-0.1	-0.01
343.15	25006.2	981.9	981.8	-0.1	-0.01
343.16	24002.2	978.0	978.0	0.0	0.00
343.15	23003.8	974.0	974.0	0.0	0.00
343.15	22007.6	969.9	970.0	0.1	0.01
343.15	21012.6	965.7	965.8	0.1	0.01
343.15	20008.5	961.3	961.4	0.1	0.01
343.15	19008.1	956.7	956.9	0.2	0.02
343.15	18000.0	951.9	952.1	0.2	0.02
343.15	17001.5	947.0	947.2	0.2	0.02
343.15	16007.2	941.9	942.1	0.3	0.03
343.15	15001.6	936.5	936.8	0.3	0.03
343.15	14004.8	930.9	931.2	0.2	0.03
343.15	13001.1	925.0	925.3	0.2	0.03
343.15	12003.1	918.8	919.1	0.2	0.03
343.15	11004.2	912.3	912.5	0.2	0.02
343.15	10005.8	905.3	905.5	0.2	0.02
343.15	9002.9	897.8	897.9	0.1	0.01
343.16	8008.1	889.8	889.9	0.1	0.01
343.15	7006.9	881.1	881.0	-0.1	-0.01
343.15	6007.9	871.6	871.4	-0.1	-0.02
343.15	5008.2	861.0	860.7	-0.3	-0.03
343.15	4000.5	848.9	848.6	-0.4	-0.05
343.15	3008.6	835.2	834.8	-0.4	-0.05
343.14	2010.5	818.5	818.4	-0.1	-0.01

Tabella 6.7: Densità fluido refrigerante R1243zf a T = 343.15 K (70 °C).

T	p	ρ	ρ_{Tait}	$\Delta\rho$	$\Delta\rho\%$
[K]	[kPa]	[kg/m^3]	[kg/m^3]	[kg/m^3]	
353.15	35008.5	997.6	997.7	0.1	0.01
353.15	34005.8	994.3	994.5	0.1	0.01
353.15	33001.8	991.1	991.2	0.1	0.01
353.15	32001.2	987.7	987.8	0.1	0.01
353.15	31011.7	984.2	984.4	0.1	0.01
353.15	30004.1	980.7	980.8	0.1	0.01
353.14	29000.7	977.0	977.1	0.2	0.02
353.14	28009.5	973.3	973.4	0.1	0.02
353.14	27000.2	969.4	969.5	0.2	0.02
353.14	26010.7	965.5	965.6	0.1	0.02
353.14	25002.7	961.4	961.5	0.1	0.01
353.15	24003.1	957.2	957.3	0.1	0.01
353.14	23009.5	952.9	953.0	0.1	0.01
353.15	22005.9	948.3	948.5	0.1	0.01
353.15	21009.7	943.7	943.8	0.1	0.01
353.14	20002.8	938.8	939.0	0.1	0.02
353.15	19010.0	933.8	934.0	0.1	0.01
353.14	18003.3	928.6	928.7	0.1	0.01
353.14	17013.5	923.2	923.3	0.1	0.01
353.15	16005.8	917.4	917.5	0.1	0.01
353.15	15012.0	911.4	911.5	0.1	0.01
353.15	14009.3	905.1	905.1	0.1	0.01
353.15	13010.0	898.4	898.4	0.0	0.00
353.15	12011.8	891.3	891.2	-0.1	-0.01
353.14	11009.5	883.7	883.6	-0.1	-0.02
353.15	10008.4	875.5	875.4	-0.2	-0.02
353.15	9007.6	866.7	866.4	-0.3	-0.03
353.15	8011.0	857.1	856.7	-0.4	-0.04
353.15	7005.8	846.4	845.9	-0.5	-0.06
353.15	6010.9	834.5	833.9	-0.6	-0.07
353.15	5014.7	820.9	820.1	-0.8	-0.09
353.15	4005.0	804.5	803.7	-0.8	-0.10
353.15	3001.5	784.3	783.7	-0.6	-0.07
353.15	2634.1	775.2	775.0	-0.2	-0.03

Tabella 6.8: Densità fluido refrigerante R1243zf a T = 353.15 K (80 °C).

Data la mancanza di dati presenti in letteratura si è pensato di regredire i 20157 valori della densità calcolati sperimentalmente con l'equazione di Tait 6.5, che verrà descritta in dettaglio nel seguente paragrafo 6.1.3, per poter risalire, quando necessario, ai valori di densità del fluido R1243zf rilevati sperimentalmente senza doverli ricalcolare.

6.1.2 Estrapolazione della densità del liquido saturo

La densità di saturazione del liquido saturo del fluido R1243zf non può essere misurata direttamente con il densimetro a tubo vibrante a causa dell'instabilità che si manifesta avvicinandosi alle condizioni di saturazione per le prime evaporazioni del liquido perciò si è in presenza di fluido bifase.
La densità di saturazione viene ottenuta mediante la regressione dei dati sperimentali, presi solamente quelli da una pressione di 3000 kPa (30 bar) superiore a quella di saturazione, mediante un polinomio di terzo grado.
Questo tipo di approssimazione, basandosi solamente sull'ultima parte di dati, relativo ad ogni campagna di misura, non dovrebbe portare ad un grosso errore finale.
I valori di densità così calcolati sono riportati in tabella 6.19 e in figura 6.1:

T	[K]	283.15	293.15	303.15	313.15	323.15	333.15	343.15	353.15
p	[kPa]	374	509	677	883	1133	1432	1787	2205
ρ_{sat}	[kg/m^3]	1020.8	992.6	962.7	930.6	895.8	857.5	814.2	763.4

Tabella 6.9: Densità di saturazione di R1243zf per le otto isoterme studiate.

Vediamo ora come ottenere la densità di saturazione, appena ricavata attraverso estrapolazione, con la seguente correlazione generale [23]:

$$\rho_{sat} = \rho_c * \left(1 + B_1\tau^{\frac{1}{3}} + B_2\tau^{\frac{2}{3}} + B_3\tau + B_4\tau^{\frac{4}{3}} \right) \quad (6.1)$$

Dove:

ρ_{sat} è la densità di saturazione appena estrapolata

ρ_c è la densità critica

B_1, B_2, B_3, B_4 sono delle costanti

τ è dato dalla seguente espressione:

$$\tau = 1 - \frac{T}{T_c} = 1 - T_r \tag{6.2}$$

Dove T_r indica la temperatura ridotta ed è data dal rapporto T/T_c.

Per le proprietà critiche del refrigerante R1243zf vengono usati i valori presenti nella seguente tabella:

T_c	p_c	ρ_c
[K]	[kPa]	[kg/m^3]
378.59	3630.6	422.58

Tabella 6.10: Proprietà critiche del fluido R1243zf.

Per calcolare i parametri B_1, B_2, B_3, B_4 presenti nell'equazione 6.1, riportati in tabella 6.11, si usa una "funzione obbiettivo" in modo da interpolare gli otto valori della densità di saturazione calcolati lungo le isoterme di misura, minimizzando il quadrato dell'errore relativo percentuale tra i valori estrapolati e calcolati con l'equazione 6.1.

$\boldsymbol{B_1}$	$\boldsymbol{B_2}$	$\boldsymbol{B_3}$	$\boldsymbol{B_4}$
1.27983	2.44894	-2.29514	1.30957

Tabella 6.11: Costanti dell'equazione 6.1.

Questa equazione consente di stimare il valore di densità del liquido saturo per le isoterme misurate con una deviazione media assoluta (AAD%) di 0.01%

$$AAD(\Delta\rho\%) = 100 * \frac{\sum_{i=1}^{N_p} \left| \frac{\rho_{Tait} - \rho_{misurata}}{\rho_{misurata}} \right|}{N_p} \tag{6.3}$$

e con una deviazione massima assoluta ($\Delta\rho\%_{max}$) tra il valore di densità estrapolato e calcolato di -0.04%

$$\Delta\rho\%_{max} = 100 * \frac{\rho_{Tait} - \rho_{misurata}}{\rho_{misurata}} \tag{6.4}$$

6.1.3 Regressione dei dati sperimentali

Tutti i valori misurati nel range di temperatura compreso tra 283.15 K e 353.15 K vengono correlati con l'equazione di Tait [25] generalizzata 6.5 che si presenta nella seguente forma:

$$\rho^{-1} = \rho_{sat}^{-1} = \left(1 - c * ln\frac{\beta + p}{\beta + p_{sat}}\right) \tag{6.5}$$

Dove:

ρ è la densità in [kg/m^3];

ρ_{sat} è il valore stimato della densità di saturazione [kg/m^3];

p è la pressione in [kPa];

p_{sat} è la pressione di saturazione in [kPa] alla temperatura di calcolo;

inoltre:

$$\beta = p_c * \left(-1 + a\tau^{\frac{1}{3}} + b\tau^{\frac{2}{3}} + d\tau + e\tau^{\frac{4}{3}}\right) \tag{6.6}$$

Il calcolo dei cinque coefficienti incogniti presenti nelle due equazioni 6.5 e 6.6 sono stati ottenuti con un programma di calcolo appositamente sviluppato in ambiente Matlab® e sono riportati nella seguente tabella 6.12.

C	***a***	***b***	***d***	***e***
0.0857	-8.211	62.820	-153.102	155.920

Tabella 6.12: Costanti dell'equazione 6.5 e 6.6.

Il programma consente di minimizzare l'equazione 6.5 rispetto all'obbiettivo imposto, che nel nostro caso risulta essere il quadrato dell'errore relativo percentuale tra i valori di densità misurata e predetta dalla formula di regressione.

I coefficienti della tabella 6.12 consentono di determinare tutti i valori di densità ρ_{Tait} che sono riportati nelle tabelle 6.1÷6.8 e poter così fare il confronto con i valori di densità ottenuti dalle misure sperimentali in modo da determinare la deviazione media assoluta (ADD%) e la deviazione massima assoluta $\Delta\rho\%_{max}$ tra il valore di densità misurato e calcolato:

T [K]	AAD($\Delta\rho$%)	$\lvert\Delta\rho\%_{max}\rvert$
283.15	0.01	0.03
293.15	0.02	0.06
303.15	0.02	0.06
313.15	0.02	0.08
323.15	0.03	0.07
333.15	0.03	0.06
343.15	0.02	0.06
353.15	0.02	0.10

Tabella 6.13: Valori della deviazione media assoluta e della deviazione massima assoluta per le otto isoterme dell'R1243zf.

L'equazione di Tait 6.5 regredita per tutti i 20157 valori consente di rappresentare la superficie tridimensionale dei valori (T,p,ρ) che viene riportata in figura 6.2.

Si nota una superficie che copre l'intero campo di misure e una segmentazione presente solo lungo i bordi dovuta dal modo di acquisizione dei dati sperimentali.

Si osserva anche che la superficie ha una marcata curvatura avvicinandosi alle condizioni critiche.

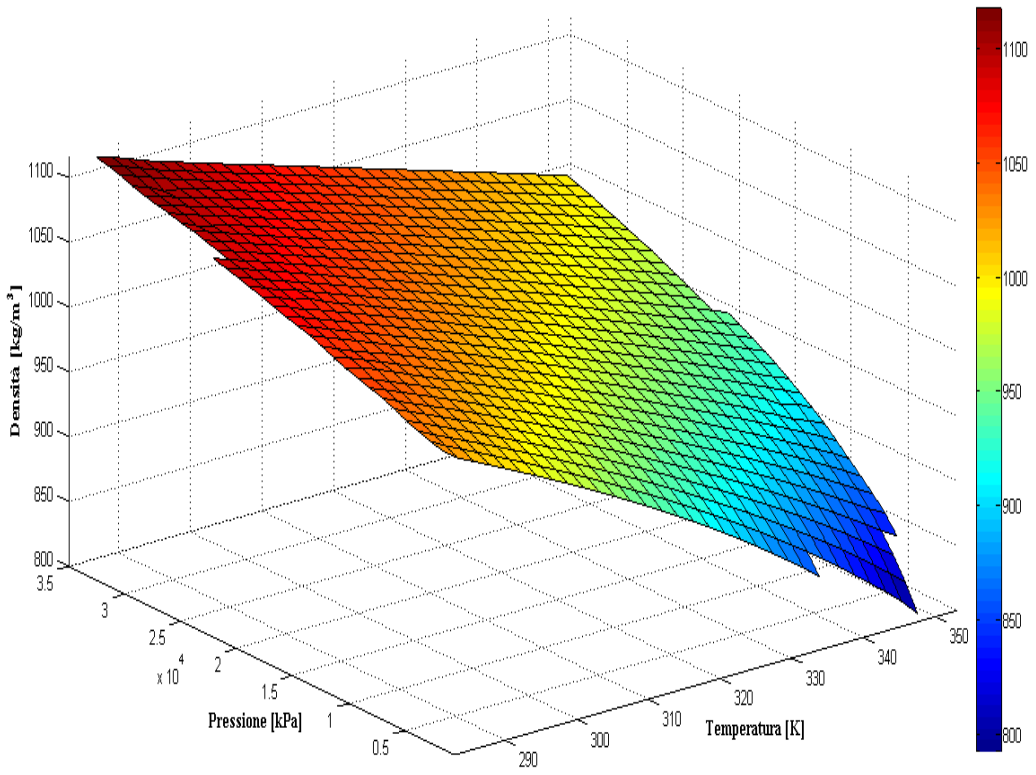

Figura 6.2: Rappresentazione tridimensionale dei valori (T,p,ρ) per R1243zf.

E' interessante osservare ora nelle Figure 6.3 ÷ 6.10 l'andamento dell'errore relativo percentuale, calcolato con l'equazione 6.4, per le varie isoterme in funzione della pressione. Si nota come la differenza tra i valori della densità calcolata con l'equazione si Tait [25] e quella rilevata sperimentalmente non dà valori solo positivi o solo negativi. Si osserva infatti che per tutte le isoterme si ha un flesso tra i 23000 kPa e i 30000 kPa dove si azzera la differenza tra i due valori di densità.

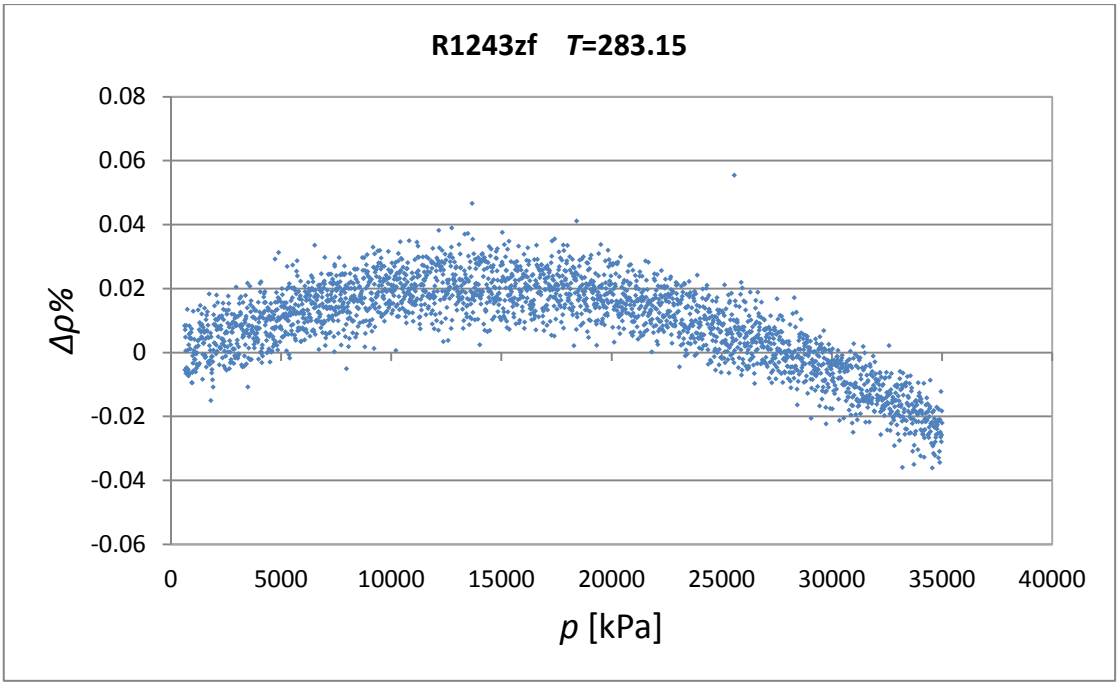

Figura 6.3: Errore relativo percentuale tra i valori di densità del fluido R1243zf misurati e quelli ricavati con l'equazione di Tait a temperatura di T = 283.15 K (10°C)

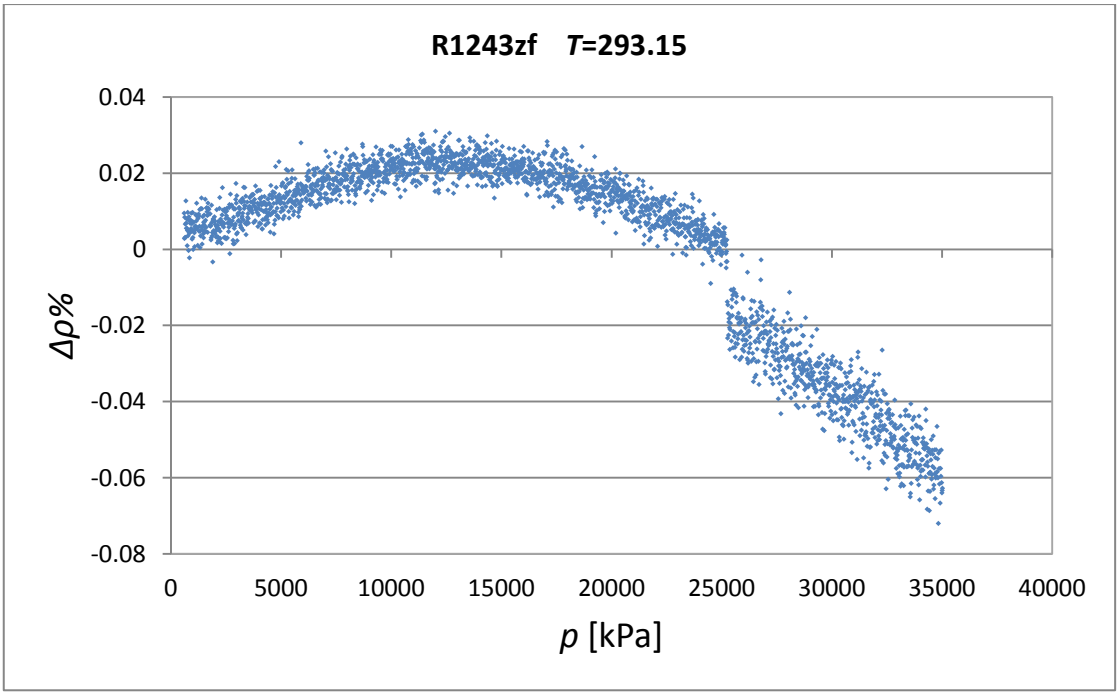

Figura 6.4: Errore relativo percentuale tra i valori di densità del fluido R1243zf misurati e quelli ricavati con l'equazione di Tait a temperatura di T = 293.15 K (20°C)

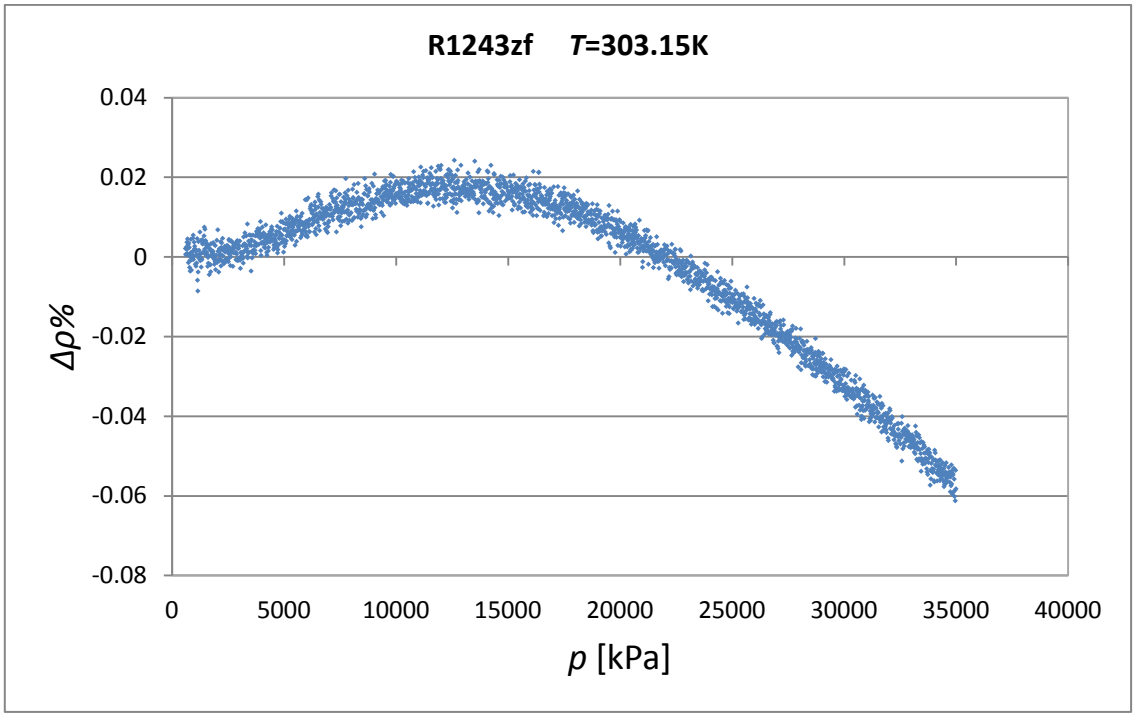

Figura 6.5: Errore relativo percentuale tra i valori di densità del fluido R1243zf misurati e quelli ricavati con l'equazione di Tait a temperatura di T = 303.15 K (30°C)

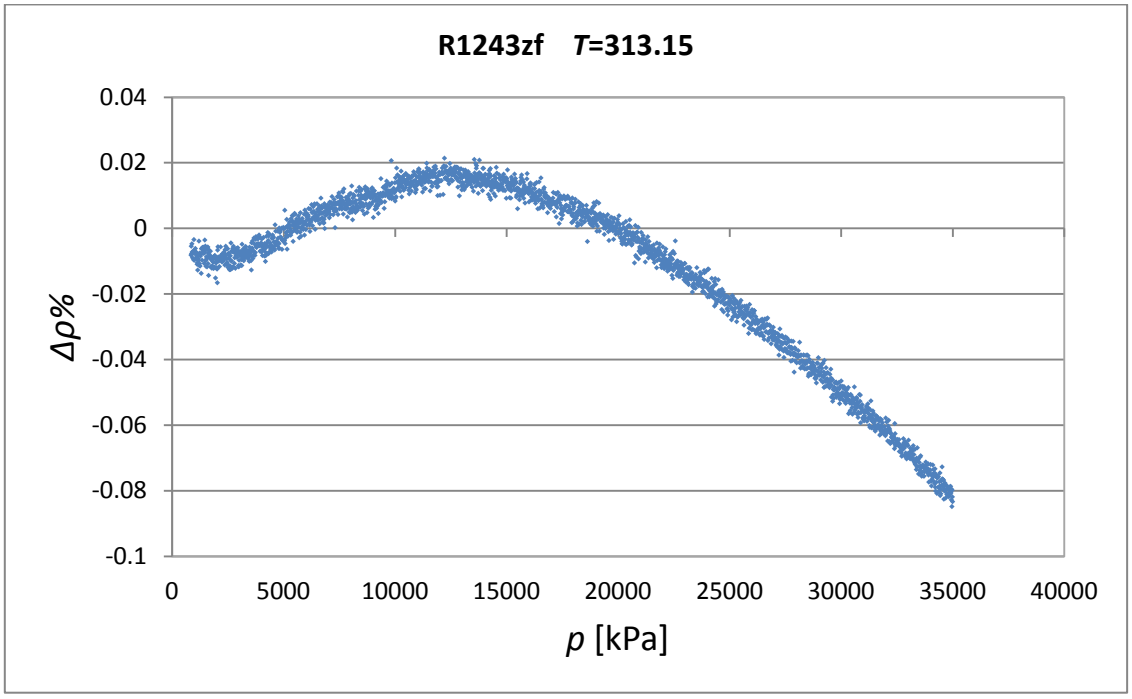

Figura 6.6: Errore relativo percentuale tra i valori di densità del fluido R1243zf misurati e quelli ricavati con l'equazione di Tait a temperatura di T = 313.15 K (40°C)

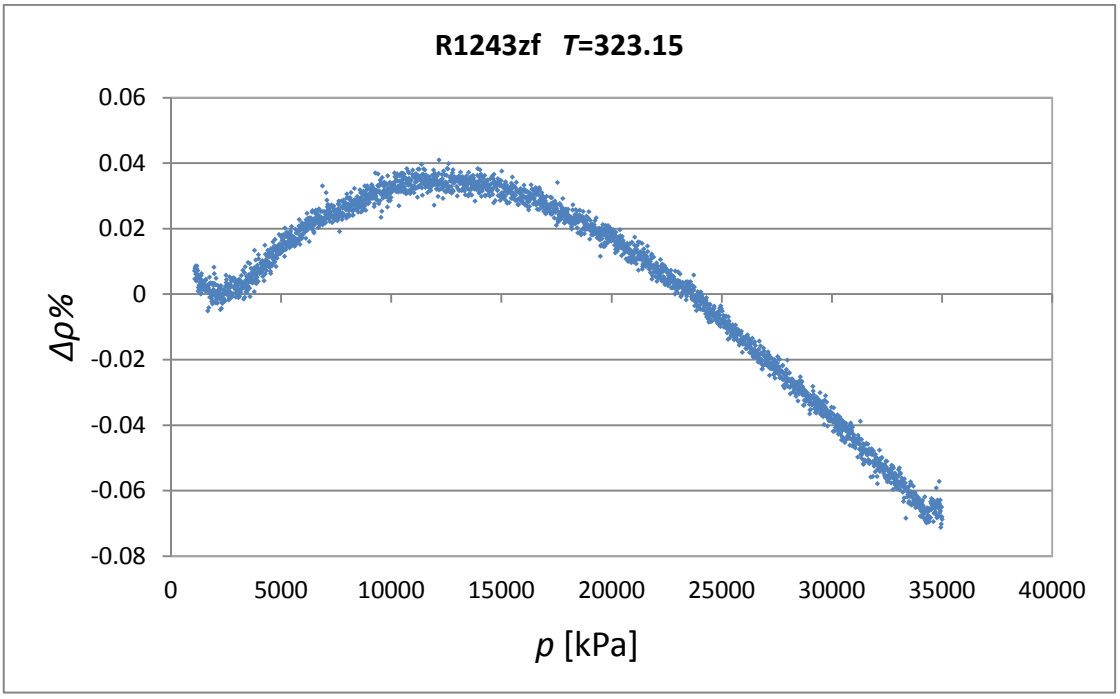

Figura 6.7: Errore relativo percentuale tra i valori di densità del fluido R1243zf misurati e quelli ricavati con l'equazione di Tait a temperatura di T = 323.15 K (50°C)

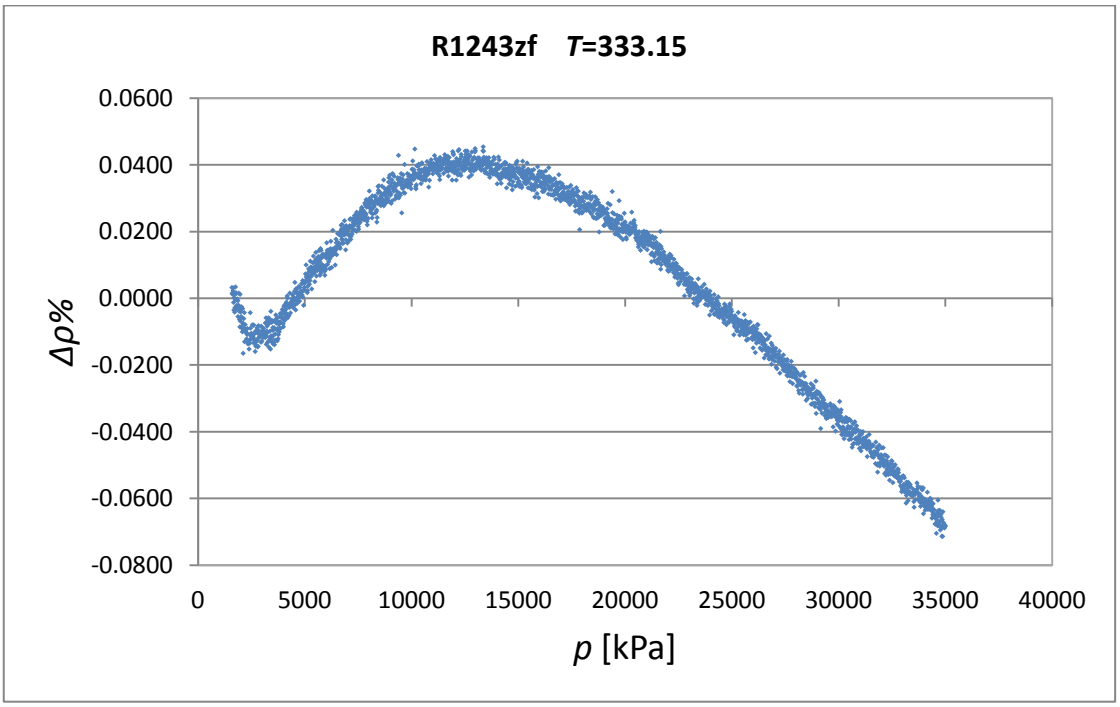

Figura 6.8: Errore relativo percentuale tra i valori di densità del fluido R1243zf misurati e quelli ricavati con l'equazione di Tait a temperatura di T = 333.15 K (60°C)

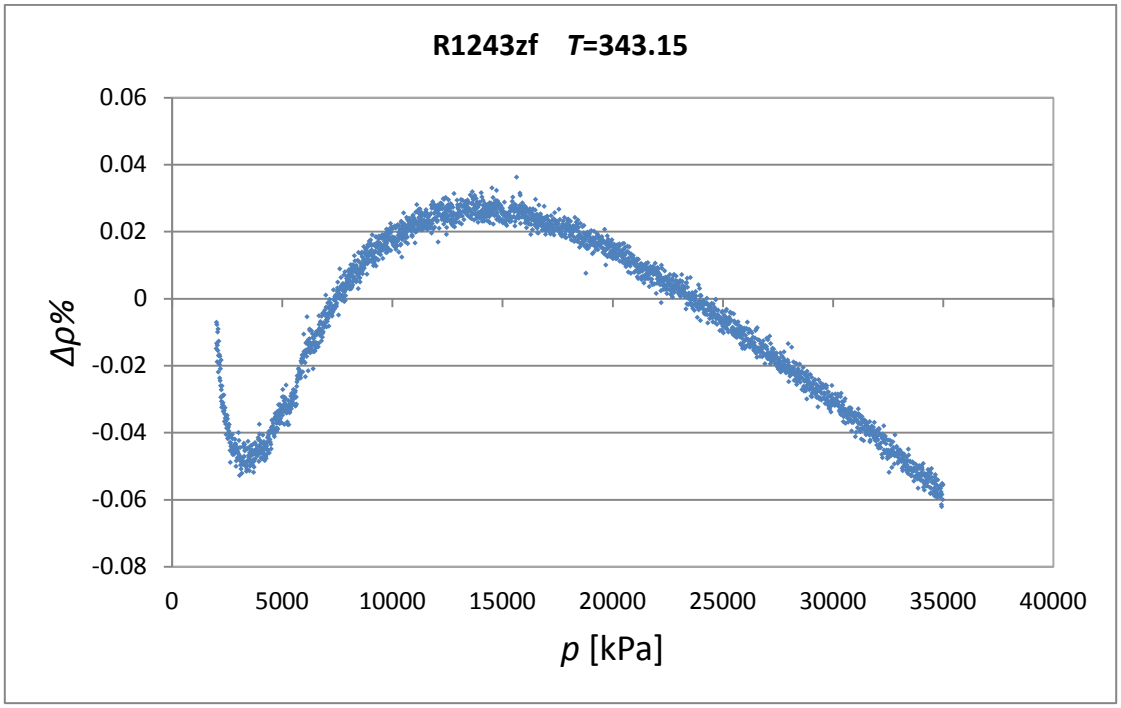

Figura 6.9: Errore relativo percentuale tra i valori di densità del fluido R1243zf misurati e quelli ricavati con l'equazione di Tait a temperatura di T = 343.15 K (70°C)

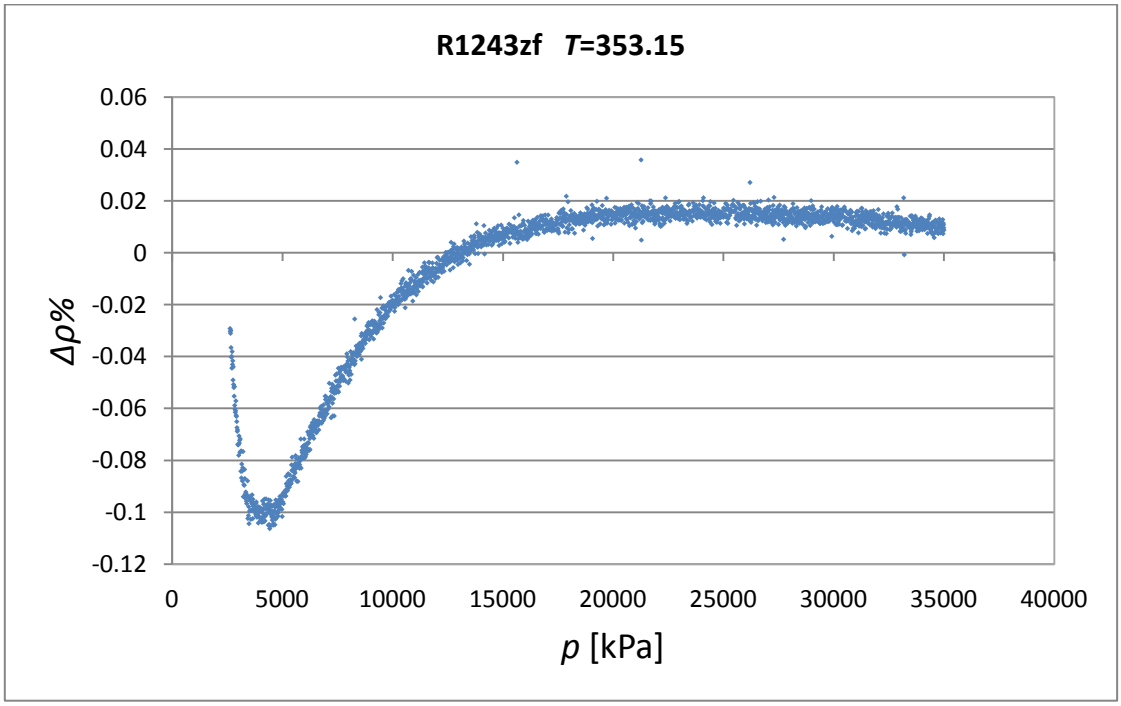

Figura 6.10: Errore relativo percentuale tra i valori di densità del fluido R1243zf misurati e quelli ricavati con l'equazione di Tait a temperatura di T = 353.15 K (80°C)

Andando a rappresentare in figura 6.11 la deviazione percentuale tra i valori di densità misurata e i valori predetti dall'equazione 6.5 per tutte e otto le isoterme del fluido R1243zf si può notare che alle alte temperature i valori calcolati dall'equazione 6.5 si discostano maggiormente da quelli determinati sperimentalmente.

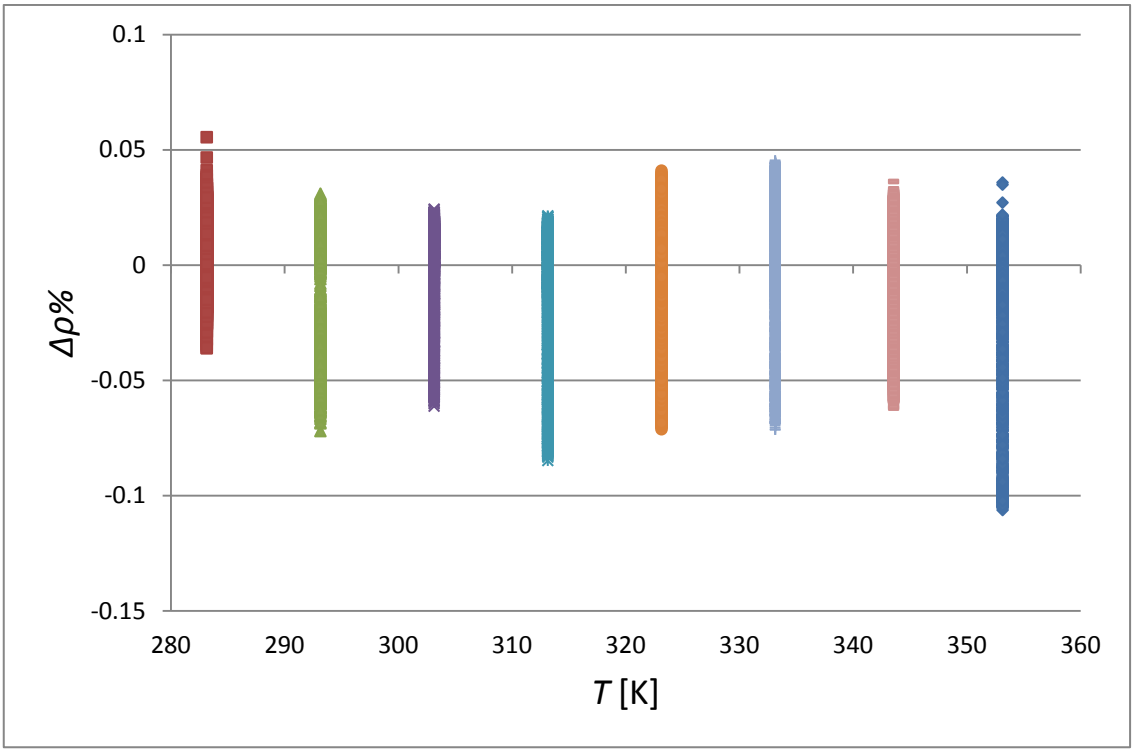

Figura 6.11: Deviazioni percentuali per le otto isoterme del fluido R1243zf.

L'isoterma T = 353.15 K è quella che presenta una deviazione percentuale un po' più elevata rispetto alle altre isoterme perchè si è vicini alle condizioni critiche del fluido R1243zf la cui temperatura ridotta a questa isoterma è T_r = 0.93.

Il valore della deviazione è comunque molto basso, inferiore allo 0.12%, appunto perché il confronto non viene fatto con dei dati presenti in letteratura ma con la regressione, secondo la formula di Tait, eseguita sui dati stessi.

6.2 Fluido refrigerante R32

6.2.1 Densità del fluido allo stato liquido compresso

Queste misure servono sia per controllare la correttezza della procedura usata, per determinare i valori sperimentali di densità del fluido R1243zf, in modo da valutare l'eventuale presenza di errori, sia per ampliare e verificare i pochi dati presenti in letterature sul fluido R32 che, come già detto nel secondo capitolo, è stato proposto come fluido alternativo alla miscela R410A negli impianti di climatizzazione residenziali.

Per l'R32 sono presenti in letteratura dei dati, risalenti al 1991, che permettono di eseguire un confronto con i dati sperimentali. Il modello matematico di questo fluido si riferisce all'equazione di stato di Tillner-Roth, R. and Yokozeki, A. [26], sviluppata nel software Refprop 9.0 [27].

Le misure sono state eseguite ad intervalli di 10 K per otto isoterme da 283.15 K a 353.15 K, (la misura a 353.15 K è stata fatta in condizioni trans critiche), in modo da coprire tutto il campo di temperature. Per ogni isoterma si fa variare la pressione in modo continuo partendo da 35000 kPa e scendendo in modo continuo fino a circa 300 kPa sopra la pressione di saturazione.

L'apparato di misura consente di calcolare la densità del fluido R32 con una deviazione media assoluta (AAD%) di 0.07% usando la seguente formula:

$$AAD(\Delta\rho\%) = 100 * \frac{\sum_{i=1}^{N_p} \left| \frac{\rho_{Refprop} - \rho_{misurata}}{\rho_{misurata}} \right|}{N_p} \qquad (6.7)$$

e una deviazione massima assoluta $\Delta\rho\%_{max}$ di 0.12% calcolato tra il valore di densità misurato e calcolato, usando la seguente formula:

$$\Delta\rho\%_{max} = 100 * \frac{\rho_{Refprop} - \rho_{misurata}}{\rho_{misurata}} \qquad (6.8)$$

Il calcolo della deviazione media assoluta e della deviazione massima assoluta, per le otto isoterme, che vengono calcolate usando le equazioni 6.7 e 6.8, sono riportate in tabella 6.14.

T[K]	AAD(Δρ%)	$(\Delta\rho\%_{max})$
283.15	0.06	0.10
293.15	0.04	0.09
303.15	0.03	0.07
313.15	0.03	0.06
323.15	0.04	0.07
333.15	0.03	0.06
343.15	0.06	0.09
345.15	0.07	-0.12

Tabella 6.14: Valori della deviazione media assoluta e della deviazione massima assoluta per le otto isoterme del fluido R32.

I dati ottenuti dalle prove sperimentali confermano la bontà del processo di misura se confrontati con i dati dell'equazione di stato presente in Refprop 9.0. Quest'ultima è stata sviluppata da dati storici che hanno una deviazione dichiarata pari a ±0.05% [27].

Tenendo poi conto dell'errore presente nelle misure si ottiene una deviazione massima assoluta dell'ordine di 0.16%, valore superiore alla deviazione dei dati ricavati sperimentalmente.

I 19193 dati ottenuti sono riportati in appendice D mentre di seguito se ne riporta solo una parte, ad intervalli di 1000 kPa, nelle le tabelle 6.15 ÷ 6.22.

Si osserva che quasi sempre i valori presenti nel database di Refprop 9.0 sono superiori ai dati trovati sperimentalmente tranne qualche valore nelle isoterme a 333.15 K e 353.15 K. In queste isoterme si nota inoltre una variazione della deviazione assoluta nell'avvicinarsi alle condizioni di saturazione.

Anche se queste deviazioni potrebbero ritenersi sistematiche i dati misurati, a parte qualche valore della prima, seconda e ottava isoterma a T = 283.15 K, T = 293.15 K e T = 353.15 K rientrano tutte nell'incertezza di 0.8 kg/m^3 con cui l'impianto riesce a determinare i valori della densità.

T	p	ρ	$\rho_{Refprop}$	$\Delta\rho$	$\Delta\rho\%$
[K]	[kPa]	[kg/m^3]	[kg/m^3]	[kg/m^3]	
283.15	35001.0	1120.6	1121.4	0.8	0.07
283.14	34004.3	1118.2	1119.3	1.1	0.10
283.14	33009.0	1116.2	1117.1	1.0	0.09
283.14	32002.8	1114.0	1114.9	0.9	0.08
283.14	31007.3	1111.8	1112.7	0.9	0.08
283.15	30005.2	1109.6	1110.4	0.8	0.07
283.15	29000.8	1107.3	1108.1	0.8	0.07
283.15	28002.0	1105.0	1105.7	0.8	0.07
283.15	27004.7	1102.5	1103.4	0.9	0.08
283.15	26002.2	1100.2	1100.9	0.7	0.06
283.15	25007.8	1097.8	1098.5	0.7	0.06
283.15	24004.5	1095.1	1096.0	0.8	0.08
283.15	23007.5	1092.7	1093.4	0.7	0.07
283.14	22008.3	1090.1	1090.8	0.7	0.06
283.15	21011.6	1087.6	1088.2	0.6	0.06
283.15	20012.9	1084.7	1085.5	0.8	0.08
283.15	19003.6	1082.2	1082.7	0.5	0.05
283.15	18004.2	1079.3	1079.9	0.6	0.06
283.15	17011.0	1076.5	1077.1	0.6	0.05
283.15	16003.3	1073.6	1074.1	0.5	0.05
283.14	15006.8	1070.7	1071.1	0.4	0.04
283.15	14001.3	1067.5	1068.0	0.6	0.05
283.14	13002.1	1064.5	1064.9	0.4	0.04
283.14	12009.7	1061.2	1061.7	0.5	0.05
283.15	11005.8	1057.9	1058.4	0.4	0.04
283.15	10001.8	1054.6	1055.0	0.4	0.03
283.14	9010.3	1051.1	1051.5	0.4	0.04
283.14	8001.9	1047.6	1047.9	0.3	0.03
283.15	7000.9	1043.8	1044.2	0.4	0.04
283.15	6004.2	1040.0	1040.4	0.4	0.04
283.15	5003.2	1036.1	1036.5	0.4	0.04
283.15	4009.8	1032.1	1032.4	0.3	0.03
283.15	3000.5	1027.9	1028.1	0.2	0.02
283.15	2010.5	1023.6	1023.8	0.2	0.02
283.15	1799.1	1022.7	1022.8	0.1	0.01

Tabella 6.15: Densità fluido refrigerante R32 a T = 283.15 K (10 °C)

T	p	ρ	$\rho_{Refprop}$	$\Delta\rho$	$\Delta\rho$%
[K]	[kPa]	[kg/m^3]	[kg/m^3]	[kg/m^3]	
293.15	35005.6	1096.3	1097.1	0.9	0.08
293.15	34009.4	1094.1	1094.8	0.7	0.06
293.15	33007.0	1091.7	1092.4	0.7	0.07
293.15	32001.7	1089.3	1090.0	0.7	0.07
293.15	31010.6	1086.8	1087.6	0.7	0.07
293.15	30002.5	1084.3	1085.0	0.7	0.07
293.15	29009.3	1081.8	1082.5	0.7	0.07
293.15	28004.2	1079.2	1079.9	0.7	0.06
293.15	27002.4	1076.8	1077.3	0.5	0.05
293.15	26001.8	1073.9	1074.6	0.6	0.06
293.15	25000.0	1071.4	1071.8	0.4	0.04
293.15	24009.9	1068.5	1069.1	0.6	0.06
293.15	23005.5	1065.6	1066.2	0.6	0.05
293.15	22001.2	1062.8	1063.3	0.5	0.05
293.15	21005.4	1059.9	1060.3	0.5	0.04
293.15	20010.9	1056.8	1057.3	0.5	0.05
293.15	19010.5	1053.8	1054.2	0.4	0.03
293.15	18005.1	1050.5	1051.0	0.5	0.05
293.15	17004.3	1047.4	1047.7	0.3	0.03
293.15	16008.6	1044.0	1044.4	0.4	0.04
293.15	15005.2	1040.6	1040.9	0.4	0.04
293.15	14009.4	1037.1	1037.4	0.3	0.03
293.15	13008.3	1033.7	1033.8	0.1	0.01
293.15	12004.4	1029.8	1030.1	0.2	0.02
293.15	11004.3	1025.9	1026.2	0.4	0.03
293.15	10004.0	1021.9	1022.2	0.3	0.03
293.15	9004.6	1017.8	1018.1	0.3	0.03
293.15	8001.1	1013.6	1013.9	0.3	0.03
293.15	7008.3	1009.3	1009.5	0.2	0.02
293.15	6010.5	1004.7	1004.9	0.3	0.03
293.15	5005.1	999.9	1000.1	0.2	0.02
293.14	4005.8	994.9	995.2	0.2	0.02
293.15	3010.8	989.8	990.0	0.2	0.02
293.14	2003.1	984.2	984.4	0.2	0.02
293.15	1921.9	983.7	984.0	0.3	0.03

Tabella 6.16: Densità fluido refrigerante R32 a T = 293.15 K (20 °C)

T	p	ρ	$\rho_{Refprop}$	$\Delta\rho$	$\Delta\rho\%$
[K]	[kPa]	[kg/m^3]	[kg/m^3]	[kg/m^3]	
303.15	35008.3	1072.0	1072.6	0.6	0.06
303.15	34002.3	1069.4	1070.0	0.5	0.05
303.15	33008.6	1066.7	1067.4	0.6	0.06
303.16	32002.6	1064.2	1064.7	0.5	0.04
303.16	31011.6	1061.5	1062.0	0.5	0.05
303.16	30007.0	1058.7	1059.2	0.5	0.05
303.16	29005.6	1055.9	1056.4	0.5	0.05
303.15	28011.2	1053.1	1053.6	0.5	0.05
303.15	27009.4	1050.1	1050.6	0.5	0.05
303.15	26000.3	1047.1	1047.6	0.5	0.05
303.15	25011.8	1044.1	1044.6	0.4	0.04
303.15	24001.3	1041.0	1041.4	0.4	0.03
303.15	23001.6	1037.8	1038.2	0.4	0.03
303.16	22002.1	1034.6	1034.9	0.3	0.03
303.15	21007.5	1031.3	1031.6	0.3	0.03
303.16	20010.9	1027.8	1028.1	0.3	0.03
303.16	19001.6	1024.3	1024.6	0.2	0.02
303.16	18004.8	1020.7	1021.0	0.2	0.02
303.15	17011.6	1017.0	1017.3	0.3	0.03
303.15	16004.5	1013.2	1013.4	0.2	0.02
303.15	15011.5	1009.3	1009.5	0.2	0.02
303.15	14007.7	1005.1	1005.4	0.2	0.02
303.15	13001.3	1000.9	1001.1	0.2	0.02
303.15	12006.6	996.6	996.7	0.2	0.02
303.15	11008.9	992.1	992.2	0.2	0.02
303.15	10007.4	987.3	987.5	0.2	0.02
303.15	9010.4	982.4	982.6	0.2	0.02
303.15	8008.5	977.3	977.5	0.2	0.02
303.15	7007.1	971.9	972.1	0.2	0.02
303.15	6011.4	966.3	966.5	0.2	0.02
303.15	5011.3	960.3	960.5	0.2	0.02
303.15	4008.1	954.0	954.2	0.2	0.02
303.15	3012.4	947.3	947.5	0.2	0.02
303.15	2002.2	940.0	940.2	0.2	0.02
303.15	1936.5	939.5	939.7	0.2	0.02

Tabella 6.17: Densità fluido refrigerante R32 a T = 303.15 K (30 °C)

T	p	ρ	$\rho_{Refprop}$	$\Delta\rho$	$\Delta\rho$%
[K]	[kPa]	[kg/m^3]	[kg/m^3]	[kg/m^3]	
313.15	35007.6	1047.0	1047.6	0.6	0.05
313.15	34003.5	1044.3	1044.8	0.5	0.05
313.15	33001.3	1041.4	1041.9	0.5	0.05
313.15	32000.0	1038.4	1038.9	0.5	0.05
313.15	31008.3	1035.5	1036.0	0.5	0.04
313.15	30005.0	1032.4	1032.9	0.5	0.05
313.15	29003.0	1029.3	1029.8	0.5	0.05
313.15	28000.6	1026.1	1026.6	0.5	0.05
313.15	27001.9	1022.9	1023.3	0.4	0.04
313.15	26007.5	1019.5	1020.0	0.5	0.05
313.15	25007.1	1016.1	1016.5	0.4	0.04
313.15	24010.8	1012.7	1013.0	0.4	0.04
313.15	23006.2	1009.1	1009.4	0.3	0.03
313.15	22004.4	1005.3	1005.7	0.4	0.04
313.15	21003.5	1001.6	1001.9	0.3	0.03
313.15	20011.2	997.7	998.0	0.3	0.03
313.15	19002.9	993.6	993.9	0.3	0.03
313.15	18002.5	989.5	989.7	0.2	0.03
313.15	17011.2	985.2	985.5	0.3	0.03
313.15	16005.9	980.7	981.0	0.2	0.03
313.15	15010.1	976.2	976.4	0.2	0.02
313.15	14009.3	971.4	971.6	0.2	0.02
313.15	13007.8	966.4	966.6	0.2	0.02
313.15	12003.9	961.2	961.4	0.2	0.02
313.15	11000.9	955.7	955.9	0.2	0.02
313.15	10000.1	950.0	950.2	0.2	0.02
313.15	9011.4	944.0	944.2	0.2	0.02
313.15	8009.3	937.6	937.8	0.2	0.02
313.15	7009.2	930.9	931.1	0.2	0.02
313.15	6009.0	923.7	923.9	0.2	0.02
313.15	5000.0	915.8	916.0	0.3	0.03
313.15	4001.5	907.3	907.6	0.3	0.03
313.15	3002.1	898.0	898.3	0.3	0.04
313.15	2481.7	892.7	893.1	0.4	0.04
313.15	35007.6	1047.0	1047.6	0.6	0.05

Tabella 6.18: Densità fluido refrigerante R32 a T = 313.15 K (40 °C)

T	p	ρ	$\rho_{Refprop}$	$\Delta\rho$	$\Delta\rho$%
[K]	[kPa]	[kg/m^3]	[kg/m^3]	[kg/m^3]	
323.15	35000.9	1021.6	1022.3	0.6	0.06
323.15	34002.8	1018.5	1019.2	0.6	0.06
323.15	33004.0	1015.4	1016.0	0.6	0.06
323.15	32008.2	1012.2	1012.8	0.5	0.05
323.15	31005.3	1008.8	1009.4	0.6	0.06
323.15	30006.6	1005.5	1006.0	0.6	0.05
323.15	29001.0	1002.0	1002.5	0.5	0.05
323.15	28008.5	998.5	999.0	0.5	0.05
323.15	27008.8	994.9	995.3	0.5	0.05
323.15	26002.7	991.1	991.6	0.5	0.05
323.15	25008.5	987.3	987.7	0.4	0.04
323.15	24005.7	983.3	983.8	0.4	0.04
323.15	23000.7	979.2	979.6	0.4	0.04
323.15	22005.2	975.1	975.5	0.4	0.04
323.15	21009.4	970.7	971.1	0.4	0.04
323.14	20009.1	966.3	966.6	0.3	0.03
323.15	19011.0	961.6	962.0	0.3	0.04
323.14	18003.7	956.8	957.1	0.3	0.03
323.15	17007.3	951.8	952.1	0.3	0.03
323.15	16004.7	946.6	946.9	0.3	0.03
323.15	15007.3	941.1	941.4	0.3	0.03
323.14	14005.8	935.4	935.7	0.3	0.03
323.14	13003.6	929.4	929.7	0.2	0.03
323.14	12002.0	923.1	923.4	0.3	0.03
323.14	11000.9	916.4	916.7	0.2	0.03
323.14	10005.5	909.3	909.6	0.3	0.03
323.14	9002.3	901.7	902.0	0.2	0.03
323.14	8006.4	893.6	893.8	0.3	0.03
323.14	7002.3	884.6	884.9	0.3	0.04
323.15	6003.0	874.7	875.1	0.4	0.04
323.15	5000.5	863.7	864.1	0.4	0.04
323.15	4005.4	851.4	851.7	0.4	0.04
323.15	3456.1	843.6	844.1	0.4	0.05
323.15	35000.9	1021.6	1022.3	0.6	0.06
323.15	34002.8	1018.5	1019.2	0.6	0.06

Tabella 6.19: Densità fluido refrigerante R32 a T = 323.15 K (50 °C)

T	p	ρ	$\rho_{Refprop}$	$\Delta\rho$	$\Delta\rho\%$
[K]	[kPa]	[kg/m^3]	[kg/m^3]	[kg/m^3]	
333.15	35002.8	995.9	996.5	0.6	0.06
333.15	34007.0	992.6	993.1	0.5	0.05
333.15	33001.2	989.1	989.6	0.6	0.06
333.15	32007.8	985.6	986.0	0.5	0.05
333.15	31010.7	981.9	982.4	0.5	0.05
333.15	30000.2	978.1	978.6	0.5	0.05
333.14	29000.8	974.2	974.7	0.5	0.05
333.15	28010.0	970.3	970.7	0.5	0.05
333.14	27009.2	966.2	966.6	0.4	0.05
333.15	26002.8	961.9	962.4	0.4	0.05
333.15	25010.0	957.7	958.1	0.4	0.04
333.15	24003.7	953.2	953.5	0.3	0.04
333.15	23009.7	948.6	948.9	0.3	0.04
333.15	22008.5	943.8	944.1	0.3	0.03
333.15	21003.8	938.8	939.1	0.3	0.03
333.15	20004.3	933.6	933.9	0.3	0.03
333.15	19008.5	928.2	928.5	0.2	0.02
333.15	18003.2	922.6	922.8	0.2	0.02
333.15	17000.3	916.7	916.8	0.2	0.02
333.15	16008.1	910.5	910.7	0.2	0.02
333.15	15006.6	904.0	904.1	0.1	0.02
333.15	14008.9	897.1	897.2	0.1	0.01
333.15	13011.3	889.9	889.9	0.0	0.00
333.15	12001.4	882.0	882.0	0.0	0.00
333.15	11002.5	873.5	873.5	0.0	0.00
333.15	10008.8	864.4	864.4	0.1	0.01
333.15	9003.0	854.3	854.3	0.0	0.00
333.15	8002.3	843.2	843.2	0.0	0.00
333.15	7003.1	830.6	830.6	0.0	0.00
333.14	6005.7	816.1	816.1	0.0	0.00
333.14	5009.7	798.6	798.5	-0.1	-0.01
333.14	4583.2	789.8	789.6	-0.2	-0.03
333.15	35002.8	995.9	996.5	0.6	0.06
333.15	34007.0	992.6	993.1	0.5	0.05
333.15	33001.2	989.1	989.6	0.6	0.06

Tabella 6.20: Densità fluido refrigerante R32 a T = 333.15 K (60 °C)

T	p	ρ	$\rho_{Refprop}$	$\Delta\rho$	$\Delta\rho$%
[K]	[kPa]	[kg/m^3]	[kg/m^3]	[kg/m^3]	
343.15	35000.5	969.6	970.4	0.8	0.08
343.15	34003.0	965.9	966.7	0.7	0.08
343.14	33006.5	962.1	962.8	0.8	0.08
343.14	32002.0	958.1	958.8	0.7	0.08
343.14	31004.4	954.0	954.7	0.7	0.08
343.15	30003.0	949.8	950.5	0.7	0.07
343.15	29005.6	945.5	946.2	0.7	0.07
343.15	28004.2	941.1	941.7	0.7	0.07
343.15	27009.7	936.5	937.1	0.6	0.07
343.15	26003.2	931.7	932.3	0.6	0.06
343.14	25010.8	926.8	927.4	0.6	0.07
343.15	24010.7	921.7	922.3	0.5	0.06
343.15	23003.8	916.4	916.9	0.5	0.05
343.15	22012.4	910.9	911.4	0.5	0.06
343.15	21009.6	905.1	905.7	0.5	0.06
343.15	20009.3	899.1	899.6	0.5	0.06
343.14	19003.7	892.7	893.2	0.5	0.06
343.15	18008.2	886.1	886.6	0.4	0.05
343.15	17003.7	879.1	879.5	0.4	0.05
343.14	16009.9	871.6	872.1	0.4	0.05
343.14	15004.3	863.6	864.0	0.4	0.05
343.15	14001.7	855.0	855.4	0.4	0.05
343.14	13004.5	845.8	846.2	0.4	0.05
343.14	12009.4	835.9	836.2	0.4	0.05
343.15	11001.2	824.4	825.0	0.6	0.07
343.16	10009.4	812.4	812.7	0.3	0.04
343.15	9004.9	798.2	798.6	0.4	0.05
343.15	8006.4	781.6	782.0	0.4	0.05
343.15	7001.5	761.2	761.6	0.3	0.04
343.15	6006.8	734.5	734.7	0.2	0.02
343.17	5355.4	708.7	709.2	0.4	0.06
343.15	35000.5	969.6	970.4	0.8	0.08
343.15	34003.0	965.9	966.7	0.7	0.08
343.14	33006.5	962.1	962.8	0.8	0.08
343.14	32002.0	958.1	958.8	0.7	0.08

Tabella 6.21: Densità fluido refrigerante R32 a T = 343.15 K (70 °C)

T	p	ρ	$\rho_{Refprop}$	$\Delta\rho$	$\Delta\rho\%$
[K]	[kPa]	[kg/m^3]	[kg/m^3]	[kg/m^3]	
353.15	35000.0	943.0	943.9	0.9	0.09
353.15	34004.5	938.9	939.8	0.8	0.09
353.15	33002.6	934.7	935.5	0.8	0.09
353.15	32007.6	930.3	931.1	0.8	0.09
353.15	31001.0	925.7	926.5	0.8	0.09
353.15	30008.5	921.0	921.9	0.8	0.09
353.15	29006.3	916.2	917.0	0.8	0.09
353.15	28003.0	911.2	912.0	0.8	0.08
353.15	27007.8	906.0	906.8	0.7	0.08
353.15	26010.3	900.7	901.4	0.7	0.08
353.15	25009.6	895.1	895.8	0.7	0.08
353.15	24006.2	889.2	889.9	0.7	0.08
353.15	23009.6	883.2	883.8	0.6	0.07
353.15	22009.2	876.7	877.4	0.7	0.08
353.14	21001.3	869.9	870.6	0.7	0.08
353.14	20009.1	862.9	863.6	0.6	0.07
353.15	19003.2	855.4	856.0	0.6	0.07
353.15	18008.8	847.5	848.0	0.6	0.07
353.15	17010.9	838.9	839.5	0.6	0.07
353.15	16011.2	829.8	830.4	0.6	0.07
353.15	15007.6	819.9	820.4	0.6	0.07
353.15	14000.6	809.0	809.5	0.6	0.07
353.15	13002.6	797.1	797.6	0.5	0.07
353.14	12004.8	783.7	784.3	0.6	0.07
353.14	11013.4	768.5	769.1	0.6	0.08
353.14	10001.9	750.4	751.0	0.5	0.07
353.14	9003.8	728.5	729.0	0.5	0.07
353.14	8009.0	699.8	700.2	0.4	0.06
353.15	7005.5	655.3	655.3	0.0	-0.01
353.17	6658.7	630.6	629.8	-0.7	-0.12

Tabella 6.22: Densità fluido refrigerante R32 a T = 353.15 K (80 °C)

E' interessante osservare ora nelle Figure 6.12 ÷ 6.19 l'andamento dell'errore relativo percentuale, calcolato con l'equazione 6.8, per le varie isoterme in funzione della pressione.

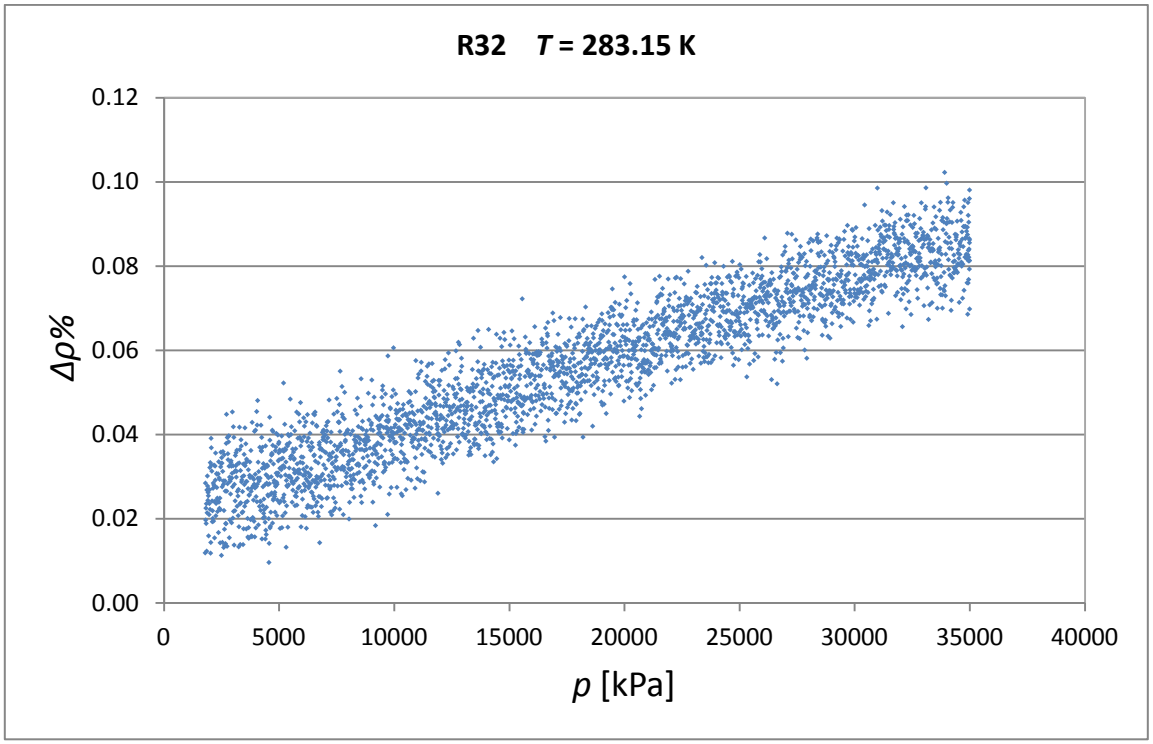

Figura 6.12: Errore relativo percentuale tra i valori di densità del fluido R32 misurati e quelli presenti nel database di Refprop 9.0 a temperatura di T = 283.15 K (10 °C)

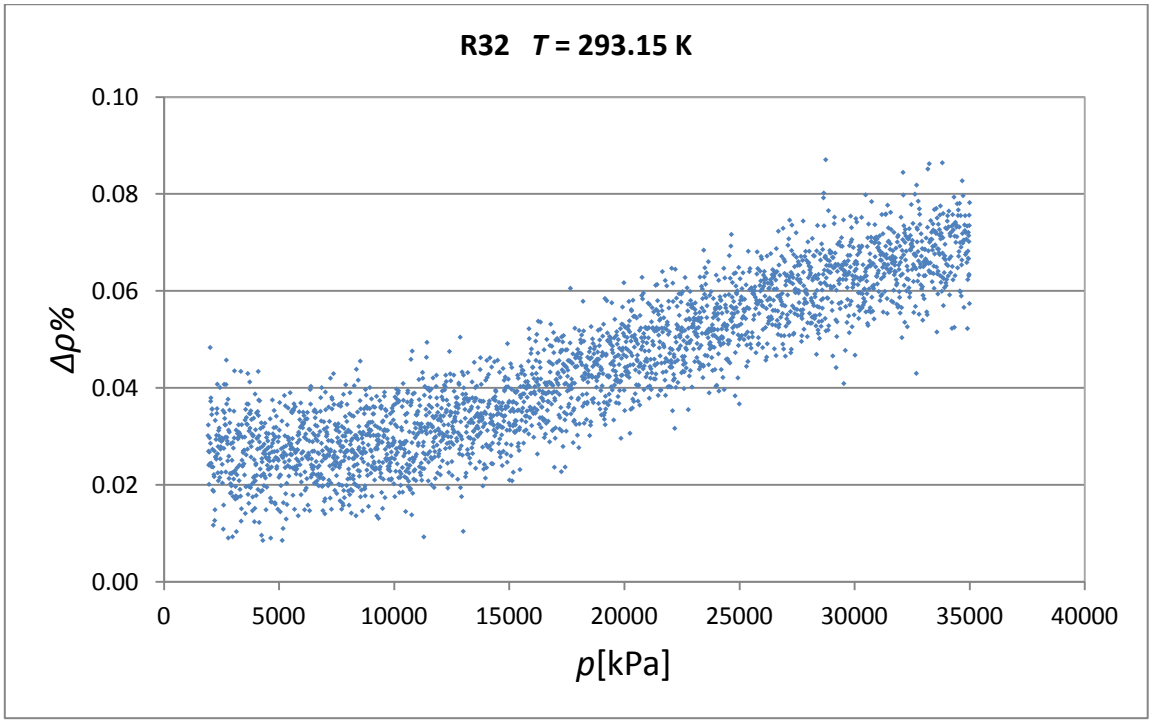

Figura 6.13: Errore relativo percentuale tra i valori di densità del fluido R32 misurati e quelli presenti nel database di Refprop 9.0 a temperatura di T = 293.15 K (20 °C)

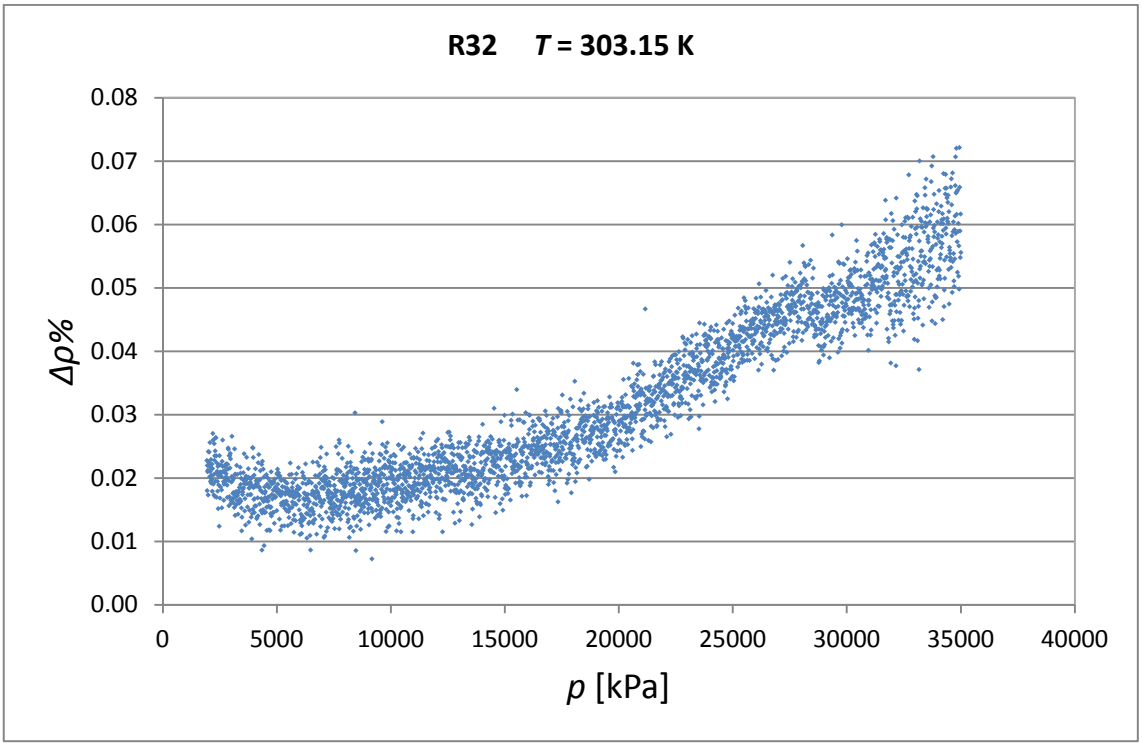

Figura 6.14: Errore relativo percentuale tra i valori di densità del fluido R32 misurati e quelli presenti nel database di Refprop 9.0 a temperatura di T = 303.15 K (30 °C)

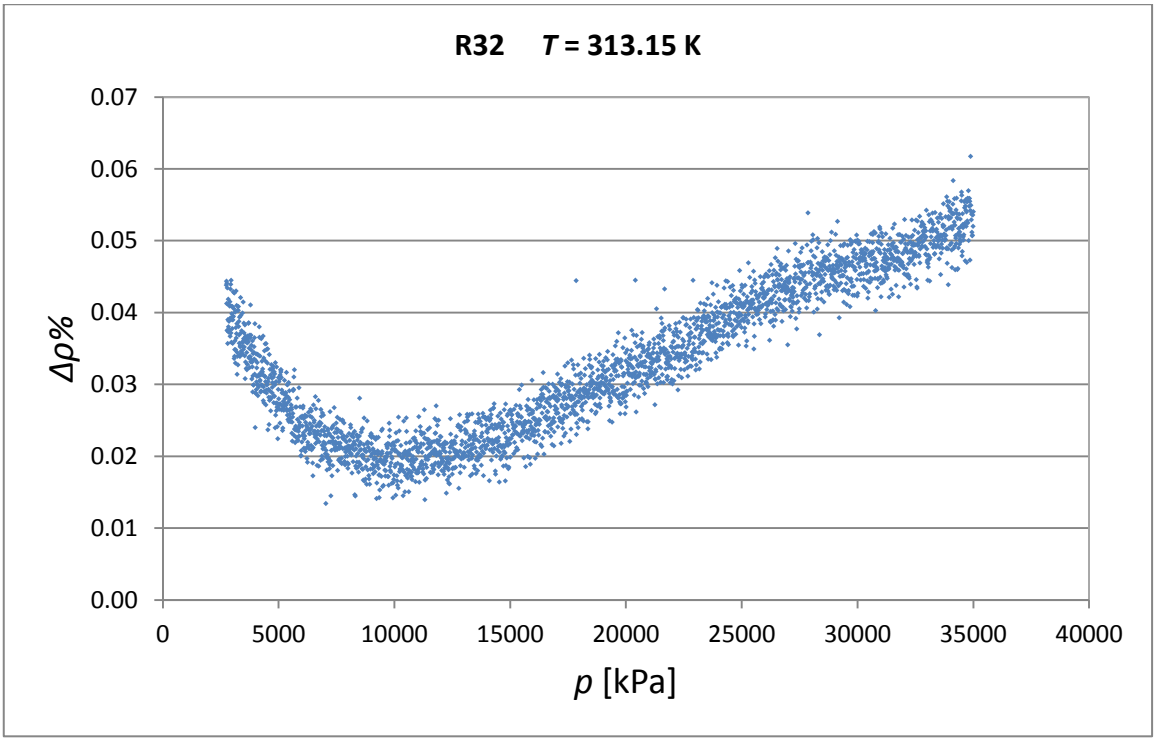

Figura 6.15: Errore relativo percentuale tra i valori di densità del fluido R32 misurati e quelli presenti nel database di Refprop 9.0 a temperatura di T = 313.15 K (40 °C)

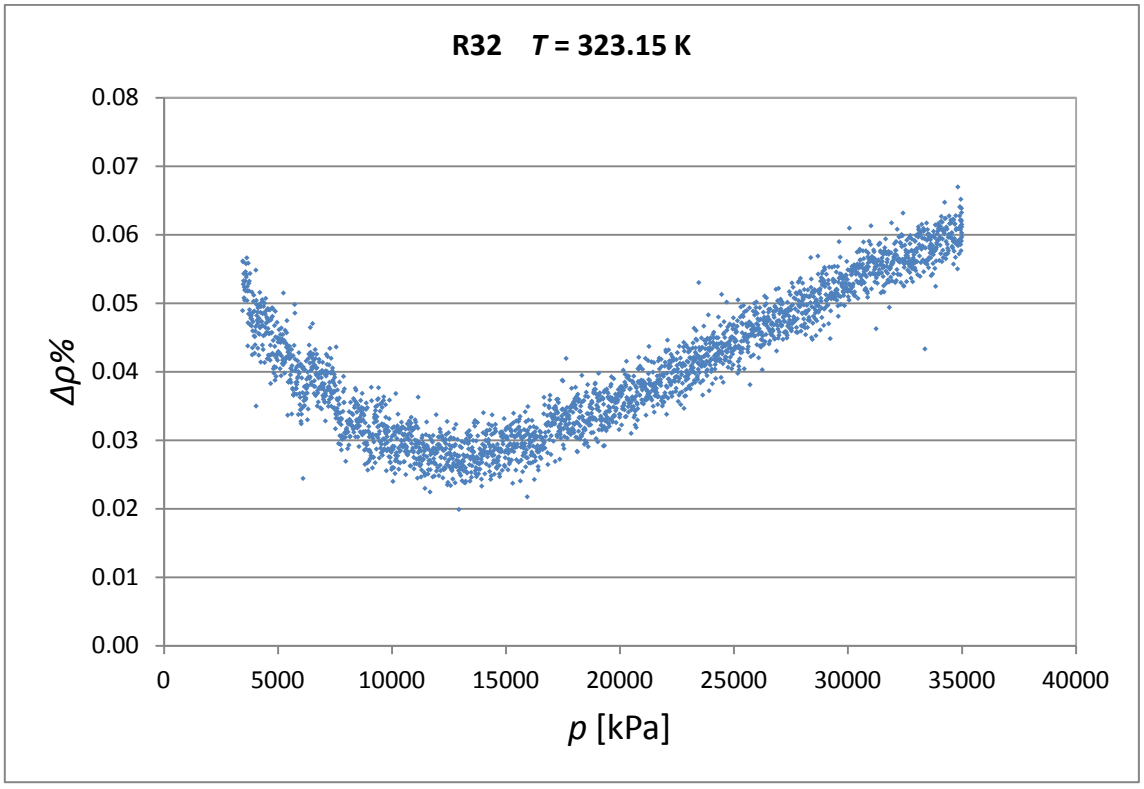

Figura 6.16: Errore relativo percentuale tra i valori di densità del fluido R32 misurati e quelli presenti nel database di Refprop 9.0 a temperatura di T = 323.15 K (50 °C)

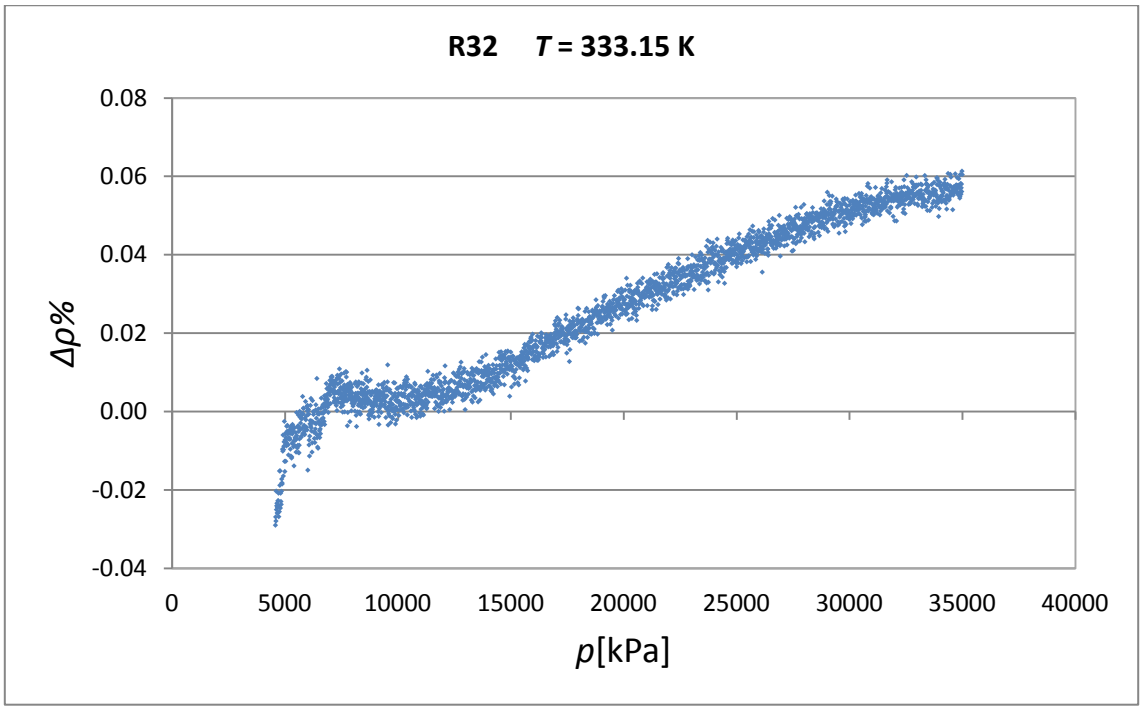

Figura 6.17: Errore relativo percentuale tra i valori di densità del fluido R32 misurati e quelli presenti nel database di Refprop 9.0 a temperatura di T = 333.15 K (60 °C)

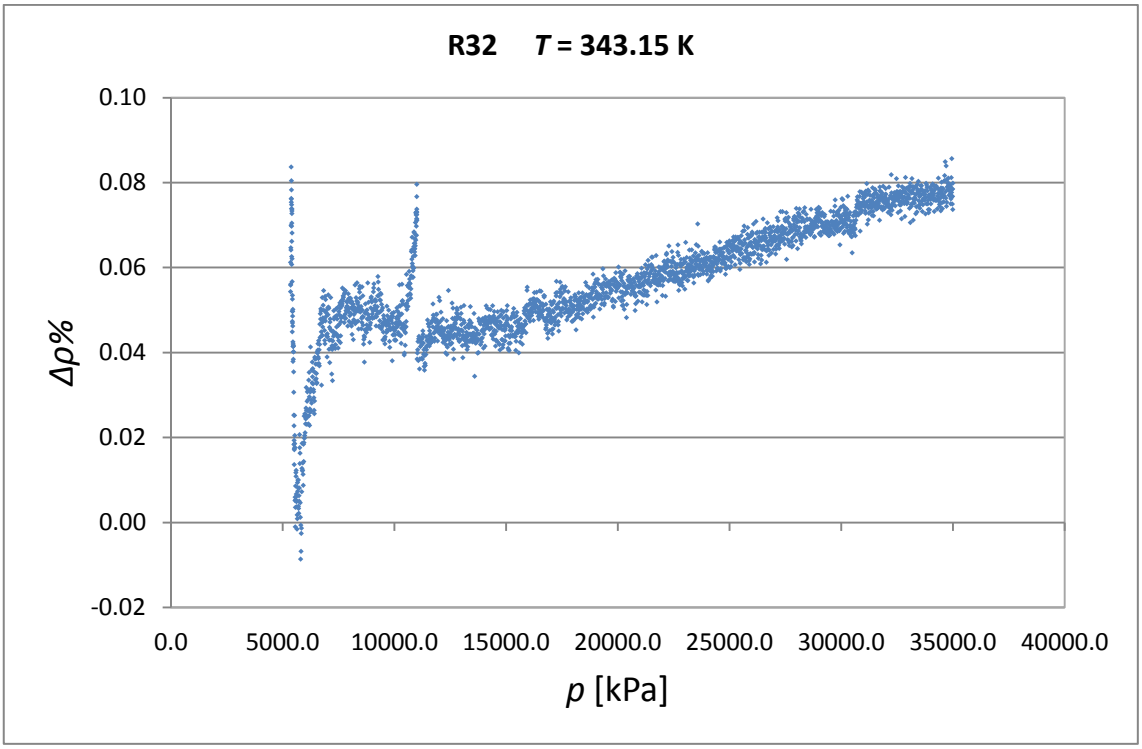

Figura 6.18: Errore relativo percentuale tra i valori di densità del fluido R32 misurati e quelli presenti nel database di Refprop 9.0 a temperatura di T = 343.15 K (70 °C)

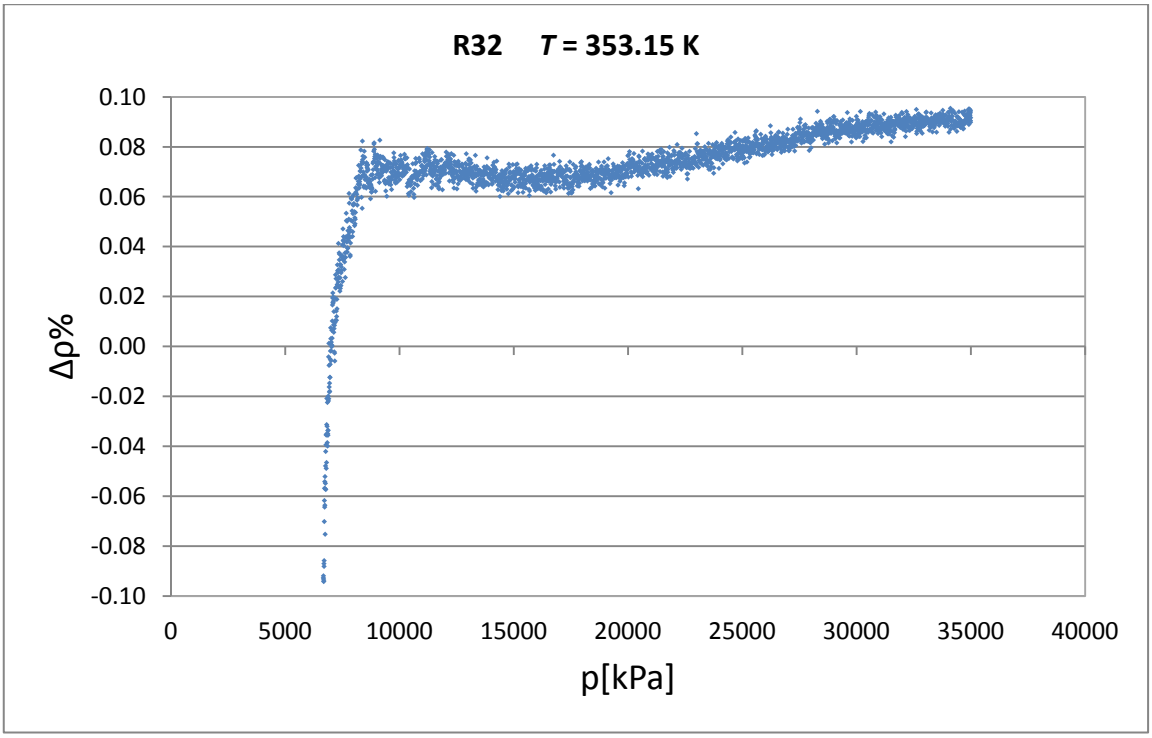

Figura 6.19: Errore relativo percentuale tra i valori di densità del fluido R32 misurati e quelli presenti nel database di Refprop 9.0 a temperatura di T = 353.15 K (80 °C)

In figura 6.20 si rappresenta la deviazione percentuale, ottenuta dal confronto tra i dati di densità misurati con quelli presenti in Refprop 9.0, in funzione della temperatura, per tutte e otto le isoterme del fluido R32.

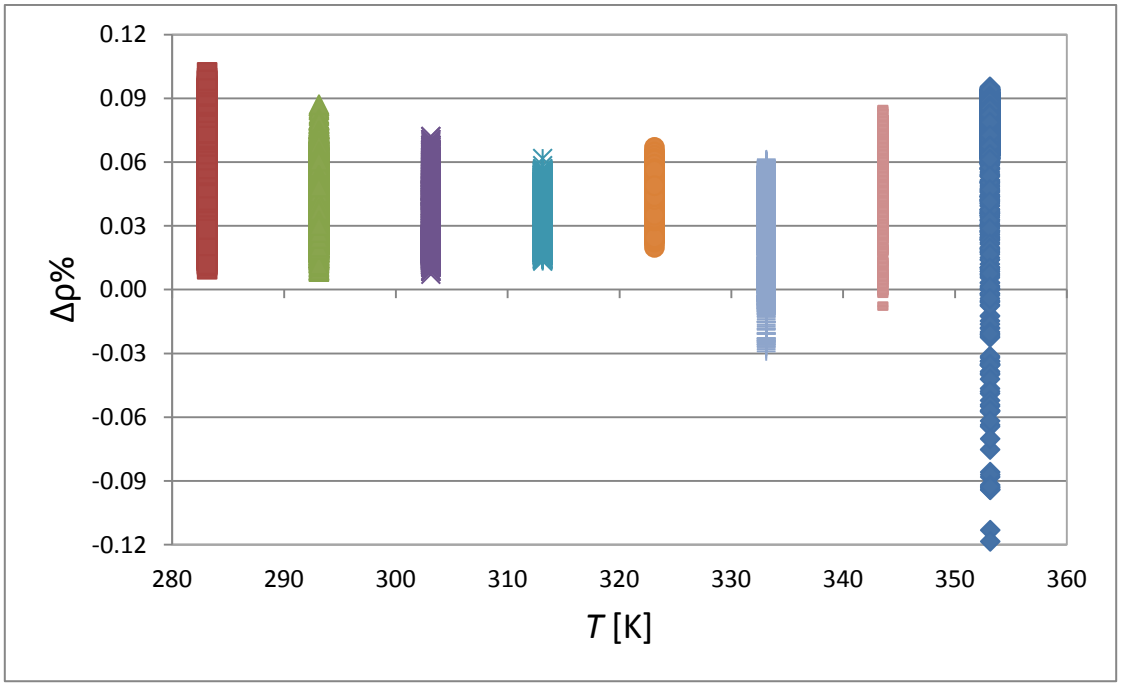

Figura 6.20: Deviazioni percentuali per le otto isoterme del fluido R32.

Da questa figura possiamo trarre le conclusioni che le misure sono state eseguite correttamente e possono essere ritenute adeguate al fine della validazione per il corretto funzionamento dell'impianto e della procedura di acquisizione.

6.2.2 Estrapolazione della densità del liquido saturo

Come per l'R1243zf anche per l'R32 la densità del liquido saturo è necessario estrapolarla con dei polinomi di terzo grado partendo da una pressione di circa 300 kPa superiore a quella di saturazione.
Adottando lo stesso procedimento spiegato nel paragrafo 6.1.2 si ottengono i seguenti valori:

T	p	ρ_{sat}	$\rho_{Refprop}$	$\Delta\rho_{sat}$	$\Delta\rho_{sat}$%
[K]	[kPa]	[kg/m^3]	[kg/m^3]	[kg/m^3]	
283.15	1106.9	1019.6	1019.7	0.1	0.01
293.15	1474.6	981.1	981.4	0.3	0.03
303.15	1927.5	939.4	939.6	0.2	0.02
313.15	2478.3	892.7	893.0	0.3	0.03
323.15	3141.2	838.9	839.3	0.4	0.04
333.15	3933.2	774.2	773.3	-0.9	-0.11
343.15	4876.8	685.6	680.9	-4.7	-0.68

Tabella 6.23: Densità di saturazione di R32 per le otto isoterme studiate.

Si ricava poi la densità di saturazione con la correlazione generale 6.4 utilizzando le proprietà critiche del refrigerante R32 presenti nella seguente tabella:

T_c	p_c	ρ_c
[K]	[kPa]	[kg/m^3]
351.26	5782	424

Tabella 6.24: Proprietà critiche del fluido R32.

Per calcolare i parametri B_1, B_2, B_3, B_4 presenti nell'equazione 6.1 che sono riportati in tabella 6.25 si usa una "funzione obbiettivo" in modo da interpolare gli otto valori della densità di saturazione calcolati lungo le isoterme di misura, minimizzando il quadrato dell'errore relativo percentuale tra i valori estrapolati e calcolati con l'equazione 6.1.

Questa equazione consente di stimare il valore di densità del liquido saturo per le isoterme misurate con una deviazione media assoluta (AAD%) di 0.04% e con una deviazione massima assoluta ($\Delta\rho\%_{max}$) tra il valore di densità estrapolato e calcolato di 0.11%.

B_1	B_2	B_3	B_4
1.33372	4.52005	-7.98000	5.93680

Tabella 6.25: Costanti dell'equazione 6.1.

6.2.3 Regressione dei dati sperimentali

Tutti i valori misurati nel range di temperatura compreso tra 283.15K e 333.15K vengono correlati con l'equazione di Tait generalizzata 6.5 [25]. Questa viene applicata solo per le prime sei isoterme perché l'isoterma a 353.15 K si trova in condizioni trans critiche e l'isoterma a 343.15 K si trova troppo vicino alle condizioni critiche.

Il calcolo dei cinque coefficienti incogniti presenti nelle due equazioni 6.5 e 6.6 sono stati ottenuti con un programma di calcolo appositamente sviluppato in ambiente Matlab® e sono riportati nella seguente tabella 6.26.

C	***a***	***b***	***d***	***e***
0.08957	-17.2266	122.9956	-283.2419	248.8843

Tabella 6.26: Costanti dell'equazione 6.5 e 6.6.

Il programma consente di minimizzare l'equazione 6.5 rispetto all'obbiettivo imposto, che nel nostro caso risulta essere il quadrato dell'errore relativo percentuale tra i valori di densità misurata e predetta dalla formula di regressione.

I coefficienti della tabella 6.26 consentono di determinare tutti i valori di densità ρ_{Tait} per poter così fare il confronto con i valori di densità ottenuti dalle misure sperimentali in modo da determinare la deviazione media assoluta (AAD%) di 0.1% e con una deviazione massima assoluta ($\Delta\rho\%_{max}$) tra il valore di densità estrapolato e calcolato di -0.21%.

La Figura 6.21 rappresenta la deviazione assoluta ($\Delta\rho\%$) in funzione della temperatura per le sei isoterme regredite con l'equazione di Tait.

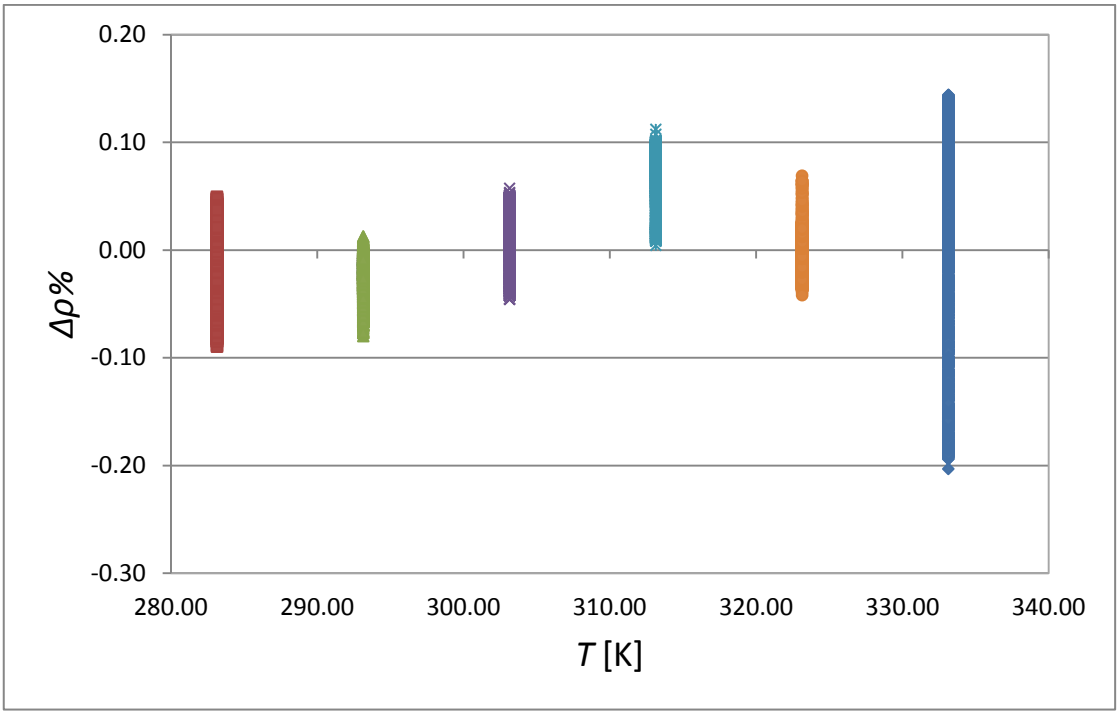

Figura 6.21: Deviazioni percentuali per le sei isoterme del fluido R32.

Capitolo 7

Simulazione del funzionamento di un ciclo frigorifero

Introduzione

In questo capitolo viene svolta l'analisi termodinamica di un tipico ciclo frigorifero per il condizionamento dell'aria nelle applicazioni mobili, evidenziando i requisiti che un fluido frigorigeno deve avere dal punto di vista dell'efficienza energetica. Quindi, utilizzando R134a, R1234yf e R1243zf, vengono analizzate le prestazioni di tale ciclo tenendo costante la potenza frigorifera all'evaporatore.
Lo strumento utilizzato per fare le prove di simulazione è un programma scritto in Fortran che viene spiegato in seguito.

7.1 Modello di Calcolo

Il modello di calcolo utilizzato per le simulazioni suddivide la batteria alettata in un insieme di nodi tridimensionali in modo da poter descrivere perfettamente una qualsiasi circuitazione su tale batteria alettata e risolvere i bilanci termici ad essa associati.

Suddividere il processo globale di scambio termico in più parti permette di ovviare agli errori derivanti dalla variabilità dei coefficienti di scambio e dalle proprietà del fluido.

I metodi di calcolo tradizionali, come il metodo della differenza media logaritmica e il metodo dell'efficienza ε-NTU, si basano sul profilo di temperatura dei fluidi generato esclusivamente dagli scambi termici e non dalle cadute di pressione; ecco che suddividere lo scambiatore in più elementi permette di tener conto anche delle cadute di pressione e quindi poter ottenere calcoli più accurati dello scambio termico.

Nel caso delle batterie alettate usando modelli tridimensionali per descrivere la reale configurazione dei deflussi, con la tecnica delle divergenze e confluenze, si riesce a contrastare gli effetti negativi derivanti da coefficienti di scambio troppi bassi, oppure da perdite di carico troppo elevate.

La batteria viene scomposta in una serie di sezioni elementari di forma parallelepipeda, costituite da un tratto elementare di tubo e dalle alette che su di esso insistono; ogni nodo è numerato con indice secondo lo schema riportato nella figura 7.1.

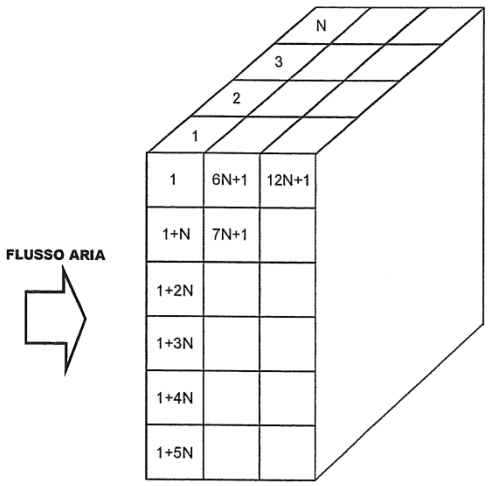

Figura 7.1: Schema elementare batteria alettata come insieme di nodi tridimensionali.

Tale schema è pensato per una geometria di tubi in linea ma può essere utilizzato, se si considera un piccolo errore di semplificazione, anche per il caso di tubi sfalsati.

Il tracciato dei circuiti dello scambiatore è definito da due vettori:

- FP (fluido precedente) rappresenta l'indice del nodo che precede quello individuato dall'indice N, dal lato del fluido frigorigeno;

- AP (aria precedente) rappresenta l'indice del nodo che precede quello in questione dal lato aria.

Noti i vettori FP e AP per ogni nodo, assieme alle condizioni d'ingresso dei fluidi e tutte le caratteristiche dello scambiatore relative allo scambio termico e alle perdite di carico, è possibile risolvere il sistema termico costituito dalla batteria come insieme di nodi, utilizzando un sistema di calcolo iterativo. Il primo tentativo viene effettuato ipotizzando all'ingresso di tutti i nodi la stessa temperatura dell'aria, supposta uguale a quella d'ingresso al primo rango di tubi; è cosi possibile risolvere tutti i nodi, calcolandoli secondo la sequenza dettata dal flusso del fluido frigorigeno.

Data la grande quantità di nodi, nel percorso fatto del fluido frigorigeno in cambiamento di fase, si può considerare uniforme lo stato del fluido che attraversa il nodo. Il sistema termico rappresentato da un nodo può essere quindi assunto come uno scambiatore elementare a flussi incrociati con un flusso miscelato (lato refrigerante) e uno non miscelato (lato aria). Il coefficiente di scambio termico e la pressione del refrigerante sono assunti costanti nel singolo nodo e la pressione è aggiornata nodo per nodo.

Risolto un nodo si trova la temperatura dell'aria in uscita che corrisponderà a quella in ingresso nel nodo successivo. Tale procedura di calcolo viene iterata più volte, modificando di volta in volta la mappa delle temperature d'aria, fino ad arrivare alla soluzione definitiva.

La portata di fluido frigorigeno non è nota nel calcolo delle prestazioni di condensatori ed evaporatori e costituisce l'incognita principale. Per esempio, nel caso di un evaporatore le condizioni note sono la portata e lo stato dell'aria in ingresso, l'entalpia del liquido in ingresso e lo stato del fluido frigorigeno in uscita (pressione e temperatura con vapore surriscaldato). La portata viene quindi determinata per tentativi, partendo da un valore arbitrario e correggendo in seguito la previsione con un classico metodo numerico di soluzione delle equazioni, come il metodo della secante. Nel caso dell'evaporatore, la convergenza della soluzione viene ottenuta rendendo trascurabile l'errore sul surriscaldamento in uscita e, in presenza di vapore umido, viene definito un surriscaldamento convenzionale negativo, sulla base dello scostamento dell'entalpia dal valore richiesto. Un altro ciclo di calcolo iterativo viene impiegato per determinare la pressione all'ingresso che porta al valore impostato per la pressione di uscita.

Il codice di calcolo in questione permette anche di affrontare e risolvere problemi di ottimizzazione degli scambiatori di calore e di scambio termico in regime di deumidificazione dell'aria.

7.1.1 Input del programma di calcolo

Il programma, scritto in Fortran 77, prevede l'introduzione dei dati da tastiera, o la loro acquisizione da un file esterno tramite l'ausilio di un apposito programma di servizio.

Le variabili chieste in ingresso sono:

- diametro interno ed esterno dei tubi, passo dei tubi, passo delle alette, spessore delle alette, dimensioni frontali della batteria e numero di ranghi, etc;
- la conduttività termica dei materiali metallici;
- condizioni di ingresso dell'aria (temperatura a bulbo secco, umidità relativa e velocità);
- il tipo di fluido frigorigeno (sigla ASHRAE), le sue condizioni di uscita (pressione e surriscaldamento o sottoraffreddamento), e l'entalpia in ingresso.

La variabile in uscita:

- la portata di fluido condensante o evaporante, che determina il flusso termico scambiato.

Le prestazioni termiche determinate dal modello di simulazione dipendono:

- dalle correlazioni impiegate per il calcolo dei coefficienti di scambio termico;
- dal fattore di attrito;
- dal grado di vuoto.

Quest'ultimo parametro è importante poiché da questo deriva la diminuzione di pressione nel senso del moto per effetto della variazione della quantità di moto. Purtroppo i processi di scambio termico non adiabatici (evaporazione e condensazione) sono molto difficili da analizzare teoricamente e la valutazione, lato fluido frigorigeno, dei tre fattori precedentemente menzionati è alquanto aleatoria: ne è prova il grande numero di correlazioni reperibili nella letteratura scientifica. Si lascia pertanto all'utente la scelta tra svariate correlazioni implementate nel codice di calcolo.

Per quanto riguarda il calcolo del coefficiente di scambio termico lato aria generalmente l'incertezza è minore e si può scegliere tra diverse opzioni: introduzione del valore del coefficiente di scambio, supposto uniforme, oppure del prodotto di questo coefficiente moltiplicato per l'efficienza della superficie alettata o, ancora, si possono introdurre dei coefficienti di semplici funzioni che correlano detti coefficienti alla velocità frontale dell'aria.

7.2 Condizioni operative

Le condizioni di progetto con le quali vengono fatte le simulazioni del sistema sono elencate nella tabella 7.1 sottostante.

rpm compressore	[giri/min]	3000
Temperatura dell'aria ingresso evaporatore	[°C]	35.0
Umidità dell'aria in ingresso evaporatore	[%]	60.0
Portata di massa dell'aria ingresso evaporatore	[kg/h]	565.5
Velocità frontale dell'aria ingresso evaporatore	[m/s]	3.0
Coeff. scambio termico lato aria evaporatore	[W/(m^{2}K)]	88.4
Temperatura dell'aria ingresso condensatore	[°C]	35.0
Portata di massa dell'aria ingresso condensatore	[kg/h]	1791.6
Velocità frontale dell'aria ingresso condensatore	[m/s]	3.0
Coeff. scambio termico lato aria condensatore	[W/(m^{2}K)]	156.7

Tabella 7.1: Condizioni operative di progetto

L'impianto di condizionamento d'aria di un'automobile non sarà soggetto a parametri costanti nel suo funzionamento; ecco che per fare uno studio completo sarebbe importante analizzare anche le prestazioni al variare dei seguenti parametri:

- velocità di rotazione del compressore;
- temperatura dell'aria ambiente, ipotizzando che la temperature delle portate d'aria che attraversano condensatore ed evaporatore siano le stesse;
- portata d'aria che attraversa il condensatore;
- portata d'aria che attraversa l'evaporatore.

7.3 Confronto dei fluidi

Le condizioni operative particolarmente gravose del condizionamento dell'aria negli autoveicoli, in termini di temperatura e pressione di condensazione, hanno da sempre consigliato l'uso di fluidi altobollenti, cioè che presentino pressione di saturazione inferiore a parità di temperatura.

Condensatore, T_c =323.15 K			
	R134a	R1234yf	R1243zf
P_{sat} [kPa]	1318	1241	1133

Tabella 7.2: Pressione di saturazione a T = 50 °C per i tre fluidi

Questi fluidi, oltre al vantaggio tecnologico di avere pressioni di lavoro inferiori, presentano un vantaggio anche dal punto di vista termodinamico, consentendo di realizzare COP del ciclo inverso maggiori [2].

Dalla Tabella 7.2 si nota che R1234yf e R1243zf presentano pressione di saturazione minore, a parità di temperatura, rispetto all'R134a e quindi hanno la possibilità di realizzare COP maggiori.

Questo vantaggio di R1234yf e R1243zf in termini di efficienza termodinamica è, però, fuorviante poiché non prende in considerazione la diversa attitudine allo scambio termico dei fluidi. Allora, un confronto più omogeneo può essere effettuato a parità di effetto frigorifero prodotto. Generalmente, infatti, quando si confrontano le prestazioni di fluidi frigorigeni diversi, relativamente allo scambio termico, è sensato operare in condizioni di uguale penalizzazione dovuta alle cadute di pressione.

Presa come riferimento la resa frigorifera del fluido R134a nelle condizioni operative elencate nella tabella 7.3, nelle simulazioni con R1234yf e R1243zf è stata variata la portata volumetrica elaborata dal compressore fino ad arrivare ad avere circa la stessa resa frigorifera.

Fluido	Δt_{sott}	COP	m_{refr}	t_{man}	Q_{cond}	t_{cond}	Q_{ev}	t_{ev}	V
	[°C]		[kg/h]	[°C]	[W]	[°C]	[W]	[°C]	[m^3/h]
R134a	5	3.408	152.58	76.31	7603	57.18	5892	9.8	7.8
R1234yf	5	2.899	198.76	71.57	7895	59.48	5886	7.35	9.8
R1243zf	5	3.232	147.91	74.61	7719	58.31	5889	8.71	9.3

Tabella 7.3: Prestazioni del ciclo frigorifero con potenza frigorifera costante all'evaporatore per i tre fluidi.

Con riferimento ai compressori volumetrici, la resa frigorifera è direttamente proporzionale all'effetto frigorifero volumetrico Q_{ov}, definito come la quantità di calore asportata all'evaporatore dall'unità di volume di fluido aspirato dal compressore. L'effetto frigorifero volumetrico Q_{ov} è principalmente collegato alle pressioni operative e al valore della densità del vapore.

Preso come riferimento il ciclo semplice idealizzato, figura 7.2, vale:

$$Q_{ov} = \frac{h_c - h_b}{v_c} \tag{7.1}$$

dove,

Q_{ov} = effetto frigorifero volumetrico;

h_c-h_b = salto entalpico all'evaporatore, effetto frigorifero;

v_c = volume specifico all'aspirazione del compressore.

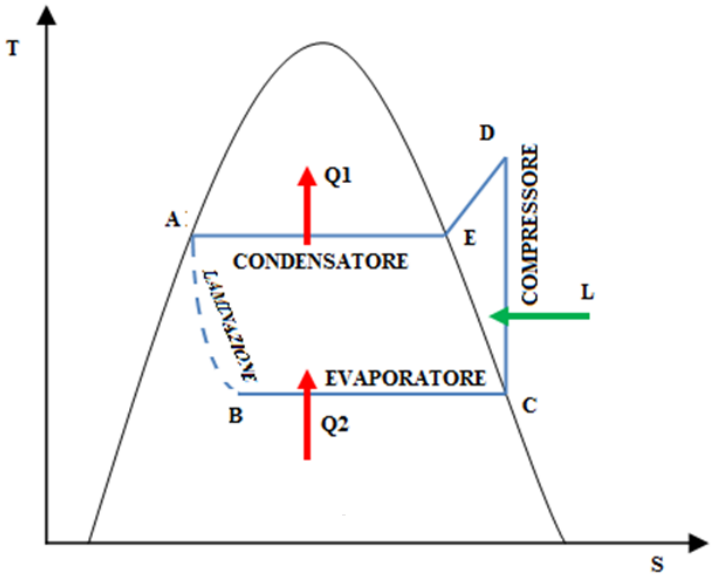

Figura 7.2: Ciclo frigorifero semplice idealizzato.

Una semplice rielaborazione della definizione data permette di riferire l'effetto frigorifero volumetrico anche alla potenza frigorifera q_{ev} e alla portata volumetrica V:

$$Q_{ov} = \frac{q_{ev}}{V} \tag{7.2}$$

consentendo così di ricavare la cilindrata del compressore, avendo fissata la potenza frigorifera e le temperature del ciclo.

Considerando la dipendenza di Q_{ov} dalla forma della curva limite del fluido e dai dati presenti in tabella 7.3 si può osservare che l'effetto frigorifero volumetrico è maggiore per R134a rispetto a quello dei fluidi R1234yf e R1243zf.

La forma particolare della curva limite dei fluidi R1234yf e R1243zf, leggermente piegata in avanti, determina un minore surriscaldamento del vapore nella compressione adiabatica e valori minori dell'entalpia della fase gassosa, tali da compensarne la maggiore densità.

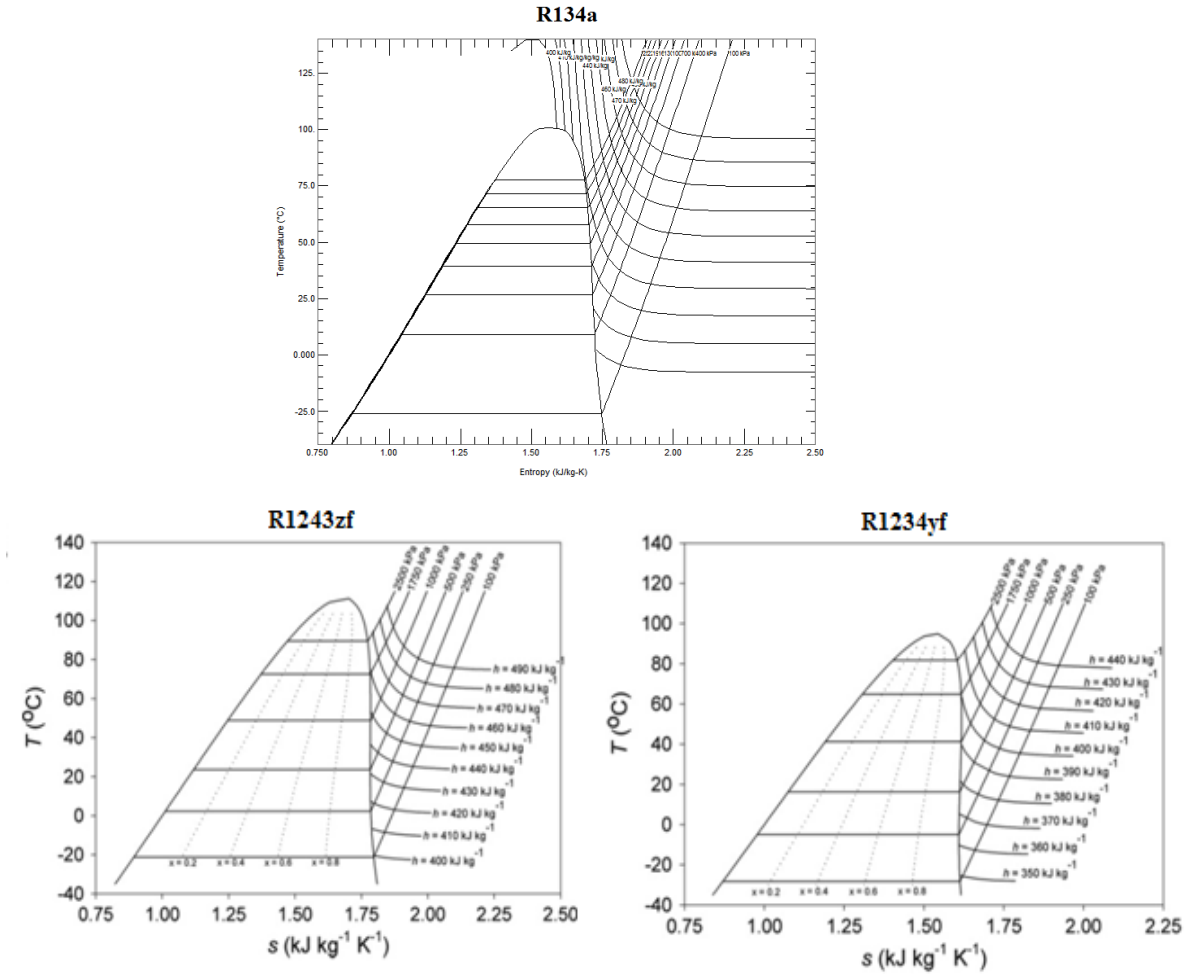

Figura 7.3: Forma della curva limite di R134a, R1243zf e R1234yf.

Anche le simulazioni confermano che per ottenere con i nuovi fluidi frigorigeni la stessa resa termica è necessario aumentare la portata volumetrica elaborata dal compressore; le tabelle 7.4 e 7.5 riassumono questi risultati.

R1234yf

V	Δt_{sott}	COP	m_{refr}	t_{man}	Q_{cond}	t_{cond}	Q_{ev}	t_{ev}
[m^3/h]	[°C]		[kg/h]	[°C]	[W]	[°C]	[W]	[°C]
7.8	5	3.418	174.25	68.15	7001	56.88	5411	10.45
8.4	5	3.244	182.06	69.0	7278	57.7	5575	9.47
9.6	5	2.944	196.35	71.16	7821	59.28	5849	7.62
9.8	5	2.899	198.76	71.56	7895	59.48	5886	7.35
9.9	5	2.877	199.89	71.57	7948	59.65	5909	7.21
10.5	5	2.754	206.27	72.55	8196	60.35	6015	6.34

Tabella 7.4: Analisi delle prestazioni del ciclo frigorifero al variare della portata volumetrica elaborata dal compressore per il fluido R1234yf.

R1243zf

V	Δt_{sott}	COP	m_{refr}	t_{man}	Q_{cond}	t_{cond}	Q_{ev}	t_{ev}
[m^3/h]	[°C]		[kg/h]	[°C]	[W]	[°C]	[W]	[°C]
7.8	5	3.668	133.86	71.58	6979	56.26	5493	11.14
8.4	5	3.466	139.61	72.63	7300	57.17	5649	10.11
9.0	5	3.310	145.17	74.89	7602	57.94	5819	9.16
9.3	5	3.232	147.91	74.61	7719	58.31	5889	8.71
9.4	5	3.203	148.85	74.62	7781	58.5	5913	8.58
10.0	5	3.063	154.11	75.63	8044	59.24	6043	7.72

Tabella 7.5: Analisi delle prestazioni del ciclo frigorifero al variare della portata volumetrica elaborata dal compressore per il fluido R1243zf.

In particolare si nota che, per poter utilizzare questi fluidi negli impianti esistenti tenendo costante la resa frigorifera all'evaporatore, è necessario un aumento della cilindrata del compressore, rispetto al caso con R134a del:

- 25.64% con R1234yf;
- 19.23% con R1243zf.

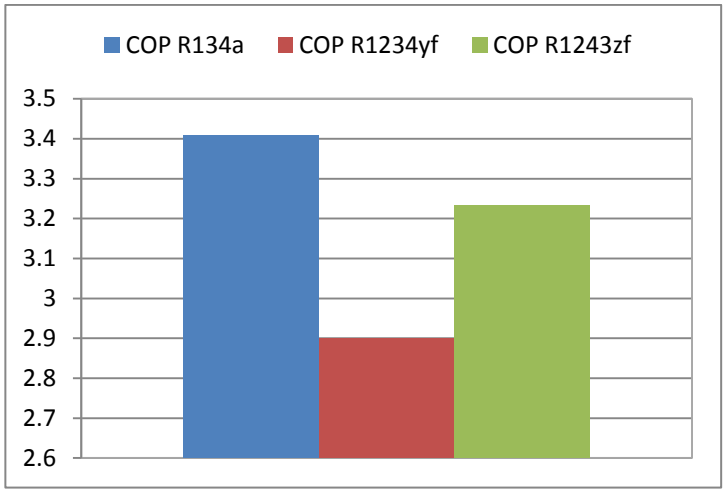

Figura 7.4: COP del ciclo frigorifero a parità di potenza frigorifera all'evaporatore.

La figura 7.4 mostra che il vantaggio in termini di efficienza energetica dei fluidi R1234yf e R1243zf sparisce quando si opera a parità di effetto frigorifero. Per spiegare questo risultato è opportuno analizzare quali proprietà del fluido frigorigeno influenzano maggiormente l'efficienza energetica del ciclo.

Facendo un'analisi exergetica in un ciclo inverso si possono suddividere le perdite in base alla loro origine: alcune sono imputabili alla qualità dei componenti e altre sono invece da considerare intrinseche al ciclo frigorifero. Le prime sono quelle relative al processo di compressione e allo scambio termico di condensazione ed evaporazione. Le perdite intrinseche al ciclo sono, invece, rappresentate nel diagramma di figura 7.5 e sono quelle di laminazione e di desurriscaldamento del vapore.

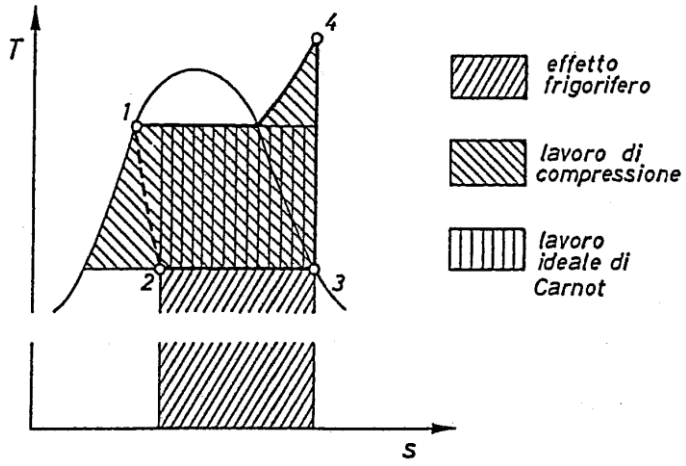

Figura 7.5: Ciclo frigorifero semplice idealizzato.

Avendo utilizzato nelle simulazioni gli stessi scambiatori di calore e lo stesso rendimento isoentropico di compressione, le perdite che differenziano maggiormente le prestazioni dei due fluidi sono quelle intrinseche. Le proprietà che determinano l'ammontare di tali perdite sono collegate alla forma della curva limite; un basso ammontare delle perdite di laminazione richiede un basso valore per il rapporto tra il calore specifico del liquido e il calore latente di vaporizzazione, mentre riguardo alle perdite di desurriscaldamento si richiede un basso valore del surriscaldamento del vapore compresso.

In definitiva i fattori che più influenzano questo tipo di perdite sono: il valore della temperatura critica e il valore del calore specifico del liquido.

A pari temperatura di evaporazione e di condensazione, è facile costatare che l'ammontare percentuale delle due perdite sul lavoro di compressione aumenta quanto più ci si avvicina alla temperatura critica: il motivo più evidente è l'aumento del calore specifico del liquido saturo e la diminuzione del calore latente di vaporizzazione. Questi effetti sono evidenti nel confronto tra i cicli di figura 7.6, che si riferiscono a due fluidi con valori diversi per le temperature critiche.

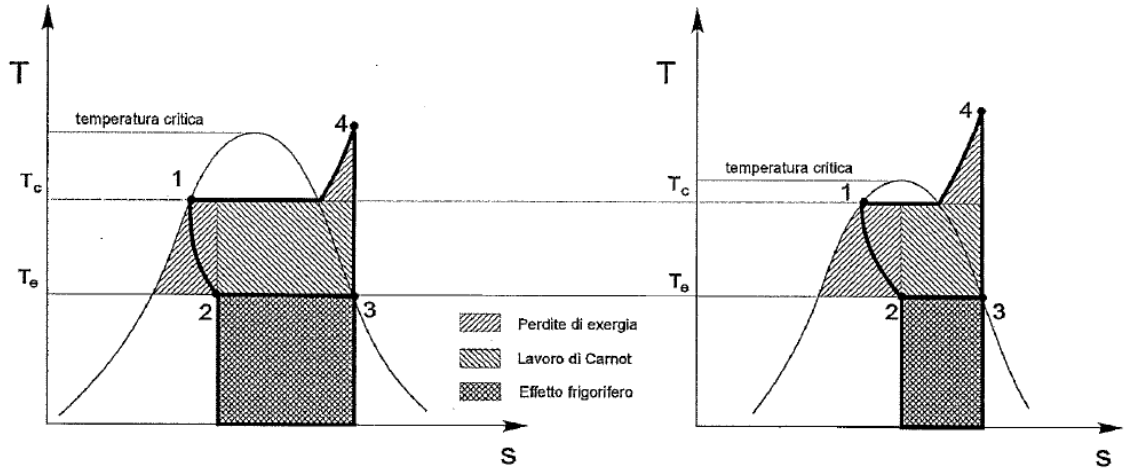

Figura 7.6: Cicli semplici idealizzati, relativi a fluidi con diversa temperatura critica.

La scelta della temperatura critica risponde sempre a un criterio di compromesso tra efficienza exergetica del ciclo e un accettabile effetto frigorifero volumetrico, poiché operando molto discosti dalla temperatura critica, necessariamente si incontrano pressioni operative molto basse.

Al crescere della massa molecolare generalmente aumenta il rapporto tra il calore specifico del liquido e il calore latente di vaporizzazione. Come conseguenza le curve

limite si deformano piegandosi in avanti, così da diminuire il surriscaldamento nella compressione adiabatica, come si può vedere in figura 7.7. In alcuni casi, la compressione adiabatica di un vapore saturo può portare addirittura nella zona bifase.

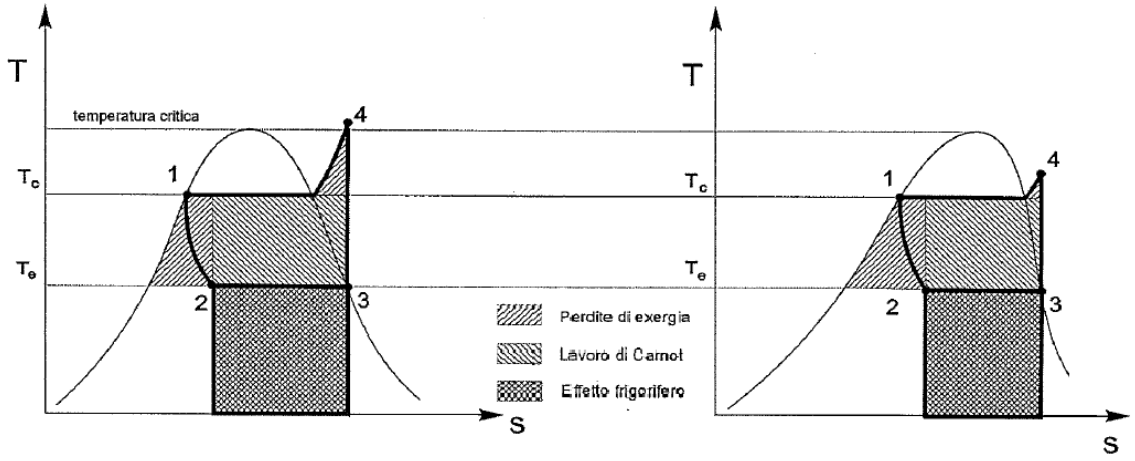

Figura 7.7: Cicli semplici idealizzati, relativi a fluidi con diversi valori del calore specifico del liquido.

Com'è chiaro dal confronto tra i due cicli tracciati in figura 7.7, un valore elevato del calore specifico del liquido è allora responsabile di elevate perdite di laminazione, ma si accompagna a piccole perdite di desurriscaldamento: se nel complesso ciò sia o no un vantaggio va valutato caso per caso. Come regola di massima, la perdita di gran lunga più importante è quella di laminazione, per cui un valore elevato del calore specifico del liquido in generale è da ritenere un difetto.

Fatte queste considerazioni e chiarito che, per una buona efficienza energetica, la temperatura critica dovrebbe essere sufficientemente lontana da quella di condensazione e il calore specifico del liquido dovrebbe essere contenuto, paragonato con il calore latente di vaporizzazione, risulta spiegata la maggiore efficienza termodinamica di R134a, dato che presenta una temperatura critica superiore e un minore rapporto tra il calore specifico del liquido e il calore latente di vaporizzazione.

Per quanto riguarda l'attitudine allo scambio termico, un eventuale confronto tra fluidi diversi deve essere fatto a parità della penalizzazione indotta dalle perdite di carico sui profili delle temperature e quindi con portate specifiche di massa diverse da fluido a fluido, pur a parità di potenza frigorifera. Gli elementi da considerare sono diversi, i più importanti dei quali sono i seguenti:

- coefficiente di conduttività termica del liquido λ_l: è il fattore più importante, poiché, a parità di ogni altro elemento, il coefficiente di scambio realizzato nei processi di cambiamento di fase è all'incirca proporzionale a tale caratteristica;
- densità della fase vapore, ρ_v: elevati valori favoriscono l'ottenimento di elevati valori del coefficiente di scambio termico, a parità di perdite di carico;
- pressione operativa: elevati valori favoriscono la diminuzione delle cadute di temperatura, a parità di cadute di pressione.

In conclusione il fluido frigorigeno migliore, per l'utilizzo negli impianti di climatizzazione degli autoveicoli, rimane ancora l'R134a ma, a causa del suo elevato GWP, pari a 1340, deve essere prossimamente essere sostituito come previsto dagli atti legislativi sugli F-Gas.

Dalle simulazioni sul funzionamento del ciclo frigorifero di un autoveicolo, utilizzando i tre fluidi R134a, R1234yf e R1243zf, risulta che, tenendo costante la potenza frigorifera all'evaporatore, il fluido R1243zf è più simile all'R134a e quindi lo si potrebbe pensare come possibile candidato per un prossimo utilizzo in tale campo della climatizzazione.

Conclusioni

Il presente lavoro sperimentale è nato dall'esigenza di ampliare la conoscenza sulla nuova tipologia di fluidi refrigeranti, HFOs, caratterizzati da un basso effetto serra e da un potere distruttivo dell'ozono nullo.

Attualmente i refrigeranti più studiati, di questa tipologia, sono R1234yf e R1234ze(E). Entrambi questi fluidi sono ritenuti dei validi sostituti dell'R134a, il primo negli impianti di climatizzazione degli autoveicoli e il secondo come fluido espandente per le schiume e come propellente per le applicazioni spray.

Per l'R1243zf, fluido studiato in questo lavoro di tesi sperimentale, attualmente non è presente alcun valore in letteratura riguardante la sua densità sotto forma di liquido compresso e, dato che ha caratteristiche molto simili all'R1234yf, lo si può ritenere anch'esso un possibile sostituto dell'R134a nelle applicazioni di condizionamento mobili.

Questo nuovo refrigerante, a differenza degli altri, non è vincolato da brevetti di produzione. Potrebbe quindi essere prodotto da qualsiasi azienda e venduto ad un prezzo inferiore grazie alla competizione che si instaurerebbe nel mercato.

La conoscenza delle proprietà chimico-fisiche di un fluido frigorigeno è infatti di fondamentale importanza per poter dimensionare correttamente i componenti meccanici impiegati nel ciclo inverso a compressione di vapore. Ciò permette di valutare la possibilità o meno di introdurre i nuovi fluidi sugli impianti esistenti e come eventualmente andrebbero modificati per effettuare l'operazione di "drop-in".

E' bene inoltre tener conto di tutte le proprietà che caratterizzano un fluido refrigerante per poterlo usare come fluido sostitutivo, tra cui anche la sua infiammabilità. Questo è un problema che si sta facendo sempre più attuale dato che i fluidi proposti, per la sostituzione di quelli esistenti, sono leggermente infiammabili

come R1243zf e si deve quindi arrivare alla soluzione per rendere utilizzabili questi nuove generazioni di refrigeranti.

In seguito all'emanazione della direttiva europea 2006/40/CE, per rispettare gli accordi internazionali sottoscritti con i protocolli di Montreal e di Kyoto, tutte le applicazioni, caratterizzate da un rilascio in atmosfera di elevate quantità di fluido refrigerante, sono e saranno soggette a restrizioni nei prossimi anni per ridurre il rischio di inquinamento ambientale causato dal rilascio di gas a effetto serra.

Assieme alle proposte di utilizzare alcuni fluidi sostitutivi, come le idro-fluoro-olefine, ultimamente si è pensato di utilizzare l'R32 al posto della miscela R410A, composta per il 50% da R32, negli impianti di climatizzazione residenziale.

A differenza degli impianti di climatizzazione mobili, questo tipo di impianti stazionari, sono meno soggetti a vibrazioni. La quantità di fluido refrigerante disperso e l'impatto diretto sull'ambiente è minore, ma le nuove normative ne richiedono comunque la sostituzione dei fluidi in essi impiegati.

Le misure sul fluido R32 servono sia come verifica dei dati esistenti, risalenti al 1991, sia per fare una valutazione sulla correttezza del procedimento eseguito nell'acquisizione dei dati del fluido R1243zf.

Per entrambi i fluidi le misure sono state eseguite, per le temperature tra i 283.15 K e i 353.15 K ad intervalli di 10 K, partendo da una pressione di 35000 kPa e scendendo in modo continuo fino a fermarsi poco sopra la pressione di saturazione. Si adotta una lenta discesa per non influenzare la temperatura e avere una espansione quasi-statica.

Tutti i 20153 dati misurati per il fluido R1243zf sono riportati in appendice C mentre tutti i 19193 dati del fluido R32 sono riportati in appendice D.

Si è successivamente estrapolata la densità di saturazione con dei polinomi di terzo grado, regredendo le coppie di dati sperimentali ($p;\rho$), partendo da una pressione di 3000 kPa superiore a quella di saturazione.

Per il l'R32 la densità di saturazione estrapolata può essere confrontata con i dati presenti in Refprop 9.0. E' il software attualmente più utilizzato nel settore della refrigerazione per calcolare le proprietà dei refrigeranti. In particolare per i valori di densità del liquido compresso R32 il modello proposto presenta una incertezza di ± 0.05% per i valori di densità.

Dal confronto tra i dati acquisiti e presenti in Refprop 9.0 si ottiene una deviazione media assoluta (AAD%) di 0.07% e una deviazione massima assoluta $\Delta\rho\%_{max}$ di 0.12%.

Osservando le deviazioni percentuali, per le varie isoterme, si nota che i valori maggiori si hanno per l'isoterma a 283.15 K e a 353.15 K tenendo conto che però quest'ultima è in condizioni transcritiche.

La pressione di saturazione per le varie isoterme, nel caso dell'R1243zf, è nota grazie allo studio recentemente pubblicato [16].

I dati, poi, sono stati regrediti usando l'equazione di Tait, in modo da poter ottenere la superficie tridimensionale (T,p,r) che consente di determinare l'equazione di stato del fluido, e i coefficienti dell'equazione stessa per risalire ai valori di densità trovati sperimentalmente.

La regressione con l'equazione di Tait, nel caso di R32, è stata eseguita solamente per le prime sei isoterme in quanto quella a T = 343.15 K si trova troppo vicina alla temperatura critica e quella a T = 535.15 K si trova in condizioni transcritiche.

Come considerazione finale, per il fluido R32, si può valutare dal confronto con i dati in letteratura che le misure ottenute rientrano nell'errore sperimentale di acquisizione dei dati e quindi si può dire di aver fatto le misure in modo corretto.

Per l'R1243zf, non avendo a disposizione dati in letteratura, si tracciano le isoterme, nelle quali si è fatta la campagna di misure, in funzione della densità. Si nota un andamento regolare anche alle alte temperature, da ciò si può dedurre che le misure sono state svolte in modo corretto.

L'analisi termodinamica di un tipico ciclo frigorifero per il condizionamento dell'aria nelle applicazioni mobili, utilizzando R134a, R1234yf e R1243zf, permette di analizzare le prestazioni di tale ciclo. Un confronto omogeneo può essere effettuato a parità di effetto frigorifero prodotto. Operando in condizioni di uguale penalizzazione, dovuta alle cadute di pressione, con i nuovi fluidi frigorigeni si ottiene la stessa resa termica risulta aumentando la portata volumetrica elaborata dal compressore

In particolare si nota che è necessario un aumento della cilindrata del compressore, rispetto al caso con R134a del:

- 25.64% con R1234yf;
- 19.23% con R1243zf.

Attualmente il fluido frigorigeno migliore, per l'utilizzo negli impianti di climatizzazione degli autoveicoli, rimane ancora l'R134a.

In conclusione, dalle simulazioni fatte, il fluido R1243zf, rispetto all'R1234yf, è più simile all'R134a e quindi lo si potrebbe pensare come valido candidato per un prossimo utilizzo negli impianti di climatizzazione degli autoveicoli.

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Appendice A

Certificato di taratura della termo resistenza Pt100 Ω a 0°C

In questa appendice viene riportato il certificato di taratura della termorestenza Pt100 Ω inserita nella catena di misura del densimetro a tubo vibrante.

La taratura è stata eseguita presso il centro SIT numero 128.

SIT

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Via F. Koristka 10 - 20154 Milano - ITALIA
Tel +39 02 3491751 - Fax +39 02 3319752
www.labsit.it
www.fasint.it
labsit@fasint.it

CERTIFICATO DI TARATURA N. T-027/10

Certificate of Calibration No.

- Data di emissione *date of issue*	2010/01/21
- destinatario *addressee*	**CNR-ITC** **Corso Stati Uniti, 4 35127 Padova**
- richiesta *application*	54
- in data *date*	2009/11/23
Si riferisce a *referring to*	
- oggetto *item*	Termometro a resistenza Pt 100 ohm
- costruttore *manufacturer*	---
- modello *model*	Pt 100 4 fili con guaina in metallo
- matricola *serial number*	CNR05
- data delle misure *date of measurements*	Inizio: 2010/01/13 Fine: 2010/01/15
- registro di laboratorio *laboratory reference*	1/10-T-027

Il presente certificato di taratura è rilasciato in base all'accreditamento SIT N. 128 rilasciato in accordo ai decreti attuativi della legge n. 273/1991 che ha istituito il Sistema Nazionale di Taratura (SNT). Il SIT garantisce le capacità di misura, le competenze metrologiche del Centro e la riferibilità delle tarature eseguite ai campioni nazionali e internazionali delle unità di misura del Sistema Internazionale delle Unità (SI).
Questo certificato non può essere riprodotto in modo parziale, salvo espressa autorizzazione scritta da parte del Centro.

This certificate of calibration is issued in compliance with the accreditation SIT No. 128 granted according to decrees connected with Italian law No. 273/1991 which has established the National Calibration System.
SIT attests the measurement capability and metrological competence of the Centre and the traceability of calibration results to the national and international standards of the International System of Units (SI).
This certificate may not be partially reproduced, except with the prior written permission of the issuing Centre

I risultati di misura riportati nel presente Certificato sono stati ottenuti applicando le procedure citate alla pagina seguente, dove sono specificati anche i campioni di prima linea da cui ha inizio la catena di riferibilità del Centro e i rispettivi certificati di taratura in corso di validità. Essi si riferiscono esclusivamente all'oggetto in taratura e sono validi nel momento e nelle condizioni di taratura, salvo ove diversamente specificato.

The measurement results reported in this Certificate were obtained following the procedures given in the following page, where the reference standards are indicated as well, from which starts the traceability chain of the laboratory, and the related calibration certificates in their course of validity. They relate only to the calibrated item and they are valid for the time and conditions of calibration, unless otherwise specified.

Le incertezze di misura dichiarate in questo documento sono state determinate conformemente al documento EA-4/02 e sono espresse come incertezza estesa ottenuta moltiplicando l'incertezza tipo per il fattore di copertura k corrispondente ad un livello di fiducia di circa il 95 %. Normalmente tale fattore k vale 2.

The measurement uncertainties stated in this document have been determined according to EA-4/02. They were estimated as expanded uncertainty obtained multiplying the standard uncertainty by the coverage factor k corresponding to a confidence level of about 95 %. Normally, this factor k is 2.

Il Responsabile del Centro
Head of the Centre
Paolo Cremonesi

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Certificato di taratura n. T-027/10
Certificate of calibration no

Pagina 2 di 4
Page 2 of 4

I risultati di misura riportati nel presente Certificato sono stati ottenuti applicando le procedure N. PO-01-TR_Ohm
The measurement results reported in this Certificate were obtained following procedures No.

La catena di riferibilità ha inizio dai campioni di prima linea N. 1T-TR-08
Traceability is through first line standards No.

muniti di certificati validi di taratura rispettivamente N. 09-0597-01 - emessi dall'I.N.RI.M.
validated by certificates of calibration No.

LA TARATURA VIENE ESEGUITA SECONDO IL SEGUENTE PROCEDIMENTO:
The calibration is performed according to the following procedure:

da -80 °C a 0 °C	In bagno termostatico ad alcol, per confronto con termometro campione a resistenza di platino, immersione di 160 mm circa. *In thermostatic bath of alcohol, by comparison with standard platinum resistance thermometer, immersion depth 160 mm about.*
0 °C	In bagno di ghiaccio fondente di acqua distillata, immersione di 160 mm circa. *In melting ice bath of distilled water, immersion depth 160 mm about.*
da 0 °C a 100 °C	In bagno termostatico a fluido siliconico, per confronto con termometro campione a resistenza di platino, immersione di 160 mm circa. *In thermostatic bath of silicone oil, by comparison with standard platinum resistance thermometer, immersion depth 160 mm about.*
da 100 °C a 250 °C	In bagno termostatico a fluido siliconico, per confronto con termometro campione a resistenza di platino, immersione di 160 mm circa. *In thermostatic bath of silicone oil, by comparison with standard platinum resistance thermometer, immersion depth 160 mm about.*

Le misure sono state effettuate nelle seguenti condizioni ambientali:

Temperatura *(Temperature)* :	23 °C ± 1,5°C
Umidita' relativa *(Relative Humidity)* :	45 %U.R. ± 15%U.R.

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RISULTATI DELLA TARATURA
Calibration Results

Termometro a resistenza Pt 100 ohm

MATRICOLA: CNR05
Serial Number:

N°	valori sperimentali		valori calcolati			incertezza estesa $k = 2$
	temperatura di misura	resistenza misurata	resistenza di riferimento IEC-60751	errore		
				resistenza (mis-rif)	temperatura (mis-rif)	
	/ °C	/ Ω	/ Ω	/ Ω	/ °C	/ °C
1	-79,95	68,370	68,345	0,025	0,06	0,05
2	-40,00	84,303	84,275	0,028	0,07	0,05
3	0,00	100,099	100,000	0,099	0,25	0,05
4	50,03	119,554	119,410	0,144	0,37	0,05
5	99,99	138,683	138,503	0,180	0,47	0,05
6	150,02	157,543	157,331	0,212	0,57	0,05
7	0,00	100,100	100,000	0,100	0,26	0,05
8						
9						
10						
11						
12						
13						
14						
15						

Prove eseguite da :

Carlos Tello

SIT

SERVIZIO DI TARATURA IN ITALIA
Calibration Service in Italy

CENTRO DI TARATURA **128**
Calibration Centre

istituito da:
established by:
FASINT
Services and Technology for Life Science

Certificato di Taratura n. T-027/10
Certificate of calibration no.

Termometro a resistenza Pt 100 ohm **Pt 100 4 fili con guaina in metallo**

MATRICOLA: **CNR05**
Serial Number:

Tabulazione R/Ohm = $f(t$/°C)

Nella seguente tabella sono indicati i coefficienti dell'equazione di Callendar-Van Dusen:

$R(t)/R(0) = 1 + At + Bt^2 + Ct^3(t-100)$ per $t < 0$ °C

$R(t)/R(0) = 1 + At + Bt^2$ per $t >= 0$ °C

R_0=	100,0998 Ω
A=	3,913 611 E-03 °C^{-1}
B=	-5,886 186 E-07 °C^{-2}
C=	-3,406 855 E-12 °C^{-4}

L'incertezza (due volte lo scarto quadratico medio) relativa al procedimento di interpolazione è contenuta entro 0,08 °C

Appendice B

Certificato di taratura del manometro digitale

In questa appendice viene riportato il certificato di taratura del manometro digitale Druck modello DPI 145 inserito nella catena di misura del densimetro a tubo vibrante La taratura è stata eseguita presso il centro SIT numero 114.

FASINT'
Services and Technology for Life Science

CENTRO TARATURA

INSTRUMENT TEST & PHARMA ENG. DEPARTMENT

CERTIFICATO DI TARATURA
CALIBRATION REPORT

FI 0087/10 (0009-SP-10)

MANOMETRO DIGITALE

Modello DPI 145

s/n 14501261

CERTIFICAZIONE DEGLI STRUMENTI DI VALIDAZIONE

E DI LABORATORIO: UN SERVIZIO FASINT'

SIT

SERVIZIO DI TARATURA IN ITALIA

Calibration Service in Italy

Il SIT è uno dei firmatari delgli Accordi di Mutuo Riconoscimento EA - MLA ed ILAC - MRA dei certificati di taratura.

SIT is one of the signatories to the Mutual Recognition Agreement EA - MLA and ILAC - MRA for the calibration certificates.

CENTRO DI TARATURA No. 114
Calibration Centre

scandura
Laboratorio Metrologico

Dott. Ing. SCANDURA & FEM S.r.l.
Laboratorio Metrologico
Via Ambrosoli, 8 - 20090 - Rodano Millepini (Mi)
Tel. +39-02-95320021 Fax +39-02-95328231
e-mail: scandura@scandura.it web: www.scandura.it

CERTIFICATO DI TARATURA N. 0009-SP-10

Certificate of Calibration No.

- Data di emissione *date of issue*	15.01.2010
- destinatario *addressee*	CNR ITC Istituto per le tecnologie della costruzione Padova (PD)
- richiesta *application*	9/12/1180PO/507/05
- in data *date*	21.12.2009
Si riferisce a *referring to*	Manometro digitale
- oggetto *item*	(0 ÷ 350) bar
- costruttore *manufacturer*	DRUCK
- modello *model*	DPI 145
- matricola *serial number*	14501261
- data delle misure *date of measurements*	15.01.2010
- registro del laboratorio *laboratory reference*	0009-10

Il presente certificato di taratura è emesso in base all'accreditamento SIT N. 114 rilasciato in accordo ai decreti attuativi della legge n. 273/1991 che ha istituito il Sistema Nazionale di Taratura (SNT). Il SIT garantisce le capacità di misura e le competenze metrologiche del Centro e la riferibilità delle tarature eseguite ai campioni nazionali ed internazionali delle unità del Sistema Internazionale delle Unità (SI).

Questo certificato non può essere riprodotto in modo parziale, salvo espressa autorizzazione scritta da parte del Centro.

This certificate of calibration is issued in compliance with the accreditation SIT No.114 granted according to decrees regarding to the Italian law No. 273/1991 which has established the National Calibration System. SIT guarantees the measurement capability and metrological competence of the Centre and the traceability of calibration results to the national and international standards of the International System of Units (SI).

This certificate may not be partially reproduced, except with the rior written permission of the issuing Centre.

I risultati di misura riportati nel presente Cerificato sono stati ottenuti applicando le procedure citate alla pagina seguente, dove sono specificati anche i campioni di prima linea da cui inizia la catena di riferibilità del Centro e i rispettivi certificati di taratura, in corso di validità. Essi si riferiscono esclusivamente all'oggetto in taratura e sono validi nel momento e nelle condizioni di taratura, salvo diversamente specificato.

The measurement results reported in this Certificate were obtained following the procedures given in the following page, where the reference standards are indicated as well, from wich starts the traceability chain of the laboratory, and the related calibration certificates in their course of validity. They relate only to the calibrated item and they are valid for the time and conditions of calibration, unless otherwise specified.

Le incertezze di misura dichiarate in questo documento sono state determinate conformemente al documento EA-4/02 e sono espresse come incertezza estesa ottenuta moltiplicando l'incertezza tipo per il fattore di capertura *k* corrispondente ad un livello di copertura di circa il 95 %. Normalmente tale fattore *k* vale 2.

The measurement uncertainties stated in this document have been determined according to EA-4/02. They were estimated as extended uncertainty abtained multiplying the standard uncertainty by the coverage factor k corresponding to a confidence level of about 95 %. Normally this factor k is 2.

Il Responsabile del Centro
Head of the Centre
Marcello Caravaggio

SIT

SERVIZIO DI TARATURA IN ITALIA
Calibration Service in Italy

scandura Laboratorio Metrologico

CENTRO DI TARATURA N 114
Calibration Centre N 114

Certificato di taratura n.	0009-SP-10	data	15.01.2010	Pagina 2 di 3
Certificate of calibration no		*date*		*Page 2 of 3*

I risultati riportati sono stati ottenuti applicando le procedure n° LPO-P1
The results have been obtained using the procedures n°
La catena di riferibilità ha inizio dai campioni di prima linea n° PB1-01/02/03; PB1-08/09,
The traceability chain starts from the first line stanards n°
muniti di certificati validi di taratura, rispettivamente n° 07-1237-01/-02/-03; 07-0528-01.
with the relevant valid calibration certificates n°

CONDIZIONI AMBIENTALI DI TARATURA/*ENVIRONMENTAL CALIBRATION CONDITIONS*

Temperatura ambiente/*Amb. temperature* :	(20 ± 1) °C
Umidità relativa/*Relative humidity* :	(50 ± 10) %
Pressione atmosferica/*Atm. pressure* :	(101.1 ± 0.1) kPa

CONDIZIONI DI TARATURA DELLO STRUMENTO/*INSTRUMENT CALIBRATION CONDITIONS*

Campo di misura (CM)/*Measuring span* :	(0 ÷ 350) bar
Modalità di taratura/*Calibration mode* :	Pressione relativa/P. gauge
Campione di referimento/*Reference instr.* :	PD2-26
Posizione/*Position* :	Verticale/Vertical
Fluido di misura/*Calibration media* :	Acqua demineralizzata/Dem. water
Alimentazione elettrica/*Power Supply* :	230 V a.c. ± 10 % 50 ÷ 60 Hz

INCERTEZZA DI MISURA/*MEASUREMENT UNCERTAINTY*

MASSIMA INCERTEZZA ESTESA/*MAX. EXPANDED UNCERTAINTY*

L'incertezza estesa dello strumento in taratura U è espressa come due volte l'incertezza tipo.
Nel caso in cui **si effettuino** le correzioni in base agli errori riscontrati durante la taratura, la massima incertezza estesa, in percentuale del campo di misura, è data da:
The expanded uncertainty of the instrument under calibration is expressed as twice the standard uncertainty.
If the corrections, due to the errors found during the calibration, ***are done****, the maximum value of the expanded uncertainty, in percent of the measuring span, is given by:*

U_{Max} = 0.020 % CM = 0.0700 bar

MASSIMA INCERTEZZA ESTESA QUALORA NON SI APPORTINO CORREZIONI
MAX. EXPANDED UNCERTAINTY W/O ERRORS CORRECTION

Nel caso in cui **non si effettuino** le correzioni in base agli errori riscontrati durante la taratura, la massima incertezza estesa, in percentuale del campo di misura, è data da:
If ***no*** *corrections, due to the errors found during the calibration,* ***are done****, the maximum value of the expanded uncertainty, in percent of the measuring span, is given by:*

$U'_{Max} = U_{Max} + Max|e|$ = 0.040 % CM = 0.1410 bar

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SERVIZIO DI TARATURA IN ITALIA
Calibration Service in Italy

CENTRO DI TARATURA N. 114
Calibration Centre N. 114

Certificato di taratura n. / *Certificate of calibration no*	0009-SP-10	data / *date*	15.01.2010	Pagina 3 di 3 / *Page 3 of 3*

RISULTATI DELLA TARATURA/ *CALIBRATION RESULTS*

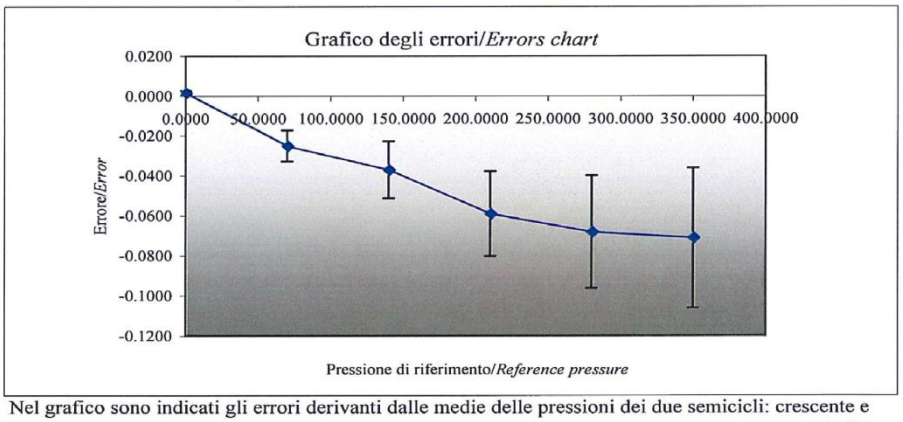
Unità di misura/*Measuring Unit*: bar
1 bar = 100000 Pa

Minima divisione/*min. division*: 0.001 bar
Risoluzione/*Resolution*: 0.001 bar

Valore medio della pressione di riferimento/ *Mean of the reference pressure* bar	Media delle pressioni indicate per valori crescenti e decrescenti/ *Mean of the indicated pressures* bar	Ripetibilità/ *Repeatability* bar	Errore/ *Error e* bar	Incertezza estesa di misura/ *Measurement Expanded Uncertainty U* bar	Incertezza estesa di misura nel caso in cui non si effettuano correzioni/ *Expanded Uncertainty when no corrections are done U'* bar
0.0000	0.0015		0.0015	0.0022	0.0037
70.0000	69.9750		-0.0250	0.0157	0.0407
140.0000	139.9630	0.002	-0.0370	0.0286	0.0656
210.0000	209.9410		-0.0590	0.0426	0.1016
280.0000	279.9320		-0.0680	0.0562	0.1242
350.0000	349.9290		-0.0710	0.0700	0.1410

GRAFICO DEGLI ERRORI E DELLE INCERTEZZE TIPO ASSOCIATE/*ERRORS AND UNCERTAINTY CHART*

I valori indicati nel grafico sono espressi in: bar
The values in the chart are expressed in:



Nel grafico sono indicati gli errori derivanti dalle medie delle pressioni dei due semicicli: crescente e decrescente. Il contributo dovuto all'isteresi è contenuto nell'incertezza tipo associata all'errore, indicata nel grafico con delle barre verticali.
The errors, relevant to the average of the two half-cycles: up and down, are shown in the chart.
The hysteresis contribution is included into the error uncertainty, shown in the chart through the vertical lines.

Note
Punto di riferimento della pressione: attacco trasduttore

Appendice C

Valori della densità del fluido R1243zf

Tabella C1: Valori della densità del fluido R1243zf per T = 273.15 K (10°C)

T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]
283.15	35007.8	1120.9	283.15	34367.0	1119.7	283.15	33716.8	1118.3	283.15	33049.0	1117.0
283.15	34998.7	1120.9	283.15	34354.6	1119.6	283.15	33701.2	1118.3	283.15	33035.6	1116.9
283.15	34987.5	1120.9	283.15	34340.7	1119.6	283.15	33688.3	1118.3	283.15	33020.7	1116.8
283.15	34975.8	1120.9	283.15	34327.6	1119.6	283.15	33673.4	1118.4	283.15	33008.2	1117.0
283.15	34961.1	1120.7	283.15	34313.7	1119.5	283.15	33659.7	1118.2	283.15	32995.3	1116.9
283.15	34947.1	1120.8	283.15	34300.1	1119.5	283.15	33644.0	1118.1	283.15	32982.1	1116.7
283.15	34933.5	1120.8	283.15	34286.6	1119.5	283.15	33630.0	1118.1	283.15	32969.0	1116.7
283.15	34918.0	1120.7	283.15	34272.6	1119.4	283.15	33614.9	1118.0	283.15	32956.7	1116.8
283.15	34904.5	1120.8	283.15	34259.0	1119.4	283.15	33600.8	1118.1	283.15	32941.8	1116.7
283.15	34891.2	1120.8	283.15	34244.8	1119.4	283.15	33586.8	1118.1	283.15	32928.1	1116.7
283.15	34876.6	1120.6	283.15	34231.8	1119.4	283.15	33573.5	1117.9	283.15	32913.4	1116.7
283.15	34862.5	1120.6	283.15	34220.0	1119.3	283.15	33558.8	1118.0	283.15	32900.0	1116.6
283.15	34848.7	1120.7	283.15	34208.2	1119.4	283.15	33543.8	1118.0	283.15	32887.6	1116.6
283.15	34834.8	1120.6	283.15	34194.8	1119.4	283.15	33529.9	1117.8	283.15	32873.9	1116.5
283.15	34821.5	1120.6	283.15	34181.1	1119.1	283.15	33516.6	1118.0	283.15	32858.6	1116.6
283.15	34809.3	1120.5	283.15	34167.8	1119.3	283.15	33502.5	1117.9	283.15	32844.4	1116.7
283.15	34794.9	1120.5	283.15	34153.0	1119.3	283.15	33487.2	1117.8	283.15	32831.5	1116.5
283.15	34780.4	1120.5	283.15	34138.8	1119.2	283.15	33474.2	1117.8	283.15	32817.8	1116.5
283.15	34766.5	1120.4	283.15	34125.1	1119.2	283.15	33461.1	1117.7	283.15	32804.4	1116.5
283.15	34753.2	1120.4	283.15	34110.6	1119.1	283.15	33447.4	1117.7	283.15	32790.8	1116.5
283.15	34739.5	1120.4	283.15	34096.8	1119.1	283.15	33433.6	1117.6	283.15	32777.2	1116.4
283.15	34724.9	1120.4	283.15	34084.2	1119.0	283.15	33418.5	1117.7	283.15	32763.1	1116.3
283.15	34711.9	1120.3	283.15	34069.5	1119.0	283.15	33403.9	1117.7	283.15	32749.7	1116.3
283.15	34698.0	1120.4	283.15	34055.9	1118.9	283.15	33389.3	1117.7	283.15	32736.9	1116.3
283.15	34684.9	1120.4	283.15	34043.0	1119.0	283.15	33376.1	1117.5	283.15	32723.3	1116.3
283.15	34671.4	1120.3	283.15	34030.7	1119.1	283.15	33360.4	1117.5	283.15	32709.5	1116.1
283.15	34657.2	1120.2	283.15	34017.5	1118.9	283.15	33347.2	1117.6	283.15	32696.4	1116.3
283.15	34643.6	1120.2	283.15	34003.0	1118.8	283.15	33333.9	1117.4	283.15	32683.1	1116.1
283.15	34631.4	1120.1	283.15	33990.6	1118.8	283.15	33319.2	1117.6	283.15	32670.0	1116.1
283.15	34617.9	1120.3	283.15	33977.0	1118.8	283.15	33305.3	1117.5	283.15	32656.3	1116.2
283.15	34604.1	1120.2	283.15	33964.6	1118.8	283.15	33291.3	1117.4	283.15	32643.6	1116.1
283.15	34591.5	1120.2	283.15	33952.4	1118.7	283.15	33277.4	1117.4	283.15	32630.8	1116.1
283.15	34577.9	1120.0	283.15	33938.7	1118.8	283.15	33263.9	1117.3	283.15	32616.4	1116.0
283.15	34564.4	1120.2	283.15	33924.2	1118.6	283.15	33247.8	1117.3	283.15	32601.8	1115.8
283.15	34551.6	1120.0	283.15	33911.2	1118.8	283.15	33234.5	1117.2	283.15	32587.2	1116.0
283.15	34538.3	1120.0	283.15	33897.2	1118.7	283.15	33222.0	1117.3	283.15	32573.2	1116.0
283.15	34525.8	1120.0	283.15	33882.4	1118.6	283.15	33207.6	1117.5	283.15	32560.5	1115.9
283.15	34510.5	1119.9	283.15	33867.9	1118.6	283.15	33193.1	1117.3	283.15	32547.0	1115.9
283.15	34498.2	1119.9	283.15	33854.3	1118.5	283.15	33179.8	1117.1	283.15	32534.9	1115.9
283.15	34484.8	1119.9	283.15	33840.3	1118.6	283.15	33167.2	1117.1	283.15	32520.8	1115.9
283.15	34471.8	1119.7	283.15	33827.2	1118.5	283.15	33153.9	1117.1	283.15	32508.4	1115.8
283.15	34459.1	1119.8	283.15	33814.4	1118.6	283.15	33141.1	1117.1	283.15	32494.7	1115.8
283.15	34446.3	1119.8	283.15	33800.1	1118.5	283.15	33128.1	1117.0	283.15	32480.3	1115.7
283.15	34432.3	1119.8	283.15	33785.2	1118.4	283.15	33115.3	1117.1	283.15	32467.3	1115.7
283.15	34419.5	1119.8	283.15	33771.4	1118.5	283.15	33101.7	1116.9	283.15	32454.2	1115.7
283.15	34406.8	1119.8	283.15	33756.6	1118.4	283.15	33089.6	1116.9	283.15	32440.9	1115.6
283.15	34393.4	1119.7	283.15	33743.2	1118.5	283.15	33075.7	1117.1	283.15	32428.3	1115.7
283.15	34380.5	1119.6	283.15	33730.7	1118.5	283.15	33062.6	1117.0	283.15	32415.5	1115.6

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
283.15	32402.1	1115.5	283.15	31303.1	1113.4	283.15	30228.1	1110.9	283.15	29184.2	1108.7
283.15	32389.0	1115.6	283.15	31288.1	1113.2	283.15	30213.9	1111.0	283.15	29170.8	1108.6
283.15	32376.2	1115.6	283.15	31274.7	1113.3	283.15	30200.9	1110.9	283.15	29156.4	1108.6
283.15	32361.2	1115.6	283.15	31260.3	1113.2	283.15	30187.4	1110.9	283.15	29143.2	1108.6
283.15	32347.6	1115.5	283.15	31247.3	1113.1	283.15	30172.9	1110.8	283.15	29129.1	1108.6
283.15	32333.9	1115.4	283.15	31232.9	1113.2	283.15	30158.3	1110.8	283.15	29114.9	1108.5
283.15	32317.8	1115.4	283.15	31217.9	1113.2	283.15	30144.9	1110.8	283.15	29102.3	1108.5
283.15	32303.6	1115.3	283.15	31205.1	1113.0	283.15	30131.6	1110.8	283.15	29089.0	1108.6
283.15	32289.1	1115.4	283.15	31192.1	1113.1	283.15	30117.3	1110.7	283.15	29076.2	1108.5
283.15	32276.1	1115.4	283.15	31176.9	1112.9	283.15	30104.6	1110.7	283.15	29062.9	1108.6
283.15	32262.6	1115.4	283.15	31161.8	1113.1	283.15	30090.6	1110.7	283.15	29049.2	1108.5
283.15	32249.5	1115.2	283.15	31148.5	1113.0	283.15	30077.8	1110.7	283.15	29033.5	1108.3
283.15	32235.9	1115.3	283.15	31134.8	1113.0	283.15	30065.7	1110.6	283.15	29019.5	1108.3
283.15	32224.1	1115.4	283.15	31119.8	1112.9	283.15	30052.2	1110.6	283.15	29005.8	1108.3
283.15	32211.7	1115.3	283.15	31106.8	1112.8	283.15	30038.5	1110.5	283.15	28990.7	1108.3
283.15	32198.2	1115.1	283.15	31094.1	1112.9	283.15	30026.5	1110.7	283.15	28976.7	1108.2
283.15	32183.9	1115.1	283.15	31079.8	1112.8	283.15	30014.6	1110.5	283.15	28963.2	1108.2
283.15	32169.2	1115.0	283.15	31065.4	1112.7	283.15	30000.6	1110.5	283.15	28949.3	1108.2
283.15	32155.1	1115.0	283.15	31051.9	1112.8	283.15	29987.6	1110.4	283.15	28935.2	1108.1
283.15	32142.6	1115.1	283.15	31038.1	1112.7	283.15	29974.9	1110.4	283.15	28921.4	1108.1
283.15	32129.2	1115.0	283.15	31024.6	1112.7	283.15	29960.6	1110.3	283.15	28907.1	1108.2
283.15	32116.1	1115.0	283.15	31011.9	1112.7	283.15	29947.8	1110.3	283.15	28893.9	1108.0
283.15	32101.6	1114.9	283.15	30999.3	1112.5	283.15	29934.2	1110.5	283.15	28880.4	1108.0
283.15	32086.9	1115.0	283.15	30985.1	1112.5	283.15	29920.9	1110.3	283.15	28866.4	1107.9
283.15	32071.7	1114.9	283.15	30971.5	1112.7	283.15	29906.3	1110.3	283.15	28853.3	1108.0
283.15	32058.4	1114.9	283.15	30955.9	1112.6	283.15	29893.2	1110.2	283.15	28839.6	1107.9
283.15	32043.8	1114.9	283.15	30941.9	1112.6	283.15	29880.3	1110.2	283.15	28825.6	1108.0
283.15	32030.1	1114.8	283.15	30928.7	1112.6	283.15	29866.9	1110.1	283.15	28813.3	1107.8
283.15	32015.6	1114.7	283.15	30915.0	1112.4	283.15	29853.9	1110.2	283.15	28798.5	1107.9
283.15	32002.3	1114.7	283.15	30901.7	1112.5	283.15	29841.0	1110.1	283.15	28784.1	1107.8
283.15	31987.6	1114.7	283.15	30888.6	1112.4	283.15	29827.9	1110.1	283.15	28769.8	1107.7
283.15	31973.6	1114.7	283.15	30874.8	1112.5	283.15	29813.8	1110.1	283.15	28756.3	1107.7
283.15	31957.9	1114.6	283.15	30861.0	1112.3	283.15	29800.3	1110.1	283.15	28741.7	1107.8
283.15	31943.1	1114.7	283.15	30847.1	1112.2	283.15	29785.6	1110.0	283.15	28729.0	1107.7
283.15	31927.9	1114.7	283.15	30831.9	1112.3	283.15	29770.6	1110.0	283.15	28714.4	1107.6
283.15	31912.3	1114.6	283.15	30818.0	1112.3	283.15	29755.8	1110.0	283.15	28701.3	1107.6
283.15	31896.7	1114.5	283.15	30804.4	1112.1	283.15	29743.1	1110.1	283.15	28687.9	1107.6
283.15	31881.0	1114.4	283.15	30790.6	1112.3	283.15	29730.0	1110.0	283.15	28672.8	1107.6
283.15	31866.4	1114.4	283.15	30776.0	1112.1	283.15	29717.4	1109.8	283.15	28660.4	1107.6
283.15	31852.8	1114.5	283.15	30762.9	1112.2	283.15	29704.4	1109.9	283.15	28646.0	1107.6
283.15	31837.7	1114.3	283.15	30748.8	1112.1	283.15	29692.1	1109.9	283.15	28631.8	1107.5
283.15	31823.3	1114.4	283.15	30736.0	1112.1	283.15	29678.8	1109.8	283.15	28616.9	1107.4
283.15	31809.2	1114.3	283.15	30721.7	1112.0	283.15	29665.9	1109.7	283.15	28602.3	1107.3
283.15	31794.7	1114.4	283.15	30708.0	1111.9	283.15	29651.4	1109.7	283.15	28587.7	1107.4
283.15	31779.4	1114.3	283.15	30695.2	1111.9	283.15	29637.5	1109.6	283.15	28574.3	1107.3
283.15	31765.2	1114.2	283.15	30682.4	1112.0	283.15	29624.1	1109.7	283.15	28560.0	1107.3
283.15	31749.8	1114.1	283.15	30667.8	1112.0	283.15	29610.9	1109.7	283.15	28546.8	1107.2
283.15	31734.8	1114.1	283.15	30654.0	1112.0	283.15	29598.0	1109.7	283.15	28533.1	1107.2
283.15	31720.9	1114.2	283.15	30640.1	1111.8	283.15	29585.3	1109.5	283.15	28518.8	1107.3
283.15	31707.1	1114.2	283.15	30628.0	1111.8	283.15	29571.3	1109.6	283.15	28505.9	1107.2
283.15	31692.7	1114.1	283.15	30613.8	1111.8	283.15	29558.4	1109.6	283.15	28492.9	1107.2
283.15	31678.4	1114.1	283.16	30600.3	1111.8	283.15	29544.5	1109.4	283.15	28479.2	1107.2
283.15	31663.4	1114.1	283.15	30587.4	1111.7	283.15	29529.5	1109.5	283.15	28465.7	1107.1
283.15	31648.6	1114.0	283.15	30571.9	1111.7	283.15	29516.8	1109.4	283.15	28451.8	1107.1
283.15	31635.2	1114.0	283.15	30558.0	1111.7	283.15	29503.7	1109.4	283.15	28436.9	1107.2
283.15	31620.4	1113.9	283.15	30544.4	1111.8	283.15	29490.6	1109.3	283.15	28423.5	1107.1
283.15	31606.0	1113.9	283.15	30530.4	1111.7	283.15	29475.8	1109.3	283.15	28410.2	1107.0
283.15	31591.9	1113.8	283.15	30514.7	1111.6	283.15	29463.6	1109.2	283.15	28396.2	1106.8
283.15	31578.7	1113.9	283.15	30500.5	1111.5	283.15	29448.6	1109.4	283.15	28382.5	1107.0
283.15	31564.1	1113.9	283.16	30485.7	1111.6	283.15	29434.8	1109.2	283.15	28367.8	1106.9
283.15	31550.4	1113.7	283.15	30471.9	1111.4	283.15	29422.1	1109.2	283.15	28354.1	1106.8
283.15	31537.3	1113.9	283.15	30458.4	1111.4	283.15	29409.5	1109.2	283.15	28339.9	1106.9
283.15	31523.2	1113.8	283.15	30443.3	1111.4	283.15	29396.1	1109.1	283.15	28326.9	1106.8
283.15	31508.7	1113.8	283.15	30429.7	1111.4	283.15	29383.6	1109.2	283.15	28313.4	1106.8
283.15	31495.1	1113.6	283.15	30417.6	1111.4	283.15	29370.6	1109.1	283.15	28299.2	1106.6
283.15	31481.5	1113.6	283.15	30404.0	1111.3	283.15	29357.8	1109.2	283.15	28285.6	1106.8
283.15	31468.1	1113.6	283.15	30391.3	1111.3	283.15	29343.6	1109.0	283.15	28271.6	1106.7
283.15	31455.3	1113.7	283.15	30378.2	1111.3	283.15	29331.8	1109.1	283.15	28258.8	1106.7
283.15	31440.0	1113.5	283.15	30364.0	1111.3	283.15	29318.1	1109.0	283.15	28245.0	1106.6
283.15	31428.9	1113.4	283.15	30351.5	1111.4	283.15	29305.3	1108.9	283.15	28230.8	1106.5
283.15	31412.9	1113.6	283.15	30339.0	1111.2	283.15	29290.9	1109.0	283.15	28216.5	1106.6
283.15	31399.6	1113.5	283.15	30324.5	1111.2	283.15	29277.8	1108.9	283.15	28203.5	1106.6
283.15	31385.7	1113.4	283.15	30309.4	1111.2	283.15	29264.9	1108.8	283.15	28189.5	1106.5
283.15	31372.6	1113.5	283.15	30296.2	1111.1	283.15	29251.0	1108.9	283.15	28176.1	1106.5
283.15	31359.9	1113.4	283.15	30283.4	1111.0	283.15	29238.8	1108.8	283.15	28161.8	1106.5
283.15	31344.9	1113.4	283.15	30269.0	1111.0	283.15	29225.4	1108.8	283.15	28147.7	1106.5
283.15	31330.8	1113.3	283.15	30256.1	1111.0	283.15	29210.4	1108.8	283.15	28134.5	1106.4
283.15	31316.5	1113.3	283.15	30242.8	1111.0	283.15	29197.1	1108.8	283.15	28120.4	1106.4

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
283.15	28106.8	1106.2	283.15	27052.8	1103.9	283.15	26021.2	1101.6	283.15	24981.1	1099.3
283.15	28092.6	1106.3	283.15	27038.9	1104.0	283.15	26008.5	1101.4	283.15	24966.8	1099.1
283.15	28078.7	1106.3	283.15	27025.2	1103.9	283.15	25993.4	1101.5	283.15	24952.5	1099.2
283.15	28065.5	1106.2	283.15	27012.6	1103.9	283.15	25979.8	1101.6	283.15	24938.0	1099.1
283.15	28052.8	1106.2	283.15	26999.9	1103.8	283.15	25966.4	1101.5	283.15	24925.1	1099.0
283.15	28039.5	1106.2	283.15	26985.9	1103.7	283.15	25953.5	1101.4	283.15	24911.1	1098.9
283.15	28025.4	1106.2	283.15	26973.0	1103.7	283.15	25940.2	1101.2	283.15	24897.4	1099.0
283.15	28011.9	1106.1	283.15	26958.5	1103.8	283.15	25927.4	1101.5	283.15	24883.7	1099.1
283.15	27997.7	1106.1	283.15	26944.8	1103.6	283.15	25914.7	1101.3	283.15	24871.1	1098.9
283.15	27982.9	1106.1	283.15	26930.7	1103.6	283.15	25901.2	1101.4	283.15	24857.4	1098.9
283.15	27968.3	1106.0	283.15	26918.1	1103.6	283.15	25889.2	1101.1	283.15	24844.5	1098.8
283.15	27953.5	1105.9	283.15	26904.4	1103.6	283.15	25876.3	1101.3	283.15	24831.0	1098.8
283.15	27939.0	1105.9	283.15	26891.5	1103.6	283.15	25861.2	1101.1	283.15	24818.1	1098.7
283.15	27926.0	1105.9	283.15	26878.3	1103.6	283.15	25847.7	1101.2	283.15	24805.4	1098.8
283.15	27912.6	1105.9	283.15	26864.6	1103.6	283.15	25835.2	1101.2	283.15	24791.6	1098.6
283.15	27898.6	1105.9	283.15	26851.6	1103.5	283.15	25822.3	1101.1	283.15	24777.8	1098.7
283.15	27885.0	1105.8	283.15	26838.1	1103.5	283.15	25809.3	1101.0	283.15	24764.2	1098.6
283.15	27871.7	1105.9	283.15	26825.6	1103.4	283.15	25797.1	1101.1	283.15	24751.1	1098.5
283.15	27858.3	1105.8	283.15	26811.7	1103.3	283.15	25784.5	1101.0	283.15	24738.4	1098.6
283.15	27844.5	1105.7	283.15	26800.5	1103.4	283.15	25771.7	1101.0	283.15	24724.9	1098.7
283.15	27830.3	1105.7	283.15	26787.3	1103.3	283.15	25759.7	1101.1	283.15	24711.1	1098.6
283.15	27815.6	1105.6	283.15	26774.9	1103.4	283.15	25745.9	1100.9	283.15	24696.9	1098.5
283.15	27802.4	1105.7	283.15	26761.5	1103.3	283.15	25731.6	1101.0	283.15	24681.3	1098.5
283.15	27788.8	1105.5	283.15	26747.8	1103.2	283.15	25717.0	1100.8	283.15	24666.9	1098.5
283.15	27776.3	1105.7	283.15	26735.2	1103.2	283.15	25703.4	1100.8	283.15	24653.6	1098.4
283.15	27762.7	1105.5	283.15	26721.0	1103.1	283.15	25688.9	1100.8	283.15	24638.8	1098.4
283.15	27748.5	1105.5	283.15	26707.8	1103.1	283.15	25675.5	1100.7	283.15	24625.2	1098.3
283.15	27736.3	1105.4	283.15	26694.3	1103.0	283.15	25660.4	1100.8	283.15	24612.1	1098.3
283.15	27722.6	1105.3	283.15	26681.2	1103.0	283.15	25646.3	1100.6	283.15	24596.6	1098.3
283.15	27709.0	1105.5	283.15	26667.5	1103.0	283.15	25633.4	1100.7	283.15	24584.0	1098.1
283.15	27695.6	1105.4	283.15	26654.7	1103.0	283.15	25619.5	1100.5	283.15	24571.0	1098.2
283.15	27682.7	1105.3	283.15	26641.6	1102.8	283.15	25605.4	1100.6	283.15	24557.3	1098.2
283.15	27669.6	1105.3	283.15	26628.9	1103.0	283.15	25590.7	1100.6	283.15	24544.0	1098.1
283.15	27656.1	1105.2	283.15	26616.3	1103.0	283.15	25576.7	1100.0	283.15	24531.1	1098.2
283.15	27643.7	1105.2	283.15	26603.0	1102.9	283.15	25564.5	1100.6	283.15	24517.2	1098.1
283.15	27629.3	1105.3	283.15	26589.6	1102.8	283.15	25551.3	1100.5	283.15	24503.2	1098.1
283.15	27615.5	1105.2	283.15	26576.5	1102.9	283.15	25539.2	1100.4	283.15	24490.4	1098.1
283.15	27601.6	1105.2	283.15	26564.8	1102.9	283.15	25525.6	1100.5	283.15	24476.0	1097.9
283.15	27588.6	1105.2	283.15	26550.4	1102.7	283.15	25513.0	1100.4	283.15	24461.7	1097.9
283.15	27574.1	1105.1	283.15	26539.0	1102.7	283.15	25500.2	1100.5	283.15	24448.7	1097.9
283.15	27561.2	1105.0	283.15	26524.7	1102.7	283.15	25486.7	1100.4	283.15	24436.1	1097.8
283.15	27546.8	1105.1	283.15	26512.3	1102.7	283.15	25474.9	1100.3	283.15	24422.6	1097.7
283.15	27532.6	1105.0	283.15	26499.3	1102.8	283.15	25461.0	1100.2	283.15	24407.7	1097.8
283.15	27517.7	1104.8	283.15	26486.4	1102.8	283.15	25447.4	1100.1	283.15	24394.0	1097.9
283.15	27504.8	1105.0	283.15	26473.1	1102.6	283.15	25435.1	1100.3	283.15	24379.4	1097.8
283.15	27491.1	1104.9	283.15	26460.2	1102.6	283.15	25423.8	1100.2	283.15	24365.9	1097.7
283.15	27478.1	1104.9	283.15	26447.5	1102.7	283.15	25411.4	1100.2	283.15	24350.5	1097.6
283.15	27465.8	1105.0	283.15	26433.5	1102.6	283.15	25398.7	1100.1	283.15	24335.9	1097.5
283.15	27451.8	1104.9	283.15	26419.9	1102.5	283.15	25387.8	1100.1	283.15	24321.0	1097.6
283.15	27438.4	1104.9	283.15	26406.8	1102.4	283.15	25373.6	1100.0	283.15	24306.9	1097.4
283.15	27425.7	1104.7	283.15	26392.8	1102.5	283.15	25361.2	1100.1	283.15	24293.4	1097.6
283.15	27411.3	1104.8	283.15	26379.9	1102.4	283.15	25347.9	1099.9	283.15	24280.6	1097.4
283.15	27399.1	1104.7	283.15	26367.5	1102.4	283.15	25333.4	1100.1	283.15	24266.0	1097.4
283.15	27385.4	1104.7	283.15	26355.1	1102.3	283.15	25320.9	1100.0	283.15	24252.1	1097.4
283.15	27371.5	1104.6	283.15	26343.1	1102.4	283.15	25308.6	1099.8	283.15	24239.3	1097.4
283.15	27358.5	1104.6	283.15	26329.5	1102.2	283.15	25296.2	1099.9	283.15	24225.7	1097.3
283.15	27344.2	1104.6	283.15	26316.8	1102.3	283.15	25283.4	1100.0	283.15	24212.9	1097.3
283.15	27330.7	1104.7	283.15	26301.8	1102.1	283.15	25270.4	1099.9	283.15	24198.6	1097.3
283.15	27317.8	1104.6	283.15	26288.1	1102.3	283.15	25257.6	1099.9	283.15	24183.8	1097.3
283.15	27303.7	1104.5	283.15	26274.8	1102.2	283.15	25244.2	1099.8	283.15	24170.0	1097.2
283.15	27290.2	1104.5	283.15	26261.3	1102.1	283.15	25229.2	1099.7	283.15	24157.6	1097.2
283.15	27277.6	1104.6	283.15	26248.3	1102.0	283.15	25214.5	1099.8	283.15	24143.7	1097.1
283.15	27264.7	1104.5	283.15	26234.0	1102.2	283.15	25200.7	1099.6	283.15	24130.9	1097.1
283.15	27251.3	1104.4	283.15	26219.7	1102.1	283.15	25186.5	1099.7	283.15	24116.6	1097.2
283.15	27238.3	1104.4	283.15	26207.5	1102.1	283.15	25173.0	1099.6	283.15	24102.7	1097.2
283.15	27225.4	1104.2	283.15	26195.3	1101.9	283.15	25159.8	1099.7	283.15	24088.9	1097.1
283.15	27213.2	1104.3	283.15	26182.9	1102.0	283.15	25148.3	1099.6	283.15	24074.7	1097.0
283.15	27199.8	1104.3	283.15	26170.8	1102.0	283.15	25134.6	1099.4	283.15	24060.5	1097.0
283.15	27186.6	1104.2	283.15	26158.1	1102.0	283.15	25122.2	1099.4	283.15	24046.1	1097.0
283.15	27173.1	1104.2	283.15	26145.3	1101.9	283.15	25107.9	1099.6	283.15	24031.7	1096.9
283.15	27158.9	1104.3	283.15	26131.7	1101.8	283.15	25094.3	1099.4	283.15	24018.1	1096.9
283.15	27145.6	1104.1	283.15	26118.4	1101.8	283.15	25079.4	1099.4	283.15	24004.2	1096.8
283.15	27132.8	1104.1	283.15	26104.9	1101.9	283.15	25065.5	1099.3	283.15	23987.8	1096.9
283.15	27119.3	1104.1	283.15	26090.7	1101.7	283.15	25050.2	1099.3	283.15	23973.2	1096.8
283.15	27105.4	1104.1	283.15	26076.7	1101.6	283.15	25034.9	1099.2	283.15	23959.7	1096.8
283.15	27091.1	1104.0	283.15	26063.6	1101.7	283.15	25020.0	1099.3	283.15	23946.7	1096.7
283.15	27078.5	1104.1	283.15	26050.3	1101.7	283.15	25006.4	1099.3	283.15	23934.2	1096.7
283.15	27065.4	1103.9	283.15	26035.8	1101.6	283.15	24993.4	1099.2	283.15	23921.3	1096.6

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
283.15	23907.9	1096.7	283.15	22818.5	1093.9	283.15	21720.2	1091.3	283.15	20621.3	1088.5
283.15	23894.7	1096.4	283.15	22804.6	1093.9	283.15	21706.4	1091.2	283.15	20607.1	1088.4
283.15	23881.5	1096.5	283.15	22790.6	1093.9	283.15	21691.7	1091.2	283.15	20592.4	1088.4
283.15	23869.1	1096.6	283.15	22777.0	1093.8	283.15	21677.4	1091.0	283.15	20578.6	1088.3
283.15	23856.0	1096.4	283.15	22762.6	1093.8	283.15	21663.3	1091.1	283.15	20563.6	1088.4
283.15	23843.0	1096.5	283.15	22748.4	1093.9	283.15	21647.6	1091.1	283.15	20549.4	1088.3
283.15	23830.0	1096.3	283.15	22733.8	1093.7	283.15	21633.5	1091.0	283.15	20536.8	1088.2
283.15	23815.4	1096.4	283.15	22720.2	1093.8	283.15	21619.2	1091.1	283.15	20522.8	1088.2
283.15	23801.6	1096.4	283.15	22707.0	1093.6	283.15	21604.6	1091.0	283.15	20508.3	1088.2
283.15	23787.2	1096.4	283.15	22692.7	1093.5	283.15	21589.1	1090.8	283.15	20495.4	1088.2
283.15	23772.3	1096.2	283.15	22679.6	1093.7	283.15	21574.7	1090.9	283.15	20482.0	1088.1
283.15	23758.6	1096.2	283.15	22665.9	1093.5	283.15	21561.5	1090.9	283.15	20468.3	1088.0
283.15	23743.9	1096.3	283.15	22651.8	1093.6	283.15	21548.1	1090.7	283.15	20455.9	1088.1
283.15	23729.8	1096.1	283.15	22638.4	1093.5	283.15	21532.8	1090.8	283.15	20442.1	1088.0
283.15	23715.3	1096.1	283.15	22623.5	1093.4	283.15	21519.5	1090.8	283.15	20428.2	1088.0
283.15	23702.3	1096.1	283.15	22608.6	1093.4	283.15	21504.2	1090.7	283.15	20413.5	1087.8
283.15	23687.8	1096.1	283.15	22593.5	1093.4	283.15	21491.0	1090.6	283.15	20400.4	1087.9
283.15	23674.0	1096.1	283.15	22579.5	1093.3	283.15	21479.2	1090.7	283.15	20385.4	1088.0
283.15	23660.4	1096.1	283.15	22564.5	1093.3	283.15	21462.8	1090.6	283.15	20370.6	1087.9
283.15	23645.9	1095.9	283.15	22550.7	1093.4	283.15	21449.1	1090.6	283.15	20357.6	1087.7
283.15	23632.0	1096.0	283.15	22536.9	1093.3	283.15	21435.0	1090.6	283.15	20343.8	1087.8
283.15	23619.1	1095.9	283.15	22523.7	1093.2	283.15	21420.8	1090.5	283.15	20330.2	1087.8
283.15	23604.2	1095.9	283.15	22509.5	1093.2	283.15	21405.5	1090.4	283.15	20316.3	1087.7
283.15	23591.9	1095.9	283.15	22495.7	1093.2	283.15	21391.7	1090.3	283.15	20304.0	1087.7
283.15	23579.3	1095.7	283.15	22480.7	1093.1	283.15	21377.8	1090.3	283.15	20290.5	1087.5
283.15	23566.0	1095.8	283.15	22465.9	1093.1	283.15	21362.6	1090.3	283.15	20277.1	1087.6
283.15	23553.2	1095.8	283.15	22452.2	1093.0	283.15	21348.4	1090.3	283.15	20263.4	1087.4
283.15	23541.1	1095.7	283.15	22438.4	1093.0	283.15	21334.0	1090.4	283.15	20250.9	1087.6
283.15	23527.6	1095.6	283.15	22424.2	1092.9	283.15	21320.2	1090.2	283.15	20236.7	1087.5
283.15	23513.6	1095.6	283.15	22410.4	1093.0	283.15	21305.7	1090.3	283.15	20223.4	1087.5
283.15	23498.8	1095.7	283.15	22395.3	1092.8	283.15	21290.5	1090.1	283.15	20209.3	1087.3
283.15	23483.4	1095.7	283.15	22381.7	1093.0	283.15	21277.0	1090.0	283.15	20195.6	1087.3
283.15	23469.5	1095.5	283.15	22367.7	1092.8	283.15	21261.5	1090.1	283.15	20181.1	1087.3
283.15	23453.8	1095.6	283.15	22353.5	1092.8	283.15	21248.0	1090.0	283.15	20166.9	1087.3
283.15	23440.0	1095.6	283.15	22339.9	1092.8	283.15	21233.5	1090.0	283.15	20153.3	1087.3
283.15	23425.0	1095.4	283.15	22325.9	1092.8	283.15	21220.5	1090.0	283.15	20138.4	1087.3
283.15	23410.8	1095.3	283.15	22311.0	1092.8	283.15	21206.0	1090.1	283.15	20125.0	1087.3
283.15	23395.7	1095.4	283.15	22299.2	1092.6	283.15	21191.6	1089.9	283.15	20111.7	1087.2
283.15	23380.9	1095.4	283.15	22283.6	1092.6	283.15	21178.3	1089.9	283.15	20098.1	1087.1
283.15	23365.8	1095.3	283.15	22269.1	1092.5	283.15	21163.8	1089.9	283.15	20083.2	1087.1
283.15	23350.4	1095.4	283.15	22255.7	1092.5	283.15	21150.6	1089.9	283.15	20069.9	1086.9
283.15	23336.8	1095.3	283.15	22243.0	1092.6	283.15	21136.6	1089.7	283.15	20056.6	1087.1
283.15	23321.4	1095.1	283.15	22228.5	1092.5	283.15	21122.1	1089.7	283.15	20043.2	1086.9
283.15	23306.6	1095.0	283.15	22214.8	1092.5	283.15	21111.0	1089.7	283.15	20029.1	1087.0
283.15	23294.1	1095.2	283.15	22199.2	1092.5	283.15	21096.5	1089.7	283.15	20017.0	1086.9
283.15	23279.2	1095.2	283.15	22185.2	1092.4	283.15	21081.8	1089.5	283.15	20004.1	1086.8
283.15	23265.6	1095.1	283.15	22171.4	1092.4	283.15	21068.2	1089.7	283.15	19989.4	1086.9
283.15	23252.0	1095.1	283.15	22157.6	1092.3	283.15	21054.7	1089.6	283.15	19976.4	1086.7
283.15	23240.0	1094.9	283.15	22144.7	1092.3	283.15	21038.9	1089.6	283.15	19961.8	1086.7
283.15	23227.3	1095.0	283.15	22130.8	1092.3	283.15	21025.7	1089.5	283.15	19947.1	1086.7
283.15	23214.1	1094.9	283.15	22117.9	1092.2	283.15	21011.6	1089.5	283.15	19933.0	1086.7
283.15	23201.7	1094.9	283.15	22105.0	1092.3	283.15	20998.5	1089.5	283.15	19916.9	1086.6
283.15	23187.6	1094.8	283.15	22090.0	1092.2	283.15	20984.1	1089.4	283.15	19902.6	1086.6
283.15	23173.3	1094.7	283.15	22076.2	1092.0	283.15	20970.7	1089.3	283.15	19887.3	1086.5
283.15	23159.0	1094.9	283.15	22061.8	1092.2	283.15	20956.9	1089.4	283.15	19872.9	1086.4
283.15	23144.7	1094.8	283.15	22047.6	1092.1	283.15	20942.3	1089.4	283.15	19858.9	1086.5
283.15	23129.9	1094.7	283.15	22033.5	1092.0	283.15	20928.1	1089.3	283.15	19844.5	1086.3
283.15	23116.7	1094.8	283.15	22020.1	1092.1	283.15	20914.7	1089.2	283.15	19830.9	1086.4
283.15	23102.0	1094.6	283.15	22007.7	1091.9	283.15	20901.5	1089.2	283.15	19818.2	1086.5
283.15	23087.3	1094.8	283.15	21993.8	1091.9	283.15	20887.2	1089.3	283.16	19804.2	1086.4
283.15	23073.6	1094.7	283.15	21979.6	1091.9	283.15	20873.8	1089.0	283.15	19790.9	1086.3
283.15	23059.7	1094.6	283.15	21965.7	1091.8	283.14	20859.3	1089.0	283.15	19778.0	1086.3
283.15	23044.4	1094.5	283.15	21951.0	1091.7	283.15	20844.2	1089.0	283.15	19763.9	1086.3
283.15	23029.1	1094.4	283.15	21936.6	1091.7	283.15	20830.3	1089.0	283.15	19750.9	1086.2
283.15	23016.0	1094.4	283.15	21920.4	1091.8	283.15	20816.8	1088.9	283.15	19737.1	1086.1
283.15	23001.0	1094.3	283.15	21906.2	1091.8	283.15	20801.4	1088.8	283.15	19723.7	1086.0
283.15	22986.4	1094.4	283.15	21891.3	1091.6	283.15	20787.2	1088.9	283.15	19709.6	1086.2
283.15	22972.6	1094.3	283.15	21875.7	1091.6	283.15	20774.4	1088.8	283.15	19695.5	1086.1
283.15	22958.1	1094.2	283.15	21861.3	1091.6	283.15	20760.5	1088.8	283.15	19683.7	1086.1
283.15	22943.6	1094.2	283.15	21847.0	1091.6	283.15	20747.4	1088.7	283.15	19668.3	1085.9
283.14	22931.0	1094.1	283.15	21831.5	1091.7	283.15	20733.0	1088.8	283.15	19653.7	1086.0
283.15	22917.3	1094.2	283.15	21817.0	1091.5	283.15	20719.1	1088.7	283.15	19639.5	1086.0
283.15	22901.7	1094.2	283.15	21803.6	1091.5	283.15	20705.2	1088.7	283.15	19625.3	1085.9
283.14	22887.8	1094.2	283.15	21789.0	1091.5	283.15	20691.7	1088.6	283.15	19612.2	1085.9
283.15	22874.0	1094.1	283.15	21775.2	1091.4	283.15	20678.1	1088.7	283.15	19599.4	1085.9
283.14	22859.6	1094.1	283.15	21761.0	1091.4	283.15	20664.1	1088.6	283.15	19585.0	1085.9
283.14	22846.6	1094.0	283.15	21747.4	1091.3	283.15	20649.2	1088.6	283.15	19571.4	1085.7
283.15	22831.9	1094.0	283.15	21733.0	1091.3	283.15	20635.2	1088.5	283.15	19558.1	1085.7

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
283.15	19545.0	1085.8	283.15	18486.5	1082.9	283.15	17446.4	1080.1	283.15	16409.8	1077.3
283.15	19530.3	1085.7	283.15	18471.4	1082.8	283.15	17433.3	1080.1	283.15	16396.1	1077.2
283.15	19516.7	1085.4	283.15	18457.7	1082.8	283.15	17420.6	1079.9	283.15	16381.4	1077.3
283.15	19502.5	1085.6	283.15	18443.4	1082.9	283.15	17406.4	1080.1	283.15	16367.2	1077.2
283.15	19488.1	1085.6	283.15	18430.8	1082.8	283.15	17393.9	1080.0	283.15	16353.5	1077.1
283.15	19474.3	1085.5	283.15	18418.3	1082.5	283.15	17380.0	1079.9	283.15	16340.0	1077.0
283.15	19461.5	1085.5	283.15	18404.2	1082.8	283.15	17366.2	1079.9	283.15	16324.7	1077.1
283.15	19448.7	1085.4	283.15	18391.3	1082.6	283.15	17352.3	1079.9	283.15	16310.5	1077.0
283.15	19436.7	1085.4	283.15	18377.4	1082.5	283.15	17340.0	1079.8	283.15	16297.4	1076.9
283.15	19422.9	1085.2	283.15	18364.6	1082.5	283.15	17327.4	1079.7	283.15	16282.8	1076.9
283.15	19409.7	1085.3	283.15	18352.0	1082.5	283.15	17314.9	1079.7	283.15	16268.7	1076.8
283.15	19396.7	1085.3	283.15	18337.8	1082.4	283.15	17301.7	1079.5	283.15	16255.5	1076.7
283.15	19383.5	1085.4	283.15	18324.3	1082.4	283.15	17288.7	1079.6	283.15	16240.8	1076.7
283.15	19370.6	1085.2	283.15	18309.3	1082.3	283.15	17274.9	1079.8	283.15	16228.2	1076.7
283.15	19356.5	1085.2	283.15	18296.2	1082.6	283.15	17261.2	1079.5	283.15	16215.7	1076.7
283.15	19343.1	1085.2	283.15	18282.4	1082.3	283.15	17247.2	1079.5	283.15	16202.9	1076.5
283.15	19329.9	1085.3	283.15	18268.8	1082.4	283.15	17233.5	1079.5	283.15	16189.9	1076.6
283.15	19317.2	1085.2	283.15	18255.6	1082.2	283.15	17219.9	1079.6	283.15	16177.3	1076.6
283.15	19304.8	1085.1	283.15	18242.7	1082.3	283.15	17207.0	1079.4	283.15	16163.5	1076.6
283.15	19290.9	1085.1	283.15	18228.6	1082.1	283.15	17193.0	1079.3	283.15	16149.9	1076.4
283.15	19278.1	1084.9	283.15	18216.4	1082.2	283.15	17180.3	1079.4	283.15	16137.7	1076.4
283.15	19264.8	1085.0	283.15	18202.3	1082.1	283.15	17167.4	1079.3	283.15	16122.6	1076.4
283.15	19253.6	1084.9	283.15	18189.0	1082.2	283.15	17155.2	1079.3	283.15	16110.2	1076.4
283.15	19240.4	1084.9	283.15	18174.4	1082.1	283.15	17141.0	1079.2	283.15	16096.6	1076.3
283.15	19227.2	1084.8	283.15	18161.1	1082.0	283.15	17128.1	1079.3	283.15	16084.4	1076.3
283.15	19214.1	1084.9	283.15	18147.2	1082.0	283.15	17115.1	1079.1	283.15	16071.2	1076.3
283.15	19199.1	1084.8	283.15	18134.0	1081.9	283.15	17101.4	1079.2	283.15	16059.0	1076.4
283.15	19187.7	1084.7	283.15	18120.8	1081.8	283.15	17088.5	1079.0	283.15	16044.7	1076.4
283.15	19172.3	1084.7	283.15	18107.8	1081.8	283.15	17075.9	1079.2	283.15	16031.4	1076.1
283.15	19159.1	1084.7	283.15	18093.9	1081.9	283.15	17064.1	1079.1	283.15	16018.5	1076.1
283.15	19146.2	1084.7	283.15	18081.1	1081.8	283.15	17052.1	1079.0	283.15	16005.2	1076.1
283.15	19131.8	1084.6	283.15	18067.9	1081.8	283.15	17040.5	1078.9	283.15	15992.0	1076.1
283.15	19118.8	1084.5	283.15	18055.0	1081.8	283.15	17028.1	1079.0	283.15	15978.3	1076.0
283.15	19104.9	1084.5	283.15	18041.1	1081.7	283.15	17017.2	1078.9	283.15	15965.8	1076.1
283.15	19090.6	1084.5	283.15	18028.6	1081.7	283.15	17004.8	1078.9	283.15	15953.1	1076.0
283.15	19077.5	1084.3	283.15	18015.9	1081.6	283.15	16991.6	1078.8	283.15	15939.9	1075.9
283.15	19064.4	1084.4	283.16	18001.5	1081.4	283.15	16978.2	1078.8	283.15	15925.6	1075.8
283.15	19049.7	1084.5	283.15	17988.4	1081.5	283.15	16965.5	1078.8	283.15	15910.8	1075.8
283.15	19036.2	1084.2	283.15	17975.5	1081.4	283.15	16952.5	1078.8	283.15	15898.5	1075.7
283.15	19022.3	1084.4	283.15	17961.5	1081.4	283.15	16938.3	1078.8	283.15	15885.3	1075.8
283.15	19008.7	1084.2	283.15	17947.8	1081.5	283.15	16925.3	1078.6	283.15	15873.0	1075.7
283.15	18995.5	1084.2	283.15	17933.8	1081.4	283.15	16911.9	1078.7	283.15	15861.2	1075.6
283.15	18983.7	1084.3	283.15	17921.0	1081.3	283.15	16898.0	1078.7	283.15	15848.1	1075.7
283.15	18971.5	1084.2	283.15	17906.5	1081.3	283.15	16884.6	1078.6	283.15	15835.3	1075.7
283.15	18958.3	1084.3	283.15	17893.3	1081.4	283.15	16870.4	1078.6	283.15	15822.3	1075.6
283.15	18945.6	1084.0	283.15	17878.5	1081.2	283.15	16857.1	1078.4	283.15	15809.9	1075.7
283.15	18932.0	1084.0	283.15	17866.0	1081.3	283.15	16843.2	1078.4	283.15	15796.8	1075.5
283.15	18919.8	1084.1	283.15	17853.4	1081.2	283.15	16828.3	1078.3	283.15	15782.4	1075.3
283.15	18906.1	1084.1	283.15	17839.3	1081.0	283.15	16814.3	1078.3	283.15	15768.8	1075.4
283.15	18893.2	1084.0	283.15	17826.6	1081.3	283.15	16799.5	1078.3	283.15	15755.2	1075.4
283.15	18879.1	1083.8	283.15	17813.3	1080.9	283.15	16788.3	1078.2	283.15	15743.9	1075.3
283.15	18866.0	1083.9	283.15	17801.1	1081.0	283.15	16774.7	1078.3	283.15	15731.5	1075.3
283.15	18852.7	1083.8	283.15	17788.6	1081.1	283.15	16760.7	1078.2	283.15	15718.4	1075.4
283.15	18840.3	1083.8	283.15	17776.1	1080.9	283.15	16747.4	1078.1	283.15	15704.5	1075.2
283.15	18827.5	1083.8	283.15	17762.5	1080.9	283.15	16734.8	1078.1	283.15	15691.8	1075.1
283.15	18813.0	1083.8	283.15	17749.9	1080.8	283.15	16721.9	1078.1	283.15	15677.3	1075.2
283.15	18798.9	1083.7	283.15	17735.9	1080.9	283.15	16708.5	1078.0	283.15	15663.5	1075.3
283.15	18784.6	1083.6	283.15	17723.7	1081.0	283.15	16694.2	1078.1	283.15	15651.3	1075.1
283.15	18770.0	1083.7	283.15	17710.5	1080.8	283.15	16680.4	1078.0	283.15	15637.9	1075.0
283.15	18756.1	1083.6	283.15	17697.0	1080.8	283.15	16666.1	1078.0	283.15	15625.7	1075.0
283.15	18741.6	1083.6	283.15	17683.7	1080.6	283.15	16652.4	1077.8	283.15	15611.8	1075.0
283.15	18727.4	1083.4	283.15	17670.6	1080.7	283.15	16638.6	1077.8	283.15	15598.5	1075.0
283.15	18713.8	1083.6	283.15	17655.8	1080.7	283.15	16625.7	1077.8	283.15	15583.7	1074.8
283.15	18699.5	1083.5	283.15	17645.0	1080.6	283.15	16612.6	1077.7	283.15	15571.5	1075.0
283.15	18685.3	1083.4	283.15	17631.9	1080.5	283.15	16598.7	1077.6	283.15	15559.7	1074.9
283.15	18671.0	1083.3	283.15	17617.0	1080.4	283.15	16584.9	1077.7	283.15	15545.6	1074.9
283.15	18656.2	1083.2	283.15	17602.8	1080.5	283.15	16571.2	1077.8	283.15	15531.7	1074.8
283.15	18641.8	1083.4	283.15	17589.3	1080.5	283.15	16557.3	1077.6	283.15	15518.1	1074.8
283.15	18626.8	1083.2	283.15	17576.5	1080.4	283.15	16544.4	1077.7	283.15	15505.2	1074.6
283.15	18612.8	1083.3	283.15	17564.0	1080.4	283.15	16530.1	1077.7	283.15	15492.5	1074.7
283.15	18598.0	1083.2	283.15	17550.8	1080.4	283.15	16516.4	1077.5	283.15	15479.6	1074.6
283.15	18585.1	1083.1	283.15	17537.6	1080.3	283.15	16502.7	1077.4	283.15	15466.5	1074.6
283.15	18571.8	1083.1	283.15	17524.6	1080.4	283.15	16489.2	1077.6	283.15	15452.6	1074.5
283.15	18557.3	1083.0	283.15	17511.0	1080.3	283.15	16476.4	1077.5	283.15	15439.2	1074.4
283.15	18542.5	1083.0	283.15	17497.6	1080.2	283.15	16463.2	1077.5	283.15	15428.1	1074.4
283.15	18528.8	1083.0	283.15	17485.8	1080.2	283.15	16449.6	1077.4	283.15	15414.2	1074.4
283.15	18513.8	1083.0	283.15	17473.3	1080.3	283.15	16436.2	1077.3	283.15	15401.1	1074.4
283.15	18500.3	1083.0	283.15	17460.1	1080.1	283.15	16422.9	1077.3	283.15	15388.3	1074.4

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
283.15	15375.2	1074.3	283.15	14331.0	1071.3	283.15	13255.1	1068.1	283.15	12188.0	1064.7
283.15	15361.9	1074.4	283.15	14318.2	1071.2	283.15	13242.1	1068.1	283.15	12174.0	1064.7
283.15	15349.3	1074.1	283.15	14305.4	1071.3	283.15	13228.8	1068.1	283.15	12160.2	1064.6
283.15	15335.5	1074.2	283.15	14291.1	1071.3	283.15	13215.1	1068.0	283.15	12146.2	1064.9
283.15	15321.3	1074.2	283.15	14276.7	1071.2	283.15	13200.8	1068.0	283.15	12131.7	1064.6
283.15	15308.1	1074.2	283.15	14263.2	1071.0	283.15	13187.6	1067.9	283.15	12116.6	1064.5
283.15	15296.0	1074.2	283.15	14248.4	1071.2	283.15	13175.8	1067.9	283.15	12102.9	1064.6
283.15	15283.5	1073.9	283.15	14234.1	1070.9	283.15	13162.0	1067.8	283.15	12088.9	1064.5
283.15	15271.2	1074.0	283.15	14217.6	1070.9	283.15	13148.1	1067.7	283.15	12074.5	1064.4
283.15	15257.7	1074.1	283.15	14202.1	1071.0	283.15	13135.8	1067.6	283.15	12061.4	1064.6
283.15	15244.5	1074.1	283.15	14186.5	1070.8	283.15	13122.4	1067.7	283.15	12046.8	1064.4
283.15	15232.0	1073.9	283.15	14172.4	1070.7	283.15	13108.7	1067.6	283.15	12033.8	1064.3
283.15	15218.6	1073.8	283.14	14158.0	1070.8	283.15	13095.4	1067.7	283.15	12020.7	1064.3
283.15	15205.3	1073.8	283.15	14143.6	1070.6	283.15	13081.0	1067.4	283.15	12007.7	1064.4
283.15	15192.9	1073.7	283.15	14128.7	1070.7	283.15	13066.1	1067.6	283.15	11994.6	1064.3
283.15	15179.0	1073.7	283.15	14114.4	1070.6	283.15	13052.0	1067.5	283.15	11980.8	1064.2
283.15	15163.9	1073.8	283.15	14101.2	1070.6	283.15	13036.3	1067.5	283.15	11968.8	1064.2
283.15	15150.7	1073.8	283.15	14087.7	1070.5	283.15	13023.5	1067.4	283.15	11955.2	1064.3
283.15	15136.8	1073.5	283.15	14074.7	1070.6	283.15	13010.2	1067.4	283.15	11941.5	1064.1
283.15	15123.5	1073.7	283.15	14060.8	1070.5	283.15	12996.5	1067.3	283.15	11928.5	1064.1
283.15	15110.2	1073.7	283.15	14047.6	1070.5	283.15	12983.1	1067.4	283.15	11914.9	1063.9
283.15	15098.1	1073.5	283.15	14035.0	1070.3	283.15	12969.0	1067.2	283.15	11901.0	1064.0
283.15	15085.1	1073.6	283.15	14023.1	1070.6	283.15	12956.8	1067.1	283.15	11890.6	1063.8
283.15	15071.7	1073.4	283.15	14009.5	1070.4	283.15	12944.0	1067.2	283.15	11878.1	1064.0
283.15	15058.2	1073.3	283.15	13995.1	1070.3	283.15	12929.6	1067.1	283.15	11864.2	1064.0
283.15	15045.3	1073.2	283.15	13981.4	1070.2	283.15	12915.8	1067.0	283.15	11851.1	1063.7
283.15	15032.2	1073.2	283.15	13966.8	1070.2	283.15	12902.8	1067.0	283.15	11838.1	1063.7
283.15	15018.6	1073.3	283.15	13951.6	1070.1	283.15	12889.4	1067.0	283.15	11825.5	1063.6
283.15	15004.2	1073.2	283.15	13936.9	1070.2	283.15	12876.3	1066.9	283.15	11810.6	1063.8
283.15	14988.6	1073.3	283.15	13922.4	1070.0	283.15	12862.6	1066.9	283.15	11796.1	1063.7
283.15	14973.7	1073.1	283.15	13908.7	1070.1	283.15	12847.8	1066.9	283.15	11782.7	1063.6
283.15	14957.4	1073.2	283.15	13893.9	1070.0	283.15	12833.0	1066.8	283.15	11770.2	1063.5
283.15	14942.5	1073.1	283.15	13882.1	1070.0	283.15	12818.8	1066.8	283.15	11755.9	1063.5
283.15	14929.1	1073.1	283.15	13868.7	1069.9	283.15	12805.1	1066.7	283.15	11742.7	1063.5
283.15	14914.7	1073.0	283.15	13855.7	1069.8	283.15	12790.5	1066.6	283.15	11728.6	1063.4
283.15	14900.3	1073.0	283.15	13841.8	1069.8	283.15	12776.2	1066.7	283.15	11714.3	1063.4
283.15	14887.2	1073.0	283.15	13827.0	1069.8	283.15	12762.8	1066.7	283.15	11701.8	1063.4
283.15	14872.9	1072.9	283.15	13814.4	1069.7	283.15	12748.4	1066.4	283.15	11687.5	1063.2
283.15	14859.7	1072.9	283.15	13800.6	1069.8	283.15	12736.0	1066.4	283.15	11675.0	1063.3
283.15	14845.5	1072.9	283.15	13787.9	1069.7	283.15	12722.1	1066.6	283.15	11661.6	1063.2
283.15	14831.9	1072.7	283.15	13775.6	1069.7	283.15	12707.8	1066.4	283.15	11648.1	1063.2
283.15	14820.1	1072.6	283.15	13762.7	1069.6	283.15	12694.8	1066.3	283.15	11634.5	1063.1
283.15	14806.8	1072.6	283.15	13750.7	1069.5	283.15	12680.4	1066.3	283.15	11620.3	1063.0
283.15	14793.8	1072.7	283.15	13738.8	1069.6	283.15	12666.5	1066.3	283.15	11607.2	1063.0
283.15	14780.6	1072.5	283.15	13726.3	1069.5	283.15	12652.7	1066.3	283.15	11592.3	1062.9
283.15	14767.9	1072.5	283.15	13713.3	1069.6	283.15	12639.5	1066.1	283.15	11579.6	1063.0
283.15	14753.7	1072.4	283.15	13700.8	1069.3	283.15	12625.8	1066.2	283.15	11566.2	1062.9
283.15	14740.1	1072.5	283.15	13688.1	1069.4	283.15	12611.5	1066.2	283.15	11552.9	1062.8
283.15	14727.0	1072.5	283.15	13674.2	1069.1	283.15	12597.4	1066.1	283.15	11539.0	1062.8
283.15	14713.5	1072.5	283.15	13661.8	1069.4	283.15	12584.1	1066.2	283.15	11526.4	1062.8
283.15	14700.1	1072.4	283.15	13647.1	1069.4	283.15	12569.6	1066.0	283.15	11513.4	1062.7
283.15	14686.1	1072.4	283.15	13632.3	1069.2	283.15	12555.5	1066.0	283.15	11501.7	1062.7
283.15	14673.9	1072.3	283.15	13617.1	1069.2	283.15	12542.3	1065.9	283.15	11488.1	1062.6
283.15	14660.8	1072.3	283.15	13603.3	1069.2	283.15	12527.9	1066.0	283.15	11475.0	1062.6
283.15	14646.9	1072.2	283.15	13589.3	1069.0	283.15	12514.0	1065.9	283.15	11463.3	1062.6
283.15	14634.3	1072.1	283.15	13574.8	1069.2	283.15	12500.2	1065.8	283.15	11451.8	1062.6
283.15	14618.9	1072.2	283.15	13561.2	1069.0	283.15	12487.0	1065.7	283.15	11439.6	1062.4
283.15	14606.6	1072.0	283.15	13546.9	1069.1	283.15	12473.3	1065.8	283.15	11427.7	1062.5
283.15	14593.9	1072.2	283.15	13533.2	1069.0	283.15	12460.3	1065.7	283.15	11414.0	1062.4
283.15	14580.3	1072.0	283.15	13520.4	1068.9	283.15	12446.8	1065.5	283.15	11400.4	1062.4
283.15	14568.3	1072.0	283.15	13506.9	1068.8	283.15	12433.8	1065.6	283.15	11386.8	1062.3
283.15	14554.6	1071.9	283.15	13494.0	1068.8	283.15	12420.3	1065.6	283.15	11374.3	1062.4
283.15	14541.4	1071.8	283.15	13479.0	1068.6	283.15	12406.9	1065.4	283.15	11360.9	1062.3
283.15	14529.0	1071.9	283.15	13466.5	1068.8	283.15	12393.9	1065.5	283.15	11348.0	1062.3
283.15	14515.4	1071.8	283.15	13454.0	1068.7	283.15	12380.8	1065.4	283.15	11334.9	1062.2
283.15	14501.9	1071.7	283.15	13440.8	1068.8	283.15	12367.6	1065.6	283.15	11322.7	1062.3
283.15	14486.7	1071.8	283.15	13426.2	1068.7	283.15	12353.9	1065.3	283.15	11310.1	1062.2
283.15	14474.1	1071.9	283.15	13411.5	1068.7	283.15	12338.9	1065.3	283.15	11297.9	1062.2
283.15	14462.1	1071.7	283.15	13396.2	1068.5	283.15	12323.6	1065.3	283.15	11283.9	1062.0
283.15	14448.5	1071.5	283.15	13380.6	1068.5	283.15	12310.8	1065.1	283.15	11270.9	1062.1
283.15	14435.6	1071.6	283.15	13367.5	1068.4	283.15	12297.5	1065.1	283.15	11258.1	1061.8
283.15	14422.3	1071.6	283.15	13352.2	1068.4	283.15	12284.1	1065.3	283.15	11245.5	1061.9
283.15	14409.6	1071.5	283.15	13337.8	1068.2	283.15	12271.5	1065.0	283.15	11231.9	1061.8
283.15	14397.3	1071.4	283.15	13324.4	1068.3	283.15	12257.8	1065.0	283.15	11218.3	1061.7
283.15	14383.9	1071.5	283.15	13310.8	1068.3	283.15	12243.7	1065.0	283.15	11205.4	1061.7
283.15	14370.8	1071.6	283.15	13296.6	1068.3	283.15	12230.2	1065.0	283.15	11192.7	1061.7
283.15	14357.8	1071.3	283.15	13282.5	1068.2	283.15	12216.2	1065.0	283.15	11178.7	1061.7
283.15	14344.3	1071.4	283.15	13268.7	1068.3	283.15	12201.8	1064.8	283.15	11166.7	1061.5

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
283.15	11153.9	1061.6	283.15	10161.8	1058.4	283.15	9187.6	1055.2	283.15	8242.9	1052.1
283.15	11140.9	1061.6	283.15	10149.1	1058.3	283.15	9176.2	1055.0	283.15	8231.2	1051.9
283.15	11128.8	1061.6	283.15	10136.3	1058.3	283.15	9163.5	1055.1	283.15	8219.5	1051.9
283.15	11115.6	1061.5	283.15	10124.6	1058.3	283.15	9150.4	1055.1	283.15	8206.2	1051.8
283.15	11103.1	1061.5	283.15	10112.0	1058.2	283.15	9138.0	1055.1	283.15	8194.1	1051.8
283.15	11090.3	1061.4	283.15	10099.2	1058.2	283.15	9126.8	1055.1	283.15	8181.2	1051.7
283.15	11076.6	1061.3	283.15	10087.2	1058.2	283.15	9114.9	1054.9	283.15	8170.1	1051.7
283.15	11064.0	1061.3	283.15	10074.5	1058.2	283.15	9103.5	1054.9	283.15	8159.3	1051.7
283.15	11049.4	1061.3	283.15	10061.8	1058.1	283.15	9091.6	1054.9	283.15	8147.7	1051.7
283.15	11036.6	1061.3	283.15	10048.7	1058.0	283.15	9080.2	1054.8	283.15	8136.9	1051.5
283.15	11023.2	1061.2	283.15	10035.8	1057.9	283.15	9068.0	1054.7	283.15	8124.8	1051.6
283.15	11011.8	1061.2	283.15	10023.6	1058.0	283.15	9055.3	1054.7	283.15	8113.2	1051.6
283.15	10998.8	1061.2	283.15	10009.8	1057.8	283.15	9042.9	1054.8	283.15	8101.0	1051.6
283.15	10985.4	1061.1	283.15	9996.2	1057.8	283.15	9029.4	1054.7	283.15	8088.2	1051.4
283.15	10972.0	1061.1	283.15	9984.2	1057.9	283.15	9017.4	1054.7	283.15	8076.4	1051.4
283.15	10959.4	1061.0	283.15	9970.9	1057.7	283.15	9005.5	1054.5	283.15	8063.8	1051.5
283.15	10946.5	1060.9	283.15	9958.7	1057.8	283.15	8994.6	1054.5	283.15	8051.9	1051.3
283.15	10934.1	1060.9	283.15	9946.5	1057.7	283.15	8982.4	1054.4	283.15	8040.1	1051.3
283.15	10921.9	1060.9	283.15	9933.4	1057.7	283.15	8970.6	1054.6	283.15	8027.4	1051.3
283.15	10908.6	1060.9	283.15	9919.7	1057.6	283.15	8958.0	1054.4	283.15	8014.6	1051.2
283.15	10895.1	1060.8	283.15	9906.3	1057.5	283.15	8945.0	1054.3	283.15	8003.7	1051.2
283.15	10882.0	1060.8	283.15	9894.8	1057.6	283.15	8933.4	1054.3	283.15	7991.1	1051.1
283.15	10869.3	1060.7	283.15	9882.9	1057.4	283.15	8921.0	1054.3	283.15	7980.3	1051.0
283.15	10856.0	1060.7	283.15	9870.9	1057.3	283.15	8908.9	1054.1	283.15	7968.7	1051.3
283.15	10843.3	1060.6	283.15	9857.4	1057.4	283.15	8896.7	1054.1	283.15	7957.5	1051.1
283.15	10830.2	1060.6	283.15	9844.7	1057.3	283.15	8885.5	1054.2	283.15	7946.6	1050.9
283.15	10816.7	1060.4	283.15	9832.3	1057.4	283.15	8874.7	1054.0	283.15	7934.8	1050.9
283.15	10803.6	1060.6	283.15	9819.4	1057.2	283.15	8864.0	1054.2	283.15	7923.7	1051.0
283.15	10789.8	1060.4	283.15	9806.8	1057.3	283.15	8852.5	1054.0	283.15	7912.5	1050.7
283.15	10777.9	1060.4	283.15	9794.5	1057.2	283.15	8839.7	1054.1	283.15	7900.7	1050.8
283.15	10763.6	1060.4	283.15	9781.8	1057.1	283.15	8827.3	1054.1	283.15	7889.4	1050.8
283.15	10750.1	1060.2	283.15	9768.9	1057.1	283.14	8815.9	1053.9	283.15	7878.7	1050.6
283.15	10738.6	1060.3	283.15	9757.2	1057.1	283.15	8803.1	1054.1	283.15	7867.8	1050.6
283.15	10726.1	1060.2	283.15	9744.8	1057.0	283.15	8789.9	1053.9	283.15	7857.5	1050.6
283.15	10713.0	1060.2	283.15	9732.1	1057.1	283.15	8776.1	1053.7	283.15	7845.6	1050.7
283.15	10701.3	1060.1	283.15	9718.4	1056.9	283.15	8762.6	1053.7	283.15	7834.2	1050.6
283.15	10690.0	1060.2	283.15	9705.7	1056.9	283.15	8750.6	1053.8	283.15	7822.0	1050.6
283.15	10678.5	1060.0	283.15	9693.0	1057.0	283.15	8739.2	1053.6	283.15	7810.0	1050.5
283.15	10665.9	1060.1	283.15	9679.8	1056.7	283.15	8727.5	1053.7	283.15	7797.8	1050.5
283.15	10653.7	1060.1	283.15	9667.5	1056.8	283.15	8716.7	1053.5	283.15	7786.2	1050.3
283.15	10640.9	1060.0	283.15	9655.6	1056.7	283.15	8704.2	1053.6	283.15	7774.3	1050.3
283.15	10629.4	1060.0	283.15	9643.9	1056.7	283.15	8692.7	1053.4	283.15	7762.9	1050.3
283.15	10617.4	1059.9	283.15	9632.3	1056.6	283.15	8680.4	1053.5	283.15	7751.7	1050.3
283.15	10604.3	1059.8	283.15	9620.3	1056.6	283.15	8668.2	1053.4	283.15	7740.5	1050.2
283.15	10592.1	1059.8	283.15	9608.4	1056.7	283.15	8654.9	1053.4	283.15	7728.1	1050.3
283.15	10578.8	1059.8	283.15	9595.8	1056.5	283.15	8642.1	1053.4	283.15	7716.9	1050.1
283.15	10566.1	1059.8	283.15	9582.8	1056.5	283.15	8630.1	1053.3	283.15	7705.7	1050.1
283.15	10553.7	1059.7	283.15	9571.2	1056.4	283.15	8617.2	1053.3	283.15	7694.1	1050.0
283.15	10542.0	1059.6	283.15	9558.5	1056.5	283.15	8605.0	1053.2	283.15	7682.4	1050.0
283.15	10528.2	1059.6	283.15	9545.8	1056.3	283.15	8591.5	1053.2	283.15	7670.8	1050.0
283.15	10515.0	1059.6	283.15	9533.7	1056.3	283.15	8579.6	1053.2	283.15	7659.1	1049.9
283.15	10502.2	1059.5	283.15	9520.5	1056.4	283.15	8566.5	1053.1	283.15	7647.3	1049.9
283.15	10489.3	1059.4	283.15	9508.6	1056.2	283.15	8554.3	1053.0	283.15	7635.9	1049.7
283.15	10476.1	1059.5	283.15	9496.9	1056.2	283.15	8541.8	1053.0	283.15	7624.4	1049.8
283.15	10463.7	1059.4	283.15	9484.0	1056.0	283.15	8530.1	1053.0	283.15	7612.8	1049.8
283.15	10450.8	1059.2	283.15	9471.0	1056.1	283.15	8517.0	1053.0	283.15	7600.6	1049.8
283.15	10438.8	1059.2	283.15	9457.4	1056.1	283.15	8505.9	1052.9	283.15	7589.7	1049.8
283.15	10426.0	1059.2	283.15	9444.1	1056.0	283.15	8494.6	1052.9	283.15	7577.7	1049.6
283.15	10412.9	1059.1	283.15	9430.7	1055.9	283.15	8482.9	1052.8	283.15	7567.1	1049.6
283.15	10401.4	1059.1	283.15	9420.5	1056.0	283.15	8471.1	1052.8	283.15	7556.1	1049.5
283.15	10388.5	1059.1	283.15	9407.1	1056.0	283.15	8459.5	1052.6	283.15	7544.4	1049.6
283.15	10375.8	1059.2	283.15	9393.8	1055.7	283.15	8448.2	1052.7	283.15	7532.4	1049.4
283.15	10363.6	1059.0	283.15	9381.8	1055.7	283.15	8434.9	1052.8	283.15	7521.1	1049.4
283.15	10351.0	1059.0	283.15	9369.9	1055.8	283.15	8422.0	1052.7	283.15	7510.9	1049.3
283.15	10338.7	1059.1	283.15	9358.0	1055.8	283.15	8410.3	1052.5	283.15	7499.5	1049.4
283.15	10327.2	1058.8	283.15	9347.1	1055.7	283.15	8397.7	1052.5	283.15	7487.8	1049.3
283.15	10313.6	1058.8	283.15	9334.0	1055.6	283.15	8384.8	1052.6	283.15	7476.0	1049.3
283.15	10301.6	1058.8	283.15	9321.6	1055.6	283.15	8372.2	1052.3	283.15	7464.3	1049.2
283.15	10288.9	1058.9	283.15	9309.6	1055.6	283.15	8361.4	1052.3	283.15	7451.7	1049.2
283.15	10277.0	1058.9	283.15	9296.4	1055.6	283.15	8349.5	1052.3	283.15	7440.3	1049.1
283.15	10264.1	1058.7	283.15	9284.2	1055.6	283.15	8337.7	1052.3	283.15	7431.1	1049.0
283.15	10251.8	1058.7	283.15	9272.4	1055.4	283.15	8325.5	1052.2	283.15	7420.3	1049.3
283.15	10238.6	1058.6	283.15	9260.8	1055.5	283.15	8313.8	1052.2	283.15	7408.9	1049.1
283.15	10225.3	1058.7	283.15	9248.7	1055.3	283.15	8302.2	1052.2	283.15	7399.1	1049.1
283.15	10213.4	1058.8	283.15	9235.8	1055.3	283.15	8290.3	1052.2	283.15	7387.3	1048.9
283.15	10201.1	1058.4	283.15	9222.8	1055.5	283.15	8278.1	1052.0	283.15	7374.7	1049.0
283.15	10187.7	1058.4	283.15	9211.0	1055.2	283.15	8266.6	1052.1	283.15	7363.5	1048.9
283.15	10175.2	1058.4	283.15	9199.6	1055.1	283.15	8255.0	1052.1	283.15	7350.8	1048.8

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
283.15	7338.9	1048.7	283.15	6440.0	1045.6	283.15	5466.2	1042.0	283.15	4487.2	1038.3
283.15	7328.2	1048.8	283.15	6427.8	1045.4	283.15	5454.4	1041.9	283.15	4475.3	1038.2
283.15	7315.7	1048.7	283.15	6415.2	1045.6	283.15	5442.3	1041.9	283.15	4461.8	1038.1
283.15	7303.7	1048.7	283.15	6402.6	1045.4	283.15	5429.5	1041.8	283.15	4450.2	1038.2
283.15	7291.9	1048.7	283.15	6389.3	1045.4	283.15	5417.7	1041.8	283.15	4436.0	1038.0
283.15	7280.6	1048.6	283.15	6376.1	1045.2	283.15	5406.3	1041.7	283.15	4422.8	1038.1
283.15	7269.0	1048.5	283.15	6363.7	1045.3	283.15	5396.0	1041.8	283.15	4409.7	1037.9
283.15	7257.5	1048.5	283.15	6351.2	1045.2	283.15	5384.4	1041.6	283.15	4397.1	1037.8
283.15	7246.1	1048.4	283.15	6339.5	1045.2	283.15	5374.0	1041.5	283.15	4382.5	1037.8
283.15	7234.9	1048.5	283.15	6326.7	1045.1	283.15	5361.3	1041.7	283.15	4369.6	1037.8
283.15	7223.1	1048.4	283.15	6314.2	1045.2	283.15	5349.4	1041.4	283.15	4356.7	1037.8
283.15	7212.3	1048.5	283.15	6300.0	1045.0	283.15	5337.8	1041.5	283.15	4344.1	1037.7
283.15	7201.2	1048.3	283.15	6287.6	1045.0	283.15	5326.4	1041.5	283.15	4331.6	1037.6
283.15	7189.6	1048.3	283.15	6274.6	1045.0	283.15	5314.3	1041.4	283.15	4319.4	1037.6
283.15	7179.3	1048.2	283.15	6260.3	1044.9	283.15	5300.5	1041.4	283.15	4305.5	1037.5
283.15	7169.5	1048.3	283.15	6247.0	1044.8	283.15	5288.4	1041.3	283.15	4293.6	1037.4
283.15	7156.9	1048.2	283.15	6234.0	1044.7	283.15	5277.1	1041.1	283.15	4280.2	1037.4
283.15	7146.3	1048.0	283.15	6221.2	1044.8	283.15	5263.3	1041.1	283.15	4267.2	1037.3
283.15	7134.4	1048.1	283.15	6209.8	1044.7	283.15	5249.5	1041.3	283.15	4255.3	1037.3
283.15	7122.2	1048.0	283.15	6197.9	1044.7	283.15	5236.5	1041.1	283.15	4242.3	1037.2
283.15	7111.0	1048.0	283.15	6185.1	1044.6	283.15	5224.0	1041.1	283.15	4229.4	1037.1
283.15	7099.2	1047.9	283.15	6173.1	1044.7	283.15	5212.0	1041.0	283.15	4215.6	1037.1
283.15	7088.2	1047.9	283.15	6161.1	1044.5	283.15	5196.8	1041.0	283.15	4202.8	1037.1
283.15	7076.2	1048.0	283.15	6147.6	1044.5	283.15	5184.0	1041.0	283.15	4190.0	1037.0
283.15	7066.4	1047.8	283.15	6133.3	1044.5	283.14	5171.1	1040.9	283.15	4177.5	1037.0
283.15	7055.0	1047.8	283.15	6120.0	1044.4	283.15	5158.5	1040.8	283.15	4164.5	1037.1
283.15	7044.8	1047.8	283.15	6107.0	1044.3	283.15	5146.3	1040.7	283.15	4152.4	1037.0
283.15	7033.4	1047.8	283.15	6095.4	1044.3	283.15	5132.2	1040.7	283.15	4139.8	1036.9
283.15	7021.2	1047.8	283.15	6083.0	1044.2	283.15	5118.3	1040.6	283.15	4128.2	1036.9
283.15	7010.2	1047.8	283.15	6069.9	1044.3	283.15	5105.7	1040.6	283.15	4116.7	1036.9
283.15	6998.4	1047.7	283.15	6056.8	1044.2	283.15	5092.4	1040.6	283.15	4104.6	1036.8
283.15	6987.4	1047.4	283.15	6045.2	1044.2	283.15	5078.9	1040.5	283.15	4092.3	1036.5
283.15	6976.3	1047.5	283.15	6033.2	1044.1	283.15	5064.4	1040.4	283.15	4081.2	1036.7
283.15	6966.5	1047.4	283.15	6021.5	1044.1	283.15	5051.2	1040.5	283.15	4069.7	1036.5
283.15	6954.2	1047.5	283.15	6009.4	1044.0	283.15	5038.6	1040.3	283.15	4058.3	1036.4
283.15	6944.0	1047.3	283.15	5997.2	1044.0	283.15	5025.6	1040.3	283.15	4045.3	1036.3
283.15	6932.3	1047.4	283.15	5983.3	1044.0	283.15	5012.3	1040.2	283.15	4032.1	1036.4
283.15	6921.9	1047.3	283.15	5970.9	1043.9	283.15	5000.9	1040.2	283.15	4019.3	1036.4
283.15	6910.0	1047.2	283.15	5960.2	1043.8	283.15	4987.9	1040.2	283.15	4006.5	1036.3
283.15	6899.6	1047.3	283.15	5949.1	1043.8	283.15	4975.6	1040.1	283.15	3993.2	1036.3
283.15	6888.1	1047.3	283.15	5937.5	1043.7	283.15	4963.9	1040.1	283.15	3980.0	1036.3
283.15	6875.5	1047.2	283.15	5926.1	1043.7	283.15	4952.4	1040.1	283.15	3967.1	1036.1
283.15	6863.4	1047.1	283.15	5912.8	1043.7	283.15	4939.3	1040.0	283.15	3954.8	1036.2
283.15	6851.5	1047.0	283.15	5901.6	1043.7	283.15	4927.0	1039.9	283.15	3942.8	1036.1
283.15	6840.6	1047.1	283.15	5888.6	1043.5	283.15	4915.1	1039.8	283.15	3929.8	1036.0
283.15	6829.7	1046.9	283.15	5876.2	1043.5	283.15	4903.0	1039.8	283.15	3917.0	1036.0
283.15	6820.0	1047.0	283.15	5864.4	1043.5	283.15	4890.7	1039.6	283.15	3904.4	1035.9
283.15	6809.3	1047.0	283.15	5852.8	1043.5	283.15	4878.2	1039.7	283.15	3891.0	1035.9
283.15	6797.8	1046.8	283.15	5840.9	1043.3	283.15	4863.9	1039.6	283.15	3878.6	1035.8
283.15	6787.4	1046.9	283.15	5830.2	1043.3	283.15	4851.4	1039.7	283.15	3865.8	1035.7
283.15	6775.7	1046.7	283.15	5817.8	1043.3	283.15	4839.8	1039.5	283.15	3853.5	1035.7
283.15	6764.1	1046.7	283.15	5803.6	1043.2	283.15	4827.4	1039.5	283.15	3840.5	1035.6
283.15	6752.5	1046.8	283.15	5791.3	1043.2	283.15	4814.6	1039.6	283.15	3827.5	1035.7
283.15	6740.3	1046.7	283.15	5779.2	1043.2	283.15	4802.6	1039.4	283.15	3813.8	1035.6
283.15	6728.6	1046.6	283.15	5767.1	1043.1	283.15	4790.5	1039.3	283.15	3800.8	1035.5
283.15	6718.4	1046.7	283.15	5754.3	1043.1	283.14	4777.4	1039.4	283.15	3788.4	1035.5
283.15	6706.8	1046.6	283.15	5741.9	1042.9	283.14	4765.3	1039.4	283.15	3775.0	1035.5
283.15	6696.2	1046.4	283.15	5728.4	1042.8	283.14	4754.0	1039.2	283.15	3762.2	1035.3
283.15	6684.7	1046.5	283.15	5716.6	1042.9	283.14	4740.7	1039.1	283.15	3749.1	1035.3
283.15	6672.1	1046.5	283.15	5703.9	1042.7	283.14	4728.9	1039.0	283.15	3734.3	1035.2
283.15	6660.0	1046.3	283.15	5689.9	1042.7	283.15	4715.1	1039.1	283.15	3720.5	1035.2
283.15	6648.1	1046.3	283.15	5678.3	1042.8	283.15	4703.3	1039.1	283.15	3707.1	1035.1
283.15	6636.9	1046.3	283.15	5666.3	1042.8	283.15	4691.2	1039.1	283.15	3694.0	1035.1
283.15	6623.9	1046.2	283.15	5653.6	1042.6	283.14	4678.4	1038.9	283.15	3680.0	1035.0
283.15	6611.7	1046.2	283.15	5640.4	1042.7	283.14	4665.3	1038.9	283.15	3666.9	1035.0
283.15	6599.9	1046.2	283.15	5629.2	1042.5	283.14	4653.3	1038.9	283.15	3653.3	1035.0
283.15	6589.5	1046.1	283.15	5617.3	1042.6	283.14	4642.3	1038.9	283.15	3639.4	1034.8
283.15	6578.3	1046.1	283.15	5604.8	1042.5	283.14	4630.2	1038.8	283.15	3625.9	1034.8
283.15	6566.2	1046.0	283.15	5593.2	1042.4	283.14	4618.4	1038.7	283.15	3612.1	1034.7
283.15	6554.5	1046.1	283.15	5579.8	1042.4	283.14	4605.4	1038.7	283.15	3598.2	1034.8
283.15	6542.0	1045.9	283.15	5566.3	1042.3	283.14	4592.1	1038.7	283.15	3586.1	1034.5
283.15	6528.7	1045.7	283.15	5554.7	1042.3	283.14	4578.4	1038.5	283.15	3573.9	1034.6
283.15	6515.8	1045.8	283.15	5541.2	1042.3	283.14	4565.8	1038.6	283.15	3560.5	1034.5
283.15	6503.5	1045.8	283.15	5527.4	1042.0	283.14	4552.5	1038.5	283.15	3546.9	1034.5
283.15	6491.5	1045.8	283.15	5515.6	1042.1	283.15	4538.4	1038.4	283.15	3533.1	1034.5
283.15	6478.7	1045.7	283.15	5502.8	1042.0	283.15	4525.3	1038.4	283.15	3520.4	1034.5
283.15	6465.8	1045.7	283.15	5489.9	1042.1	283.15	4513.7	1038.4	283.15	3506.9	1034.3
283.15	6452.7	1045.5	283.15	5477.4	1042.1	283.15	4501.2	1038.4	283.15	3493.1	1034.5

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
283.15	3479.2	1034.1	283.15	2728.1	1031.2	283.15	1981.3	1027.9	283.15	1235.8	1024.6
283.15	3466.1	1034.1	283.15	2715.8	1031.1	283.15	1968.1	1027.9	283.15	1222.8	1024.6
283.15	3453.8	1034.1	283.15	2702.1	1031.1	283.15	1954.1	1027.8	283.15	1209.4	1024.7
283.15	3440.6	1034.1	283.15	2690.4	1031.0	283.15	1941.6	1027.7	283.15	1196.4	1024.5
283.15	3427.4	1034.1	283.15	2677.9	1030.9	283.15	1929.6	1027.8	283.15	1183.2	1024.5
283.15	3414.8	1033.9	283.15	2665.9	1030.9	283.15	1916.2	1027.8	283.15	1170.7	1024.5
283.15	3403.3	1033.9	283.15	2654.3	1030.9	283.15	1902.7	1027.7	283.15	1158.0	1024.4
283.15	3391.0	1033.7	283.15	2642.2	1030.7	283.15	1889.5	1027.7	283.15	1145.9	1024.3
283.15	3378.2	1033.9	283.15	2629.3	1030.6	283.15	1877.9	1027.6	283.15	1132.9	1024.3
283.15	3365.1	1033.7	283.15	2616.0	1030.6	283.15	1865.1	1027.6	283.15	1120.0	1024.3
283.15	3352.2	1033.7	283.15	2603.2	1030.5	283.15	1852.4	1027.5	283.15	1106.7	1024.2
283.15	3339.3	1033.7	283.15	2590.5	1030.6	283.15	1840.2	1027.4	283.15	1092.2	1024.1
283.15	3326.4	1033.7	283.15	2578.2	1030.5	283.15	1827.2	1027.3	283.15	1078.9	1024.1
283.15	3313.6	1033.5	283.15	2565.0	1030.5	283.15	1814.2	1027.4	283.15	1065.3	1023.9
283.15	3300.3	1033.5	283.15	2552.2	1030.4	283.15	1801.7	1027.2	283.15	1052.5	1023.9
283.15	3286.9	1033.4	283.15	2540.2	1030.3	283.15	1789.2	1027.2	283.15	1040.0	1023.9
283.15	3273.4	1033.3	283.15	2527.6	1030.4	283.15	1777.3	1027.2	283.15	1025.7	1023.9
283.15	3260.8	1033.3	283.15	2514.4	1030.2	283.15	1765.3	1027.1	283.15	1013.4	1023.6
283.15	3247.8	1033.4	283.15	2500.9	1030.1	283.15	1751.6	1027.0	283.15	1000.2	1023.7
283.15	3234.9	1033.2	283.15	2486.6	1030.2	283.15	1738.0	1026.8	283.15	987.9	1023.6
283.15	3222.8	1033.2	283.15	2472.6	1030.2	283.15	1724.3	1026.8	283.15	975.0	1023.6
283.15	3209.7	1033.2	283.15	2460.6	1030.0	283.15	1710.6	1026.9	283.15	963.2	1023.6
283.15	3196.3	1033.0	283.15	2446.4	1030.0	283.15	1698.1	1026.8	283.15	950.4	1023.6
283.15	3182.8	1032.9	283.15	2433.4	1029.9	283.16	1684.8	1026.6	283.15	938.4	1023.3
283.15	3169.5	1032.9	283.15	2420.8	1029.9	283.15	1671.8	1026.6	283.15	927.1	1023.3
283.15	3156.5	1032.8	283.15	2408.1	1029.9	283.15	1658.2	1026.5	283.15	914.1	1023.2
283.15	3142.6	1032.8	283.14	2394.9	1029.7	283.15	1646.4	1026.5	283.15	900.9	1023.2
283.15	3130.0	1032.7	283.15	2382.8	1029.6	283.15	1633.6	1026.4	283.15	887.4	1023.1
283.15	3117.3	1032.7	283.15	2368.9	1029.5	283.15	1620.8	1026.3	283.15	875.2	1023.1
283.15	3104.7	1032.6	283.15	2356.1	1029.6	283.15	1607.2	1026.4	283.15	862.5	1023.1
283.15	3090.8	1032.7	283.15	2342.0	1029.6	283.15	1594.9	1026.2	283.15	850.9	1023.0
283.15	3077.4	1032.6	283.15	2329.4	1029.5	283.15	1581.9	1026.3	283.15	837.5	1022.9
283.15	3063.7	1032.6	283.15	2316.5	1029.3	283.15	1567.7	1026.2	283.15	824.2	1022.8
283.15	3051.9	1032.4	283.15	2304.1	1029.4	283.15	1554.1	1026.2	283.15	811.3	1022.8
283.15	3038.7	1032.5	283.15	2291.9	1029.2	283.15	1541.6	1026.1	283.15	798.5	1022.9
283.15	3025.9	1032.4	283.14	2278.7	1029.2	283.15	1528.8	1025.9	283.15	785.3	1022.8
283.15	3013.3	1032.3	283.14	2267.3	1029.2	283.15	1517.0	1025.9	283.15	772.4	1022.7
283.15	3001.1	1032.3	283.15	2255.0	1029.2	283.15	1503.8	1025.9	283.15	759.4	1022.6
283.15	2988.1	1032.2	283.15	2240.6	1029.1	283.15	1490.6	1025.8	283.15	746.4	1022.4
283.15	2975.5	1032.1	283.15	2227.1	1029.0	283.15	1476.7	1025.8	283.15	734.4	1022.6
283.15	2962.0	1032.0	283.15	2213.0	1028.9	283.15	1464.6	1025.7	283.15	722.1	1022.5
283.15	2948.6	1032.0	283.15	2200.4	1029.0	283.15	1450.9	1025.7	283.15	710.4	1022.4
283.15	2935.1	1032.0	283.15	2187.9	1028.8	283.15	1437.5	1025.7	283.15	697.2	1022.2
283.15	2922.3	1032.0	283.14	2174.9	1028.8	283.15	1425.4	1025.5	283.15	684.9	1022.3
283.15	2908.8	1031.8	283.15	2162.5	1028.7	283.15	1412.7	1025.4	283.15	673.3	1022.2
283.15	2895.8	1031.9	283.15	2149.4	1028.7	283.15	1401.4	1025.4	283.15	660.9	1022.1
283.15	2881.5	1031.8	283.15	2136.4	1028.6	283.15	1389.6	1025.4	283.15	648.6	1022.0
283.15	2868.7	1031.7	283.15	2123.9	1028.5	283.15	1375.0	1025.3	283.15	636.3	1022.1
283.15	2855.4	1031.8	283.15	2111.0	1028.5	283.15	1361.7	1025.2	283.15	624.3	1021.9
283.15	2842.5	1031.7	283.15	2097.2	1028.5	283.15	1347.9	1025.2			
283.15	2829.0	1031.5	283.15	2084.2	1028.4	283.15	1334.7	1025.0			
283.15	2817.8	1031.5	283.15	2072.9	1028.2	283.15	1322.1	1025.0			
283.15	2804.9	1031.4	283.15	2060.4	1028.3	283.15	1309.1	1025.0			
283.15	2792.4	1031.4	283.15	2048.2	1028.3	283.15	1296.9	1025.1			
283.15	2780.5	1031.3	283.15	2035.4	1028.2	283.15	1285.3	1024.9			
283.15	2767.3	1031.2	283.15	2021.7	1028.1	283.15	1273.5	1024.9			
283.15	2753.8	1031.2	283.15	2008.9	1028.0	283.15	1260.3	1024.9			
283.15	2740.8	1031.3	283.15	1995.2	1028.0	283.15	1247.1	1024.8			

Tabella C2: Valori della densità del fluido R1243zf per T = 293.15 K (20°C)

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
293.15	35026.4	1103.6	293.15	33977.4	1101.3	293.15	32974.3	1099.1	293.15	31976.1	1096.9
293.15	35014.3	1103.6	293.15	33962.9	1101.1	293.15	32959.7	1099.1	293.15	31962.8	1096.9
293.15	35001.8	1103.6	293.15	33947.8	1101.3	293.15	32944.8	1099.0	293.15	31949.0	1096.7
293.15	34987.8	1103.5	293.15	33934.0	1101.2	293.15	32930.9	1099.1	293.15	31936.8	1096.6
293.15	34973.8	1103.4	293.15	33918.4	1101.1	293.15	32916.9	1098.9	293.15	31922.8	1096.7
293.15	34957.1	1103.4	293.15	33904.0	1101.2	293.15	32903.1	1099.0	293.15	31908.3	1096.6
293.15	34940.3	1103.4	293.15	33889.5	1101.2	293.15	32888.1	1098.9	293.15	31895.3	1096.7
293.15	34922.0	1103.4	293.15	33874.8	1101.0	293.15	32875.3	1098.8	293.15	31881.3	1096.7
293.15	34905.6	1103.2	293.15	33860.5	1101.0	293.15	32861.9	1098.7	293.15	31868.5	1096.6
293.15	34889.7	1103.3	293.15	33843.5	1101.0	293.15	32847.5	1098.8	293.15	31855.6	1096.5
293.15	34873.6	1103.2	293.15	33829.0	1100.9	293.15	32833.8	1098.8	293.15	31840.6	1096.4
293.15	34857.1	1103.1	293.15	33813.1	1100.9	293.15	32819.6	1098.7	293.15	31826.9	1096.5
293.15	34840.1	1103.3	293.15	33799.9	1100.9	293.15	32805.3	1098.7	293.15	31813.3	1096.4
293.15	34824.6	1103.1	293.15	33783.8	1100.8	293.15	32792.1	1098.7	293.15	31799.3	1096.4
293.15	34808.4	1103.0	293.15	33769.9	1100.8	293.15	32775.7	1098.7	293.15	31785.0	1096.4
293.15	34793.6	1103.1	293.15	33755.1	1100.8	293.15	32761.5	1098.5	293.15	31769.8	1096.3
293.15	34779.8	1102.9	293.15	33740.1	1100.7	293.15	32748.3	1098.6	293.15	31756.5	1096.4
293.15	34765.5	1103.0	293.15	33725.1	1100.8	293.15	32734.0	1098.5	293.15	31741.5	1096.3
293.15	34751.1	1103.0	293.15	33710.3	1100.7	293.15	32719.1	1098.5	293.15	31727.9	1096.4
293.15	34735.4	1102.9	293.15	33696.4	1100.7	293.15	32705.6	1098.5	293.15	31713.8	1096.2
293.15	34721.2	1102.9	293.15	33680.5	1100.5	293.15	32690.4	1098.5	293.15	31699.3	1096.3
293.15	34708.9	1102.8	293.15	33666.4	1100.6	293.15	32677.2	1098.4	293.15	31684.3	1096.3
293.15	34693.8	1102.9	293.15	33651.6	1100.5	293.15	32663.8	1098.4	293.15	31669.1	1096.1
293.15	34678.8	1102.8	293.15	33637.6	1100.6	293.15	32649.7	1098.4	293.15	31654.5	1096.0
293.15	34664.5	1102.7	293.15	33623.4	1100.5	293.15	32633.8	1098.3	293.15	31640.6	1096.1
293.15	34649.4	1102.7	293.15	33607.2	1100.6	293.15	32619.0	1098.2	293.15	31626.7	1096.0
293.15	34636.6	1102.8	293.15	33590.4	1100.3	293.15	32604.3	1098.2	293.15	31613.4	1096.1
293.15	34622.1	1102.7	293.15	33576.2	1100.5	293.15	32591.1	1098.2	293.15	31599.6	1095.9
293.15	34607.3	1102.6	293.15	33562.5	1100.5	293.15	32576.5	1098.1	293.15	31586.9	1096.0
293.15	34592.1	1102.6	293.15	33547.9	1100.4	293.15	32561.7	1098.3	293.15	31573.1	1095.8
293.15	34576.4	1102.6	293.15	33533.9	1100.3	293.15	32548.3	1098.1	293.15	31559.7	1095.9
293.15	34561.2	1102.5	293.15	33519.0	1100.2	293.15	32534.1	1098.1	293.15	31546.0	1095.9
293.15	34546.9	1102.5	293.15	33505.3	1100.3	293.15	32520.7	1098.0	293.15	31531.7	1095.9
293.15	34532.5	1102.5	293.15	33492.4	1100.3	293.15	32508.4	1098.1	293.15	31517.0	1095.7
293.15	34518.0	1102.4	293.15	33478.8	1100.2	293.15	32495.4	1098.0	293.15	31503.4	1095.8
293.15	34503.0	1102.4	293.15	33465.2	1100.1	293.15	32482.0	1097.9	293.15	31489.2	1095.7
293.15	34490.2	1102.4	293.15	33451.0	1100.1	293.15	32468.3	1098.1	293.15	31475.2	1095.6
293.15	34475.3	1102.4	293.15	33438.3	1100.1	293.15	32456.3	1098.0	293.15	31460.3	1095.8
293.15	34461.3	1102.4	293.15	33426.4	1100.1	293.15	32442.4	1097.8	293.15	31446.8	1095.8
293.15	34447.2	1102.3	293.15	33412.5	1100.1	293.15	32428.5	1097.9	293.15	31432.3	1095.6
293.15	34431.7	1102.4	293.15	33399.3	1100.1	293.15	32416.1	1097.9	293.15	31420.1	1095.6
293.15	34416.8	1102.3	293.15	33384.4	1099.9	293.15	32402.5	1097.8	293.15	31404.9	1095.6
293.15	34403.4	1102.2	293.15	33371.4	1099.8	293.15	32389.3	1097.7	293.15	31390.1	1095.5
293.15	34390.4	1102.1	293.15	33359.6	1099.9	293.15	32376.5	1097.8	293.15	31376.6	1095.5
293.15	34375.4	1102.2	293.15	33346.3	1099.8	293.15	32363.0	1097.7	293.15	31362.3	1095.3
293.15	34362.5	1102.1	293.15	33332.6	1099.8	293.15	32348.4	1097.8	293.15	31348.9	1095.5
293.15	34347.5	1102.1	293.15	33319.9	1099.9	293.15	32333.8	1097.7	293.15	31334.3	1095.3
293.15	34333.6	1102.2	293.15	33305.7	1099.8	293.15	32321.0	1097.5	293.15	31320.7	1095.3
293.15	34321.6	1102.0	293.15	33290.8	1099.7	293.15	32305.0	1097.6	293.15	31306.5	1095.3
293.15	34307.4	1101.9	293.15	33278.1	1099.8	293.15	32290.2	1097.3	293.15	31293.3	1095.3
293.15	34294.2	1101.9	293.15	33265.4	1099.8	293.15	32276.6	1097.6	293.15	31279.5	1095.3
293.15	34281.1	1101.8	293.15	33253.0	1099.7	293.15	32261.5	1097.5	293.15	31265.1	1095.3
293.15	34268.9	1101.8	293.15	33240.8	1099.7	293.15	32247.9	1097.4	293.15	31251.4	1095.1
293.15	34255.0	1101.9	293.15	33227.8	1099.7	293.15	32234.6	1097.4	293.15	31237.7	1095.1
293.15	34241.2	1101.9	293.15	33215.2	1099.6	293.15	32220.3	1097.4	293.15	31223.0	1095.1
293.15	34225.6	1101.8	293.15	33201.7	1099.6	293.15	32207.6	1097.4	293.15	31209.8	1095.1
293.15	34212.3	1101.8	293.15	33188.6	1099.6	293.15	32194.5	1097.3	293.15	31196.5	1094.9
293.15	34197.7	1101.7	293.15	33176.2	1099.6	293.15	32181.5	1097.2	293.15	31181.6	1094.9
293.15	34183.7	1101.7	293.15	33162.8	1099.6	293.15	32169.1	1097.3	293.15	31166.6	1094.9
293.15	34169.9	1101.7	293.15	33150.9	1099.5	293.15	32156.4	1097.2	293.15	31152.7	1095.1
293.15	34156.2	1101.6	293.15	33139.5	1099.4	293.15	32143.3	1097.1	293.15	31139.3	1094.9
293.15	34141.6	1101.7	293.15	33126.4	1099.5	293.15	32129.8	1097.2	293.15	31126.5	1094.9
293.15	34128.1	1101.6	293.15	33115.3	1099.3	293.15	32115.1	1097.1	293.15	31112.4	1094.8
293.15	34114.1	1101.5	293.15	33102.1	1099.4	293.15	32100.2	1097.1	293.15	31098.4	1094.9
293.15	34100.7	1101.6	293.15	33087.4	1099.4	293.15	32086.3	1097.1	293.15	31085.2	1094.8
293.15	34087.4	1101.6	293.15	33073.6	1099.4	293.15	32073.4	1097.0	293.15	31071.9	1094.8
293.15	34073.1	1101.5	293.15	33060.9	1099.3	293.15	32059.7	1097.0	293.15	31059.0	1094.8
293.15	34059.5	1101.4	293.15	33047.0	1099.3	293.15	32044.6	1097.1	293.15	31044.5	1094.7
293.15	34046.9	1101.5	293.15	33031.5	1099.2	293.15	32031.2	1096.9	293.15	31030.3	1094.7
293.15	34033.3	1101.5	293.15	33017.9	1099.1	293.15	32017.0	1096.9	293.15	31018.0	1094.7
293.15	34018.5	1101.4	293.15	33003.9	1099.2	293.15	32003.3	1096.9	293.15	31004.7	1094.6
293.15	34005.1	1101.3	293.15	32988.4	1099.1	293.15	31989.8	1096.9	293.15	30990.7	1094.6
293.15	33991.7	1101.4									

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
293.15	30977.4	1094.6	293.15	29901.4	1092.1	293.15	28813.2	1089.4	293.15	27750.0	1086.9
293.15	30964.9	1094.5	293.15	29887.0	1092.0	293.15	28799.7	1089.4	293.15	27735.9	1086.9
293.15	30951.5	1094.6	293.15	29874.1	1092.0	293.15	28786.3	1089.5	293.15	27722.5	1086.9
293.15	30938.1	1094.5	293.15	29860.1	1092.0	293.15	28772.1	1089.5	293.15	27708.1	1086.8
293.15	30925.9	1094.6	293.15	29846.9	1092.0	293.15	28757.5	1089.4	293.15	27692.2	1087.0
293.15	30913.0	1094.6	293.15	29832.4	1091.9	293.15	28744.2	1089.5	293.15	27677.0	1086.9
293.15	30899.8	1094.4	293.15	29817.5	1091.9	293.15	28729.7	1089.4	293.15	27662.8	1086.8
293.15	30887.3	1094.2	293.15	29803.8	1091.8	293.15	28717.5	1089.2	293.15	27647.2	1086.8
293.15	30872.8	1094.2	293.15	29788.6	1091.8	293.15	28703.8	1089.3	293.15	27631.6	1086.8
293.15	30860.2	1094.2	293.15	29772.8	1091.8	293.15	28690.9	1089.2	293.15	27616.0	1086.7
293.15	30847.9	1094.3	293.15	29760.3	1091.7	293.15	28676.4	1089.1	293.15	27602.3	1086.6
293.15	30835.5	1094.2	293.15	29745.0	1091.7	293.15	28664.1	1089.2	293.15	27588.7	1086.6
293.15	30823.2	1094.2	293.15	29730.7	1091.7	293.15	28650.6	1089.1	293.15	27575.0	1086.7
293.15	30810.5	1094.1	293.15	29715.5	1091.7	293.15	28637.2	1089.1	293.15	27560.1	1086.5
293.15	30797.2	1094.2	293.15	29701.3	1091.6	293.15	28623.2	1089.1	293.15	27544.7	1086.5
293.15	30783.2	1094.0	293.15	29686.6	1091.7	293.15	28609.1	1088.9	293.15	27530.0	1086.4
293.15	30770.3	1094.2	293.15	29672.5	1091.6	293.15	28596.7	1089.0	293.15	27516.0	1086.5
293.15	30755.7	1094.1	293.15	29657.9	1091.6	293.15	28582.4	1089.0	293.15	27501.0	1086.4
293.15	30743.0	1094.1	293.15	29643.1	1091.5	293.15	28569.5	1088.9	293.15	27486.4	1086.3
293.15	30728.1	1093.9	293.15	29629.2	1091.4	293.15	28555.5	1088.8	293.15	27472.0	1086.3
293.15	30712.7	1094.0	293.15	29615.1	1091.4	293.15	28542.0	1088.9	293.15	27457.4	1086.2
293.15	30697.7	1093.9	293.15	29601.2	1091.3	293.15	28527.6	1088.8	293.15	27443.2	1086.3
293.15	30684.5	1093.9	293.15	29588.0	1091.5	293.15	28515.1	1088.8	293.15	27429.4	1086.2
293.15	30670.8	1093.8	293.15	29573.3	1091.3	293.15	28502.1	1088.8	293.15	27415.1	1086.1
293.15	30656.3	1093.8	293.15	29559.6	1091.4	293.15	28487.9	1088.9	293.15	27400.6	1086.2
293.15	30640.9	1093.8	293.15	29545.6	1091.2	293.15	28474.6	1088.7	293.15	27385.5	1086.1
293.15	30626.3	1093.8	293.15	29530.7	1091.2	293.15	28460.6	1088.7	293.15	27371.2	1085.9
293.15	30612.4	1093.7	293.15	29517.2	1091.2	293.15	28447.0	1088.7	293.15	27357.0	1086.0
293.15	30596.2	1093.6	293.15	29504.9	1091.1	293.15	28433.8	1088.6	293.15	27342.3	1086.0
293.15	30580.8	1093.7	293.15	29491.0	1091.2	293.15	28420.7	1088.6	293.15	27327.2	1086.0
293.15	30565.8	1093.7	293.15	29476.6	1091.1	293.15	28407.7	1088.5	293.15	27312.3	1085.8
293.15	30551.8	1093.7	293.15	29462.5	1091.0	293.15	28394.6	1088.4	293.15	27297.3	1085.9
293.15	30537.1	1093.6	293.15	29448.1	1091.0	293.15	28381.7	1088.6	293.15	27282.1	1085.9
293.15	30523.2	1093.6	293.15	29433.8	1090.9	293.15	28368.7	1088.5	293.15	27267.9	1085.7
293.15	30509.9	1093.5	293.15	29420.0	1091.0	293.15	28355.8	1088.5	293.15	27253.0	1085.7
293.15	30497.0	1093.5	293.15	29405.9	1091.0	293.15	28342.0	1088.5	293.15	27238.3	1085.7
293.15	30481.9	1093.5	293.15	29392.8	1091.0	293.15	28327.8	1088.4	293.15	27225.4	1085.7
293.15	30467.5	1093.4	293.15	29379.4	1090.8	293.15	28314.5	1088.3	293.15	27210.8	1085.7
293.15	30454.2	1093.4	293.15	29364.2	1090.8	293.15	28301.3	1088.3	293.15	27196.8	1085.6
293.15	30439.6	1093.4	293.15	29350.5	1090.7	293.15	28287.3	1088.3	293.15	27182.5	1085.5
293.15	30425.8	1093.2	293.15	29336.3	1090.8	293.15	28275.0	1088.3	293.15	27167.8	1085.5
293.15	30413.2	1093.3	293.15	29323.0	1090.6	293.15	28261.0	1088.2	293.15	27152.8	1085.5
293.15	30398.8	1093.1	293.15	29308.8	1090.7	293.15	28248.2	1088.1	293.15	27138.8	1085.5
293.15	30384.5	1093.1	293.15	29296.4	1090.6	293.15	28235.9	1088.1	293.15	27124.0	1085.4
293.15	30371.8	1093.1	293.15	29281.6	1090.7	293.15	28222.3	1088.1	293.15	27108.4	1085.4
293.15	30357.9	1093.3	293.15	29268.0	1090.6	293.15	28209.1	1088.0	293.15	27094.1	1085.4
293.15	30342.9	1093.2	293.15	29253.4	1090.5	293.15	28194.8	1088.0	293.15	27078.3	1085.2
293.15	30328.3	1093.1	293.15	29239.8	1090.6	293.15	28181.5	1088.0	293.15	27063.0	1085.3
293.15	30314.7	1093.0	293.15	29225.5	1090.5	293.15	28166.8	1088.0	293.15	27048.6	1085.3
293.15	30301.0	1093.0	293.15	29211.1	1090.5	293.15	28153.5	1088.1	293.15	27034.7	1085.2
293.15	30287.1	1093.1	293.15	29197.2	1090.5	293.15	28140.8	1088.0	293.15	27019.7	1085.2
293.15	30274.5	1093.0	293.15	29183.7	1090.4	293.15	28126.5	1087.8	293.15	27006.1	1085.1
293.15	30261.3	1092.9	293.15	29170.3	1090.5	293.15	28114.3	1087.8	293.15	26991.5	1085.2
293.15	30247.4	1092.9	293.15	29157.4	1090.4	293.15	28098.3	1087.8	293.15	26978.3	1085.2
293.15	30234.2	1092.9	293.15	29144.3	1090.3	293.15	28083.7	1087.6	293.15	26964.1	1085.1
293.15	30220.5	1092.9	293.15	29129.7	1090.3	293.15	28068.8	1087.7	293.15	26949.9	1085.0
293.15	30206.6	1092.8	293.15	29116.0	1090.1	293.15	28054.9	1087.6	293.15	26935.1	1085.0
293.15	30192.0	1092.7	293.15	29102.9	1090.2	293.15	28040.2	1087.7	293.15	26921.6	1084.9
293.15	30177.4	1092.7	293.15	29088.3	1090.2	293.15	28027.0	1087.7	293.15	26908.3	1084.9
293.15	30163.7	1092.8	293.15	29073.7	1090.1	293.15	28013.8	1087.5	293.15	26893.7	1084.9
293.15	30149.5	1092.6	293.15	29059.5	1090.1	293.15	28000.6	1087.4	293.15	26879.9	1084.9
293.15	30137.1	1092.6	293.15	29046.5	1090.0	293.15	27986.5	1087.5	293.15	26865.2	1084.7
293.15	30122.3	1092.6	293.15	29031.7	1090.1	293.15	27972.7	1087.5	293.15	26852.5	1084.7
293.15	30108.8	1092.5	293.15	29017.5	1090.0	293.15	27959.5	1087.5	293.15	26838.0	1084.6
293.15	30096.5	1092.5	293.15	29004.8	1090.0	293.15	27944.7	1087.5	293.15	26823.8	1084.7
293.15	30081.9	1092.5	293.15	28992.1	1090.0	293.15	27930.3	1087.4	293.15	26807.4	1084.6
293.15	30067.4	1092.6	293.15	28978.5	1089.9	293.15	27915.6	1087.4	293.15	26792.4	1084.4
293.15	30053.5	1092.5	293.15	28965.0	1089.9	293.15	27900.4	1087.3	293.15	26777.6	1084.4
293.15	30040.8	1092.3	293.15	28951.1	1089.9	293.15	27886.4	1087.3	293.15	26760.3	1084.4
293.15	30026.9	1092.4	293.15	28937.3	1089.9	293.15	27872.5	1087.3	293.15	26745.9	1084.4
293.15	30013.1	1092.4	293.15	28924.5	1089.9	293.15	27858.2	1087.3	293.15	26731.3	1084.5
293.15	29999.2	1092.2	293.15	28911.2	1089.8	293.15	27845.7	1087.2	293.15	26715.2	1084.4
293.15	29985.8	1092.2	293.15	28897.3	1089.7	293.15	27831.6	1087.1	293.15	26699.3	1084.5
293.15	29972.7	1092.2	293.15	28881.8	1089.7	293.15	27818.9	1087.1	293.15	26685.0	1084.3
293.15	29958.1	1092.3	293.15	28868.2	1089.7	293.15	27804.8	1087.1	293.15	26669.6	1084.4
293.15	29944.1	1092.2	293.15	28855.1	1089.6	293.15	27792.3	1087.0	293.15	26653.7	1084.3
293.15	29930.1	1092.2	293.15	28841.3	1089.5	293.15	27778.1	1087.1	293.15	26639.6	1084.2
293.15	29915.6	1092.2	293.15	28828.3	1089.6	293.15	27763.8	1087.0	293.15	26624.7	1084.2

Valori della densità del fluido R1243zf _ *T*=20°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
293.15	26609.5	1084.2	293.15	25460.6	1081.3	293.15	24404.8	1078.5	293.15	23307.3	1075.6
293.15	26593.9	1084.1	293.15	25446.9	1081.3	293.15	24389.5	1078.4	293.15	23292.3	1075.5
293.15	26579.4	1084.2	293.15	25430.9	1081.1	293.15	24374.4	1078.3	293.15	23277.8	1075.5
293.15	26564.4	1084.2	293.15	25417.6	1081.2	293.15	24359.1	1078.3	293.15	23264.0	1075.4
293.15	26550.3	1084.0	293.15	25402.1	1081.2	293.15	24344.2	1078.2	293.15	23248.6	1075.4
293.15	26535.6	1084.0	293.15	25387.3	1081.1	293.15	24330.4	1078.2	293.15	23233.2	1075.4
293.15	26520.8	1084.0	293.16	25373.0	1081.2	293.15	24317.6	1078.2	293.15	23217.0	1075.3
293.15	26505.9	1084.0	293.16	25358.1	1081.1	293.15	24303.7	1078.1	293.15	23200.8	1075.3
293.15	26491.5	1083.8	293.15	25342.9	1081.0	293.15	24289.6	1078.1	293.15	23186.0	1075.2
293.15	26476.0	1083.7	293.15	25329.2	1081.0	293.15	24276.3	1078.1	293.15	23169.4	1075.2
293.15	26459.1	1083.9	293.16	25314.8	1081.0	293.15	24262.3	1078.1	293.15	23152.6	1075.1
293.15	26443.4	1083.9	293.15	25299.7	1080.9	293.15	24248.3	1078.0	293.15	23138.2	1075.1
293.15	26426.5	1083.7	293.15	25285.8	1080.8	293.15	24234.4	1078.0	293.15	23123.1	1075.1
293.15	26409.8	1083.7	293.15	25272.5	1080.9	293.15	24219.1	1078.0	293.15	23108.2	1075.0
293.15	26393.6	1083.6	293.15	25258.1	1080.7	293.15	24205.2	1077.8	293.15	23094.4	1075.0
293.15	26378.3	1083.6	293.15	25245.8	1080.6	293.15	24191.7	1077.8	293.15	23079.2	1075.0
293.15	26365.5	1083.5	293.15	25238.3	1080.5	293.15	24179.0	1077.8	293.15	23065.0	1074.9
293.15	26351.3	1083.6	293.15	25225.7	1080.5	293.15	24165.7	1077.7	293.15	23052.1	1074.9
293.15	26334.3	1083.5	293.15	25214.4	1080.5	293.15	24152.8	1077.8	293.15	23038.1	1074.9
293.15	26320.7	1083.4	293.15	25207.8	1080.5	293.15	24139.3	1077.8	293.15	23023.5	1074.8
293.15	26305.4	1083.5	293.15	25200.2	1080.5	293.15	24125.9	1077.7	293.15	23009.5	1074.8
293.15	26290.9	1083.4	293.15	25192.6	1080.4	293.15	24113.2	1077.6	293.15	22995.4	1074.7
293.15	26276.8	1083.4	293.15	25183.7	1080.4	293.15	24099.1	1077.6	293.15	22980.8	1074.7
293.15	26261.5	1083.3	293.15	25172.6	1080.4	293.15	24084.9	1077.5	293.15	22966.6	1074.7
293.15	26246.5	1083.3	293.15	25161.6	1080.3	293.15	24070.6	1077.5	293.15	22951.9	1074.6
293.15	26231.8	1083.3	293.15	25148.7	1080.3	293.15	24058.4	1077.5	293.15	22938.1	1074.6
293.15	26218.5	1083.2	293.15	25135.9	1080.3	293.15	24044.4	1077.5	293.15	22924.9	1074.5
293.15	26202.5	1083.3	293.15	25124.0	1080.2	293.15	24030.7	1077.5	293.15	22911.5	1074.5
293.15	26189.6	1083.2	293.15	25110.6	1080.2	293.15	24017.9	1077.4	293.15	22898.7	1074.4
293.15	26175.4	1082.9	293.15	25097.7	1080.2	293.15	24003.9	1077.4	293.15	22885.7	1074.4
293.15	26160.1	1083.1	293.15	25084.7	1080.1	293.15	23990.1	1077.2	293.15	22873.7	1074.4
293.15	26146.6	1083.0	293.15	25070.8	1080.1	293.15	23978.0	1077.3	293.15	22860.6	1074.4
293.15	26132.6	1083.0	293.15	25058.9	1080.1	293.15	23965.3	1077.3	293.15	22848.6	1074.3
293.15	26118.1	1082.9	293.15	25045.4	1080.0	293.15	23950.5	1077.2	293.15	22835.8	1074.3
293.15	26102.4	1083.0	293.15	25033.1	1080.0	293.15	23937.3	1077.2	293.15	22822.7	1074.3
293.15	26087.4	1082.9	293.15	25020.2	1080.0	293.15	23923.4	1077.1	293.15	22809.3	1074.2
293.15	26073.4	1082.8	293.15	25007.1	1080.0	293.15	23909.6	1077.1	293.15	22795.5	1074.2
293.15	26058.6	1082.8	293.15	24993.7	1079.9	293.15	23896.4	1077.1	293.15	22782.1	1074.3
293.15	26043.9	1082.7	293.15	24979.5	1079.9	293.15	23882.1	1077.0	293.15	22768.8	1074.2
293.15	26028.5	1082.8	293.15	24965.3	1079.9	293.15	23868.3	1077.0	293.15	22753.7	1074.1
293.15	26014.0	1082.8	293.15	24951.1	1079.8	293.15	23855.4	1077.0	293.15	22738.8	1074.0
293.16	25998.3	1082.7	293.15	24937.1	1079.7	293.15	23843.6	1076.9	293.15	22726.0	1074.0
293.15	25983.4	1082.5	293.15	24923.6	1079.8	293.15	23829.3	1076.9	293.15	22711.3	1074.0
293.15	25969.0	1082.5	293.15	24910.0	1079.7	293.15	23814.2	1076.9	293.15	22696.4	1073.9
293.15	25953.7	1082.6	293.15	24896.4	1079.7	293.15	23798.9	1076.8	293.15	22681.2	1073.9
293.16	25939.6	1082.6	293.15	24882.3	1079.6	293.15	23784.7	1076.8	293.15	22666.9	1073.8
293.15	25926.0	1082.3	293.15	24868.1	1079.6	293.15	23771.0	1076.8	293.15	22653.5	1073.8
293.16	25911.1	1082.5	293.15	24852.5	1079.5	293.15	23756.7	1076.7	293.15	22639.3	1073.8
293.15	25897.5	1082.4	293.15	24836.5	1079.5	293.15	23742.2	1076.7	293.15	22626.2	1073.7
293.15	25882.5	1082.4	293.15	24821.3	1079.4	293.15	23727.8	1076.7	293.15	22611.6	1073.7
293.16	25868.8	1082.3	293.15	24805.0	1079.5	293.15	23713.2	1076.5	293.15	22597.0	1073.7
293.15	25853.7	1082.3	293.15	24790.8	1079.4	293.15	23698.7	1076.5	293.15	22582.8	1073.6
293.15	25838.9	1082.2	293.15	24776.0	1079.3	293.15	23684.5	1076.5	293.15	22569.4	1073.6
293.15	25823.5	1082.3	293.15	24763.3	1079.4	293.15	23670.1	1076.4	293.15	22554.0	1073.5
293.15	25809.1	1082.2	293.15	24749.7	1079.3	293.15	23655.8	1076.4	293.15	22539.7	1073.5
293.16	25794.4	1082.1	293.15	24734.7	1079.2	293.15	23640.9	1076.4	293.15	22525.3	1073.4
293.15	25779.9	1082.1	293.15	24721.2	1079.2	293.15	23625.5	1076.4	293.15	22510.9	1073.5
293.15	25765.2	1082.0	293.15	24706.2	1079.2	293.15	23611.7	1076.4	293.15	22496.1	1073.4
293.15	25751.6	1082.1	293.15	24691.4	1079.1	293.15	23597.4	1076.3	293.15	22480.3	1073.4
293.15	25736.7	1082.0	293.15	24677.3	1079.1	293.15	23582.6	1076.3	293.15	22465.7	1073.3
293.15	25723.2	1082.0	293.15	24662.7	1079.1	293.15	23568.3	1076.2	293.15	22449.5	1073.3
293.15	25708.4	1081.9	293.15	24647.8	1079.0	293.15	23552.8	1076.2	293.15	22434.8	1073.3
293.15	25694.0	1081.9	293.15	24634.1	1079.0	293.15	23537.1	1076.2	293.15	22419.6	1073.1
293.15	25680.1	1081.8	293.15	24619.6	1078.9	293.15	23523.3	1076.1	293.15	22403.9	1073.1
293.15	25665.4	1081.8	293.15	24605.8	1079.0	293.15	23508.3	1076.1	293.15	22388.5	1073.1
293.15	25651.6	1081.7	293.15	24590.0	1078.9	293.15	23493.8	1076.1	293.15	22373.6	1073.1
293.15	25635.7	1081.8	293.15	24576.6	1078.9	293.15	23479.6	1076.0	293.15	22357.4	1073.1
293.15	25620.5	1081.8	293.15	24561.5	1078.8	293.15	23465.2	1075.9	293.15	22340.6	1073.0
293.15	25607.8	1081.7	293.15	24546.7	1078.8	293.15	23451.0	1075.9	293.15	22325.4	1072.9
293.15	25593.0	1081.7	293.15	24531.8	1078.7	293.15	23437.8	1075.9	293.15	22309.4	1072.9
293.15	25578.9	1081.6	293.15	24517.4	1078.7	293.15	23421.9	1075.8	293.15	22293.8	1072.8
293.15	25563.4	1081.5	293.15	24504.3	1078.8	293.15	23407.2	1075.9	293.15	22278.6	1072.8
293.16	25548.8	1081.4	293.15	24491.0	1078.6	293.15	23391.9	1075.9	293.15	22263.4	1072.8
293.16	25535.1	1081.5	293.15	24477.3	1078.6	293.15	23377.6	1075.8	293.15	22248.3	1072.7
293.16	25519.5	1081.5	293.15	24464.3	1078.6	293.15	23364.0	1075.7	293.15	22233.4	1072.7
293.16	25505.2	1081.3	293.15	24448.8	1078.5	293.15	23349.6	1075.7	293.15	22217.3	1072.6
293.15	25490.3	1081.4	293.15	24433.6	1078.5	293.15	23335.2	1075.6	293.15	22202.3	1072.6
293.16	25475.1	1081.3	293.15	24419.6	1078.4	293.15	23320.6	1075.5	293.15	22186.5	1072.6

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
293.15	22171.5	1072.5	293.15	20997.7	1069.4	293.15	19824.3	1066.1	293.15	18693.6	1062.9
293.15	22155.6	1072.5	293.15	20981.4	1069.3	293.15	19808.3	1065.9	293.15	18678.4	1062.8
293.15	22140.6	1072.5	293.15	20966.0	1069.3	293.15	19792.2	1065.9	293.15	18664.2	1062.6
293.15	22124.2	1072.4	293.15	20949.2	1069.3	293.15	19775.4	1065.9	293.15	18648.6	1062.7
293.15	22109.3	1072.4	293.15	20933.5	1069.1	293.15	19759.6	1065.9	293.15	18634.4	1062.7
293.15	22093.9	1072.4	293.15	20918.2	1069.1	293.15	19744.5	1065.8	293.16	18620.6	1062.6
293.15	22077.8	1072.2	293.15	20903.5	1069.1	293.15	19729.5	1065.8	293.16	18604.8	1062.6
293.15	22061.8	1072.2	293.15	20887.0	1069.0	293.15	19715.0	1065.7	293.16	18589.4	1062.5
293.15	22046.0	1072.2	293.15	20871.3	1069.0	293.15	19699.3	1065.7	293.16	18574.0	1062.5
293.15	22030.9	1072.1	293.15	20854.2	1068.9	293.15	19685.3	1065.7	293.16	18560.2	1062.4
293.15	22015.2	1072.1	293.15	20839.1	1068.9	293.15	19671.2	1065.6	293.16	18544.2	1062.4
293.15	22000.1	1072.1	293.15	20825.3	1068.9	293.15	19655.6	1065.5	293.15	18529.6	1062.4
293.15	21984.0	1072.0	293.15	20809.8	1068.8	293.15	19642.0	1065.5	293.15	18515.6	1062.3
293.15	21967.8	1072.0	293.15	20795.7	1068.8	293.15	19626.4	1065.6	293.15	18499.5	1062.3
293.15	21952.1	1072.0	293.15	20782.0	1068.7	293.15	19610.4	1065.5	293.15	18485.2	1062.2
293.15	21936.5	1071.9	293.15	20768.4	1068.8	293.15	19596.9	1065.4	293.15	18472.0	1062.2
293.15	21922.0	1071.9	293.15	20752.7	1068.6	293.16	19582.5	1065.4	293.15	18457.1	1062.1
293.15	21906.7	1071.8	293.15	20737.8	1068.6	293.16	19567.2	1065.3	293.16	18443.5	1062.1
293.15	21892.5	1071.7	293.15	20722.8	1068.6	293.15	19553.1	1065.3	293.16	18429.3	1062.1
293.15	21877.3	1071.7	293.15	20706.5	1068.5	293.15	19537.6	1065.2	293.16	18416.2	1062.0
293.15	21862.2	1071.7	293.15	20691.5	1068.4	293.15	19524.0	1065.2	293.16	18403.2	1062.0
293.15	21847.3	1071.7	293.15	20677.6	1068.4	293.15	19509.8	1065.2	293.16	18390.6	1062.0
293.15	21834.3	1071.6	293.15	20662.0	1068.4	293.15	19496.1	1065.1	293.16	18376.1	1061.9
293.15	21821.0	1071.6	293.15	20647.3	1068.4	293.15	19482.7	1065.1	293.15	18361.0	1061.8
293.15	21806.0	1071.5	293.15	20632.2	1068.4	293.16	19468.7	1065.1	293.15	18347.4	1061.8
293.15	21792.3	1071.5	293.15	20618.9	1068.3	293.15	19454.9	1065.1	293.15	18332.1	1061.8
293.15	21778.8	1071.5	293.15	20605.6	1068.3	293.15	19440.9	1065.0	293.15	18318.7	1061.7
293.15	21763.7	1071.5	293.15	20591.9	1068.2	293.16	19425.5	1064.9	293.16	18306.0	1061.7
293.15	21750.2	1071.4	293.15	20578.8	1068.1	293.15	19410.8	1064.9	293.16	18292.5	1061.6
293.15	21735.6	1071.4	293.15	20565.1	1068.1	293.15	19397.0	1064.9	293.16	18280.8	1061.6
293.15	21722.3	1071.3	293.15	20550.7	1068.1	293.16	19382.8	1064.8	293.16	18266.9	1061.6
293.15	21709.5	1071.4	293.15	20535.3	1068.0	293.15	19368.5	1064.8	293.16	18252.8	1061.5
293.15	21694.9	1071.2	293.15	20520.6	1068.0	293.16	19356.0	1064.7	293.16	18239.7	1061.5
293.15	21681.8	1071.2	293.16	20506.6	1067.9	293.16	19341.4	1064.7	293.16	18226.6	1061.4
293.15	21667.3	1071.2	293.15	20491.8	1067.9	293.16	19327.6	1064.7	293.16	18211.9	1061.4
293.15	21653.4	1071.1	293.16	20479.4	1067.9	293.16	19313.1	1064.6	293.16	18198.7	1061.3
293.15	21639.2	1071.1	293.15	20464.4	1067.9	293.16	19300.6	1064.6	293.15	18183.8	1061.3
293.15	21625.4	1071.0	293.16	20452.5	1067.8	293.16	19288.4	1064.6	293.15	18170.6	1061.2
293.15	21611.6	1071.0	293.16	20437.1	1067.8	293.16	19275.3	1064.6	293.15	18156.0	1061.2
293.15	21598.6	1071.0	293.16	20422.8	1067.7	293.16	19262.9	1064.4	293.16	18142.0	1061.2
293.15	21584.7	1071.0	293.16	20407.9	1067.7	293.16	19250.6	1064.4	293.16	18129.5	1061.2
293.15	21569.8	1070.9	293.16	20394.1	1067.6	293.16	19236.9	1064.3	293.16	18116.3	1061.1
293.15	21556.1	1070.9	293.16	20380.1	1067.5	293.16	19223.0	1064.3	293.16	18103.0	1061.0
293.15	21541.6	1070.9	293.15	20365.7	1067.5	293.16	19209.8	1064.3	293.16	18088.7	1061.0
293.15	21527.6	1070.8	293.16	20351.6	1067.6	293.16	19195.4	1064.3	293.16	18076.8	1061.0
293.15	21514.0	1070.7	293.16	20337.0	1067.5	293.16	19181.2	1064.2	293.16	18063.5	1061.0
293.15	21499.4	1070.8	293.15	20322.6	1067.5	293.16	19166.4	1064.2	293.15	18049.2	1060.9
293.15	21484.2	1070.7	293.16	20306.7	1067.4	293.16	19151.4	1064.1	293.16	18034.2	1060.9
293.15	21469.6	1070.7	293.16	20291.8	1067.3	293.16	19138.3	1064.1	293.15	18018.1	1060.8
293.15	21454.9	1070.5	293.16	20275.9	1067.3	293.16	19124.7	1064.1	293.15	18002.7	1060.7
293.15	21440.1	1070.5	293.16	20260.4	1067.3	293.16	19111.5	1064.0	293.15	17988.9	1060.8
293.15	21428.2	1070.4	293.16	20244.8	1067.2	293.16	19098.0	1064.0	293.15	17973.5	1060.6
293.15	21412.8	1070.5	293.16	20230.4	1067.2	293.16	19083.4	1063.9	293.15	17960.1	1060.6
293.15	21397.7	1070.4	293.16	20213.9	1067.1	293.16	19068.0	1063.9	293.16	17946.2	1060.6
293.15	21382.9	1070.4	293.15	20198.9	1067.2	293.16	19053.4	1063.9	293.16	17931.1	1060.5
293.15	21366.4	1070.3	293.16	20182.3	1067.0	293.16	19037.5	1063.8	293.15	17916.6	1060.5
293.15	21351.5	1070.3	293.16	20166.8	1067.0	293.16	19023.7	1063.8	293.16	17902.1	1060.4
293.15	21336.4	1070.2	293.15	20150.5	1067.0	293.16	19010.2	1063.7	293.16	17887.5	1060.4
293.15	21319.0	1070.2	293.15	20134.7	1066.9	293.15	18995.1	1063.7	293.15	17871.5	1060.4
293.15	21303.4	1070.2	293.15	20118.0	1066.9	293.16	18981.1	1063.7	293.15	17857.6	1060.4
293.15	21287.9	1070.1	293.15	20103.2	1066.8	293.16	18966.5	1063.6	293.15	17842.4	1060.2
293.15	21270.5	1070.1	293.15	20086.8	1066.8	293.15	18951.8	1063.6	293.15	17829.0	1060.3
293.15	21255.7	1070.0	293.15	20072.5	1066.8	293.15	18935.0	1063.5	293.15	17813.6	1060.2
293.15	21240.0	1069.9	293.15	20057.3	1066.7	293.15	18920.7	1063.5	293.15	17798.7	1060.2
293.15	21223.6	1069.9	293.15	20041.2	1066.7	293.15	18905.0	1063.4	293.15	17783.8	1060.1
293.15	21205.7	1070.0	293.15	20026.7	1066.6	293.15	18890.9	1063.4	293.16	17767.3	1060.1
293.15	21190.1	1069.9	293.15	20011.7	1066.6	293.15	18875.5	1063.3	293.16	17751.5	1060.1
293.15	21173.1	1069.8	293.15	19996.0	1066.5	293.15	18860.8	1063.2	293.16	17735.6	1060.0
293.15	21158.0	1069.7	293.15	19981.1	1066.5	293.16	18845.4	1063.3	293.16	17720.4	1059.9
293.15	21141.8	1069.8	293.15	19966.2	1066.4	293.15	18830.6	1063.2	293.16	17704.5	1059.9
293.15	21126.6	1069.7	293.15	19950.0	1066.4	293.15	18816.5	1063.2	293.16	17688.4	1059.9
293.15	21110.9	1069.6	293.15	19934.2	1066.4	293.15	18801.3	1063.2	293.16	17674.4	1059.8
293.15	21095.8	1069.6	293.15	19919.4	1066.4	293.15	18787.1	1063.1	293.16	17658.9	1059.7
293.15	21079.7	1069.6	293.15	19904.7	1066.3	293.15	18771.0	1063.1	293.16	17643.8	1059.7
293.15	21064.8	1069.5	293.15	19888.2	1066.2	293.16	18756.4	1063.0	293.15	17628.9	1059.7
293.15	21047.2	1069.5	293.15	19873.0	1066.2	293.16	18738.6	1063.0	293.15	17614.5	1059.6
293.15	21031.4	1069.5	293.15	19856.8	1066.1	293.15	18723.5	1062.9	293.15	17599.0	1059.7
293.15	21015.0	1069.3	293.15	19841.5	1066.1	293.16	18708.8	1062.9	293.15	17584.5	1059.5

Valori della densità del fluido R1243zf _ *T*=20°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
293.15	17568.6	1059.5	293.15	16463.7	1056.1	293.15	15395.3	1052.8	293.15	14307.7	1049.4
293.16	17553.9	1059.5	293.15	16449.8	1056.1	293.16	15380.5	1052.8	293.15	14295.3	1049.4
293.16	17537.8	1059.4	293.15	16437.0	1056.1	293.15	15367.0	1052.7	293.16	14281.9	1049.3
293.15	17524.1	1059.4	293.15	16422.6	1056.0	293.15	15352.8	1052.7	293.16	14268.9	1049.2
293.15	17509.1	1059.2	293.15	16410.5	1056.0	293.15	15338.6	1052.7	293.15	14257.3	1049.2
293.15	17494.9	1059.3	293.15	16397.1	1055.9	293.15	15325.6	1052.6	293.15	14245.1	1049.2
293.15	17479.5	1059.3	293.15	16382.9	1055.9	293.15	15311.3	1052.6	293.16	14232.6	1049.1
293.15	17464.1	1059.2	293.15	16367.8	1055.9	293.15	15298.3	1052.5	293.15	14220.6	1049.1
293.15	17450.0	1059.1	293.16	16355.0	1055.8	293.15	15285.0	1052.5	293.16	14207.5	1049.0
293.15	17435.1	1059.0	293.16	16342.0	1055.8	293.16	15271.6	1052.5	293.15	14195.8	1049.0
293.15	17420.6	1059.1	293.16	16329.1	1055.8	293.15	15258.5	1052.4	293.16	14183.7	1049.0
293.15	17406.4	1059.0	293.16	16316.8	1055.7	293.16	15245.0	1052.4	293.16	14170.5	1048.9
293.15	17392.2	1059.0	293.16	16305.1	1055.7	293.16	15233.2	1052.3	293.16	14158.1	1048.9
293.15	17378.5	1058.9	293.16	16292.0	1055.7	293.16	15221.2	1052.3	293.16	14147.0	1048.9
293.15	17364.0	1059.0	293.15	16280.4	1055.6	293.15	15207.7	1052.3	293.16	14134.5	1048.9
293.15	17351.2	1058.8	293.16	16267.5	1055.6	293.16	15194.4	1052.2	293.16	14120.6	1048.7
293.15	17337.3	1058.7	293.15	16255.4	1055.5	293.15	15182.1	1052.1	293.16	14107.7	1048.7
293.15	17324.1	1058.7	293.15	16242.1	1055.5	293.15	15169.4	1052.1	293.16	14095.6	1048.7
293.15	17311.3	1058.7	293.15	16229.5	1055.4	293.15	15156.8	1052.1	293.16	14081.7	1048.7
293.15	17297.5	1058.7	293.15	16216.5	1055.4	293.15	15144.4	1052.1	293.16	14068.0	1048.5
293.15	17284.0	1058.6	293.15	16202.4	1055.4	293.15	15131.5	1052.0	293.16	14055.6	1048.5
293.15	17270.5	1058.7	293.16	16189.8	1055.3	293.15	15118.6	1052.0	293.16	14042.6	1048.5
293.15	17255.9	1058.6	293.15	16176.5	1055.3	293.15	15105.4	1051.9	293.16	14029.2	1048.5
293.15	17242.6	1058.5	293.16	16163.9	1055.3	293.15	15091.8	1051.8	293.16	14016.7	1048.4
293.16	17228.7	1058.5	293.16	16151.7	1055.3	293.15	15077.1	1051.8	293.16	14003.8	1048.3
293.16	17214.9	1058.4	293.16	16138.8	1055.2	293.15	15062.7	1051.8	293.16	13991.1	1048.3
293.16	17200.9	1058.4	293.16	16125.8	1055.1	293.16	15048.8	1051.7	293.16	13977.9	1048.3
293.16	17186.0	1058.3	293.15	16113.1	1055.1	293.15	15035.9	1051.7	293.15	13965.7	1048.2
293.15	17171.5	1058.3	293.16	16099.7	1055.0	293.15	15023.6	1051.6	293.15	13952.4	1048.2
293.15	17158.3	1058.3	293.15	16087.3	1055.0	293.16	15010.8	1051.6	293.16	13939.8	1048.2
293.15	17144.4	1058.2	293.15	16074.4	1055.0	293.16	14997.0	1051.6	293.16	13927.0	1048.1
293.15	17131.9	1058.2	293.15	16059.7	1054.9	293.16	14984.4	1051.5	293.16	13913.6	1048.1
293.15	17117.9	1058.2	293.15	16046.0	1054.8	293.16	14971.1	1051.5	293.16	13901.3	1048.0
293.15	17104.6	1058.1	293.15	16032.2	1054.8	293.16	14958.1	1051.4	293.16	13887.9	1047.9
293.15	17091.0	1058.0	293.16	16017.6	1054.7	293.16	14943.9	1051.4	293.16	13874.9	1047.9
293.15	17078.3	1057.9	293.15	16003.3	1054.7	293.16	14930.5	1051.4	293.16	13861.7	1047.9
293.15	17065.7	1058.0	293.15	15989.0	1054.7	293.16	14915.4	1051.3	293.15	13848.5	1047.8
293.15	17052.1	1058.0	293.15	15976.1	1054.6	293.16	14901.0	1051.3	293.16	13836.4	1047.8
293.15	17038.3	1057.9	293.15	15962.6	1054.6	293.15	14885.8	1051.2	293.15	13823.5	1047.7
293.15	17024.2	1057.9	293.16	15949.9	1054.6	293.15	14870.7	1051.2	293.16	13810.1	1047.7
293.15	17011.4	1057.8	293.15	15936.8	1054.5	293.15	14855.4	1051.1	293.15	13795.7	1047.7
293.15	16997.4	1057.8	293.16	15922.3	1054.4	293.15	14841.0	1051.1	293.15	13782.0	1047.6
293.15	16983.9	1057.7	293.16	15909.1	1054.4	293.15	14825.6	1051.1	293.15	13767.0	1047.6
293.15	16969.8	1057.8	293.16	15894.1	1054.4	293.15	14812.0	1051.0	293.16	13751.9	1047.5
293.16	16955.2	1057.6	293.16	15880.7	1054.3	293.15	14796.0	1051.0	293.16	13737.4	1047.5
293.15	16941.9	1057.6	293.16	15866.0	1054.3	293.16	14782.3	1050.8	293.16	13723.9	1047.4
293.16	16927.2	1057.6	293.16	15851.9	1054.2	293.15	14768.6	1050.8	293.16	13709.8	1047.4
293.15	16913.0	1057.5	293.16	15838.4	1054.2	293.15	14755.3	1050.8	293.16	13696.1	1047.4
293.15	16898.7	1057.5	293.15	15823.9	1054.2	293.16	14740.5	1050.7	293.16	13682.0	1047.3
293.15	16884.1	1057.4	293.15	15809.8	1054.1	293.15	14726.7	1050.7	293.16	13669.3	1047.3
293.15	16869.1	1057.4	293.16	15794.9	1054.1	293.15	14713.5	1050.6	293.16	13655.8	1047.3
293.15	16855.1	1057.4	293.16	15780.2	1054.0	293.16	14699.1	1050.6	293.15	13642.1	1047.2
293.15	16840.1	1057.3	293.15	15764.9	1054.0	293.15	14684.1	1050.7	293.15	13628.0	1047.1
293.15	16826.6	1057.2	293.16	15751.6	1053.9	293.15	14669.1	1050.5	293.15	13613.4	1047.1
293.16	16811.0	1057.2	293.16	15736.2	1053.9	293.16	14652.8	1050.5	293.16	13600.0	1047.0
293.16	16796.3	1057.2	293.16	15722.3	1053.9	293.16	14637.5	1050.4	293.15	13585.1	1047.0
293.16	16782.3	1057.1	293.16	15707.5	1053.8	293.16	14622.7	1050.4	293.15	13571.7	1046.9
293.16	16767.8	1057.1	293.16	15694.2	1053.8	293.16	14606.9	1050.4	293.15	13558.7	1046.9
293.16	16753.7	1057.1	293.16	15680.7	1053.7	293.16	14591.7	1050.3	293.16	13544.9	1046.8
293.16	16738.7	1057.1	293.16	15664.9	1053.7	293.16	14578.3	1050.2	293.15	13532.7	1046.8
293.15	16725.3	1057.0	293.15	15651.2	1053.6	293.16	14563.9	1050.2	293.15	13517.6	1046.8
293.15	16710.4	1056.9	293.15	15635.9	1053.6	293.15	14549.5	1050.1	293.15	13503.0	1046.7
293.15	16695.9	1056.9	293.15	15620.6	1053.6	293.15	14535.4	1050.1	293.15	13487.0	1046.7
293.15	16682.4	1056.8	293.15	15606.0	1053.5	293.15	14520.0	1050.0	293.15	13471.6	1046.7
293.15	16668.3	1056.8	293.16	15592.5	1053.5	293.15	14506.3	1050.0	293.15	13456.0	1046.6
293.15	16653.6	1056.7	293.16	15578.6	1053.4	293.16	14491.2	1049.9	293.16	13441.2	1046.5
293.15	16640.6	1056.7	293.16	15564.4	1053.4	293.15	14477.3	1049.9	293.15	13426.8	1046.5
293.15	16625.0	1056.7	293.15	15551.2	1053.3	293.16	14462.9	1049.9	293.15	13411.9	1046.4
293.15	16609.9	1056.6	293.16	15537.3	1053.3	293.16	14448.9	1049.8	293.16	13397.4	1046.3
293.15	16595.9	1056.6	293.15	15525.4	1053.2	293.16	14434.0	1049.7	293.15	13384.6	1046.3
293.15	16581.9	1056.5	293.15	15512.7	1053.2	293.16	14420.2	1049.7	293.15	13370.4	1046.3
293.15	16567.2	1056.5	293.15	15498.8	1053.2	293.16	14405.6	1049.7	293.15	13356.0	1046.2
293.15	16552.4	1056.4	293.15	15484.2	1053.1	293.15	14392.2	1049.6	293.15	13343.0	1046.2
293.16	16537.6	1056.4	293.15	15470.8	1053.1	293.15	14377.3	1049.6	293.15	13329.0	1046.2
293.15	16522.0	1056.3	293.15	15456.2	1053.0	293.15	14364.1	1049.5	293.15	13314.6	1046.1
293.15	16508.0	1056.3	293.16	15440.7	1053.0	293.15	14349.2	1049.5	293.15	13301.2	1046.1
293.15	16493.3	1056.2	293.15	15426.5	1052.9	293.15	14335.0	1049.4	293.15	13286.2	1046.0
293.15	16477.8	1056.2	293.15	15410.7	1052.9	293.15	14321.2	1049.4	293.15	13271.4	1045.9

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
293.15	13257.1	1045.9	293.15	12248.9	1042.5	293.15	11237.7	1039.0	293.16	10177.6	1035.2
293.15	13244.2	1045.8	293.15	12233.1	1042.4	293.15	11222.6	1038.9	293.16	10162.6	1035.1
293.15	13231.0	1045.8	293.15	12218.8	1042.4	293.15	11207.8	1038.9	293.16	10147.8	1035.1
293.16	13218.3	1045.8	293.15	12203.4	1042.4	293.15	11192.3	1038.8	293.15	10132.7	1035.0
293.16	13204.9	1045.8	293.15	12190.1	1042.3	293.15	11177.0	1038.7	293.16	10118.0	1035.0
293.16	13191.4	1045.7	293.15	12175.5	1042.3	293.15	11163.4	1038.7	293.16	10103.7	1034.9
293.16	13179.5	1045.7	293.15	12161.6	1042.3	293.15	11149.5	1038.7	293.16	10089.7	1034.8
293.15	13167.3	1045.6	293.15	12148.4	1042.2	293.15	11135.9	1038.7	293.16	10074.3	1034.8
293.16	13154.8	1045.6	293.15	12135.3	1042.1	293.15	11120.2	1038.5	293.15	10058.2	1034.7
293.15	13142.8	1045.5	293.16	12120.5	1042.1	293.15	11106.0	1038.5	293.16	10043.4	1034.7
293.15	13130.5	1045.5	293.15	12105.9	1042.0	293.16	11091.7	1038.5	293.16	10026.9	1034.6
293.15	13119.6	1045.4	293.16	12092.3	1042.0	293.16	11078.4	1038.4	293.16	10012.5	1034.6
293.15	13107.4	1045.4	293.15	12078.4	1041.9	293.15	11065.4	1038.4	293.16	9997.0	1034.5
293.15	13094.9	1045.3	293.15	12065.2	1041.9	293.15	11051.1	1038.3	293.16	9982.4	1034.4
293.15	13082.0	1045.4	293.15	12051.5	1041.8	293.15	11037.9	1038.3	293.16	9967.3	1034.4
293.15	13071.0	1045.3	293.15	12037.4	1041.8	293.15	11024.8	1038.2	293.16	9953.1	1034.3
293.15	13058.1	1045.2	293.16	12025.0	1041.7	293.15	11010.7	1038.2	293.16	9939.6	1034.3
293.15	13046.9	1045.2	293.15	12012.8	1041.6	293.15	10997.8	1038.1	293.16	9926.4	1034.3
293.15	13034.0	1045.2	293.16	12001.5	1041.7	293.15	10983.5	1038.1	293.16	9911.6	1034.2
293.15	13022.2	1045.1	293.16	11989.3	1041.7	293.15	10971.1	1038.0	293.15	9895.9	1034.1
293.15	13010.5	1045.1	293.16	11978.3	1041.6	293.15	10958.0	1038.0	293.15	9881.1	1034.0
293.15	12998.7	1045.1	293.16	11966.9	1041.5	293.15	10944.1	1037.9	293.15	9865.8	1034.1
293.15	12987.4	1045.0	293.16	11956.5	1041.5	293.15	10929.9	1037.9	293.16	9851.1	1034.0
293.15	12975.0	1045.0	293.16	11944.4	1041.4	293.15	10915.6	1037.8	293.16	9836.2	1033.9
293.15	12963.7	1044.9	293.16	11933.4	1041.4	293.15	10900.7	1037.7	293.16	9822.9	1033.9
293.15	12951.0	1044.9	293.15	11921.6	1041.3	293.15	10886.6	1037.7	293.16	9808.5	1033.8
293.15	12939.3	1044.9	293.16	11911.0	1041.3	293.15	10872.5	1037.7	293.16	9795.2	1033.8
293.15	12927.6	1044.8	293.15	11899.2	1041.3	293.15	10856.9	1037.7	293.16	9779.9	1033.7
293.15	12914.9	1044.7	293.15	11888.2	1041.2	293.15	10842.6	1037.6	293.16	9764.9	1033.6
293.15	12903.8	1044.7	293.15	11876.0	1041.2	293.15	10829.7	1037.5	293.16	9749.5	1033.6
293.15	12891.5	1044.7	293.15	11864.3	1041.1	293.15	10815.8	1037.5	293.16	9733.7	1033.5
293.15	12879.2	1044.6	293.16	11852.1	1041.1	293.15	10803.0	1037.4	293.16	9717.5	1033.5
293.15	12867.6	1044.6	293.16	11838.1	1041.1	293.15	10790.2	1037.3	293.16	9701.7	1033.5
293.15	12855.5	1044.5	293.16	11825.1	1041.0	293.15	10777.4	1037.3	293.15	9688.1	1033.4
293.15	12842.8	1044.5	293.16	11811.4	1041.0	293.15	10764.3	1037.3	293.16	9673.1	1033.3
293.15	12832.3	1044.6	293.15	11798.4	1040.9	293.15	10752.4	1037.2	293.15	9658.1	1033.3
293.15	12819.6	1044.5	293.15	11786.3	1040.9	293.15	10739.8	1037.2	293.16	9645.0	1033.2
293.15	12807.1	1044.4	293.15	11774.1	1040.9	293.15	10727.8	1037.1	293.16	9629.5	1033.1
293.16	12794.2	1044.4	293.15	11760.6	1040.8	293.15	10715.2	1037.1	293.16	9614.0	1033.1
293.15	12781.0	1044.3	293.15	11747.6	1040.7	293.15	10703.4	1037.1	293.16	9597.7	1033.0
293.15	12769.1	1044.3	293.16	11735.2	1040.7	293.15	10689.4	1037.0	293.16	9583.9	1033.0
293.15	12755.6	1044.2	293.15	11723.2	1040.7	293.15	10677.6	1037.0	293.16	9568.7	1032.9
293.15	12744.4	1044.2	293.15	11710.5	1040.6	293.15	10665.9	1037.0	293.16	9553.6	1032.8
293.15	12730.5	1044.1	293.15	11699.3	1040.6	293.15	10655.0	1036.9	293.16	9540.6	1032.8
293.15	12717.5	1044.1	293.15	11685.7	1040.5	293.15	10642.6	1036.9	293.16	9525.0	1032.7
293.15	12703.5	1044.0	293.16	11673.7	1040.5	293.15	10629.4	1036.9	293.16	9511.0	1032.7
293.15	12689.1	1044.0	293.15	11661.5	1040.5	293.15	10615.8	1036.8	293.16	9494.6	1032.7
293.16	12674.5	1043.9	293.15	11650.1	1040.4	293.15	10602.9	1036.7	293.15	9480.9	1032.6
293.15	12662.0	1043.9	293.15	11638.1	1040.4	293.15	10589.6	1036.7	293.16	9467.1	1032.6
293.16	12647.7	1043.8	293.15	11625.3	1040.4	293.15	10576.0	1036.6	293.16	9454.2	1032.5
293.15	12633.1	1043.8	293.15	11613.7	1040.3	293.15	10563.1	1036.6	293.16	9441.4	1032.5
293.16	12618.5	1043.7	293.15	11601.5	1040.2	293.15	10550.0	1036.5	293.16	9429.0	1032.4
293.15	12606.4	1043.7	293.15	11589.2	1040.3	293.15	10537.1	1036.5	293.16	9416.3	1032.4
293.15	12593.5	1043.6	293.16	11575.8	1040.1	293.15	10523.7	1036.5	293.16	9403.4	1032.3
293.15	12579.6	1043.7	293.16	11563.7	1040.1	293.15	10510.1	1036.4	293.16	9390.9	1032.2
293.15	12566.9	1043.6	293.16	11550.2	1040.1	293.15	10496.2	1036.3	293.16	9378.0	1032.2
293.15	12551.9	1043.6	293.16	11535.9	1040.0	293.15	10483.5	1036.3	293.16	9364.7	1032.2
293.15	12538.3	1043.5	293.16	11522.7	1040.0	293.15	10470.9	1036.2	293.16	9350.6	1032.1
293.15	12525.2	1043.4	293.16	11508.5	1039.9	293.15	10457.4	1036.2	293.16	9337.8	1032.1
293.16	12512.3	1043.4	293.16	11495.0	1039.9	293.15	10444.5	1036.1	293.16	9324.9	1032.0
293.16	12499.9	1043.3	293.15	11482.1	1039.8	293.15	10431.1	1036.1	293.16	9311.6	1031.9
293.16	12486.5	1043.3	293.15	11470.1	1039.8	293.15	10418.4	1036.1	293.16	9299.2	1031.9
293.16	12471.5	1043.2	293.15	11457.1	1039.7	293.15	10406.3	1036.0	293.16	9285.3	1031.9
293.16	12457.3	1043.1	293.15	11443.9	1039.7	293.15	10393.4	1036.0	293.16	9272.5	1031.8
293.16	12443.1	1043.2	293.15	11431.6	1039.6	293.15	10379.5	1035.9	293.16	9259.8	1031.8
293.15	12426.9	1043.1	293.15	11418.2	1039.5	293.15	10367.6	1035.8	293.16	9247.0	1031.7
293.15	12413.2	1043.0	293.15	11404.8	1039.6	293.15	10354.0	1035.8	293.16	9235.3	1031.7
293.15	12399.4	1043.0	293.15	11390.9	1039.5	293.15	10339.2	1035.8	293.16	9221.4	1031.6
293.15	12385.3	1043.0	293.15	11378.5	1039.4	293.15	10325.6	1035.8	293.15	9209.5	1031.6
293.15	12371.8	1042.9	293.15	11364.7	1039.3	293.15	10311.1	1035.6	293.16	9197.4	1031.6
293.15	12359.2	1042.8	293.15	11351.8	1039.4	293.15	10296.1	1035.6	293.16	9184.7	1031.5
293.15	12346.0	1042.9	293.15	11338.2	1039.3	293.15	10281.0	1035.5	293.16	9172.1	1031.4
293.15	12332.3	1042.8	293.15	11323.8	1039.3	293.15	10266.4	1035.5	293.16	9158.8	1031.4
293.15	12318.4	1042.7	293.15	11309.2	1039.2	293.15	10252.6	1035.5	293.16	9145.9	1031.4
293.15	12305.1	1042.7	293.15	11294.9	1039.2	293.15	10237.8	1035.4	293.16	9133.1	1031.3
293.15	12291.5	1042.6	293.15	11281.1	1039.1	293.15	10222.1	1035.3	293.16	9121.2	1031.2
293.15	12277.8	1042.6	293.15	11266.0	1039.1	293.16	10207.9	1035.3	293.16	9108.8	1031.3
293.15	12263.5	1042.5	293.15	11251.4	1039.0	293.16	10192.0	1035.2	293.16	9095.0	1031.2

Valori della densità del fluido R1243zf _ *T*=20°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
293.16	9082.5	1031.1	293.16	8018.5	1027.0	293.16	6931.6	1022.6	293.16	5811.9	1018.0
293.16	9070.4	1031.1	293.16	8006.1	1027.0	293.16	6917.6	1022.6	293.16	5799.2	1018.0
293.16	9057.3	1031.0	293.16	7993.5	1026.9	293.16	6905.2	1022.5	293.16	5788.0	1017.9
293.16	9044.4	1031.0	293.16	7980.2	1026.8	293.16	6892.4	1022.5	293.16	5776.1	1017.8
293.16	9031.6	1030.9	293.16	7965.7	1026.8	293.16	6878.9	1022.4	293.16	5762.8	1017.8
293.15	9018.2	1030.9	293.16	7952.6	1026.7	293.16	6865.8	1022.4	293.16	5750.8	1017.7
293.15	9004.6	1030.8	293.16	7940.2	1026.7	293.16	6852.4	1022.3	293.16	5737.0	1017.6
293.15	8992.5	1030.8	293.16	7926.9	1026.6	293.16	6838.9	1022.3	293.16	5725.2	1017.6
293.16	8979.2	1030.7	293.16	7914.8	1026.6	293.16	6826.6	1022.3	293.16	5712.1	1017.6
293.16	8965.4	1030.7	293.16	7901.0	1026.5	293.16	6811.9	1022.2	293.16	5698.3	1017.5
293.16	8951.4	1030.6	293.16	7888.1	1026.5	293.16	6798.5	1022.2	293.16	5685.1	1017.4
293.16	8938.0	1030.6	293.16	7874.1	1026.5	293.16	6784.6	1022.1	293.16	5672.1	1017.4
293.16	8925.6	1030.6	293.16	7860.5	1026.4	293.15	6770.2	1022.0	293.16	5660.2	1017.4
293.16	8913.4	1030.5	293.16	7845.5	1026.3	293.16	6755.8	1022.0	293.16	5647.8	1017.3
293.16	8898.4	1030.4	293.16	7831.3	1026.3	293.16	6742.0	1021.9	293.16	5635.2	1017.2
293.16	8883.0	1030.3	293.16	7817.3	1026.2	293.16	6728.7	1021.9	293.16	5621.0	1017.2
293.16	8868.9	1030.3	293.16	7801.8	1026.1	293.16	6715.0	1021.8	293.16	5608.7	1017.1
293.16	8854.1	1030.2	293.16	7787.5	1026.1	293.16	6701.0	1021.7	293.16	5595.9	1017.1
293.16	8839.2	1030.2	293.16	7773.0	1026.0	293.16	6687.2	1021.6	293.16	5583.5	1017.0
293.16	8824.6	1030.1	293.16	7757.1	1025.9	293.16	6673.3	1021.6	293.16	5569.3	1017.0
293.16	8810.8	1030.1	293.16	7742.3	1026.0	293.16	6660.4	1021.5	293.16	5557.2	1016.9
293.16	8796.0	1030.0	293.16	7727.9	1025.9	293.16	6645.6	1021.5	293.16	5544.9	1016.8
293.16	8782.5	1029.9	293.16	7713.8	1025.8	293.16	6632.0	1021.5	293.16	5532.3	1016.8
293.16	8766.2	1029.9	293.16	7698.4	1025.7	293.16	6616.6	1021.4	293.15	5518.1	1016.7
293.16	8751.9	1029.9	293.16	7684.1	1025.7	293.16	6602.1	1021.3	293.15	5504.8	1016.6
293.16	8738.3	1029.8	293.16	7670.0	1025.7	293.16	6587.0	1021.3	293.16	5490.6	1016.6
293.16	8724.2	1029.7	293.16	7655.4	1025.6	293.16	6572.2	1021.1	293.16	5477.1	1016.6
293.16	8709.7	1029.6	293.16	7639.9	1025.5	293.16	6556.3	1021.1	293.16	5464.0	1016.5
293.16	8696.1	1029.6	293.16	7625.6	1025.4	293.16	6541.3	1021.0	293.16	5450.7	1016.4
293.16	8681.9	1029.6	293.16	7610.1	1025.4	293.16	6525.2	1021.0	293.16	5436.1	1016.4
293.16	8667.8	1029.5	293.16	7594.8	1025.4	293.16	6511.4	1020.9	293.16	5421.8	1016.3
293.16	8653.7	1029.5	293.16	7580.0	1025.3	293.16	6495.8	1020.8	293.16	5408.3	1016.3
293.16	8640.9	1029.4	293.16	7564.9	1025.2	293.16	6481.7	1020.8	293.16	5394.1	1016.2
293.16	8626.8	1029.4	293.16	7550.0	1025.1	293.16	6466.3	1020.7	293.16	5379.6	1016.1
293.16	8611.4	1029.3	293.16	7535.8	1025.1	293.16	6452.5	1020.7	293.16	5365.6	1016.1
293.16	8597.3	1029.2	293.15	7520.5	1025.0	293.16	6437.0	1020.6	293.16	5350.3	1016.0
293.16	8581.2	1029.2	293.15	7507.5	1025.0	293.16	6422.1	1020.6	293.16	5334.1	1015.9
293.16	8567.1	1029.2	293.15	7492.5	1024.9	293.16	6407.1	1020.5	293.16	5319.2	1015.8
293.16	8551.4	1029.1	293.15	7478.2	1024.9	293.16	6392.4	1020.4	293.16	5305.0	1015.8
293.16	8536.1	1029.0	293.15	7463.5	1024.7	293.16	6377.5	1020.4	293.16	5291.4	1015.7
293.16	8521.1	1029.0	293.15	7449.0	1024.8	293.16	6363.3	1020.3	293.16	5277.7	1015.7
293.16	8506.1	1028.9	293.15	7434.3	1024.7	293.16	6349.0	1020.2	293.16	5263.5	1015.6
293.16	8492.1	1028.8	293.16	7419.7	1024.7	293.16	6333.6	1020.2	293.16	5251.1	1015.6
293.16	8478.7	1028.8	293.16	7404.3	1024.6	293.16	6318.8	1020.1	293.16	5237.8	1015.4
293.16	8465.1	1028.7	293.16	7390.4	1024.5	293.16	6302.4	1020.1	293.16	5224.5	1015.5
293.16	8450.9	1028.7	293.16	7377.1	1024.5	293.16	6287.7	1020.0	293.16	5208.4	1015.4
293.16	8436.3	1028.7	293.16	7365.5	1024.4	293.16	6272.5	1019.9	293.16	5194.3	1015.3
293.16	8421.8	1028.5	293.16	7350.8	1024.3	293.16	6257.1	1019.8	293.16	5179.5	1015.3
293.16	8407.9	1028.5	293.15	7336.5	1024.3	293.16	6243.3	1019.8	293.15	5165.5	1015.2
293.16	8395.0	1028.5	293.15	7322.0	1024.3	293.15	6229.6	1019.7	293.15	5149.3	1015.2
293.16	8381.1	1028.5	293.16	7307.7	1024.1	293.16	6215.1	1019.6	293.16	5134.4	1015.1
293.16	8367.9	1028.4	293.16	7293.4	1024.2	293.16	6200.1	1019.6	293.16	5120.7	1015.0
293.16	8356.4	1028.3	293.15	7277.8	1024.0	293.16	6183.8	1019.6	293.16	5107.9	1015.0
293.16	8344.2	1028.3	293.15	7262.5	1024.0	293.16	6169.6	1019.5	293.16	5093.7	1014.9
293.16	8331.5	1028.2	293.15	7247.6	1023.9	293.16	6154.3	1019.5	293.16	5078.3	1014.8
293.16	8318.8	1028.1	293.15	7234.0	1023.9	293.16	6140.1	1019.4	293.16	5064.3	1014.7
293.16	8305.0	1028.1	293.15	7220.5	1023.8	293.16	6125.7	1019.3	293.15	5050.0	1014.7
293.16	8292.2	1028.1	293.15	7207.4	1023.8	293.16	6110.7	1019.2	293.15	5037.0	1014.6
293.16	8279.1	1028.0	293.15	7194.4	1023.7	293.16	6095.8	1019.2	293.15	5021.6	1014.5
293.16	8267.4	1027.9	293.15	7180.1	1023.7	293.16	6081.3	1019.1	293.15	5007.6	1014.5
293.16	8254.1	1027.9	293.15	7166.1	1023.6	293.15	6066.1	1019.1	293.15	4992.9	1014.5
293.16	8240.8	1027.9	293.16	7152.7	1023.5	293.16	6051.2	1019.0	293.15	4979.2	1014.4
293.16	8229.6	1027.9	293.15	7138.2	1023.5	293.16	6035.9	1018.9	293.15	4965.6	1014.3
293.16	8217.0	1027.8	293.16	7125.2	1023.5	293.15	6020.6	1018.9	293.15	4949.6	1014.2
293.16	8204.6	1027.7	293.16	7111.7	1023.4	293.16	6005.4	1018.8	293.15	4935.3	1014.2
293.16	8191.5	1027.7	293.16	7097.6	1023.4	293.16	5991.5	1018.7	293.15	4920.7	1014.1
293.16	8178.0	1027.6	293.15	7083.8	1023.3	293.16	5978.5	1018.7	293.15	4906.7	1014.0
293.16	8163.1	1027.6	293.15	7071.1	1023.2	293.16	5960.9	1018.6	293.15	4893.6	1014.0
293.16	8149.4	1027.5	293.15	7059.8	1023.2	293.16	5945.6	1018.6	293.15	4879.0	1013.9
293.16	8134.8	1027.4	293.15	7046.3	1023.2	293.16	5931.6	1018.5	293.15	4865.0	1013.9
293.16	8121.7	1027.4	293.15	7033.0	1023.0	293.16	5918.5	1018.5	293.16	4849.6	1013.8
293.16	8108.5	1027.3	293.15	7020.2	1023.0	293.15	5905.6	1018.3	293.16	4836.1	1013.8
293.16	8095.3	1027.3	293.15	7009.3	1023.0	293.16	5892.1	1018.3	293.16	4821.8	1013.7
293.16	8083.7	1027.3	293.15	6996.0	1022.9	293.15	5878.4	1018.3	293.16	4808.6	1013.7
293.16	8071.1	1027.2	293.16	6983.4	1022.9	293.16	5864.4	1018.2	293.16	4793.8	1013.6
293.16	8057.1	1027.2	293.16	6970.3	1022.8	293.16	5850.9	1018.2	293.16	4780.8	1013.5
293.16	8044.7	1027.1	293.16	6957.2	1022.7	293.16	5838.0	1018.1	293.15	4766.2	1013.4
293.16	8031.2	1027.1	293.16	6944.4	1022.7	293.16	5824.8	1018.0	293.15	4752.1	1013.3

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
293.15	4739.1	1013.3	293.16	3677.2	1008.4	293.15	2604.9	1003.4	293.15	1521.4	997.9
293.15	4725.2	1013.3	293.16	3663.7	1008.4	293.16	2591.9	1003.3	293.16	1508.6	997.8
293.15	4709.1	1013.2	293.16	3649.2	1008.3	293.15	2577.3	1003.2	293.16	1496.3	997.8
293.15	4695.1	1013.2	293.16	3634.6	1008.3	293.15	2561.6	1003.2	293.16	1489.7	997.8
293.16	4680.7	1013.1	293.16	3620.9	1008.2	293.16	2549.2	1003.1	293.16	1482.0	997.8
293.16	4667.8	1013.0	293.16	3606.2	1008.1	293.15	2534.7	1003.0	293.16	1472.5	997.7
293.16	4654.1	1013.0	293.16	3592.0	1008.1	293.15	2520.3	1002.9	293.16	1460.8	997.6
293.16	4639.6	1012.9	293.16	3578.0	1008.0	293.15	2507.1	1002.9	293.16	1446.6	997.5
293.16	4625.0	1012.8	293.16	3563.7	1007.9	293.15	2493.6	1002.8	293.16	1432.2	997.5
293.16	4609.4	1012.7	293.16	3549.9	1007.9	293.16	2479.5	1002.8	293.16	1417.8	997.4
293.16	4594.7	1012.7	293.16	3537.6	1007.8	293.16	2465.1	1002.7	293.16	1404.1	997.3
293.16	4580.5	1012.6	293.16	3523.0	1007.8	293.15	2451.4	1002.7	293.16	1389.3	997.2
293.16	4566.9	1012.6	293.16	3509.9	1007.7	293.16	2437.4	1002.5	293.16	1375.1	997.2
293.16	4551.8	1012.5	293.16	3495.7	1007.6	293.16	2422.7	1002.5	293.16	1361.4	997.1
293.16	4538.7	1012.4	293.16	3481.1	1007.6	293.16	2410.2	1002.4	293.15	1347.8	997.1
293.16	4526.0	1012.4	293.15	3467.6	1007.5	293.15	2395.3	1002.4	293.16	1335.2	997.0
293.16	4511.8	1012.4	293.16	3452.7	1007.5	293.15	2380.7	1002.3	293.15	1323.2	997.0
293.16	4498.9	1012.3	293.16	3438.6	1007.4	293.15	2368.2	1002.2	293.15	1310.7	996.8
293.16	4485.2	1012.2	293.16	3425.7	1007.3	293.16	2354.0	1002.1	293.15	1298.7	996.8
293.16	4470.1	1012.1	293.16	3411.1	1007.3	293.16	2339.2	1002.0	293.15	1283.9	996.7
293.16	4457.3	1012.1	293.16	3398.8	1007.1	293.16	2325.0	1002.0	293.15	1272.5	996.6
293.16	4443.1	1012.0	293.16	3385.1	1007.1	293.16	2312.0	1001.9	293.16	1258.4	996.5
293.16	4428.4	1011.9	293.16	3371.4	1007.1	293.16	2298.3	1001.9	293.16	1245.7	996.5
293.16	4414.5	1011.9	293.16	3356.5	1006.9	293.16	2284.8	1001.8	293.16	1232.7	996.4
293.16	4401.0	1011.8	293.16	3342.5	1006.9	293.16	2272.1	1001.7	293.15	1219.5	996.4
293.16	4387.9	1011.7	293.16	3328.4	1006.8	293.16	2258.4	1001.7	293.16	1207.4	996.3
293.16	4375.9	1011.7	293.16	3314.8	1006.8	293.16	2244.3	1001.6	293.16	1194.3	996.2
293.16	4363.5	1011.7	293.16	3301.8	1006.7	293.16	2231.2	1001.6	293.15	1181.5	996.2
293.16	4350.2	1011.6	293.16	3288.1	1006.7	293.16	2217.1	1001.4	293.15	1168.6	996.0
293.16	4336.8	1011.5	293.16	3274.2	1006.6	293.15	2203.6	1001.4	293.15	1155.3	996.0
293.16	4324.2	1011.5	293.16	3261.6	1006.5	293.16	2190.4	1001.4	293.15	1143.1	995.9
293.16	4311.0	1011.4	293.16	3248.9	1006.4	293.16	2176.3	1001.3	293.15	1131.1	995.9
293.16	4298.0	1011.4	293.16	3235.0	1006.4	293.15	2162.3	1001.2	293.15	1118.1	995.8
293.16	4283.9	1011.3	293.16	3221.7	1006.4	293.16	2148.4	1001.1	293.15	1105.1	995.8
293.16	4271.0	1011.3	293.16	3208.4	1006.2	293.16	2135.6	1001.1	293.15	1091.5	995.7
293.16	4257.9	1011.1	293.16	3194.7	1006.3	293.15	2121.9	1001.0	293.15	1078.2	995.7
293.16	4244.0	1011.1	293.16	3182.4	1006.2	293.15	2109.0	1001.0	293.16	1065.1	995.6
293.16	4231.2	1011.0	293.16	3168.8	1006.1	293.15	2095.3	1000.9	293.16	1051.4	995.5
293.16	4218.1	1011.0	293.16	3154.8	1006.1	293.15	2081.8	1000.7	293.16	1036.8	995.4
293.16	4204.4	1010.9	293.16	3142.0	1005.9	293.15	2069.1	1000.7	293.16	1024.0	995.3
293.16	4191.7	1010.8	293.16	3129.3	1005.9	293.15	2055.9	1000.7	293.16	1011.5	995.3
293.16	4178.1	1010.8	293.16	3114.9	1005.8	293.15	2043.3	1000.6	293.15	999.5	995.2
293.16	4164.9	1010.8	293.16	3100.5	1005.7	293.16	2031.0	1000.5	293.16	987.3	995.1
293.16	4151.0	1010.7	293.16	3087.9	1005.7	293.16	2018.3	1000.5	293.15	975.4	995.1
293.16	4138.2	1010.7	293.16	3073.9	1005.7	293.16	2004.8	1000.4	293.15	963.4	995.0
293.16	4125.1	1010.5	293.16	3060.2	1005.6	293.16	1991.6	1000.3	293.15	951.4	994.9
293.16	4111.9	1010.5	293.16	3047.0	1005.5	293.16	1978.2	1000.2	293.15	939.2	994.9
293.16	4099.6	1010.4	293.16	3033.6	1005.4	293.16	1965.0	1000.2	293.15	926.7	994.8
293.16	4087.5	1010.4	293.16	3020.1	1005.4	293.16	1952.0	1000.1	293.16	915.6	994.8
293.16	4074.3	1010.4	293.16	3007.5	1005.4	293.16	1938.8	1000.1	293.16	903.8	994.7
293.16	4061.9	1010.2	293.16	2994.0	1005.2	293.16	1925.5	1000.0	293.16	890.6	994.6
293.16	4049.2	1010.2	293.16	2981.5	1005.2	293.16	1913.1	999.9	293.16	878.3	994.5
293.16	4036.1	1010.1	293.16	2968.3	1005.1	293.16	1899.6	1000.0	293.15	866.5	994.5
293.16	4022.4	1010.1	293.16	2954.4	1005.0	293.16	1886.2	999.8	293.15	853.4	994.4
293.16	4008.9	1010.0	293.16	2941.8	1005.0	293.16	1872.9	999.8	293.15	841.3	994.4
293.16	3995.0	1009.9	293.16	2928.6	1005.0	293.15	1860.4	999.7	293.15	828.4	994.3
293.16	3978.7	1009.9	293.16	2916.1	1004.9	293.16	1846.7	999.5	293.15	815.7	994.2
293.16	3965.7	1009.8	293.16	2902.9	1004.8	293.16	1834.0	999.6	293.15	803.2	994.2
293.16	3950.8	1009.8	293.16	2889.4	1004.8	293.16	1821.3	999.5	293.16	791.3	994.1
293.16	3937.2	1009.7	293.16	2876.2	1004.7	293.15	1807.5	999.4	293.16	778.2	994.0
293.16	3923.3	1009.6	293.16	2861.2	1004.6	293.15	1794.4	999.3	293.16	765.4	993.9
293.16	3909.8	1009.5	293.16	2848.5	1004.6	293.16	1781.3	999.2	293.16	753.0	993.9
293.16	3895.9	1009.5	293.16	2834.5	1004.6	293.15	1767.7	999.2	293.16	741.2	993.9
293.16	3882.4	1009.4	293.16	2819.9	1004.5	293.16	1724.5	998.9	293.16	729.2	993.8
293.16	3869.3	1009.4	293.16	2804.3	1004.3	293.16	1712.3	998.9	293.16	717.3	993.7
293.16	3855.8	1009.3	293.16	2789.7	1004.3	293.16	1697.2	998.8	293.16	704.6	993.6
293.16	3842.6	1009.2	293.16	2774.6	1004.2	293.16	1682.5	998.7	293.16	692.2	993.5
293.16	3828.2	1009.2	293.15	2759.6	1004.1	293.16	1667.7	998.7	293.15	680.9	993.4
293.16	3814.4	1009.2	293.15	2746.2	1004.1	293.16	1654.9	998.6	293.15	667.2	993.4
293.16	3799.9	1009.0	293.15	2731.5	1004.0	293.16	1640.5	998.5	293.16	654.2	993.3
293.16	3785.1	1009.0	293.15	2717.1	1003.9	293.16	1627.1	998.4	293.16	639.6	993.3
293.16	3770.9	1008.9	293.15	2703.7	1003.8	293.16	1614.6	998.4	293.16	628.3	993.2
293.16	3757.2	1008.9	293.15	2689.9	1003.8	293.16	1601.1	998.3	293.16	614.6	993.2
293.16	3743.4	1008.8	293.15	2676.2	1003.8	293.16	1587.2	998.3	293.16	602.8	993.0
293.16	3729.7	1008.7	293.15	2661.8	1003.6	293.16	1573.8	998.2			
293.16	3716.4	1008.6	293.15	2647.0	1003.5	293.16	1560.5	998.1			
293.16	3702.3	1008.6	293.15	2632.6	1003.5	293.15	1546.6	998.1			
293.16	3690.6	1008.5	293.15	2618.2	1003.5	293.16	1533.2	998.0			

Tabella C3: Valori della densità del fluido R1243zf per T = 303.15 K (30°C)

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
303.15	34999.8	1085.8	303.15	33899.5	1083.2	303.15	32789.8	1080.6	303.15	31649.7	1077.8
303.15	34984.8	1085.7	303.15	33881.9	1083.2	303.15	32773.8	1080.5	303.15	31633.6	1077.8
303.15	34968.7	1085.7	303.15	33865.9	1083.1	303.15	32757.7	1080.5	303.15	31618.5	1077.7
303.15	34952.7	1085.7	303.15	33849.4	1083.1	303.15	32741.2	1080.5	303.15	31602.8	1077.7
303.15	34937.3	1085.6	303.15	33833.6	1083.0	303.15	32726.9	1080.4	303.15	31585.6	1077.7
303.15	34920.9	1085.6	303.15	33818.1	1083.0	303.15	32709.6	1080.4	303.15	31569.9	1077.7
303.15	34905.5	1085.5	303.15	33802.0	1083.0	303.15	32693.7	1080.4	303.15	31552.9	1077.6
303.15	34888.9	1085.5	303.15	33786.6	1082.9	303.15	32677.1	1080.3	303.15	31536.2	1077.6
303.15	34872.1	1085.4	303.15	33771.7	1082.9	303.15	32662.1	1080.3	303.15	31518.9	1077.5
303.15	34856.4	1085.4	303.15	33756.8	1082.8	303.15	32646.7	1080.2	303.15	31502.8	1077.5
303.15	34841.1	1085.4	303.15	33740.9	1082.9	303.15	32630.5	1080.2	303.15	31485.3	1077.4
303.15	34825.5	1085.3	303.15	33726.8	1082.8	303.15	32615.2	1080.2	303.15	31470.9	1077.4
303.15	34809.8	1085.3	303.15	33710.0	1082.8	303.15	32598.4	1080.1	303.15	31454.2	1077.4
303.15	34795.4	1085.2	303.15	33694.7	1082.7	303.15	32581.9	1080.2	303.15	31439.2	1077.3
303.15	34780.0	1085.3	303.15	33679.9	1082.7	303.15	32565.8	1080.0	303.15	31423.6	1077.3
303.15	34764.4	1085.2	303.15	33662.5	1082.6	303.15	32550.1	1080.0	303.15	31407.6	1077.2
303.15	34749.0	1085.2	303.15	33646.0	1082.6	303.15	32533.3	1080.0	303.15	31392.3	1077.2
303.15	34732.8	1085.1	303.15	33629.6	1082.6	303.16	32516.1	1080.0	303.15	31376.0	1077.2
303.15	34717.6	1085.1	303.15	33614.5	1082.5	303.15	32500.6	1079.9	303.15	31360.4	1077.1
303.15	34701.1	1085.0	303.15	33599.9	1082.5	303.15	32485.2	1079.9	303.15	31342.8	1077.1
303.15	34685.0	1085.0	303.15	33584.1	1082.5	303.15	32469.2	1079.8	303.15	31326.7	1077.1
303.15	34672.2	1085.0	303.15	33568.0	1082.4	303.15	32453.6	1079.8	303.15	31311.2	1077.0
303.15	34656.7	1084.9	303.15	33551.5	1082.4	303.15	32437.6	1079.7	303.15	31295.7	1077.0
303.15	34640.1	1084.9	303.15	33535.2	1082.3	303.15	32422.9	1079.7	303.15	31279.6	1076.9
303.15	34625.0	1084.9	303.15	33519.1	1082.3	303.15	32406.5	1079.7	303.15	31264.7	1076.9
303.15	34608.6	1084.8	303.15	33503.4	1082.3	303.15	32391.8	1079.6	303.15	31249.6	1076.9
303.15	34594.1	1084.8	303.15	33488.1	1082.3	303.15	32377.5	1079.6	303.15	31233.3	1076.8
303.15	34579.7	1084.8	303.15	33472.6	1082.2	303.15	32361.6	1079.6	303.15	31217.4	1076.8
303.15	34564.2	1084.7	303.15	33458.4	1082.1	303.15	32346.2	1079.6	303.15	31202.8	1076.8
303.15	34549.0	1084.7	303.15	33443.7	1082.2	303.15	32328.5	1079.5	303.15	31187.6	1076.7
303.15	34534.5	1084.7	303.15	33428.1	1082.1	303.15	32313.8	1079.5	303.15	31171.3	1076.7
303.15	34521.2	1084.6	303.15	33413.4	1082.1	303.15	32297.8	1079.4	303.15	31155.4	1076.7
303.15	34507.6	1084.6	303.15	33398.2	1082.0	303.15	32281.6	1079.4	303.15	31142.7	1076.6
303.15	34494.0	1084.6	303.15	33382.4	1082.0	303.15	32266.3	1079.3	303.15	31127.5	1076.6
303.15	34479.6	1084.6	303.15	33368.5	1081.9	303.15	32249.8	1079.3	303.15	31112.7	1076.5
303.15	34466.2	1084.5	303.15	33352.7	1081.9	303.15	32234.2	1079.3	303.15	31098.2	1076.5
303.15	34450.9	1084.5	303.15	33338.0	1081.8	303.15	32218.7	1079.2	303.15	31084.0	1076.4
303.15	34436.8	1084.4	303.15	33322.4	1081.8	303.15	32202.6	1079.2	303.15	31068.8	1076.4
303.15	34420.1	1084.4	303.15	33308.5	1081.8	303.15	32187.6	1079.1	303.15	31054.3	1076.4
303.15	34406.0	1084.3	303.15	33293.8	1081.8	303.15	32172.2	1079.1	303.15	31039.4	1076.3
303.15	34390.8	1084.4	303.15	33277.7	1081.7	303.15	32157.6	1079.0	303.15	31025.4	1076.3
303.15	34376.9	1084.3	303.15	33263.7	1081.7	303.15	32142.6	1079.0	303.15	31010.2	1076.3
303.15	34362.6	1084.3	303.15	33249.7	1081.7	303.15	32128.1	1079.0	303.15	30998.3	1076.2
303.15	34348.2	1084.2	303.15	33234.5	1081.6	303.15	32113.2	1079.0	303.15	30983.8	1076.2
303.15	34334.4	1084.2	303.15	33219.5	1081.6	303.15	32098.1	1078.9	303.15	30969.1	1076.1
303.15	34321.3	1084.2	303.15	33206.8	1081.6	303.15	32084.1	1078.9	303.15	30954.3	1076.1
303.15	34307.2	1084.1	303.15	33193.2	1081.5	303.15	32070.0	1078.9	303.15	30940.5	1076.1
303.15	34294.5	1084.1	303.15	33178.8	1081.5	303.15	32054.9	1078.8	303.15	30927.0	1076.1
303.15	34281.1	1084.1	303.15	33164.7	1081.5	303.15	32040.5	1078.7	303.15	30912.7	1076.0
303.15	34268.4	1084.0	303.15	33151.6	1081.4	303.15	32026.2	1078.7	303.15	30899.5	1076.1
303.15	34255.2	1084.0	303.15	33138.7	1081.4	303.15	32012.3	1078.7	303.15	30885.3	1075.9
303.15	34242.4	1084.0	303.15	33125.9	1081.4	303.15	31997.2	1078.7	303.15	30870.5	1075.9
303.15	34229.2	1084.0	303.15	33112.9	1081.3	303.15	31982.7	1078.7	303.15	30858.1	1075.9
303.15	34215.0	1083.9	303.15	33099.2	1081.3	303.15	31967.2	1078.6	303.15	30844.1	1075.9
303.15	34201.6	1083.9	303.15	33086.1	1081.3	303.15	31953.2	1078.5	303.15	30831.2	1075.9
303.15	34186.7	1083.9	303.15	33073.2	1081.2	303.15	31939.2	1078.5	303.15	30818.1	1075.8
303.15	34173.8	1083.9	303.15	33059.2	1081.2	303.15	31926.3	1078.5	303.15	30803.5	1075.8
303.15	34159.4	1083.8	303.15	33045.2	1081.2	303.15	31911.6	1078.5	303.15	30789.3	1075.8
303.15	34146.2	1083.8	303.15	33032.2	1081.1	303.15	31897.4	1078.5	303.15	30775.9	1075.8
303.15	34132.8	1083.8	303.15	33019.4	1081.1	303.15	31883.9	1078.4	303.15	30761.4	1075.7
303.15	34118.5	1083.7	303.15	33005.8	1081.1	303.15	31869.5	1078.4	303.15	30746.9	1075.6
303.15	34104.5	1083.7	303.15	32993.1	1081.1	303.15	31855.8	1078.4	303.15	30733.6	1075.6
303.15	34090.6	1083.6	303.15	32981.0	1081.0	303.15	31842.5	1078.3	303.15	30720.2	1075.6
303.15	34076.8	1083.6	303.15	32968.0	1081.0	303.15	31827.3	1078.3	303.15	30705.8	1075.5
303.15	34062.8	1083.6	303.15	32955.1	1081.0	303.15	31814.4	1078.3	303.15	30691.9	1075.5
303.15	34048.3	1083.5	303.15	32940.8	1080.9	303.15	31800.8	1078.2	303.15	30677.2	1075.5
303.15	34035.0	1083.6	303.15	32926.2	1080.9	303.15	31787.1	1078.2	303.15	30663.2	1075.4
303.15	34019.7	1083.5	303.15	32911.0	1080.8	303.15	31771.2	1078.2	303.15	30649.2	1075.4
303.15	34005.4	1083.5	303.15	32896.8	1080.8	303.15	31756.9	1078.1	303.15	30634.3	1075.3
303.15	33990.2	1083.4	303.15	32882.1	1080.8	303.15	31743.5	1078.0	303.15	30620.8	1075.3
303.15	33976.1	1083.4	303.15	32866.1	1080.8	303.15	31728.0	1078.0	303.15	30605.9	1075.3
303.15	33960.8	1083.4	303.15	32851.6	1080.7	303.15	31712.9	1078.0	303.15	30591.5	1075.3
303.15	33944.8	1083.3	303.15	32836.5	1080.7	303.15	31696.8	1077.9	303.15	30576.6	1075.2
303.15	33931.9	1083.3	303.15	32820.9	1080.6	303.15	31681.9	1078.0	303.15	30559.8	1075.1
303.15	33915.2	1083.2	303.15	32805.5	1080.6	303.15	31665.2	1077.9	303.15	30542.9	1075.1

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
303.15	30527.4	1075.0	303.15	29386.5	1072.2	303.15	28300.5	1069.5	303.16	27235.3	1066.7
303.15	30511.5	1075.1	303.15	29372.1	1072.2	303.15	28286.4	1069.5	303.16	27220.8	1066.7
303.15	30496.1	1075.0	303.15	29357.7	1072.1	303.15	28271.1	1069.4	303.16	27208.4	1066.6
303.15	30479.9	1075.0	303.15	29341.6	1072.1	303.16	28256.6	1069.3	303.16	27195.2	1066.6
303.15	30464.1	1074.9	303.15	29327.0	1072.1	303.16	28242.4	1069.3	303.16	27180.9	1066.6
303.15	30449.3	1074.9	303.15	29312.4	1072.1	303.15	28228.5	1069.3	303.15	27169.4	1066.5
303.15	30434.5	1074.9	303.15	29298.2	1072.0	303.15	28213.9	1069.2	303.16	27155.2	1066.4
303.15	30417.7	1074.8	303.15	29282.0	1072.0	303.15	28200.6	1069.2	303.16	27142.7	1066.5
303.15	30402.8	1074.8	303.15	29266.8	1071.9	303.15	28185.4	1069.1	303.15	27127.7	1066.4
303.15	30387.9	1074.7	303.15	29249.6	1071.9	303.15	28170.6	1069.1	303.15	27114.4	1066.3
303.15	30372.5	1074.7	303.15	29235.0	1071.9	303.15	28155.3	1069.1	303.15	27099.1	1066.4
303.15	30356.2	1074.7	303.15	29220.4	1071.8	303.15	28138.3	1069.0	303.15	27085.1	1066.3
303.15	30340.8	1074.6	303.15	29207.2	1071.8	303.15	28124.4	1069.0	303.15	27071.4	1066.3
303.15	30325.5	1074.6	303.15	29193.2	1071.8	303.15	28110.6	1069.0	303.15	27056.8	1066.3
303.15	30308.0	1074.6	303.15	29177.9	1071.7	303.15	28095.0	1069.0	303.15	27042.0	1066.2
303.15	30291.1	1074.5	303.15	29163.9	1071.6	303.15	28080.2	1068.9	303.15	27028.9	1066.2
303.15	30276.6	1074.5	303.15	29148.1	1071.7	303.15	28066.6	1068.8	303.15	27014.1	1066.1
303.15	30261.0	1074.4	303.15	29133.9	1071.6	303.16	28054.1	1068.8	303.15	27001.5	1066.0
303.15	30247.8	1074.4	303.15	29118.5	1071.5	303.15	28040.0	1068.8	303.15	26988.2	1066.0
303.15	30233.9	1074.4	303.15	29104.3	1071.5	303.15	28024.4	1068.7	303.15	26973.6	1066.0
303.15	30219.5	1074.3	303.15	29088.1	1071.5	303.15	28011.2	1068.7	303.15	26961.5	1065.9
303.15	30203.1	1074.3	303.15	29073.4	1071.5	303.15	27997.4	1068.7	303.15	26948.6	1065.9
303.15	30187.8	1074.2	303.15	29058.6	1071.4	303.15	27984.8	1068.6	303.15	26935.9	1065.9
303.15	30172.8	1074.2	303.15	29043.5	1071.3	303.15	27970.8	1068.6	303.15	26924.5	1065.9
303.15	30157.1	1074.2	303.15	29028.7	1071.3	303.15	27957.5	1068.6	303.15	26912.8	1065.8
303.15	30143.0	1074.1	303.15	29013.7	1071.3	303.15	27944.6	1068.5	303.15	26899.4	1065.8
303.15	30128.2	1074.1	303.15	29001.8	1071.3	303.15	27932.8	1068.5	303.15	26886.8	1065.8
303.15	30112.3	1074.1	303.15	28989.0	1071.2	303.15	27918.7	1068.5	303.15	26872.3	1065.8
303.15	30098.5	1074.0	303.15	28975.0	1071.2	303.15	27908.3	1068.4	303.16	26859.0	1065.7
303.15	30084.8	1073.9	303.15	28962.0	1071.1	303.15	27893.9	1068.4	303.16	26844.9	1065.7
303.15	30069.7	1073.9	303.15	28948.0	1071.1	303.15	27882.3	1068.4	303.16	26831.9	1065.6
303.15	30055.1	1073.9	303.15	28935.6	1071.1	303.15	27870.3	1068.3	303.16	26818.9	1065.6
303.15	30040.4	1073.9	303.15	28922.7	1071.0	303.15	27857.9	1068.3	303.16	26807.2	1065.5
303.15	30025.9	1073.8	303.15	28908.7	1071.0	303.15	27844.3	1068.3	303.16	26792.8	1065.5
303.15	30011.4	1073.8	303.15	28897.1	1071.0	303.15	27831.3	1068.2	303.15	26778.4	1065.5
303.15	29998.3	1073.7	303.15	28884.2	1070.9	303.15	27819.3	1068.2	303.15	26765.2	1065.5
303.15	29983.8	1073.7	303.15	28870.9	1070.9	303.15	27806.2	1068.2	303.15	26750.4	1065.4
303.15	29969.1	1073.7	303.15	28858.9	1070.9	303.15	27794.4	1068.2	303.15	26736.8	1065.4
303.15	29955.6	1073.7	303.15	28845.5	1070.8	303.15	27781.8	1068.1	303.15	26723.9	1065.3
303.15	29941.8	1073.6	303.15	28833.0	1070.8	303.15	27767.6	1068.1	303.16	26710.9	1065.3
303.15	29928.0	1073.6	303.15	28818.8	1070.8	303.15	27755.7	1068.1	303.16	26697.8	1065.2
303.15	29914.2	1073.5	303.15	28807.6	1070.8	303.16	27743.2	1068.0	303.16	26684.9	1065.2
303.15	29900.7	1073.5	303.15	28795.1	1070.8	303.15	27729.7	1068.0	303.15	26671.6	1065.2
303.15	29887.6	1073.5	303.15	28782.7	1070.7	303.15	27717.5	1068.0	303.15	26658.5	1065.1
303.15	29872.3	1073.4	303.15	28768.3	1070.7	303.16	27705.1	1067.9	303.15	26644.9	1065.1
303.15	29857.6	1073.4	303.15	28756.1	1070.6	303.16	27692.0	1067.8	303.15	26629.8	1065.1
303.15	29841.3	1073.3	303.16	28742.8	1070.6	303.16	27677.4	1067.8	303.15	26616.3	1065.1
303.15	29827.0	1073.3	303.15	28729.8	1070.5	303.16	27665.9	1067.8	303.15	26602.8	1065.0
303.15	29812.2	1073.3	303.15	28717.3	1070.5	303.16	27652.4	1067.7	303.15	26589.1	1065.0
303.15	29799.1	1073.3	303.16	28704.8	1070.5	303.15	27638.9	1067.7	303.15	26575.7	1064.9
303.15	29786.2	1073.3	303.15	28691.4	1070.4	303.15	27626.5	1067.7	303.15	26563.2	1064.9
303.15	29772.5	1073.2	303.16	28677.7	1070.4	303.15	27614.0	1067.6	303.15	26550.3	1064.8
303.15	29759.3	1073.2	303.15	28664.3	1070.4	303.15	27601.6	1067.6	303.16	26537.5	1064.9
303.15	29745.8	1073.1	303.15	28652.1	1070.4	303.15	27588.2	1067.6	303.15	26524.4	1064.8
303.15	29732.9	1073.1	303.15	28638.4	1070.4	303.15	27575.0	1067.6	303.16	26511.4	1064.8
303.15	29719.6	1073.1	303.16	28626.1	1070.3	303.15	27563.8	1067.5	303.16	26498.0	1064.7
303.15	29706.9	1073.0	303.16	28614.0	1070.2	303.15	27549.5	1067.5	303.16	26484.1	1064.7
303.15	29693.7	1073.0	303.16	28600.0	1070.3	303.16	27536.9	1067.5	303.16	26471.3	1064.7
303.16	29680.3	1073.0	303.16	28587.8	1070.2	303.15	27523.4	1067.4	303.15	26456.3	1064.6
303.16	29667.5	1073.0	303.16	28575.2	1070.2	303.15	27509.9	1067.4	303.15	26443.4	1064.6
303.16	29653.2	1072.9	303.15	28562.1	1070.2	303.15	27496.5	1067.4	303.15	26430.2	1064.5
303.16	29640.8	1072.9	303.15	28548.0	1070.1	303.15	27482.3	1067.3	303.15	26415.0	1064.5
303.16	29627.2	1072.9	303.15	28535.2	1070.0	303.15	27468.9	1067.3	303.15	26400.0	1064.5
303.15	29614.5	1072.8	303.15	28521.1	1070.1	303.15	27454.6	1067.3	303.15	26385.5	1064.4
303.15	29600.5	1072.8	303.15	28508.0	1070.0	303.15	27440.9	1067.2	303.15	26370.6	1064.4
303.15	29586.3	1072.7	303.15	28493.8	1070.0	303.15	27426.4	1067.2	303.15	26354.3	1064.4
303.15	29571.4	1072.7	303.15	28480.1	1069.9	303.16	27413.3	1067.2	303.16	26338.1	1064.3
303.15	29556.7	1072.7	303.15	28465.3	1069.9	303.16	27397.4	1067.1	303.16	26323.4	1064.3
303.16	29541.0	1072.6	303.16	28452.1	1069.8	303.16	27382.5	1067.1	303.15	26307.2	1064.2
303.15	29525.9	1072.6	303.16	28437.0	1069.8	303.16	27369.2	1067.0	303.15	26293.5	1064.1
303.16	29511.7	1072.6	303.16	28420.8	1069.8	303.16	27355.1	1067.0	303.16	26278.8	1064.1
303.15	29495.7	1072.5	303.16	28405.6	1069.8	303.15	27340.7	1067.0	303.16	26263.0	1064.0
303.16	29480.0	1072.5	303.16	28389.4	1069.7	303.15	27326.0	1066.9	303.16	26248.2	1064.0
303.15	29464.8	1072.4	303.15	28374.9	1069.6	303.15	27310.5	1066.8	303.15	26234.2	1064.0
303.15	29448.5	1072.4	303.15	28359.1	1069.6	303.15	27294.6	1066.8	303.15	26219.4	1064.0
303.15	29433.7	1072.4	303.15	28344.3	1069.5	303.15	27279.1	1066.8	303.15	26204.6	1063.9
303.15	29418.6	1072.3	303.15	28330.2	1069.5	303.15	27263.9	1066.8	303.15	26191.4	1063.9
303.15	29402.6	1072.3	303.15	28314.2	1069.5	303.16	27249.9	1066.7	303.15	26174.9	1063.9

Valori della densità del fluido R1243zf _ *T*=30°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
303.15	26160.1	1063.8	303.16	25064.5	1060.9	303.16	23953.0	1057.7	303.16	22828.8	1054.5
303.15	26143.9	1063.8	303.16	25048.7	1060.8	303.16	23938.4	1057.7	303.16	22816.0	1054.5
303.15	26130.1	1063.7	303.15	25033.0	1060.7	303.16	23923.1	1057.7	303.16	22802.0	1054.5
303.15	26114.5	1063.7	303.15	25018.1	1060.7	303.16	23908.8	1057.6	303.16	22788.4	1054.4
303.15	26099.4	1063.7	303.15	25002.2	1060.7	303.16	23894.9	1057.5	303.16	22776.2	1054.4
303.15	26085.6	1063.6	303.15	24986.3	1060.6	303.16	23879.6	1057.5	303.16	22762.1	1054.3
303.15	26071.4	1063.5	303.16	24972.2	1060.6	303.16	23864.5	1057.5	303.16	22749.8	1054.3
303.15	26057.6	1063.6	303.16	24958.1	1060.5	303.16	23849.9	1057.5	303.16	22738.0	1054.3
303.15	26043.7	1063.5	303.15	24944.4	1060.5	303.16	23835.8	1057.4	303.16	22725.3	1054.2
303.15	26029.1	1063.5	303.15	24931.8	1060.5	303.16	23822.5	1057.4	303.16	22711.9	1054.2
303.15	26014.2	1063.5	303.15	24917.8	1060.4	303.16	23809.1	1057.3	303.16	22699.1	1054.2
303.16	25999.3	1063.4	303.15	24903.7	1060.4	303.16	23795.0	1057.3	303.16	22685.8	1054.1
303.15	25986.5	1063.3	303.15	24890.7	1060.4	303.16	23781.8	1057.2	303.16	22672.5	1054.1
303.15	25972.5	1063.3	303.15	24877.1	1060.4	303.16	23768.8	1057.2	303.16	22660.0	1054.0
303.15	25957.6	1063.3	303.16	24863.4	1060.3	303.16	23755.6	1057.2	303.16	22647.0	1054.0
303.15	25943.9	1063.3	303.16	24850.4	1060.3	303.16	23741.1	1057.1	303.16	22634.3	1054.0
303.15	25930.6	1063.2	303.15	24837.9	1060.2	303.16	23727.7	1057.1	303.16	22621.2	1053.9
303.15	25916.6	1063.1	303.16	24825.0	1060.2	303.16	23713.6	1057.1	303.16	22608.6	1053.9
303.15	25903.7	1063.2	303.16	24812.2	1060.2	303.16	23699.3	1057.0	303.16	22594.6	1053.9
303.15	25889.4	1063.1	303.16	24798.4	1060.1	303.16	23685.3	1057.0	303.16	22581.2	1053.8
303.15	25876.6	1063.1	303.16	24785.4	1060.1	303.16	23670.5	1057.0	303.16	22567.9	1053.8
303.15	25862.8	1063.0	303.16	24771.8	1060.0	303.16	23656.6	1056.9	303.16	22554.9	1053.7
303.15	25851.1	1063.0	303.16	24758.2	1060.0	303.16	23643.3	1056.9	303.16	22541.9	1053.7
303.15	25837.5	1063.0	303.15	24745.1	1060.0	303.15	23630.1	1056.8	303.16	22528.8	1053.7
303.15	25824.6	1062.9	303.16	24731.3	1059.9	303.16	23615.2	1056.8	303.16	22515.7	1053.6
303.15	25812.1	1062.9	303.15	24718.1	1059.9	303.16	23601.0	1056.8	303.16	22503.2	1053.6
303.15	25800.2	1062.9	303.16	24705.1	1059.9	303.16	23588.0	1056.7	303.16	22488.4	1053.6
303.15	25787.1	1062.8	303.16	24692.3	1059.8	303.15	23574.1	1056.7	303.16	22475.4	1053.5
303.15	25774.5	1062.8	303.16	24680.1	1059.8	303.16	23560.0	1056.6	303.16	22461.8	1053.4
303.15	25761.2	1062.7	303.16	24666.3	1059.7	303.16	23547.2	1056.6	303.16	22449.0	1053.4
303.15	25747.7	1062.7	303.16	24652.9	1059.7	303.16	23532.1	1056.6	303.16	22435.4	1053.4
303.15	25734.1	1062.7	303.16	24639.1	1059.7	303.16	23519.7	1056.5	303.16	22422.4	1053.3
303.15	25720.6	1062.6	303.16	24626.8	1059.6	303.16	23507.0	1056.5	303.16	22408.3	1053.3
303.15	25708.1	1062.6	303.16	24614.2	1059.6	303.16	23493.7	1056.5	303.16	22395.1	1053.3
303.15	25695.6	1062.5	303.16	24601.3	1059.6	303.16	23480.2	1056.4	303.16	22381.5	1053.2
303.15	25682.9	1062.5	303.16	24588.7	1059.5	303.16	23467.6	1056.4	303.16	22368.7	1053.2
303.16	25669.7	1062.4	303.16	24576.8	1059.5	303.16	23455.5	1056.3	303.16	22355.2	1053.1
303.16	25657.1	1062.5	303.16	24563.2	1059.4	303.16	23441.8	1056.3	303.16	22340.5	1053.1
303.15	25644.1	1062.4	303.16	24549.2	1059.4	303.16	23428.2	1056.3	303.16	22327.8	1053.1
303.15	25632.6	1062.4	303.16	24536.9	1059.4	303.16	23414.3	1056.2	303.16	22314.1	1053.0
303.16	25620.5	1062.3	303.16	24524.3	1059.4	303.16	23400.4	1056.2	303.16	22299.6	1053.0
303.15	25606.1	1062.3	303.16	24512.2	1059.3	303.16	23387.6	1056.1	303.16	22286.7	1053.0
303.15	25593.5	1062.3	303.16	24500.5	1059.3	303.16	23373.3	1056.1	303.16	22272.6	1052.9
303.16	25580.6	1062.2	303.16	24487.4	1059.2	303.16	23360.4	1056.1	303.16	22259.1	1052.9
303.15	25567.0	1062.2	303.16	24473.4	1059.2	303.16	23345.2	1056.0	303.16	22244.2	1052.9
303.16	25553.6	1062.2	303.16	24458.7	1059.1	303.16	23330.6	1056.0	303.16	22231.2	1052.8
303.16	25541.2	1062.1	303.16	24443.4	1059.1	303.16	23315.6	1056.0	303.16	22217.0	1052.8
303.16	25527.7	1062.1	303.16	24429.5	1059.1	303.16	23302.0	1055.9	303.16	22204.2	1052.7
303.15	25514.4	1062.0	303.16	24415.5	1059.0	303.16	23287.7	1055.8	303.16	22189.3	1052.7
303.15	25501.5	1062.0	303.16	24400.3	1059.0	303.16	23271.9	1055.8	303.16	22175.1	1052.6
303.15	25487.8	1062.0	303.16	24385.2	1059.0	303.16	23257.5	1055.8	303.16	22159.0	1052.6
303.15	25474.2	1062.0	303.16	24371.4	1058.9	303.16	23241.3	1055.7	303.16	22144.0	1052.5
303.15	25459.9	1061.9	303.16	24355.6	1058.8	303.16	23225.1	1055.7	303.16	22128.6	1052.5
303.16	25445.9	1061.9	303.16	24339.7	1058.8	303.16	23209.2	1055.6	303.16	22113.8	1052.5
303.15	25430.9	1061.8	303.16	24324.1	1058.8	303.16	23193.5	1055.6	303.16	22098.9	1052.4
303.15	25415.7	1061.8	303.16	24307.4	1058.8	303.16	23179.2	1055.6	303.16	22085.7	1052.4
303.15	25401.7	1061.8	303.16	24291.1	1058.7	303.16	23162.4	1055.5	303.16	22070.8	1052.3
303.15	25386.8	1061.7	303.16	24275.3	1058.7	303.16	23145.3	1055.5	303.16	22056.0	1052.3
303.15	25371.9	1061.7	303.16	24260.7	1058.6	303.16	23130.3	1055.4	303.16	22041.9	1052.2
303.15	25355.3	1061.6	303.16	24244.2	1058.6	303.16	23114.2	1055.4	303.16	22027.9	1052.2
303.15	25339.8	1061.6	303.16	24228.3	1058.5	303.16	23099.9	1055.3	303.16	22014.6	1052.1
303.15	25324.6	1061.6	303.16	24213.7	1058.5	303.16	23085.1	1055.3	303.16	22000.0	1052.1
303.15	25308.9	1061.5	303.16	24196.7	1058.4	303.16	23069.6	1055.2	303.16	21984.4	1052.0
303.15	25294.9	1061.5	303.16	24181.8	1058.4	303.16	23053.9	1055.2	303.16	21969.7	1052.0
303.16	25278.9	1061.5	303.16	24166.7	1058.3	303.16	23038.4	1055.1	303.16	21953.7	1052.0
303.16	25263.9	1061.4	303.16	24150.0	1058.3	303.16	23022.1	1055.1	303.16	21938.7	1051.9
303.16	25247.7	1061.3	303.16	24134.7	1058.3	303.16	23007.3	1055.1	303.16	21924.0	1051.9
303.16	25231.5	1061.3	303.16	24118.2	1058.2	303.16	22992.6	1055.0	303.16	21910.4	1051.9
303.15	25216.5	1061.3	303.16	24103.4	1058.2	303.16	22976.5	1054.9	303.16	21896.1	1051.8
303.16	25201.1	1061.2	303.16	24090.0	1058.1	303.16	22960.9	1054.9	303.16	21882.3	1051.8
303.16	25187.3	1061.2	303.16	24075.3	1058.1	303.16	22945.0	1054.9	303.16	21868.2	1051.7
303.16	25172.9	1061.1	303.16	24060.3	1058.0	303.16	22931.3	1054.8	303.16	21855.3	1051.7
303.16	25155.4	1061.1	303.16	24045.8	1058.0	303.16	22915.2	1054.8	303.16	21840.9	1051.6
303.16	25140.2	1061.1	303.16	24031.7	1057.9	303.16	22899.6	1054.8	303.16	21827.5	1051.6
303.16	25124.6	1061.0	303.16	24016.1	1057.9	303.15	22885.2	1054.7	303.15	21812.4	1051.6
303.16	25108.9	1061.0	303.16	24002.4	1057.9	303.16	22870.0	1054.7	303.16	21799.0	1051.5
303.16	25094.2	1060.9	303.16	23986.5	1057.8	303.16	22856.9	1054.6	303.16	21785.1	1051.5
303.16	25078.9	1060.9	303.16	23970.0	1057.8	303.16	22842.7	1054.6	303.16	21770.4	1051.5

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
303.16	21756.4	1051.4	303.16	20713.5	1048.3	303.16	19669.1	1045.0	303.16	18624.6	1041.8
303.16	21743.4	1051.4	303.16	20701.4	1048.2	303.16	19655.4	1045.0	303.16	18611.6	1041.7
303.16	21729.5	1051.3	303.16	20688.9	1048.2	303.16	19642.1	1045.0	303.16	18599.4	1041.7
303.16	21715.5	1051.3	303.16	20676.5	1048.1	303.16	19629.9	1044.9	303.16	18586.2	1041.7
303.16	21702.1	1051.2	303.16	20664.4	1048.1	303.16	19617.1	1044.9	303.16	18573.7	1041.6
303.16	21689.4	1051.2	303.16	20652.4	1048.1	303.16	19604.7	1044.9	303.16	18561.2	1041.5
303.16	21676.0	1051.1	303.16	20638.9	1048.0	303.16	19591.3	1044.8	303.16	18548.4	1041.5
303.16	21663.1	1051.1	303.16	20626.1	1048.0	303.16	19578.5	1044.8	303.16	18535.5	1041.5
303.16	21650.6	1051.1	303.16	20614.3	1048.0	303.16	19566.1	1044.8	303.16	18522.6	1041.5
303.16	21638.0	1051.0	303.16	20601.5	1047.9	303.16	19553.2	1044.8	303.16	18511.2	1041.4
303.16	21624.6	1051.0	303.16	20588.6	1047.9	303.16	19539.2	1044.7	303.16	18499.0	1041.3
303.16	21611.2	1051.0	303.16	20576.5	1047.9	303.16	19526.0	1044.6	303.16	18486.6	1041.4
303.16	21598.8	1050.9	303.16	20563.6	1047.8	303.16	19512.6	1044.5	303.16	18475.1	1041.3
303.16	21585.4	1050.9	303.16	20551.0	1047.8	303.16	19499.0	1044.6	303.16	18463.6	1041.3
303.16	21572.1	1050.9	303.16	20538.1	1047.7	303.16	19484.5	1044.5	303.16	18450.1	1041.2
303.16	21558.8	1050.8	303.16	20527.2	1047.7	303.16	19470.7	1044.4	303.16	18438.5	1041.2
303.16	21545.1	1050.8	303.16	20514.6	1047.7	303.16	19456.3	1044.4	303.16	18426.7	1041.2
303.16	21533.0	1050.8	303.16	20502.3	1047.7	303.16	19442.5	1044.3	303.16	18414.7	1041.1
303.16	21521.3	1050.7	303.16	20489.9	1047.6	303.16	19428.7	1044.3	303.16	18402.6	1041.0
303.16	21507.5	1050.7	303.16	20477.2	1047.5	303.16	19416.5	1044.3	303.16	18389.8	1041.0
303.16	21493.2	1050.7	303.16	20465.6	1047.5	303.16	19403.4	1044.2	303.16	18377.4	1041.0
303.16	21478.6	1050.6	303.16	20452.9	1047.5	303.16	19391.1	1044.2	303.16	18364.0	1040.9
303.16	21466.8	1050.6	303.16	20440.4	1047.5	303.16	19378.4	1044.1	303.16	18349.8	1040.9
303.16	21453.2	1050.5	303.16	20428.2	1047.5	303.16	19365.9	1044.1	303.16	18337.4	1040.8
303.16	21441.0	1050.5	303.16	20414.5	1047.4	303.16	19353.7	1044.1	303.16	18322.3	1040.8
303.16	21427.7	1050.4	303.16	20400.5	1047.3	303.16	19341.2	1044.1	303.16	18309.6	1040.7
303.16	21414.9	1050.4	303.16	20388.9	1047.3	303.16	19328.4	1044.0	303.16	18297.0	1040.7
303.16	21402.7	1050.3	303.16	20377.1	1047.2	303.16	19315.4	1044.0	303.16	18283.9	1040.7
303.16	21389.6	1050.3	303.16	20364.9	1047.2	303.16	19300.8	1043.9	303.16	18269.6	1040.6
303.16	21376.1	1050.3	303.16	20352.8	1047.2	303.16	19288.0	1043.9	303.16	18257.3	1040.6
303.16	21362.3	1050.2	303.16	20340.3	1047.2	303.16	19275.0	1043.8	303.16	18245.2	1040.6
303.16	21349.3	1050.2	303.16	20327.5	1047.1	303.16	19260.3	1043.8	303.16	18231.8	1040.5
303.16	21337.4	1050.2	303.16	20315.5	1047.1	303.16	19247.7	1043.8	303.16	18219.3	1040.5
303.16	21325.0	1050.1	303.16	20302.4	1047.0	303.16	19235.5	1043.7	303.16	18207.4	1040.4
303.16	21311.6	1050.1	303.16	20288.1	1047.0	303.16	19221.7	1043.7	303.16	18194.4	1040.4
303.16	21298.0	1050.0	303.16	20274.6	1047.0	303.16	19207.3	1043.6	303.16	18182.5	1040.4
303.16	21284.4	1050.0	303.16	20259.2	1046.9	303.16	19192.7	1043.6	303.16	18169.5	1040.3
303.16	21269.9	1050.0	303.16	20244.1	1046.8	303.16	19176.8	1043.6	303.16	18158.0	1040.3
303.16	21254.7	1049.9	303.16	20229.7	1046.8	303.16	19160.9	1043.5	303.16	18145.2	1040.2
303.16	21240.3	1049.9	303.16	20216.8	1046.8	303.16	19144.8	1043.5	303.16	18133.2	1040.2
303.16	21226.4	1049.8	303.16	20201.1	1046.7	303.16	19131.0	1043.4	303.16	18120.5	1040.2
303.16	21214.1	1049.8	303.16	20187.2	1046.7	303.16	19115.6	1043.3	303.16	18108.1	1040.1
303.16	21200.5	1049.8	303.16	20172.7	1046.6	303.16	19100.1	1043.3	303.16	18096.3	1040.1
303.16	21187.7	1049.7	303.16	20158.2	1046.6	303.16	19086.8	1043.2	303.16	18084.0	1040.1
303.16	21174.4	1049.7	303.16	20143.6	1046.5	303.16	19072.4	1043.2	303.16	18071.0	1040.0
303.16	21161.7	1049.6	303.16	20128.9	1046.5	303.16	19061.0	1043.2	303.16	18057.9	1039.9
303.16	21148.3	1049.6	303.16	20115.1	1046.5	303.16	19047.3	1043.1	303.16	18044.7	1039.9
303.16	21133.7	1049.6	303.16	20101.4	1046.4	303.16	19032.0	1043.0	303.16	18032.9	1039.9
303.16	21119.8	1049.5	303.16	20086.9	1046.4	303.16	19016.6	1043.1	303.16	18021.1	1039.8
303.16	21106.9	1049.4	303.16	20071.4	1046.3	303.16	19001.7	1043.0	303.16	18007.8	1039.8
303.16	21091.9	1049.4	303.16	20057.4	1046.3	303.16	18986.7	1042.9	303.16	17994.9	1039.7
303.16	21077.4	1049.4	303.16	20042.4	1046.2	303.16	18972.2	1042.9	303.16	17983.2	1039.7
303.16	21062.0	1049.3	303.16	20026.5	1046.2	303.16	18957.6	1042.8	303.16	17970.5	1039.7
303.16	21048.1	1049.3	303.16	20012.0	1046.1	303.16	18944.0	1042.8	303.16	17957.3	1039.7
303.16	21033.0	1049.2	303.16	19995.7	1046.1	303.16	18929.8	1042.7	303.16	17943.4	1039.6
303.16	21019.2	1049.2	303.16	19981.5	1046.0	303.16	18914.4	1042.7	303.16	17930.2	1039.5
303.16	21004.8	1049.2	303.16	19967.4	1046.0	303.16	18900.8	1042.7	303.16	17917.4	1039.5
303.16	20991.3	1049.1	303.16	19953.5	1046.0	303.16	18887.8	1042.6	303.16	17905.2	1039.4
303.16	20976.5	1049.1	303.16	19936.1	1045.9	303.16	18873.8	1042.6	303.16	17891.7	1039.4
303.16	20964.7	1049.0	303.16	19921.5	1045.9	303.16	18860.3	1042.5	303.16	17878.6	1039.4
303.16	20950.8	1049.0	303.16	19907.5	1045.8	303.16	18845.5	1042.5	303.16	17865.3	1039.3
303.16	20936.6	1049.0	303.16	19893.1	1045.7	303.16	18830.8	1042.4	303.16	17852.2	1039.3
303.16	20922.6	1048.9	303.16	19879.0	1045.7	303.16	18818.1	1042.4	303.16	17840.4	1039.2
303.16	20908.6	1048.9	303.16	19865.3	1045.7	303.16	18805.5	1042.4	303.16	17828.6	1039.2
303.16	20894.4	1048.8	303.16	19849.2	1045.6	303.16	18793.3	1042.3	303.16	17816.3	1039.2
303.16	20881.2	1048.8	303.16	19836.3	1045.6	303.16	18781.2	1042.3	303.16	17804.0	1039.1
303.16	20867.1	1048.7	303.16	19822.5	1045.5	303.16	18770.1	1042.2	303.16	17790.3	1039.1
303.16	20853.3	1048.7	303.16	19810.0	1045.5	303.16	18757.6	1042.2	303.16	17776.3	1039.0
303.16	20839.8	1048.7	303.16	19796.7	1045.5	303.16	18745.3	1042.2	303.16	17763.3	1039.0
303.16	20826.2	1048.6	303.16	19784.1	1045.5	303.16	18734.3	1042.1	303.16	17750.0	1038.9
303.16	20813.9	1048.6	303.16	19771.4	1045.4	303.16	18721.7	1042.1	303.16	17736.6	1038.9
303.16	20800.4	1048.6	303.16	19757.4	1045.4	303.16	18710.4	1042.0	303.16	17722.9	1038.9
303.16	20788.0	1048.5	303.16	19745.1	1045.3	303.16	18699.5	1042.0	303.15	17709.2	1038.8
303.16	20774.8	1048.5	303.16	19732.0	1045.3	303.16	18687.3	1042.0	303.16	17696.4	1038.8
303.16	20763.5	1048.4	303.16	19719.0	1045.2	303.16	18674.7	1041.9	303.16	17683.8	1038.7
303.16	20750.5	1048.4	303.16	19706.1	1045.2	303.16	18661.6	1041.9	303.16	17671.3	1038.7
303.16	20738.2	1048.3	303.16	19693.8	1045.2	303.16	18649.4	1041.9	303.16	17658.0	1038.7
303.16	20726.4	1048.3	303.16	19682.0	1045.1	303.16	18637.5	1041.8	303.16	17644.2	1038.6

Valori della densità del fluido R1243zf _ *T*=30°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
303.16	17630.6	1038.6	303.15	16577.3	1035.1	303.15	15488.4	1031.3	303.15	14389.9	1027.4
303.16	17616.9	1038.5	303.15	16564.3	1035.0	303.15	15473.6	1031.3	303.15	14378.5	1027.4
303.16	17603.1	1038.5	303.15	16551.5	1035.0	303.15	15459.8	1031.3	303.15	14362.2	1027.4
303.16	17590.3	1038.4	303.15	16537.6	1034.9	303.15	15445.1	1031.2	303.15	14351.0	1027.4
303.16	17577.1	1038.4	303.15	16523.7	1034.9	303.15	15431.0	1031.1	303.15	14335.9	1027.3
303.16	17562.9	1038.4	303.15	16510.9	1034.8	303.15	15416.0	1031.1	303.15	14321.5	1027.2
303.16	17549.0	1038.3	303.15	16498.8	1034.8	303.15	15402.1	1031.1	303.15	14310.4	1027.2
303.16	17536.2	1038.3	303.15	16485.2	1034.7	303.15	15387.2	1031.0	303.15	14294.9	1027.1
303.16	17523.7	1038.2	303.15	16472.9	1034.7	303.15	15372.5	1030.9	303.15	14278.9	1027.1
303.16	17509.8	1038.1	303.15	16459.5	1034.7	303.15	15359.2	1030.9	303.15	14263.3	1027.1
303.16	17496.0	1038.1	303.15	16446.2	1034.6	303.15	15345.0	1030.8	303.15	14249.9	1027.0
303.16	17482.0	1038.0	303.15	16433.2	1034.6	303.16	15330.8	1030.8	303.15	14239.4	1026.9
303.16	17468.9	1038.1	303.15	16419.5	1034.5	303.15	15316.6	1030.7	303.15	14222.0	1026.9
303.16	17454.9	1038.0	303.16	16406.5	1034.5	303.15	15302.0	1030.7	303.15	14207.1	1026.8
303.16	17440.7	1038.0	303.16	16393.3	1034.4	303.15	15287.1	1030.7	303.15	14198.5	1026.8
303.16	17428.0	1037.9	303.15	16380.3	1034.3	303.15	15274.3	1030.6	303.15	14179.6	1026.7
303.16	17414.2	1037.8	303.15	16367.2	1034.3	303.15	15260.2	1030.5	303.15	14168.5	1026.7
303.16	17400.2	1037.8	303.16	16352.6	1034.3	303.15	15245.8	1030.5	303.15	14154.1	1026.7
303.16	17387.2	1037.7	303.15	16338.8	1034.3	303.15	15230.4	1030.4	303.15	14135.7	1026.6
303.16	17373.0	1037.7	303.15	16324.4	1034.2	303.15	15216.8	1030.4	303.15	14126.5	1026.5
303.16	17359.3	1037.6	303.16	16309.9	1034.2	303.16	15203.3	1030.3	303.15	14112.0	1026.4
303.16	17345.1	1037.6	303.15	16295.7	1034.1	303.15	15188.0	1030.3	303.15	14099.3	1026.4
303.16	17332.5	1037.6	303.15	16282.7	1034.1	303.15	15174.1	1030.3	303.15	14084.0	1026.4
303.16	17318.6	1037.5	303.15	16268.8	1034.0	303.15	15159.5	1030.2	303.15	14073.6	1026.3
303.16	17304.0	1037.5	303.15	16254.4	1034.0	303.15	15144.7	1030.1	303.15	14056.5	1026.3
303.16	17291.6	1037.5	303.15	16241.4	1034.0	303.15	15130.5	1030.1	303.15	14040.5	1026.2
303.16	17278.5	1037.4	303.15	16227.4	1033.9	303.15	15115.4	1030.1	303.15	14026.6	1026.2
303.16	17267.6	1037.4	303.15	16213.6	1033.8	303.15	15102.2	1030.0	303.15	14012.7	1026.1
303.16	17255.3	1037.4	303.15	16199.0	1033.8	303.15	15088.0	1029.9	303.15	13998.6	1026.0
303.16	17242.3	1037.3	303.15	16186.0	1033.7	303.15	15073.5	1029.9	303.15	13986.9	1026.0
303.16	17230.3	1037.2	303.15	16172.3	1033.7	303.15	15061.4	1029.9	303.15	13968.3	1026.0
303.16	17215.1	1037.2	303.16	16158.7	1033.6	303.15	15047.2	1029.8	303.15	13959.7	1025.9
303.16	17202.4	1037.2	303.15	16143.6	1033.6	303.15	15033.3	1029.8	303.15	13942.5	1025.9
303.16	17189.4	1037.1	303.16	16130.8	1033.5	303.15	15019.6	1029.7	303.15	13928.9	1025.8
303.16	17176.8	1037.1	303.15	16116.6	1033.6	303.15	15004.6	1029.7	303.15	13912.9	1025.8
303.16	17163.4	1037.0	303.15	16102.4	1033.5	303.15	14990.7	1029.6	303.15	13899.2	1025.7
303.16	17150.7	1037.0	303.15	16091.9	1033.5	303.16	14977.2	1029.6	303.15	13886.3	1025.6
303.16	17137.2	1037.0	303.15	16079.1	1033.4	303.15	14962.1	1029.5	303.15	13870.4	1025.6
303.16	17123.8	1036.9	303.15	16066.2	1033.4	303.15	14948.1	1029.4	303.15	13856.8	1025.5
303.16	17109.8	1036.8	303.15	16052.4	1033.3	303.15	14934.5	1029.4	303.15	13843.1	1025.5
303.16	17096.3	1036.8	303.15	16038.9	1033.3	303.15	14920.5	1029.3	303.15	13827.3	1025.5
303.16	17082.7	1036.8	303.15	16024.9	1033.2	303.15	14906.3	1029.3	303.16	13812.5	1025.4
303.16	17068.7	1036.7	303.15	16010.9	1033.2	303.15	14893.0	1029.2	303.15	13801.9	1025.3
303.16	17055.7	1036.7	303.15	15995.2	1033.1	303.15	14879.0	1029.2	303.15	13785.2	1025.3
303.16	17041.9	1036.6	303.15	15980.2	1033.0	303.15	14864.9	1029.1	303.15	13771.7	1025.2
303.16	17028.3	1036.6	303.15	15966.0	1033.0	303.15	14852.1	1029.1	303.15	13758.3	1025.2
303.16	17014.0	1036.5	303.15	15951.0	1032.9	303.15	14837.7	1029.1	303.15	13744.0	1025.1
303.16	16999.6	1036.5	303.15	15936.7	1032.9	303.15	14823.1	1029.0	303.15	13727.8	1025.1
303.16	16984.5	1036.4	303.15	15922.3	1032.8	303.15	14809.6	1028.9	303.15	13715.6	1025.0
303.16	16971.1	1036.4	303.15	15907.3	1032.8	303.15	14794.5	1028.9	303.15	13702.1	1025.0
303.16	16957.1	1036.3	303.15	15892.9	1032.8	303.15	14780.4	1028.9	303.15	13687.3	1025.0
303.16	16943.6	1036.3	303.15	15879.2	1032.7	303.15	14767.0	1028.8	303.15	13673.5	1024.9
303.16	16930.1	1036.2	303.15	15863.8	1032.7	303.15	14753.0	1028.8	303.15	13659.0	1024.8
303.16	16916.9	1036.2	303.15	15850.4	1032.6	303.15	14738.7	1028.7	303.15	13645.6	1024.8
303.16	16903.9	1036.2	303.15	15835.1	1032.6	303.15	14724.2	1028.7	303.15	13630.9	1024.7
303.15	16890.1	1036.1	303.15	15821.8	1032.5	303.15	14709.6	1028.6	303.15	13616.4	1024.7
303.15	16876.4	1036.0	303.15	15806.7	1032.5	303.16	14696.6	1028.6	303.15	13603.5	1024.6
303.15	16863.7	1036.0	303.15	15793.2	1032.4	303.16	14681.7	1028.5	303.15	13589.4	1024.6
303.15	16850.4	1036.0	303.15	15777.9	1032.3	303.15	14667.5	1028.5	303.15	13573.3	1024.5
303.15	16836.3	1035.9	303.15	15763.7	1032.3	303.16	14652.8	1028.4	303.15	13559.2	1024.4
303.15	16823.2	1035.9	303.15	15749.7	1032.3	303.16	14639.5	1028.4	303.15	13545.1	1024.4
303.15	16809.3	1035.9	303.15	15734.7	1032.2	303.16	14626.1	1028.3	303.15	13532.2	1024.4
303.15	16795.8	1035.8	303.15	15720.6	1032.1	303.16	14611.5	1028.2	303.15	13518.1	1024.2
303.15	16781.8	1035.8	303.15	15706.5	1032.1	303.16	14597.4	1028.3	303.15	13503.5	1024.2
303.15	16768.5	1035.7	303.15	15690.6	1032.1	303.15	14584.4	1028.2	303.15	13490.4	1024.2
303.15	16754.4	1035.6	303.15	15676.3	1032.0	303.16	14571.4	1028.1	303.15	13477.5	1024.2
303.15	16740.8	1035.7	303.15	15661.0	1032.0	303.15	14556.4	1028.1	303.15	13462.7	1024.1
303.15	16726.6	1035.6	303.15	15647.2	1031.9	303.15	14544.1	1028.1	303.15	13447.8	1024.1
303.15	16712.4	1035.5	303.15	15631.9	1031.8	303.16	14530.0	1028.0	303.15	13434.3	1024.0
303.15	16699.4	1035.5	303.15	15617.7	1031.8	303.15	14515.4	1027.9	303.15	13421.5	1024.0
303.15	16685.6	1035.4	303.15	15603.3	1031.7	303.16	14503.4	1027.9	303.15	13408.4	1023.9
303.15	16671.8	1035.4	303.15	15587.9	1031.7	303.16	14488.1	1027.8	303.15	13395.6	1023.8
303.15	16657.8	1035.3	303.15	15574.5	1031.6	303.16	14473.6	1027.8	303.15	13381.1	1023.8
303.15	16644.2	1035.3	303.15	15559.1	1031.6	303.15	14459.1	1027.8	303.15	13367.7	1023.8
303.15	16631.2	1035.2	303.15	15545.0	1031.6	303.16	14445.4	1027.7	303.15	13355.2	1023.7
303.15	16618.2	1035.2	303.15	15529.8	1031.5	303.16	14431.0	1027.6	303.15	13341.1	1023.7
303.15	16604.6	1035.2	303.15	15516.1	1031.4	303.16	14417.6	1027.6	303.15	13327.1	1023.6
303.15	16592.2	1035.2	303.15	15502.4	1031.4	303.16	14406.8	1027.6	303.15	13314.2	1023.6

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
303.16	13300.1	1023.5	303.15	12243.6	1019.5	303.16	11202.2	1015.5	303.16	10154.3	1011.2
303.16	13286.1	1023.5	303.15	12230.0	1019.4	303.16	11189.5	1015.4	303.16	10140.9	1011.2
303.16	13271.9	1023.4	303.16	12217.4	1019.5	303.16	11175.9	1015.4	303.16	10128.3	1011.1
303.15	13258.4	1023.4	303.16	12203.8	1019.4	303.16	11162.5	1015.3	303.15	10115.8	1011.1
303.15	13244.8	1023.3	303.16	12190.5	1019.3	303.16	11148.7	1015.2	303.15	10101.6	1011.0
303.15	13230.7	1023.3	303.16	12176.7	1019.3	303.15	11134.8	1015.2	303.15	10088.7	1011.0
303.15	13216.8	1023.2	303.16	12164.0	1019.3	303.15	11121.9	1015.1	303.15	10074.3	1010.9
303.16	13204.3	1023.1	303.15	12150.2	1019.2	303.15	11108.3	1015.0	303.15	10061.9	1010.8
303.16	13190.2	1023.1	303.16	12136.7	1019.1	303.15	11095.7	1015.1	303.16	10047.8	1010.8
303.16	13176.3	1023.1	303.15	12124.0	1019.1	303.15	11082.5	1015.0	303.16	10035.1	1010.7
303.16	13163.0	1023.0	303.15	12110.2	1019.0	303.16	11069.3	1014.9	303.16	10021.1	1010.6
303.16	13149.7	1023.0	303.15	12096.8	1018.9	303.16	11056.2	1014.9	303.16	10007.9	1010.6
303.16	13135.9	1022.9	303.15	12083.2	1018.9	303.16	11043.2	1014.8	303.16	9994.6	1010.5
303.16	13121.3	1022.9	303.15	12070.8	1018.9	303.16	11030.3	1014.8	303.16	9981.8	1010.5
303.15	13107.0	1022.8	303.15	12057.6	1018.8	303.16	11017.1	1014.7	303.16	9967.5	1010.5
303.16	13092.8	1022.8	303.15	12044.7	1018.8	303.16	11003.6	1014.7	303.16	9954.3	1010.4
303.16	13079.8	1022.7	303.15	12031.3	1018.7	303.16	10990.7	1014.6	303.16	9940.7	1010.4
303.16	13065.8	1022.6	303.15	12017.2	1018.6	303.15	10978.0	1014.5	303.16	9927.4	1010.3
303.16	13052.3	1022.6	303.15	12003.6	1018.6	303.16	10964.8	1014.5	303.16	9914.0	1010.2
303.16	13038.4	1022.5	303.15	11991.3	1018.6	303.16	10952.5	1014.4	303.16	9900.0	1010.2
303.16	13024.1	1022.5	303.15	11977.7	1018.4	303.16	10938.8	1014.4	303.16	9886.9	1010.1
303.16	13010.0	1022.4	303.15	11963.7	1018.5	303.16	10926.9	1014.4	303.16	9873.2	1010.1
303.16	12996.5	1022.4	303.15	11953.2	1018.4	303.16	10913.8	1014.3	303.16	9860.7	1010.0
303.16	12983.2	1022.3	303.15	11939.3	1018.4	303.16	10900.4	1014.3	303.16	9848.2	1009.9
303.16	12968.6	1022.3	303.15	11926.4	1018.2	303.16	10886.2	1014.2	303.15	9835.8	1009.9
303.15	12954.8	1022.2	303.15	11913.0	1018.3	303.16	10873.0	1014.1	303.16	9822.3	1009.9
303.16	12941.1	1022.2	303.15	11899.9	1018.2	303.16	10858.7	1014.1	303.16	9808.6	1009.8
303.15	12928.3	1022.1	303.15	11886.0	1018.1	303.16	10845.6	1014.0	303.16	9795.3	1009.7
303.15	12914.1	1022.1	303.15	11872.4	1018.1	303.16	10831.3	1014.0	303.16	9782.4	1009.7
303.15	12900.0	1022.0	303.15	11859.7	1018.0	303.16	10817.6	1013.9	303.16	9768.2	1009.6
303.15	12887.9	1022.0	303.15	11845.6	1018.0	303.16	10803.6	1013.9	303.16	9754.1	1009.5
303.15	12873.7	1021.9	303.15	11832.7	1017.9	303.16	10789.5	1013.8	303.16	9740.5	1009.5
303.15	12859.7	1021.9	303.15	11819.8	1017.9	303.15	10775.9	1013.8	303.16	9728.1	1009.5
303.15	12845.9	1021.8	303.15	11807.1	1017.9	303.16	10761.6	1013.7	303.16	9714.3	1009.4
303.15	12832.9	1021.8	303.15	11792.8	1017.8	303.15	10747.3	1013.6	303.16	9700.9	1009.3
303.15	12819.5	1021.7	303.15	11779.2	1017.7	303.16	10733.4	1013.6	303.16	9688.2	1009.3
303.16	12806.2	1021.7	303.15	11766.3	1017.7	303.15	10719.3	1013.5	303.16	9674.0	1009.2
303.15	12792.2	1021.6	303.15	11752.6	1017.6	303.15	10704.8	1013.5	303.16	9661.4	1009.2
303.16	12779.8	1021.6	303.16	11738.8	1017.6	303.15	10692.1	1013.4	303.16	9648.3	1009.1
303.15	12767.3	1021.5	303.15	11725.4	1017.5	303.16	10678.3	1013.4	303.16	9634.4	1009.0
303.16	12753.5	1021.4	303.15	11711.6	1017.5	303.15	10664.7	1013.3	303.16	9620.1	1009.0
303.16	12739.7	1021.4	303.15	11697.7	1017.4	303.15	10652.0	1013.3	303.16	9607.5	1008.9
303.15	12725.1	1021.4	303.15	11684.3	1017.4	303.16	10638.9	1013.2	303.16	9594.4	1008.9
303.15	12712.6	1021.3	303.16	11671.4	1017.4	303.16	10625.3	1013.1	303.16	9580.9	1008.8
303.16	12698.9	1021.3	303.15	11657.6	1017.3	303.16	10612.7	1013.1	303.16	9566.8	1008.8
303.15	12685.6	1021.2	303.15	11644.4	1017.2	303.16	10598.9	1013.0	303.16	9553.8	1008.7
303.16	12671.2	1021.2	303.15	11632.0	1017.1	303.16	10585.5	1013.0	303.16	9540.3	1008.6
303.16	12657.6	1021.1	303.16	11618.3	1017.1	303.16	10571.6	1012.9	303.16	9526.3	1008.6
303.15	12643.8	1021.0	303.15	11604.3	1017.0	303.15	10559.2	1012.9	303.15	9513.6	1008.5
303.16	12630.9	1021.0	303.16	11589.8	1017.0	303.15	10547.2	1012.8	303.16	9500.3	1008.5
303.16	12618.3	1021.0	303.15	11577.0	1016.9	303.15	10533.9	1012.8	303.15	9487.8	1008.4
303.16	12605.3	1020.8	303.16	11563.4	1016.8	303.15	10519.8	1012.7	303.16	9474.5	1008.4
303.16	12591.4	1020.9	303.15	11549.6	1016.8	303.15	10505.6	1012.7	303.16	9461.7	1008.3
303.16	12577.3	1020.8	303.15	11535.8	1016.8	303.15	10492.6	1012.6	303.16	9448.9	1008.3
303.16	12564.4	1020.7	303.15	11521.8	1016.7	303.16	10478.6	1012.6	303.16	9434.8	1008.2
303.16	12551.7	1020.7	303.15	11508.5	1016.6	303.16	10464.1	1012.5	303.16	9421.9	1008.1
303.16	12538.4	1020.7	303.15	11494.0	1016.6	303.16	10450.2	1012.5	303.16	9407.1	1008.1
303.16	12524.8	1020.6	303.15	11480.6	1016.5	303.16	10436.6	1012.4	303.16	9393.5	1008.1
303.16	12510.8	1020.5	303.15	11467.9	1016.5	303.16	10423.5	1012.3	303.16	9379.9	1008.0
303.16	12498.5	1020.5	303.15	11455.0	1016.5	303.16	10410.6	1012.3	303.16	9364.7	1007.9
303.16	12485.3	1020.5	303.15	11441.5	1016.4	303.15	10396.8	1012.2	303.16	9351.3	1007.9
303.16	12473.1	1020.4	303.15	11427.3	1016.4	303.16	10382.9	1012.2	303.16	9337.5	1007.8
303.15	12459.5	1020.4	303.15	11414.5	1016.3	303.16	10369.9	1012.1	303.16	9322.8	1007.7
303.15	12446.8	1020.3	303.15	11400.9	1016.2	303.16	10356.0	1012.1	303.16	9308.0	1007.7
303.15	12432.8	1020.2	303.15	11388.4	1016.2	303.16	10342.8	1012.0	303.16	9295.1	1007.6
303.15	12419.1	1020.2	303.15	11375.0	1016.1	303.16	10328.5	1011.9	303.16	9281.3	1007.6
303.15	12406.5	1020.2	303.15	11362.4	1016.1	303.16	10315.0	1011.9	303.16	9266.9	1007.5
303.15	12391.7	1020.1	303.15	11348.5	1016.0	303.16	10302.3	1011.9	303.16	9253.7	1007.4
303.15	12378.0	1020.0	303.15	11334.5	1015.9	303.16	10288.7	1011.8	303.16	9240.4	1007.4
303.16	12364.4	1019.9	303.15	11321.8	1015.9	303.16	10274.6	1011.7	303.16	9225.9	1007.3
303.16	12351.8	1019.9	303.15	11308.7	1015.9	303.16	10261.7	1011.7	303.16	9212.4	1007.3
303.16	12337.4	1019.8	303.15	11295.3	1015.8	303.16	10247.8	1011.6	303.16	9197.7	1007.2
303.15	12323.2	1019.8	303.15	11282.0	1015.8	303.16	10234.9	1011.6	303.16	9184.8	1007.1
303.15	12312.3	1019.8	303.15	11268.1	1015.7	303.16	10221.1	1011.5	303.16	9170.1	1007.1
303.15	12298.6	1019.7	303.15	11256.4	1015.7	303.16	10207.9	1011.4	303.16	9156.3	1007.0
303.15	12285.4	1019.7	303.15	11242.6	1015.6	303.16	10195.0	1011.4	303.16	9142.5	1007.0
303.15	12271.8	1019.6	303.16	11230.1	1015.5	303.16	10181.9	1011.3	303.16	9127.9	1006.9
303.15	12257.7	1019.6	303.15	11216.2	1015.5	303.16	10168.1	1011.3	303.16	9114.6	1006.9

Valori della densità del fluido R1243zf _ *T*=30°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
303.16	9099.9	1006.8	303.16	8024.1	1002.1	303.16	6945.6	997.2	303.16	5867.4	992.0
303.16	9086.8	1006.8	303.16	8010.1	1002.0	303.16	6932.5	997.1	303.16	5853.6	991.9
303.16	9072.3	1006.7	303.16	7996.8	1002.0	303.16	6917.1	997.0	303.16	5839.9	991.8
303.16	9058.9	1006.6	303.16	7982.8	1001.9	303.16	6903.5	997.0	303.16	5826.4	991.8
303.16	9044.9	1006.5	303.16	7967.8	1001.9	303.16	6889.8	996.9	303.15	5812.6	991.7
303.16	9033.5	1006.5	303.16	7953.8	1001.8	303.16	6876.7	996.8	303.16	5798.8	991.6
303.16	9020.1	1006.5	303.16	7939.7	1001.7	303.15	6863.4	996.8	303.16	5784.6	991.6
303.16	9006.1	1006.4	303.16	7925.9	1001.7	303.16	6849.2	996.7	303.15	5771.0	991.5
303.16	8992.5	1006.3	303.16	7911.2	1001.6	303.16	6835.9	996.6	303.15	5757.4	991.4
303.16	8978.7	1006.3	303.16	7897.9	1001.5	303.16	6821.8	996.6	303.15	5743.8	991.4
303.16	8965.8	1006.3	303.16	7884.3	1001.4	303.16	6807.9	996.5	303.16	5729.4	991.3
303.16	8951.3	1006.2	303.16	7869.2	1001.3	303.16	6794.3	996.4	303.16	5717.2	991.2
303.16	8938.0	1006.1	303.16	7855.6	1001.4	303.16	6780.8	996.4	303.15	5702.6	991.2
303.16	8923.5	1006.0	303.16	7842.2	1001.3	303.16	6765.9	996.3	303.16	5689.3	991.1
303.16	8909.2	1006.0	303.16	7828.7	1001.2	303.16	6752.3	996.3	303.16	5676.0	991.0
303.16	8896.8	1005.9	303.16	7815.2	1001.1	303.16	6738.7	996.2	303.16	5662.7	991.0
303.16	8882.3	1005.9	303.16	7801.7	1001.1	303.16	6726.4	996.1	303.16	5647.8	990.9
303.16	8868.7	1005.8	303.16	7788.2	1001.1	303.16	6712.1	996.0	303.16	5633.5	990.8
303.16	8854.2	1005.8	303.16	7773.2	1000.9	303.16	6698.8	996.0	303.15	5619.8	990.8
303.16	8840.5	1005.7	303.16	7759.4	1000.8	303.16	6685.8	995.9	303.15	5605.6	990.7
303.16	8827.5	1005.6	303.16	7745.7	1000.8	303.16	6672.5	995.9	303.16	5591.8	990.6
303.16	8813.1	1005.5	303.16	7732.1	1000.7	303.16	6658.2	995.8	303.16	5577.8	990.5
303.16	8800.4	1005.5	303.16	7718.5	1000.7	303.16	6644.0	995.7	303.16	5563.8	990.5
303.16	8787.3	1005.4	303.16	7704.3	1000.7	303.16	6630.3	995.7	303.16	5550.1	990.4
303.16	8773.7	1005.4	303.16	7690.9	1000.6	303.16	6617.4	995.6	303.16	5536.1	990.4
303.16	8760.1	1005.3	303.15	7676.9	1000.5	303.16	6603.4	995.5	303.16	5522.4	990.3
303.16	8745.6	1005.3	303.15	7663.8	1000.4	303.16	6589.9	995.5	303.16	5507.9	990.2
303.16	8732.0	1005.2	303.15	7649.8	1000.4	303.16	6575.7	995.4	303.16	5494.1	990.2
303.16	8717.4	1005.2	303.15	7637.8	1000.3	303.16	6562.4	995.4	303.16	5480.2	990.1
303.16	8703.3	1005.1	303.16	7623.3	1000.3	303.16	6549.7	995.3	303.16	5466.6	990.0
303.16	8689.3	1005.0	303.16	7610.2	1000.2	303.16	6536.5	995.2	303.16	5451.7	989.9
303.16	8674.4	1005.0	303.16	7597.6	1000.2	303.16	6525.8	995.1	303.16	5439.2	989.9
303.16	8660.2	1004.9	303.16	7585.0	1000.1	303.16	6511.6	995.0	303.16	5425.8	989.8
303.16	8646.4	1004.8	303.16	7572.7	1000.0	303.16	6497.5	995.0	303.16	5411.2	989.7
303.16	8632.8	1004.8	303.16	7559.8	1000.0	303.16	6483.5	995.0	303.16	5397.9	989.7
303.16	8619.3	1004.7	303.16	7547.0	999.9	303.15	6469.5	994.9	303.16	5384.8	989.6
303.16	8604.6	1004.6	303.16	7534.1	999.9	303.15	6455.5	994.8	303.16	5371.1	989.5
303.16	8591.4	1004.6	303.16	7520.8	999.8	303.16	6440.8	994.8	303.16	5356.9	989.5
303.16	8576.9	1004.5	303.16	7507.9	999.8	303.15	6426.5	994.7	303.16	5344.6	989.4
303.16	8563.0	1004.5	303.16	7494.2	999.6	303.15	6412.6	994.6	303.16	5330.8	989.3
303.16	8549.3	1004.4	303.16	7480.1	999.7	303.15	6399.4	994.5	303.16	5317.1	989.3
303.16	8533.8	1004.4	303.16	7467.1	999.5	303.16	6385.8	994.5	303.16	5304.0	989.2
303.16	8520.3	1004.3	303.16	7453.5	999.5	303.16	6372.5	994.4	303.16	5289.6	989.1
303.16	8505.2	1004.2	303.16	7438.1	999.4	303.16	6359.3	994.4	303.16	5276.7	989.0
303.16	8491.6	1004.2	303.16	7424.6	999.4	303.16	6344.8	994.3	303.15	5263.9	988.9
303.16	8477.6	1004.1	303.16	7410.5	999.3	303.16	6331.2	994.2	303.16	5250.7	988.9
303.16	8463.5	1004.0	303.16	7396.8	999.2	303.16	6317.9	994.2	303.16	5235.3	988.8
303.16	8449.8	1004.0	303.16	7383.2	999.2	303.16	6305.1	994.1	303.16	5221.0	988.8
303.16	8435.5	1003.9	303.16	7369.2	999.1	303.16	6290.7	994.0	303.16	5207.0	988.7
303.16	8421.9	1003.9	303.16	7356.2	999.0	303.16	6276.9	994.0	303.16	5192.8	988.6
303.16	8408.8	1003.8	303.16	7342.3	999.0	303.16	6261.9	993.9	303.16	5178.4	988.5
303.16	8394.4	1003.7	303.16	7329.3	998.9	303.16	6247.5	993.8	303.16	5164.6	988.5
303.16	8381.7	1003.7	303.16	7316.4	998.8	303.16	6232.5	993.7	303.16	5149.9	988.4
303.16	8366.3	1003.6	303.16	7301.9	998.8	303.16	6218.3	993.7	303.16	5134.5	988.3
303.16	8352.5	1003.6	303.16	7289.3	998.7	303.16	6203.3	993.6	303.16	5120.9	988.3
303.16	8338.2	1003.5	303.15	7276.2	998.7	303.15	6188.9	993.5	303.16	5106.8	988.2
303.16	8324.8	1003.4	303.16	7262.2	998.6	303.16	6174.7	993.5	303.15	5093.2	988.1
303.16	8310.6	1003.3	303.16	7248.3	998.6	303.16	6160.7	993.4	303.15	5079.3	988.0
303.16	8296.3	1003.3	303.16	7235.0	998.4	303.16	6146.7	993.4	303.16	5066.0	988.0
303.15	8283.0	1003.2	303.16	7221.1	998.4	303.15	6132.8	993.3	303.16	5051.1	987.9
303.15	8269.4	1003.2	303.16	7206.6	998.3	303.16	6118.6	993.2	303.16	5037.4	987.8
303.15	8254.7	1003.1	303.15	7192.6	998.3	303.16	6105.3	993.2	303.16	5025.3	987.8
303.15	8240.9	1003.1	303.16	7178.6	998.2	303.15	6091.8	993.1	303.16	5012.2	987.7
303.15	8227.6	1003.0	303.15	7163.7	998.2	303.16	6078.0	993.0	303.16	4997.8	987.6
303.15	8213.3	1002.9	303.15	7149.4	998.1	303.16	6064.5	993.0	303.16	4983.3	987.6
303.15	8199.8	1002.9	303.16	7134.2	998.0	303.16	6050.3	992.9	303.16	4969.4	987.5
303.15	8186.8	1002.8	303.16	7120.2	997.9	303.16	6036.6	992.8	303.16	4953.9	987.4
303.15	8173.3	1002.7	303.16	7105.9	997.9	303.16	6023.7	992.7	303.16	4939.3	987.3
303.15	8159.8	1002.7	303.16	7091.4	997.8	303.16	6010.0	992.7	303.16	4925.9	987.3
303.16	8145.7	1002.7	303.16	7076.7	997.8	303.16	5995.9	992.6	303.16	4912.9	987.2
303.16	8131.9	1002.5	303.16	7062.2	997.7	303.16	5980.3	992.6	303.16	4898.0	987.1
303.16	8118.1	1002.5	303.16	7047.3	997.6	303.16	5966.5	992.5	303.16	4884.2	987.0
303.16	8104.4	1002.4	303.16	7032.8	997.5	303.16	5953.3	992.3	303.16	4871.0	987.0
303.15	8090.6	1002.4	303.16	7018.7	997.5	303.16	5939.2	992.3	303.16	4857.2	986.9
303.15	8076.8	1002.3	303.16	7003.1	997.4	303.16	5925.0	992.3	303.15	4843.0	986.8
303.15	8063.4	1002.2	303.16	6988.6	997.4	303.16	5909.4	992.2	303.15	4827.6	986.7
303.15	8050.4	1002.2	303.16	6973.9	997.3	303.16	5895.6	992.1	303.16	4812.9	986.7
303.15	8037.3	1002.2	303.16	6959.9	997.2	303.16	5881.4	992.1	303.16	4799.0	986.6

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
303.16	4783.8	986.5	303.16	3706.3	980.8	303.16	2610.2	974.6	303.16	1528.3	968.1
303.16	4769.4	986.5	303.16	3692.1	980.7	303.16	2596.3	974.5	303.16	1514.1	968.0
303.16	4755.6	986.4	303.16	3676.0	980.6	303.16	2584.4	974.5	303.15	1501.0	967.9
303.16	4742.1	986.3	303.16	3662.3	980.6	303.16	2571.0	974.4	303.15	1486.5	967.8
303.16	4728.2	986.3	303.16	3647.9	980.5	303.16	2557.8	974.3	303.15	1472.9	967.7
303.16	4714.4	986.2	303.16	3632.1	980.4	303.15	2544.8	974.2	303.15	1459.7	967.7
303.16	4700.2	986.1	303.16	3618.8	980.3	303.16	2532.2	974.2	303.15	1446.0	967.5
303.16	4686.5	986.1	303.16	3603.2	980.2	303.15	2518.0	974.1	303.15	1433.2	967.5
303.16	4673.0	986.0	303.16	3589.5	980.2	303.16	2504.1	974.0	303.15	1420.0	967.4
303.16	4660.9	985.9	303.16	3574.8	980.1	303.16	2488.8	973.9	303.16	1406.3	967.3
303.16	4646.2	985.8	303.16	3561.3	980.0	303.16	2473.9	973.8	303.16	1393.3	967.2
303.16	4633.6	985.7	303.16	3548.1	979.9	303.16	2459.9	973.7	303.16	1378.7	967.2
303.16	4619.7	985.7	303.16	3533.4	979.9	303.16	2444.6	973.6	303.16	1364.6	967.1
303.16	4605.2	985.6	303.16	3519.7	979.7	303.16	2429.9	973.6	303.16	1350.6	967.0
303.16	4592.0	985.5	303.16	3506.5	979.7	303.16	2415.5	973.5	303.16	1335.8	966.9
303.16	4578.4	985.5	303.16	3491.8	979.6	303.16	2402.8	973.4	303.16	1320.5	966.8
303.16	4567.4	985.4	303.16	3478.6	979.5	303.16	2388.7	973.3	303.16	1306.3	966.7
303.16	4553.1	985.3	303.16	3464.8	979.5	303.16	2375.0	973.2	303.16	1292.1	966.6
303.15	4538.9	985.3	303.16	3451.2	979.4	303.16	2360.6	973.1	303.16	1277.6	966.5
303.16	4524.5	985.2	303.16	3436.7	979.3	303.16	2346.1	973.0	303.16	1264.1	966.5
303.15	4512.0	985.1	303.16	3422.8	979.2	303.16	2331.5	973.0	303.16	1250.7	966.3
303.16	4498.0	985.0	303.16	3410.5	979.2	303.16	2318.5	972.9	303.16	1236.1	966.3
303.16	4483.3	984.9	303.15	3396.8	979.1	303.16	2304.1	972.8	303.16	1222.9	966.2
303.15	4467.6	984.9	303.16	3382.8	979.0	303.15	2289.2	972.7	303.16	1210.3	966.1
303.16	4453.9	984.8	303.15	3369.3	978.9	303.16	2275.1	972.6	303.16	1196.4	966.0
303.16	4438.8	984.7	303.15	3355.3	978.9	303.16	2261.4	972.5	303.16	1183.2	965.9
303.16	4424.5	984.6	303.16	3341.1	978.8	303.16	2247.6	972.5	303.16	1168.6	965.9
303.16	4411.3	984.6	303.15	3327.4	978.7	303.16	2233.3	972.4	303.16	1155.2	965.8
303.16	4397.5	984.5	303.16	3313.8	978.6	303.16	2218.9	972.3	303.16	1140.6	965.7
303.16	4382.6	984.4	303.16	3298.1	978.5	303.16	2203.8	972.2	303.16	1127.4	965.5
303.16	4368.7	984.3	303.16	3284.6	978.5	303.16	2188.9	972.2	303.16	1112.9	965.5
303.15	4354.9	984.3	303.16	3270.0	978.4	303.16	2175.6	972.0	303.16	1099.7	965.4
303.15	4341.5	984.2	303.16	3257.2	978.3	303.16	2160.6	972.0	303.15	1086.6	965.3
303.16	4326.1	984.1	303.16	3242.4	978.2	303.16	2146.2	971.9	303.15	1072.2	965.3
303.15	4312.3	984.1	303.16	3227.9	978.1	303.16	2131.5	971.8	303.15	1059.4	965.1
303.16	4298.6	984.0	303.15	3213.0	978.1	303.16	2118.3	971.7	303.15	1045.1	965.1
303.16	4284.6	983.9	303.15	3198.4	977.9	303.16	2104.3	971.6	303.15	1031.6	965.0
303.16	4271.6	983.8	303.16	3184.6	977.9	303.16	2089.2	971.6	303.15	1017.2	964.9
303.16	4257.9	983.8	303.15	3170.9	977.8	303.16	2074.4	971.4	303.16	1003.8	964.8
303.16	4243.7	983.7	303.16	3155.3	977.7	303.16	2060.5	971.4	303.16	990.3	964.7
303.16	4230.2	983.7	303.16	3141.6	977.7	303.16	2046.1	971.2	303.15	975.8	964.6
303.16	4217.7	983.6	303.16	3126.8	977.6	303.16	2031.9	971.2	303.15	962.3	964.5
303.16	4203.9	983.5	303.16	3113.2	977.5	303.16	2018.4	971.1	303.15	949.1	964.4
303.16	4190.2	983.4	303.16	3099.1	977.4	303.16	2003.5	971.0	303.15	935.7	964.3
303.16	4176.5	983.3	303.16	3084.4	977.4	303.16	1989.1	970.9	303.15	921.5	964.3
303.16	4161.3	983.3	303.15	3070.5	977.3	303.16	1974.7	970.8	303.15	907.4	964.2
303.16	4147.3	983.2	303.15	3056.8	977.2	303.15	1962.0	970.8	303.15	894.0	964.1
303.16	4133.2	983.1	303.16	3043.0	977.1	303.16	1949.3	970.7	303.15	881.0	964.0
303.16	4120.3	983.1	303.16	3029.4	977.0	303.16	1935.1	970.6	303.15	868.0	964.0
303.16	4106.4	982.9	303.16	3015.0	977.0	303.16	1922.4	970.5	303.15	855.5	963.8
303.16	4092.9	982.9	303.16	3001.5	976.9	303.15	1908.4	970.4	303.15	841.2	963.7
303.16	4077.8	982.8	303.16	2988.0	976.8	303.15	1894.3	970.4	303.15	827.4	963.6
303.16	4064.7	982.7	303.16	2975.0	976.7	303.15	1881.0	970.3	303.15	814.3	963.6
303.16	4050.6	982.6	303.16	2961.1	976.6	303.15	1867.4	970.2	303.15	800.8	963.5
303.16	4035.9	982.5	303.16	2946.6	976.6	303.15	1854.8	970.1	303.15	787.6	963.4
303.16	4020.3	982.5	303.16	2932.9	976.5	303.15	1841.2	970.0	303.15	773.7	963.3
303.16	4005.8	982.4	303.16	2919.7	976.4	303.15	1828.2	969.9	303.15	760.8	963.2
303.16	3991.4	982.3	303.16	2905.7	976.3	303.15	1814.0	969.9	303.15	747.3	963.1
303.16	3978.4	982.3	303.16	2891.6	976.2	303.15	1801.3	969.8	303.15	734.1	963.1
303.15	3965.1	982.2	303.16	2877.1	976.2	303.15	1787.4	969.7	303.15	722.4	962.9
303.16	3951.5	982.1	303.16	2862.7	976.1	303.15	1772.8	969.6	303.15	708.9	962.9
303.16	3937.9	982.0	303.16	2848.6	976.0	303.15	1759.0	969.5	303.15	696.6	962.8
303.16	3924.4	982.0	303.15	2834.8	975.9	303.15	1744.7	969.4	303.15	683.0	962.7
303.16	3911.7	981.9	303.15	2820.0	975.8	303.15	1730.5	969.4	303.15	670.5	962.6
303.16	3897.2	981.8	303.15	2805.8	975.7	303.15	1717.1	969.3	303.15	656.8	962.5
303.16	3884.7	981.7	303.15	2791.2	975.7	303.15	1702.9	969.2	303.15	643.9	962.4
303.16	3871.4	981.7	303.15	2777.5	975.6	303.16	1690.4	969.1	303.15	630.9	962.4
303.16	3858.7	981.6	303.16	2764.4	975.5	303.15	1677.9	969.1	303.16	617.2	962.3
303.16	3846.9	981.5	303.16	2749.3	975.4	303.15	1664.2	969.0	303.16	603.6	962.2
303.16	3834.1	981.5	303.15	2734.7	975.3	303.15	1649.3	968.8			
303.16	3820.1	981.4	303.15	2720.3	975.3	303.16	1635.6	968.8			
303.16	3806.1	981.3	303.15	2706.3	975.1	303.16	1622.2	968.7			
303.16	3792.0	981.3	303.16	2692.4	975.1	303.16	1608.5	968.6			
303.15	3777.8	981.2	303.16	2677.7	975.0	303.16	1595.5	968.6			
303.16	3764.1	981.1	303.16	2664.0	974.9	303.16	1580.9	968.4			
303.16	3749.8	981.0	303.16	2651.0	974.8	303.16	1567.0	968.3			
303.16	3734.5	981.0	303.16	2636.7	974.8	303.16	1555.5	968.3			
303.16	3720.0	980.8	303.16	2624.1	974.7	303.16	1541.5	968.2			

Tabella C4: Valori della densità del fluido R1243zf per T = 313.15 K (40°C)

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
313.15	35004.0	1068.4	313.15	34004.8	1065.9	313.15	33014.2	1063.4	313.15	31961.1	1060.7
313.15	34994.1	1068.4	313.15	33992.7	1065.9	313.15	33000.5	1063.4	313.15	31946.5	1060.7
313.15	34984.8	1068.3	313.15	33978.7	1065.8	313.15	32985.4	1063.3	313.15	31931.9	1060.6
313.15	34973.5	1068.4	313.15	33965.5	1065.8	313.15	32971.0	1063.3	313.15	31916.5	1060.6
313.15	34961.5	1068.3	313.15	33952.4	1065.8	313.15	32957.7	1063.3	313.15	31902.6	1060.6
313.15	34947.8	1068.3	313.15	33937.8	1065.8	313.15	32943.0	1063.3	313.15	31887.5	1060.5
313.15	34932.6	1068.2	313.15	33925.0	1065.7	313.15	32929.5	1063.2	313.15	31872.0	1060.5
313.15	34914.9	1068.1	313.15	33911.6	1065.7	313.15	32915.2	1063.1	313.15	31857.7	1060.4
313.15	34899.5	1068.1	313.15	33897.4	1065.6	313.15	32901.5	1063.1	313.15	31844.3	1060.4
313.15	34882.3	1068.1	313.15	33884.8	1065.6	313.15	32886.5	1063.1	313.15	31829.7	1060.4
313.15	34865.4	1068.0	313.15	33869.8	1065.6	313.15	32873.4	1063.0	313.15	31815.3	1060.3
313.15	34850.3	1068.0	313.15	33857.8	1065.5	313.15	32858.9	1063.0	313.15	31798.6	1060.3
313.15	34834.8	1068.0	313.15	33845.6	1065.5	313.15	32843.8	1063.0	313.15	31784.7	1060.3
313.15	34820.6	1067.9	313.15	33830.9	1065.5	313.15	32829.1	1062.9	313.15	31769.7	1060.2
313.15	34804.2	1067.9	313.15	33816.3	1065.4	313.15	32812.8	1062.9	313.15	31755.8	1060.1
313.15	34789.2	1067.9	313.15	33803.0	1065.4	313.15	32799.2	1062.8	313.15	31741.4	1060.2
313.15	34773.4	1067.8	313.15	33790.6	1065.4	313.15	32784.9	1062.8	313.15	31726.4	1060.1
313.15	34763.3	1067.8	313.15	33777.9	1065.3	313.15	32770.1	1062.8	313.15	31712.8	1060.0
313.15	34749.3	1067.8	313.15	33764.5	1065.3	313.15	32755.0	1062.8	313.15	31697.9	1060.0
313.15	34734.1	1067.7	313.15	33752.1	1065.3	313.15	32740.1	1062.7	313.15	31682.5	1060.0
313.15	34719.1	1067.7	313.15	33738.9	1065.3	313.15	32724.6	1062.7	313.15	31668.2	1059.9
313.15	34707.1	1067.7	313.15	33725.8	1065.2	313.15	32710.1	1062.6	313.15	31651.4	1059.9
313.15	34692.0	1067.7	313.15	33713.4	1065.2	313.15	32694.6	1062.6	313.15	31637.2	1059.9
313.15	34679.6	1067.6	313.15	33699.7	1065.1	313.15	32679.5	1062.6	313.15	31622.8	1059.8
313.15	34665.3	1067.5	313.15	33686.4	1065.1	313.15	32664.7	1062.5	313.15	31608.8	1059.8
313.15	34652.3	1067.5	313.15	33673.3	1065.1	313.15	32648.7	1062.5	313.15	31593.3	1059.7
313.15	34638.8	1067.5	313.15	33658.7	1065.0	313.15	32632.7	1062.4	313.15	31578.7	1059.7
313.15	34625.9	1067.5	313.15	33643.7	1065.0	313.15	32618.1	1062.4	313.15	31564.2	1059.7
313.15	34612.5	1067.5	313.15	33629.5	1065.0	313.15	32602.0	1062.3	313.15	31550.5	1059.6
313.15	34599.1	1067.4	313.15	33615.1	1065.0	313.15	32586.4	1062.3	313.15	31537.2	1059.6
313.15	34585.2	1067.4	313.15	33600.0	1064.9	313.15	32570.4	1062.3	313.15	31523.8	1059.6
313.15	34571.7	1067.3	313.15	33586.5	1064.9	313.15	32555.4	1062.2	313.15	31510.2	1059.5
313.15	34559.1	1067.3	313.15	33573.9	1064.8	313.15	32540.7	1062.2	313.15	31496.4	1059.5
313.15	34546.3	1067.2	313.15	33560.0	1064.8	313.15	32526.6	1062.2	313.15	31482.7	1059.5
313.15	34534.0	1067.2	313.15	33548.7	1064.7	313.15	32512.7	1062.1	313.15	31469.6	1059.4
313.15	34521.1	1067.2	313.15	33535.5	1064.8	313.15	32498.3	1062.1	313.15	31456.5	1059.4
313.15	34505.9	1067.2	313.15	33523.6	1064.7	313.15	32483.7	1062.0	313.15	31442.4	1059.3
313.15	34491.6	1067.1	313.15	33508.6	1064.7	313.15	32469.6	1062.0	313.15	31428.9	1059.3
313.15	34476.9	1067.1	313.15	33495.3	1064.6	313.15	32457.1	1062.0	313.15	31414.8	1059.3
313.15	34464.5	1067.1	313.15	33479.8	1064.6	313.15	32443.1	1062.0	313.15	31399.6	1059.2
313.15	34450.4	1067.1	313.15	33465.5	1064.5	313.15	32427.8	1061.9	313.15	31385.5	1059.2
313.15	34435.8	1067.0	313.15	33449.7	1064.5	313.15	32411.4	1061.8	313.15	31370.9	1059.2
313.15	34422.6	1067.0	313.15	33437.7	1064.5	313.15	32397.3	1061.9	313.15	31356.0	1059.1
313.15	34410.2	1066.9	313.15	33422.9	1064.4	313.15	32382.7	1061.8	313.15	31341.1	1059.0
313.15	34396.7	1066.9	313.15	33408.3	1064.4	313.15	32367.4	1061.7	313.15	31327.3	1059.0
313.15	34383.2	1066.9	313.15	33393.8	1064.4	313.15	32353.2	1061.7	313.15	31313.1	1059.0
313.15	34368.9	1066.8	313.15	33379.1	1064.4	313.15	32338.9	1061.7	313.15	31299.1	1059.0
313.15	34355.1	1066.8	313.15	33365.0	1064.3	313.15	32324.9	1061.6	313.15	31284.4	1058.9
313.15	34341.5	1066.7	313.15	33350.8	1064.3	313.15	32310.3	1061.6	313.15	31271.5	1058.9
313.15	34327.4	1066.7	313.15	33336.6	1064.2	313.15	32295.4	1061.6	313.15	31258.5	1058.9
313.15	34313.6	1066.7	313.15	33322.1	1064.2	313.15	32281.7	1061.5	313.15	31245.1	1058.8
313.15	34299.4	1066.7	313.15	33308.7	1064.1	313.15	32266.9	1061.5	313.15	31231.1	1058.8
313.15	34285.4	1066.6	313.15	33295.3	1064.1	313.15	32250.9	1061.5	313.15	31217.7	1058.8
313.15	34271.8	1066.6	313.15	33283.0	1064.1	313.15	32236.8	1061.4	313.15	31205.2	1058.7
313.15	34258.2	1066.5	313.15	33269.0	1064.0	313.15	32222.6	1061.4	313.15	31192.7	1058.7
313.15	34244.3	1066.5	313.15	33255.5	1064.0	313.15	32209.4	1061.4	313.15	31179.4	1058.6
313.15	34229.7	1066.5	313.15	33241.0	1063.9	313.15	32194.0	1061.3	313.15	31166.9	1058.6
313.15	34215.6	1066.4	313.15	33227.6	1063.9	313.15	32179.2	1061.2	313.15	31153.7	1058.6
313.15	34200.5	1066.4	313.15	33214.4	1063.9	313.15	32163.9	1061.2	313.15	31140.1	1058.5
313.15	34186.6	1066.3	313.15	33200.1	1063.9	313.15	32149.8	1061.2	313.15	31125.9	1058.5
313.15	34172.4	1066.3	313.15	33186.4	1063.8	313.15	32136.5	1061.1	313.15	31111.0	1058.5
313.15	34159.1	1066.3	313.15	33172.3	1063.8	313.15	32121.7	1061.1	313.15	31096.1	1058.4
313.15	34144.9	1066.2	313.15	33158.6	1063.8	313.15	32108.0	1061.1	313.15	31080.8	1058.4
313.15	34131.0	1066.2	313.15	33145.6	1063.7	313.15	32095.2	1061.1	313.15	31065.5	1058.3
313.15	34116.9	1066.2	313.15	33130.5	1063.7	313.15	32081.1	1061.0	313.15	31051.5	1058.3
313.15	34101.7	1066.2	313.15	33116.2	1063.6	313.15	32065.3	1061.0	313.15	31037.7	1058.3
313.15	34087.3	1066.1	313.15	33102.9	1063.6	313.15	32049.9	1060.9	313.15	31023.8	1058.2
313.15	34072.3	1066.1	313.15	33088.1	1063.6	313.15	32036.2	1060.9	313.15	31008.8	1058.2
313.15	34058.0	1066.1	313.15	33073.0	1063.6	313.15	32020.7	1060.8	313.15	30993.6	1058.2
313.15	34044.4	1066.0	313.15	33058.6	1063.5	313.15	32005.1	1060.8	313.15	30979.6	1058.2
313.15	34032.1	1066.0	313.15	33043.8	1063.5	313.15	31990.8	1060.8	313.15	30965.7	1058.1
313.15	34018.0	1065.9	313.15	33028.7	1063.4	313.15	31975.8	1060.7	313.15	30950.2	1058.0

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
313.15	30936.9	1058.0	313.15	29826.6	1055.0	313.15	28670.9	1051.9	313.15	27543.6	1048.7
313.15	30922.2	1058.0	313.15	29812.9	1055.0	313.15	28655.6	1051.9	313.15	27530.6	1048.7
313.15	30908.5	1057.9	313.15	29797.8	1055.0	313.15	28641.3	1051.8	313.15	27516.2	1048.6
313.15	30893.7	1057.9	313.15	29782.6	1054.9	313.15	28627.4	1051.8	313.15	27501.2	1048.6
313.15	30881.5	1057.9	313.15	29768.3	1054.9	313.15	28611.7	1051.8	313.15	27485.7	1048.6
313.15	30868.2	1057.8	313.15	29752.6	1054.8	313.15	28597.8	1051.7	313.15	27472.7	1048.5
313.15	30853.1	1057.8	313.15	29738.1	1054.8	313.15	28584.3	1051.6	313.15	27456.9	1048.5
313.15	30838.8	1057.8	313.15	29723.4	1054.8	313.15	28568.2	1051.6	313.15	27442.5	1048.5
313.15	30824.0	1057.7	313.15	29710.5	1054.7	313.15	28554.3	1051.6	313.15	27428.7	1048.4
313.15	30808.8	1057.7	313.15	29698.1	1054.7	313.15	28538.4	1051.6	313.15	27414.4	1048.3
313.15	30794.8	1057.6	313.15	29682.9	1054.7	313.15	28524.2	1051.5	313.15	27401.0	1048.3
313.15	30780.0	1057.6	313.15	29669.7	1054.6	313.15	28510.3	1051.5	313.15	27386.5	1048.3
313.15	30764.5	1057.6	313.15	29655.0	1054.6	313.15	28495.3	1051.4	313.15	27372.6	1048.3
313.15	30751.6	1057.5	313.15	29641.3	1054.6	313.15	28480.6	1051.3	313.15	27358.8	1048.2
313.15	30738.0	1057.5	313.15	29626.3	1054.6	313.15	28464.7	1051.3	313.15	27343.9	1048.2
313.15	30723.6	1057.5	313.15	29613.5	1054.5	313.15	28450.2	1051.3	313.15	27330.1	1048.1
313.15	30710.1	1057.4	313.15	29598.7	1054.4	313.15	28435.2	1051.2	313.15	27316.5	1048.1
313.15	30696.7	1057.4	313.15	29584.7	1054.4	313.15	28420.6	1051.2	313.15	27302.4	1048.0
313.15	30683.9	1057.4	313.15	29571.2	1054.4	313.15	28405.4	1051.2	313.15	27286.8	1048.0
313.15	30670.8	1057.3	313.15	29556.9	1054.3	313.15	28391.8	1051.1	313.15	27273.7	1048.0
313.15	30656.7	1057.3	313.15	29543.6	1054.2	313.15	28376.9	1051.1	313.15	27259.9	1047.9
313.15	30643.7	1057.2	313.15	29529.5	1054.2	313.15	28362.1	1051.1	313.15	27244.5	1047.9
313.15	30629.7	1057.2	313.15	29515.3	1054.2	313.15	28348.6	1051.0	313.15	27231.0	1047.8
313.15	30613.8	1057.1	313.15	29501.0	1054.1	313.15	28334.0	1050.9	313.15	27217.0	1047.9
313.15	30599.4	1057.1	313.15	29485.6	1054.1	313.15	28320.0	1050.9	313.15	27203.7	1047.8
313.15	30584.0	1057.1	313.15	29469.3	1054.1	313.15	28305.4	1050.9	313.15	27188.8	1047.7
313.15	30569.1	1057.0	313.15	29454.2	1054.0	313.15	28291.4	1050.8	313.15	27176.0	1047.7
313.15	30555.4	1057.0	313.15	29436.8	1054.0	313.15	28277.2	1050.8	313.15	27162.5	1047.6
313.15	30542.6	1057.0	313.15	29420.7	1054.0	313.15	28261.5	1050.8	313.15	27148.5	1047.6
313.15	30529.1	1056.9	313.15	29406.4	1053.9	313.15	28247.3	1050.7	313.15	27134.4	1047.6
313.15	30516.4	1056.9	313.15	29389.9	1053.9	313.15	28231.4	1050.7	313.15	27121.7	1047.5
313.15	30502.0	1056.9	313.15	29374.9	1053.8	313.15	28216.5	1050.6	313.15	27107.6	1047.5
313.15	30488.9	1056.8	313.15	29359.9	1053.8	313.15	28202.6	1050.6	313.15	27092.6	1047.5
313.15	30475.6	1056.8	313.15	29344.2	1053.7	313.15	28187.7	1050.6	313.15	27077.2	1047.4
313.15	30462.3	1056.8	313.15	29330.2	1053.7	313.15	28173.7	1050.5	313.15	27064.6	1047.4
313.15	30448.5	1056.7	313.15	29314.5	1053.7	313.15	28158.1	1050.5	313.15	27049.5	1047.3
313.15	30434.1	1056.7	313.15	29298.8	1053.6	313.15	28144.3	1050.4	313.15	27035.6	1047.3
313.15	30418.6	1056.7	313.15	29284.7	1053.6	313.15	28130.5	1050.4	313.15	27021.0	1047.3
313.15	30403.5	1056.6	313.15	29269.3	1053.5	313.15	28115.3	1050.3	313.15	27006.1	1047.2
313.15	30388.8	1056.6	313.15	29255.2	1053.4	313.15	28099.9	1050.3	313.15	26991.4	1047.2
313.15	30373.3	1056.5	313.15	29240.2	1053.5	313.15	28085.1	1050.2	313.15	26977.4	1047.1
313.15	30357.1	1056.5	313.15	29227.5	1053.4	313.15	28070.8	1050.2	313.15	26963.6	1047.1
313.15	30342.7	1056.5	313.15	29214.0	1053.4	313.15	28056.5	1050.2	313.15	26949.6	1047.1
313.15	30327.5	1056.4	313.15	29199.6	1053.3	313.15	28041.1	1050.1	313.15	26937.2	1047.0
313.15	30313.0	1056.3	313.15	29184.4	1053.3	313.15	28027.8	1050.1	313.15	26923.6	1047.0
313.15	30299.0	1056.3	313.15	29170.1	1053.2	313.15	28013.0	1050.1	313.15	26909.8	1046.9
313.15	30282.7	1056.3	313.15	29155.7	1053.2	313.15	27999.8	1050.0	313.15	26895.2	1046.9
313.15	30267.8	1056.2	313.15	29139.3	1053.2	313.15	27985.2	1050.0	313.15	26882.3	1046.9
313.15	30253.7	1056.2	313.15	29123.3	1053.1	313.15	27970.2	1049.9	313.15	26867.7	1046.8
313.15	30239.7	1056.1	313.15	29109.9	1053.1	313.15	27956.4	1049.9	313.15	26853.2	1046.8
313.15	30225.7	1056.1	313.15	29093.1	1053.1	313.15	27942.9	1049.9	313.15	26838.5	1046.7
313.15	30210.6	1056.1	313.15	29077.4	1053.0	313.15	27927.5	1049.8	313.15	26823.4	1046.7
313.15	30196.7	1056.0	313.15	29062.9	1053.0	313.15	27914.0	1049.8	313.15	26809.6	1046.6
313.15	30181.4	1056.0	313.15	29048.0	1052.9	313.15	27900.3	1049.8	313.15	26795.8	1046.6
313.15	30166.8	1056.0	313.15	29031.7	1052.9	313.15	27884.2	1049.7	313.15	26781.5	1046.5
313.15	30153.5	1055.9	313.15	29017.1	1052.8	313.15	27870.4	1049.7	313.15	26766.9	1046.5
313.15	30139.5	1055.9	313.15	29001.6	1052.8	313.15	27855.4	1049.6	313.15	26752.1	1046.5
313.15	30124.0	1055.8	313.15	28985.4	1052.7	313.15	27841.4	1049.6	313.15	26737.6	1046.4
313.15	30108.7	1055.8	313.15	28969.6	1052.7	313.15	27827.2	1049.6	313.15	26724.5	1046.4
313.15	30094.3	1055.7	313.15	28955.3	1052.6	313.15	27811.9	1049.5	313.15	26711.4	1046.3
313.15	30079.0	1055.7	313.15	28941.1	1052.6	313.15	27798.2	1049.4	313.15	26697.2	1046.3
313.15	30065.2	1055.7	313.15	28926.9	1052.6	313.15	27783.5	1049.4	313.15	26684.2	1046.3
313.15	30051.6	1055.7	313.15	28910.9	1052.5	313.15	27769.5	1049.3	313.15	26669.1	1046.2
313.15	30037.6	1055.6	313.15	28896.5	1052.5	313.15	27754.2	1049.4	313.15	26655.3	1046.2
313.15	30023.3	1055.6	313.15	28880.3	1052.5	313.15	27740.5	1049.3	313.15	26639.9	1046.1
313.15	30010.0	1055.5	313.15	28866.3	1052.4	313.15	27727.0	1049.2	313.15	26626.0	1046.1
313.15	29996.8	1055.5	313.15	28850.6	1052.4	313.15	27713.0	1049.2	313.15	26611.6	1046.1
313.15	29981.8	1055.4	313.15	28835.1	1052.4	313.15	27697.7	1049.2	313.15	26597.0	1046.0
313.15	29967.7	1055.5	313.15	28818.7	1052.3	313.15	27683.9	1049.1	313.15	26583.3	1046.0
313.15	29953.4	1055.4	313.15	28804.9	1052.3	313.15	27669.1	1049.1	313.15	26568.7	1045.9
313.15	29939.0	1055.4	313.15	28790.6	1052.2	313.15	27656.2	1049.1	313.15	26554.1	1045.9
313.15	29925.1	1055.3	313.15	28776.9	1052.2	313.15	27640.8	1049.0	313.15	26539.5	1045.9
313.15	29910.6	1055.2	313.15	28762.1	1052.1	313.15	27627.1	1049.0	313.15	26523.6	1045.8
313.15	29896.3	1055.3	313.15	28747.4	1052.1	313.15	27612.2	1048.9	313.15	26509.3	1045.8
313.15	29881.5	1055.2	313.15	28731.5	1052.0	313.15	27598.6	1048.9	313.15	26494.4	1045.8
313.15	29867.1	1055.2	313.15	28717.1	1052.0	313.15	27584.8	1048.8	313.15	26478.9	1045.7
313.15	29854.0	1055.1	313.15	28701.9	1052.0	313.15	27571.1	1048.8	313.15	26465.2	1045.6
313.15	29840.2	1055.1	313.15	28687.1	1051.9	313.15	27557.9	1048.8	313.15	26450.4	1045.6

Valori della densità del fluido R1243zf _ *T*=40°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
313.15	26436.4	1045.6	313.15	25307.5	1042.2	313.15	24219.8	1039.0	313.15	23109.8	1035.6
313.15	26421.0	1045.5	313.15	25293.9	1042.2	313.15	24204.4	1038.9	313.15	23095.5	1035.5
313.15	26407.5	1045.5	313.15	25280.2	1042.1	313.15	24190.6	1038.9	313.15	23080.6	1035.5
313.15	26393.5	1045.4	313.15	25267.0	1042.1	313.15	24174.5	1038.8	313.15	23066.3	1035.4
313.15	26377.7	1045.4	313.15	25252.6	1042.1	313.15	24159.4	1038.8	313.15	23053.6	1035.4
313.15	26364.0	1045.4	313.15	25237.4	1042.1	313.15	24144.3	1038.8	313.15	23039.9	1035.4
313.15	26349.7	1045.3	313.15	25222.7	1042.0	313.15	24131.2	1038.7	313.15	23027.7	1035.3
313.15	26336.0	1045.3	313.15	25208.8	1042.0	313.15	24115.4	1038.7	313.15	23013.7	1035.3
313.15	26322.5	1045.2	313.15	25194.3	1041.9	313.15	24101.4	1038.6	313.15	22999.8	1035.2
313.15	26308.2	1045.2	313.15	25181.3	1041.8	313.15	24087.7	1038.6	313.15	22987.0	1035.1
313.15	26294.7	1045.2	313.15	25168.8	1041.9	313.15	24074.5	1038.5	313.15	22973.4	1035.1
313.15	26278.7	1045.1	313.15	25154.8	1041.8	313.15	24061.5	1038.4	313.15	22958.4	1035.1
313.15	26263.8	1045.1	313.15	25142.3	1041.7	313.15	24048.0	1038.5	313.15	22943.9	1035.0
313.15	26249.7	1045.0	313.15	25129.3	1041.7	313.15	24035.7	1038.4	313.15	22929.7	1035.0
313.15	26234.4	1045.0	313.15	25116.0	1041.7	313.15	24020.4	1038.4	313.15	22916.1	1034.9
313.15	26219.9	1045.0	313.15	25101.9	1041.7	313.15	24006.7	1038.3	313.15	22903.3	1034.9
313.15	26204.9	1044.9	313.15	25090.3	1041.7	313.15	23992.3	1038.3	313.15	22889.4	1034.9
313.15	26190.1	1044.9	313.15	25075.4	1041.5	313.15	23977.6	1038.2	313.15	22874.7	1034.8
313.15	26174.9	1044.8	313.15	25062.5	1041.5	313.15	23963.1	1038.2	313.15	22861.4	1034.8
313.15	26160.7	1044.8	313.15	25048.7	1041.5	313.15	23946.3	1038.1	313.15	22848.0	1034.7
313.15	26145.4	1044.7	313.15	25033.2	1041.4	313.15	23932.5	1038.1	313.15	22835.5	1034.7
313.15	26130.7	1044.7	313.15	25018.0	1041.4	313.15	23918.7	1038.1	313.15	22821.4	1034.6
313.15	26116.4	1044.6	313.15	25002.8	1041.3	313.15	23904.7	1038.0	313.15	22806.9	1034.6
313.15	26102.8	1044.6	313.15	24987.2	1041.3	313.15	23890.8	1038.0	313.15	22793.5	1034.6
313.15	26086.8	1044.5	313.15	24971.7	1041.2	313.15	23875.3	1037.9	313.15	22778.7	1034.5
313.15	26072.7	1044.5	313.15	24958.0	1041.2	313.15	23861.7	1037.8	313.15	22763.7	1034.5
313.15	26057.5	1044.5	313.15	24944.2	1041.2	313.15	23846.9	1037.8	313.15	22749.8	1034.4
313.15	26042.5	1044.4	313.15	24932.3	1041.1	313.15	23833.5	1037.8	313.15	22735.2	1034.4
313.15	26028.0	1044.4	313.15	24919.9	1041.1	313.15	23821.3	1037.8	313.15	22721.3	1034.3
313.15	26014.2	1044.3	313.15	24905.3	1041.1	313.15	23806.1	1037.7	313.15	22707.7	1034.3
313.15	25999.3	1044.3	313.15	24891.5	1041.0	313.15	23793.1	1037.7	313.15	22693.8	1034.2
313.15	25985.3	1044.3	313.15	24877.5	1041.0	313.15	23780.0	1037.6	313.15	22680.8	1034.2
313.15	25970.7	1044.2	313.15	24864.8	1040.9	313.15	23766.8	1037.6	313.15	22668.0	1034.2
313.15	25957.4	1044.2	313.15	24850.8	1040.9	313.15	23753.5	1037.6	313.15	22655.0	1034.1
313.15	25942.7	1044.1	313.15	24837.4	1040.8	313.15	23740.7	1037.5	313.15	22641.2	1034.1
313.15	25928.3	1044.1	313.15	24823.6	1040.8	313.15	23726.3	1037.4	313.15	22627.9	1034.0
313.15	25914.2	1044.0	313.15	24810.1	1040.8	313.15	23711.2	1037.4	313.15	22614.0	1034.0
313.15	25901.4	1044.0	313.15	24796.0	1040.7	313.15	23694.1	1037.4	313.15	22599.1	1033.9
313.15	25884.6	1044.0	313.15	24782.5	1040.7	313.15	23681.1	1037.3	313.15	22586.0	1033.9
313.15	25870.5	1043.9	313.15	24768.0	1040.7	313.15	23666.2	1037.3	313.15	22571.6	1033.8
313.15	25856.8	1043.9	313.15	24753.4	1040.6	313.15	23651.1	1037.2	313.15	22557.9	1033.8
313.15	25842.0	1043.8	313.15	24740.4	1040.6	313.15	23637.6	1037.2	313.15	22544.5	1033.8
313.15	25829.8	1043.8	313.15	24726.6	1040.5	313.15	23622.8	1037.2	313.15	22529.7	1033.7
313.15	25815.2	1043.7	313.15	24711.5	1040.5	313.15	23607.7	1037.1	313.15	22515.2	1033.7
313.15	25800.1	1043.7	313.15	24697.9	1040.4	313.15	23593.5	1037.1	313.15	22500.6	1033.6
313.15	25786.5	1043.6	313.15	24684.3	1040.4	313.15	23578.2	1037.0	313.15	22486.5	1033.6
313.15	25771.1	1043.6	313.15	24670.0	1040.3	313.15	23563.4	1037.0	313.15	22472.4	1033.5
313.15	25756.4	1043.5	313.15	24655.8	1040.3	313.15	23549.9	1036.9	313.15	22458.6	1033.5
313.15	25739.9	1043.5	313.15	24642.9	1040.3	313.15	23535.4	1036.8	313.15	22447.5	1033.5
313.15	25725.2	1043.5	313.15	24629.5	1040.2	313.15	23518.9	1036.8	313.15	22432.5	1033.4
313.15	25710.7	1043.4	313.15	24615.9	1040.2	313.15	23504.3	1036.8	313.15	22419.6	1033.4
313.15	25696.1	1043.4	313.15	24601.4	1040.1	313.15	23490.1	1036.7	313.15	22405.3	1033.3
313.15	25681.2	1043.4	313.15	24586.8	1040.1	313.15	23476.3	1036.7	313.15	22391.7	1033.3
313.15	25666.9	1043.3	313.15	24571.7	1040.0	313.15	23462.2	1036.6	313.15	22378.0	1033.2
313.15	25652.0	1043.3	313.15	24556.4	1040.0	313.15	23447.9	1036.6	313.15	22364.4	1033.2
313.15	25638.8	1043.2	313.15	24542.0	1040.0	313.15	23434.2	1036.6	313.15	22351.3	1033.1
313.15	25624.1	1043.2	313.15	24526.1	1039.9	313.15	23420.0	1036.5	313.15	22337.9	1033.1
313.15	25611.1	1043.1	313.15	24511.1	1039.9	313.15	23405.0	1036.5	313.15	22323.2	1033.0
313.15	25597.9	1043.1	313.15	24497.9	1039.8	313.15	23390.3	1036.4	313.15	22308.7	1033.1
313.15	25583.3	1043.1	313.15	24484.1	1039.8	313.15	23376.3	1036.4	313.15	22294.7	1033.0
313.15	25569.4	1043.0	313.15	24470.8	1039.7	313.15	23361.6	1036.4	313.15	22279.7	1032.9
313.15	25556.6	1043.0	313.15	24456.2	1039.7	313.15	23347.6	1036.3	313.15	22264.9	1032.9
313.15	25541.7	1043.0	313.15	24442.4	1039.7	313.15	23335.6	1036.3	313.15	22251.6	1032.9
313.15	25528.2	1042.9	313.15	24428.6	1039.6	313.15	23321.6	1036.2	313.15	22238.0	1032.8
313.15	25514.0	1042.8	313.15	24414.6	1039.6	313.15	23308.6	1036.2	313.15	22225.1	1032.8
313.15	25499.8	1042.8	313.15	24399.7	1039.6	313.15	23296.0	1036.1	313.15	22212.1	1032.7
313.15	25485.4	1042.8	313.15	24385.6	1039.5	313.15	23282.5	1036.1	313.15	22198.4	1032.7
313.15	25470.7	1042.7	313.15	24372.0	1039.4	313.15	23267.7	1036.0	313.15	22185.3	1032.7
313.15	25456.3	1042.7	313.15	24359.0	1039.4	313.15	23252.8	1036.0	313.15	22172.8	1032.6
313.15	25441.1	1042.6	313.15	24344.5	1039.4	313.15	23237.8	1036.0	313.15	22158.7	1032.5
313.15	25426.5	1042.6	313.15	24330.5	1039.4	313.15	23223.5	1035.9	313.15	22144.6	1032.5
313.15	25412.3	1042.5	313.15	24316.6	1039.2	313.15	23209.0	1035.8	313.15	22130.7	1032.5
313.15	25396.5	1042.5	313.15	24304.2	1039.2	313.15	23194.9	1035.8	313.15	22117.1	1032.4
313.15	25381.7	1042.5	313.15	24291.8	1039.2	313.15	23181.5	1035.8	313.15	22102.8	1032.4
313.15	25366.0	1042.4	313.15	24278.0	1039.1	313.15	23167.1	1035.8	313.15	22088.1	1032.3
313.15	25351.9	1042.4	313.15	24264.2	1039.1	313.15	23153.1	1035.7	313.15	22074.6	1032.3
313.15	25338.0	1042.4	313.15	24248.9	1039.1	313.15	23138.2	1035.6	313.15	22060.3	1032.2
313.15	25321.1	1042.3	313.15	24234.4	1039.0	313.15	23123.0	1035.6	313.15	22047.1	1032.2

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
313.15	22032.9	1032.1	313.15	20960.5	1028.7	313.15	19889.3	1025.1	313.15	18807.2	1021.4
313.15	22020.7	1032.1	313.15	20945.7	1028.6	313.15	19875.3	1025.0	313.15	18793.3	1021.3
313.15	22007.8	1032.0	313.15	20933.2	1028.6	313.15	19860.0	1025.0	313.15	18779.0	1021.3
313.15	21993.7	1032.0	313.15	20920.5	1028.6	313.15	19845.9	1024.9	313.15	18764.8	1021.2
313.15	21982.0	1032.0	313.15	20906.7	1028.4	313.15	19832.2	1024.9	313.15	18750.3	1021.2
313.15	21968.2	1031.9	313.15	20893.6	1028.4	313.15	19818.0	1024.8	313.15	18737.3	1021.1
313.15	21954.0	1031.9	313.15	20879.6	1028.4	313.15	19803.8	1024.8	313.15	18724.5	1021.0
313.15	21939.8	1031.9	313.15	20865.0	1028.3	313.15	19789.0	1024.7	313.15	18711.7	1021.0
313.15	21926.0	1031.8	313.15	20850.3	1028.3	313.15	19775.0	1024.7	313.15	18696.9	1021.0
313.15	21913.0	1031.7	313.15	20837.3	1028.2	313.15	19762.0	1024.6	313.15	18682.8	1020.9
313.15	21899.5	1031.7	313.15	20823.7	1028.3	313.15	19748.0	1024.6	313.15	18668.9	1020.9
313.15	21886.2	1031.7	313.15	20808.3	1028.2	313.15	19733.7	1024.5	313.15	18656.6	1020.8
313.15	21872.1	1031.6	313.15	20795.4	1028.2	313.15	19720.0	1024.5	313.15	18642.3	1020.8
313.15	21858.7	1031.6	313.15	20780.0	1028.0	313.15	19706.3	1024.4	313.15	18629.1	1020.8
313.15	21844.0	1031.5	313.15	20766.5	1028.0	313.15	19691.7	1024.4	313.15	18614.9	1020.7
313.15	21830.4	1031.5	313.15	20753.1	1028.0	313.15	19678.0	1024.4	313.15	18600.9	1020.6
313.15	21816.9	1031.5	313.15	20739.1	1028.0	313.15	19664.7	1024.3	313.15	18586.4	1020.5
313.15	21802.5	1031.4	313.15	20726.4	1027.9	313.15	19651.1	1024.3	313.15	18573.2	1020.5
313.15	21789.7	1031.3	313.15	20713.0	1027.8	313.15	19636.5	1024.2	313.15	18558.9	1020.5
313.15	21775.3	1031.3	313.15	20700.7	1027.8	313.15	19623.4	1024.1	313.15	18545.1	1020.4
313.15	21761.7	1031.3	313.15	20687.8	1027.8	313.15	19609.9	1024.1	313.15	18530.6	1020.4
313.15	21747.9	1031.2	313.15	20674.9	1027.7	313.15	19595.7	1024.1	313.15	18517.0	1020.3
313.15	21734.7	1031.2	313.15	20661.9	1027.7	313.15	19582.1	1024.0	313.15	18503.5	1020.3
313.15	21721.8	1031.1	313.15	20648.1	1027.6	313.15	19567.5	1024.0	313.15	18490.9	1020.2
313.15	21707.5	1031.1	313.15	20635.4	1027.6	313.15	19553.9	1023.9	313.15	18475.5	1020.2
313.15	21694.9	1031.0	313.15	20622.4	1027.6	313.15	19539.5	1023.8	313.15	18461.9	1020.1
313.15	21680.1	1031.0	313.15	20608.7	1027.5	313.15	19526.3	1023.8	313.15	18448.6	1020.1
313.15	21667.2	1031.0	313.15	20595.8	1027.5	313.15	19511.9	1023.8	313.15	18434.2	1020.0
313.15	21653.2	1030.9	313.15	20582.3	1027.4	313.15	19499.4	1023.7	313.15	18419.5	1020.0
313.15	21640.9	1030.9	313.15	20569.1	1027.3	313.15	19484.2	1023.7	313.15	18405.8	1019.9
313.15	21628.5	1030.9	313.15	20556.0	1027.3	313.15	19469.9	1023.6	313.15	18391.5	1019.9
313.15	21614.7	1030.8	313.15	20541.9	1027.2	313.15	19455.8	1023.6	313.15	18377.8	1019.8
313.15	21601.1	1030.7	313.15	20529.7	1027.2	313.15	19442.1	1023.6	313.15	18364.1	1019.8
313.15	21587.5	1030.7	313.15	20515.4	1027.2	313.15	19428.1	1023.5	313.15	18351.2	1019.7
313.15	21573.2	1030.7	313.15	20501.0	1027.1	313.15	19413.8	1023.5	313.15	18338.5	1019.7
313.15	21558.6	1030.6	313.15	20487.4	1027.1	313.15	19400.7	1023.4	313.15	18325.0	1019.6
313.15	21545.9	1030.6	313.15	20474.2	1027.1	313.15	19386.7	1023.4	313.15	18311.9	1019.6
313.15	21533.3	1030.5	313.15	20460.9	1027.0	313.15	19372.7	1023.3	313.15	18299.8	1019.6
313.15	21518.9	1030.5	313.15	20447.4	1027.0	313.15	19357.9	1023.3	313.15	18286.3	1019.5
313.15	21505.4	1030.4	313.15	20436.4	1026.9	313.15	19345.1	1023.2	313.15	18272.4	1019.5
313.15	21490.7	1030.4	313.15	20422.9	1026.9	313.15	19331.1	1023.2	313.15	18258.9	1019.4
313.15	21476.3	1030.4	313.15	20409.5	1026.8	313.15	19317.5	1023.1	313.15	18244.2	1019.4
313.15	21462.8	1030.3	313.15	20394.6	1026.8	313.15	19304.1	1023.1	313.15	18229.2	1019.3
313.15	21448.7	1030.3	313.15	20379.2	1026.7	313.15	19290.8	1023.0	313.15	18215.0	1019.3
313.15	21435.4	1030.2	313.15	20366.7	1026.7	313.15	19276.8	1023.0	313.15	18200.9	1019.2
313.15	21422.6	1030.2	313.15	20352.5	1026.6	313.15	19262.0	1022.9	313.15	18184.8	1019.2
313.15	21408.4	1030.1	313.15	20337.7	1026.6	313.15	19248.5	1022.9	313.15	18171.0	1019.2
313.15	21393.3	1030.1	313.15	20324.4	1026.5	313.15	19236.0	1022.8	313.15	18155.2	1019.1
313.15	21379.7	1030.0	313.15	20311.0	1026.5	313.15	19221.9	1022.8	313.15	18142.4	1019.0
313.15	21365.4	1030.0	313.15	20297.0	1026.4	313.15	19207.9	1022.7	313.15	18130.4	1019.0
313.15	21351.5	1030.0	313.15	20284.0	1026.4	313.15	19194.7	1022.7	313.15	18116.7	1018.9
313.15	21337.0	1029.9	313.15	20270.5	1026.4	313.15	19180.3	1022.6	313.15	18104.7	1018.9
313.15	21323.2	1029.9	313.15	20255.8	1026.3	313.15	19166.4	1022.6	313.15	18090.0	1018.8
313.15	21308.8	1029.8	313.15	20243.9	1026.3	313.15	19152.0	1022.5	313.15	18077.1	1018.8
313.15	21295.7	1029.8	313.15	20229.8	1026.2	313.15	19138.6	1022.4	313.15	18063.2	1018.7
313.15	21280.4	1029.7	313.15	20214.4	1026.2	313.15	19124.6	1022.4	313.15	18049.1	1018.7
313.15	21267.0	1029.7	313.15	20199.3	1026.2	313.15	19110.9	1022.4	313.15	18034.6	1018.6
313.15	21252.8	1029.6	313.15	20186.2	1026.1	313.15	19096.2	1022.3	313.15	18020.0	1018.6
313.15	21240.4	1029.6	313.15	20171.2	1026.1	313.15	19082.4	1022.3	313.15	18007.2	1018.5
313.15	21225.4	1029.6	313.15	20157.0	1026.0	313.15	19068.4	1022.2	313.15	17994.4	1018.5
313.15	21211.9	1029.5	313.15	20141.5	1025.9	313.15	19055.3	1022.2	313.15	17981.1	1018.4
313.15	21198.0	1029.4	313.15	20127.9	1025.9	313.15	19041.6	1022.1	313.15	17968.5	1018.4
313.15	21183.6	1029.4	313.15	20113.9	1025.8	313.15	19027.6	1022.1	313.15	17954.5	1018.3
313.15	21168.8	1029.4	313.15	20099.1	1025.8	313.15	19013.4	1022.1	313.15	17942.1	1018.3
313.15	21155.2	1029.3	313.15	20085.2	1025.7	313.15	19000.1	1022.0	313.15	17928.1	1018.3
313.15	21141.4	1029.3	313.15	20072.2	1025.7	313.15	18987.0	1022.0	313.15	17913.9	1018.2
313.15	21126.9	1029.2	313.15	20058.8	1025.6	313.15	18973.0	1021.9	313.15	17899.5	1018.1
313.15	21112.7	1029.1	313.15	20045.1	1025.6	313.15	18960.0	1021.8	313.15	17885.6	1018.1
313.15	21098.4	1029.1	313.15	20031.7	1025.5	313.15	18947.1	1021.8	313.15	17871.3	1018.0
313.15	21084.5	1029.1	313.15	20017.3	1025.5	313.15	18933.2	1021.8	313.15	17858.6	1018.0
313.15	21070.9	1029.0	313.15	20003.8	1025.4	313.15	18918.5	1021.7	313.15	17844.3	1017.9
313.15	21058.3	1029.0	313.15	19990.4	1025.4	313.15	18904.7	1021.7	313.15	17829.9	1017.9
313.15	21042.7	1028.9	313.15	19975.7	1025.3	313.15	18891.0	1021.6	313.15	17816.2	1017.9
313.15	21029.0	1028.9	313.15	19960.5	1025.3	313.15	18878.0	1021.6	313.15	17801.9	1017.8
313.15	21015.5	1028.9	313.15	19946.0	1025.2	313.15	18863.5	1021.5	313.15	17787.6	1017.7
313.15	21000.7	1028.8	313.15	19932.6	1025.2	313.15	18849.9	1021.5	313.15	17773.8	1017.7
313.15	20986.9	1028.8	313.15	19917.7	1025.2	313.15	18835.0	1021.4	313.15	17761.3	1017.6
313.15	20973.6	1028.7	313.15	19902.8	1025.1	313.15	18820.7	1021.4	313.15	17747.3	1017.6

Valori della densità del fluido R1243zf _ *T*=40°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
313.15	17732.8	1017.6	313.15	16630.9	1013.5	313.15	15541.2	1009.4	313.15	14489.5	1005.2
313.15	17718.3	1017.5	313.15	16617.0	1013.5	313.15	15526.9	1009.3	313.15	14477.1	1005.2
313.15	17705.1	1017.4	313.15	16603.2	1013.4	313.15	15513.0	1009.3	313.15	14463.5	1005.2
313.15	17690.5	1017.4	313.15	16589.5	1013.4	313.15	15499.4	1009.3	313.15	14451.0	1005.1
313.15	17677.6	1017.3	313.15	16576.7	1013.3	313.15	15484.9	1009.2	313.15	14437.5	1005.1
313.15	17662.9	1017.3	313.15	16561.4	1013.3	313.15	15471.1	1009.1	313.15	14423.4	1005.0
313.15	17648.4	1017.2	313.15	16545.8	1013.1	313.15	15457.9	1009.1	313.15	14410.8	1004.9
313.15	17633.8	1017.2	313.15	16531.8	1013.1	313.15	15443.6	1009.0	313.15	14396.4	1004.9
313.15	17620.1	1017.1	313.15	16517.0	1013.1	313.16	15430.5	1008.9	313.15	14383.3	1004.8
313.15	17605.6	1017.1	313.15	16502.9	1013.0	313.15	15417.5	1008.9	313.15	14369.3	1004.8
313.15	17590.1	1017.0	313.15	16489.6	1013.0	313.15	15403.2	1008.8	313.15	14357.4	1004.7
313.15	17575.4	1016.9	313.15	16476.2	1012.9	313.15	15389.4	1008.8	313.15	14344.3	1004.7
313.15	17561.8	1016.9	313.15	16462.2	1012.8	313.15	15375.9	1008.7	313.15	14331.2	1004.6
313.15	17548.1	1016.9	313.15	16449.5	1012.8	313.15	15362.1	1008.6	313.15	14318.2	1004.6
313.15	17534.4	1016.8	313.15	16435.1	1012.8	313.15	15347.7	1008.6	313.15	14305.7	1004.5
313.15	17520.0	1016.8	313.15	16420.4	1012.7	313.15	15333.7	1008.6	313.15	14293.0	1004.5
313.15	17506.9	1016.7	313.15	16407.3	1012.7	313.15	15318.9	1008.5	313.15	14279.4	1004.4
313.15	17494.1	1016.7	313.15	16392.8	1012.6	313.15	15303.9	1008.5	313.15	14266.8	1004.4
313.15	17480.4	1016.6	313.15	16377.8	1012.6	313.15	15291.0	1008.4	313.15	14254.2	1004.4
313.15	17466.4	1016.6	313.15	16363.4	1012.5	313.15	15278.2	1008.3	313.15	14241.2	1004.2
313.15	17453.0	1016.5	313.15	16348.6	1012.4	313.15	15264.8	1008.3	313.15	14227.8	1004.2
313.15	17439.7	1016.5	313.15	16334.0	1012.4	313.15	15251.6	1008.2	313.15	14215.8	1004.2
313.15	17425.9	1016.5	313.15	16319.3	1012.3	313.15	15237.5	1008.2	313.15	14203.6	1004.1
313.15	17412.5	1016.4	313.15	16304.3	1012.3	313.15	15223.0	1008.1	313.15	14190.2	1004.1
313.15	17397.4	1016.3	313.16	16290.7	1012.3	313.15	15209.6	1008.1	313.15	14179.2	1004.0
313.15	17385.1	1016.3	313.15	16276.8	1012.1	313.15	15195.3	1008.1	313.15	14165.5	1003.9
313.15	17373.7	1016.2	313.15	16262.5	1012.1	313.15	15182.6	1008.0	313.15	14153.0	1003.9
313.15	17362.3	1016.3	313.15	16248.6	1012.0	313.15	15169.7	1007.9	313.15	14139.4	1003.9
313.15	17348.3	1016.1	313.15	16234.8	1012.0	313.15	15155.6	1007.9	313.15	14126.8	1003.8
313.15	17333.9	1016.1	313.15	16220.7	1012.0	313.15	15142.5	1007.9	313.16	14113.0	1003.8
313.15	17320.4	1016.0	313.15	16206.2	1011.9	313.15	15128.9	1007.8	313.15	14098.6	1003.7
313.15	17305.7	1016.0	313.15	16192.1	1011.9	313.15	15116.1	1007.7	313.15	14086.2	1003.6
313.15	17291.2	1015.9	313.15	16177.6	1011.8	313.15	15102.7	1007.7	313.15	14073.6	1003.6
313.15	17277.1	1015.9	313.15	16165.3	1011.7	313.15	15088.9	1007.6	313.15	14060.0	1003.5
313.15	17263.1	1015.8	313.15	16150.7	1011.7	313.15	15074.6	1007.6	313.15	14048.1	1003.5
313.15	17249.1	1015.8	313.15	16135.9	1011.6	313.15	15061.3	1007.5	313.15	14035.2	1003.4
313.15	17235.4	1015.8	313.15	16122.8	1011.6	313.15	15046.9	1007.4	313.15	14022.1	1003.4
313.15	17221.0	1015.7	313.15	16108.5	1011.6	313.15	15034.7	1007.4	313.15	14008.8	1003.3
313.15	17204.8	1015.6	313.15	16094.2	1011.5	313.15	15019.8	1007.3	313.15	13995.9	1003.3
313.15	17190.4	1015.6	313.15	16079.1	1011.4	313.15	15005.5	1007.3	313.15	13982.4	1003.2
313.15	17174.9	1015.5	313.15	16066.2	1011.4	313.15	14992.4	1007.3	313.15	13969.8	1003.1
313.15	17159.9	1015.5	313.15	16052.2	1011.3	313.15	14978.2	1007.2	313.15	13955.8	1003.1
313.15	17145.5	1015.4	313.15	16037.9	1011.3	313.15	14964.9	1007.1	313.15	13943.1	1003.0
313.15	17131.0	1015.4	313.15	16024.3	1011.2	313.15	14950.5	1007.1	313.15	13929.0	1003.0
313.15	17115.4	1015.3	313.15	16010.8	1011.2	313.15	14938.0	1007.1	313.15	13916.7	1003.0
313.15	17101.0	1015.2	313.15	15996.6	1011.1	313.15	14925.3	1007.0	313.15	13904.3	1002.9
313.15	17085.6	1015.2	313.15	15983.1	1011.1	313.15	14911.5	1006.9	313.15	13891.8	1002.9
313.15	17070.7	1015.1	313.15	15968.8	1011.0	313.15	14898.8	1006.9	313.15	13879.4	1002.8
313.15	17056.3	1015.1	313.16	15954.7	1011.0	313.15	14884.9	1006.8	313.15	13865.8	1002.7
313.15	17041.6	1015.0	313.16	15940.6	1010.9	313.15	14872.9	1006.7	313.16	13852.2	1002.7
313.15	17027.4	1015.0	313.15	15926.9	1010.8	313.15	14861.6	1006.7	313.15	13838.1	1002.7
313.15	17014.5	1014.9	313.15	15913.9	1010.8	313.15	14846.7	1006.7	313.15	13824.9	1002.6
313.15	16999.1	1014.9	313.15	15900.7	1010.7	313.15	14833.6	1006.6	313.15	13812.2	1002.5
313.15	16986.0	1014.8	313.15	15887.1	1010.7	313.15	14821.3	1006.6	313.15	13798.3	1002.5
313.15	16972.4	1014.8	313.15	15872.3	1010.6	313.15	14808.5	1006.5	313.15	13786.1	1002.4
313.15	16959.2	1014.7	313.15	15858.7	1010.6	313.15	14794.1	1006.5	313.15	13773.3	1002.4
313.15	16944.0	1014.7	313.16	15844.9	1010.5	313.15	14779.5	1006.4	313.15	13760.2	1002.3
313.15	16929.5	1014.6	313.15	15831.2	1010.5	313.15	14766.5	1006.4	313.15	13746.2	1002.2
313.15	16914.4	1014.6	313.15	15817.3	1010.4	313.15	14752.8	1006.3	313.16	13734.0	1002.3
313.15	16901.1	1014.5	313.15	15802.9	1010.4	313.15	14739.3	1006.3	313.15	13720.8	1002.2
313.15	16886.3	1014.5	313.15	15789.8	1010.3	313.15	14726.4	1006.2	313.15	13709.0	1002.1
313.15	16871.8	1014.4	313.15	15775.7	1010.3	313.15	14712.8	1006.1	313.15	13696.7	1002.1
313.15	16857.3	1014.3	313.15	15762.9	1010.2	313.15	14700.5	1006.1	313.15	13684.8	1002.0
313.15	16843.6	1014.3	313.15	15749.8	1010.2	313.15	14686.8	1006.0	313.15	13673.0	1001.9
313.15	16829.1	1014.2	313.15	15736.0	1010.1	313.15	14674.2	1006.0	313.15	13659.4	1001.9
313.16	16815.5	1014.2	313.15	15722.1	1010.0	313.15	14661.6	1005.9	313.15	13647.9	1001.8
313.15	16801.8	1014.2	313.15	15708.9	1010.0	313.15	14647.8	1005.9	313.15	13634.8	1001.8
313.15	16787.8	1014.1	313.15	15694.0	1010.0	313.15	14634.3	1005.9	313.15	13622.5	1001.7
313.15	16773.4	1014.0	313.15	15679.8	1009.9	313.15	14621.4	1005.8	313.15	13610.0	1001.7
313.15	16759.4	1014.0	313.15	15666.3	1009.9	313.15	14608.7	1005.7	313.16	13596.4	1001.7
313.15	16745.5	1013.9	313.15	15652.1	1009.8	313.15	14595.6	1005.7	313.16	13584.2	1001.6
313.15	16731.2	1013.9	313.15	15637.7	1009.7	313.15	14581.7	1005.6	313.15	13571.4	1001.5
313.15	16717.8	1013.8	313.15	15623.7	1009.7	313.15	14569.0	1005.5	313.15	13557.3	1001.4
313.15	16704.2	1013.8	313.15	15610.0	1009.6	313.15	14555.1	1005.5	313.15	13545.5	1001.5
313.15	16689.9	1013.7	313.15	15595.3	1009.6	313.15	14542.4	1005.4	313.16	13531.6	1001.4
313.15	16675.1	1013.7	313.15	15582.1	1009.6	313.15	14529.3	1005.4	313.15	13518.9	1001.4
313.15	16660.9	1013.6	313.15	15568.5	1009.5	313.15	14516.7	1005.4	313.16	13504.8	1001.3
313.15	16645.7	1013.6	313.15	15554.8	1009.4	313.15	14502.3	1005.4	313.16	13491.4	1001.2

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
313.15	13477.9	1001.2	313.15	12439.7	996.8	313.15	11381.7	992.2	313.15	10357.1	987.5
313.15	13463.1	1001.1	313.15	12426.7	996.8	313.15	11369.3	992.2	313.15	10344.7	987.5
313.16	13449.0	1001.0	313.15	12413.3	996.7	313.15	11356.6	992.1	313.15	10330.5	987.4
313.15	13435.3	1001.0	313.15	12399.9	996.6	313.15	11343.1	992.0	313.15	10317.8	987.4
313.15	13422.4	1000.9	313.15	12386.5	996.6	313.15	11331.6	992.0	313.15	10303.7	987.3
313.15	13409.0	1000.9	313.15	12372.5	996.5	313.15	11318.3	991.9	313.15	10290.4	987.2
313.15	13396.0	1000.8	313.15	12359.6	996.4	313.15	11305.4	991.9	313.15	10275.7	987.1
313.15	13383.3	1000.8	313.15	12345.2	996.4	313.15	11292.1	991.8	313.15	10260.8	987.1
313.15	13369.6	1000.7	313.15	12330.6	996.3	313.15	11279.5	991.7	313.15	10246.1	987.0
313.15	13356.0	1000.6	313.15	12317.0	996.3	313.15	11266.1	991.7	313.15	10233.4	987.0
313.15	13342.6	1000.6	313.15	12303.1	996.2	313.15	11253.5	991.6	313.15	10220.1	986.9
313.15	13326.4	1000.5	313.15	12288.9	996.1	313.15	11239.6	991.6	313.15	10207.8	986.8
313.15	13311.9	1000.5	313.15	12275.6	996.1	313.15	11226.9	991.5	313.15	10193.8	986.8
313.15	13300.6	1000.4	313.15	12261.7	996.0	313.15	11212.6	991.4	313.15	10180.6	986.7
313.15	13285.8	1000.3	313.15	12247.3	996.0	313.15	11200.4	991.4	313.15	10166.5	986.6
313.15	13271.7	1000.3	313.15	12233.7	995.9	313.16	11187.3	991.3	313.15	10153.7	986.6
313.15	13259.4	1000.2	313.15	12219.4	995.8	313.15	11173.4	991.3	313.15	10140.1	986.5
313.15	13246.3	1000.2	313.15	12205.0	995.8	313.15	11159.5	991.2	313.15	10128.0	986.5
313.15	13233.9	1000.1	313.15	12191.3	995.7	313.15	11145.9	991.1	313.15	10114.8	986.4
313.15	13221.6	1000.1	313.15	12177.0	995.7	313.15	11132.3	991.1	313.15	10101.8	986.3
313.15	13207.8	1000.0	313.15	12162.4	995.7	313.15	11117.9	991.0	313.15	10089.4	986.3
313.15	13195.7	1000.0	313.15	12148.8	995.5	313.15	11104.1	990.9	313.15	10076.2	986.2
313.15	13182.8	1000.0	313.15	12134.8	995.5	313.15	11091.3	990.9	313.15	10062.2	986.2
313.15	13170.0	999.9	313.15	12120.7	995.4	313.15	11076.7	990.8	313.15	10049.9	986.1
313.15	13156.9	999.8	313.15	12107.5	995.4	313.15	11063.7	990.7	313.15	10036.5	986.1
313.15	13143.3	999.8	313.15	12093.7	995.3	313.15	11050.3	990.7	313.15	10023.3	986.0
313.15	13130.6	999.7	313.15	12079.1	995.3	313.15	11036.7	990.6	313.15	10008.7	986.0
313.15	13117.7	999.7	313.15	12065.7	995.2	313.15	11022.4	990.6	313.15	9995.1	985.8
313.15	13104.2	999.6	313.15	12051.6	995.1	313.15	11008.8	990.5	313.15	9980.6	985.8
313.15	13091.5	999.5	313.15	12037.2	995.1	313.15	10995.7	990.5	313.15	9966.1	985.7
313.15	13078.3	999.5	313.15	12022.7	995.1	313.15	10983.7	990.4	313.15	9952.1	985.7
313.15	13064.6	999.5	313.15	12009.0	994.9	313.15	10969.8	990.3	313.15	9936.5	985.6
313.15	13051.5	999.4	313.15	11995.5	994.9	313.15	10956.7	990.3	313.15	9922.3	985.5
313.15	13037.6	999.3	313.15	11982.0	994.8	313.15	10944.3	990.3	313.15	9907.8	985.5
313.15	13024.9	999.3	313.15	11967.9	994.8	313.15	10931.2	990.2	313.15	9892.6	985.4
313.15	13010.7	999.2	313.15	11953.8	994.7	313.15	10919.2	990.1	313.15	9878.9	985.3
313.15	12998.3	999.2	313.15	11941.6	994.7	313.15	10905.4	990.1	313.15	9864.2	985.2
313.15	12986.1	999.1	313.15	11928.6	994.6	313.15	10892.5	990.0	313.15	9850.3	985.2
313.15	12973.9	999.1	313.15	11915.5	994.6	313.15	10879.3	989.9	313.15	9835.6	985.0
313.15	12959.5	999.0	313.15	11901.4	994.5	313.15	10865.2	989.9	313.15	9822.2	985.1
313.15	12946.1	998.9	313.15	11888.7	994.5	313.15	10852.5	989.8	313.15	9807.8	985.0
313.15	12931.5	998.9	313.15	11876.7	994.4	313.15	10840.1	989.7	313.15	9794.7	984.9
313.15	12916.4	998.8	313.15	11864.6	994.3	313.15	10826.3	989.7	313.15	9781.7	984.9
313.16	12902.8	998.7	313.15	11851.6	994.3	313.15	10812.9	989.6	313.15	9769.7	984.8
313.16	12888.9	998.8	313.15	11839.4	994.2	313.15	10798.4	989.6	313.15	9755.7	984.8
313.16	12874.6	998.6	313.15	11825.6	994.2	313.15	10785.5	989.5	313.15	9743.9	984.7
313.15	12861.1	998.6	313.15	11813.1	994.1	313.15	10770.7	989.4	313.15	9731.5	984.6
313.16	12848.5	998.5	313.15	11799.3	994.0	313.15	10757.5	989.4	313.15	9720.3	984.6
313.15	12835.3	998.5	313.15	11786.3	993.9	313.15	10744.6	989.3	313.15	9707.2	984.5
313.15	12821.8	998.5	313.15	11772.5	993.9	313.15	10731.8	989.2	313.15	9695.3	984.4
313.15	12808.9	998.3	313.15	11758.2	993.8	313.15	10718.1	989.2	313.15	9680.8	984.4
313.15	12794.8	998.3	313.15	11744.3	993.8	313.15	10705.8	989.1	313.15	9667.9	984.3
313.15	12780.7	998.3	313.15	11731.8	993.7	313.15	10691.9	989.1	313.15	9654.5	984.2
313.15	12767.2	998.2	313.15	11718.0	993.7	313.15	10679.0	989.0	313.15	9640.0	984.2
313.15	12752.2	998.1	313.15	11704.6	993.6	313.15	10665.2	988.9	313.15	9627.4	984.1
313.15	12739.2	998.1	313.15	11692.1	993.6	313.15	10653.6	988.9	313.15	9613.5	984.0
313.15	12725.3	998.0	313.15	11680.2	993.5	313.15	10641.0	988.9	313.15	9599.9	984.0
313.15	12713.0	998.0	313.15	11667.6	993.5	313.15	10627.7	988.8	313.15	9586.4	983.9
313.15	12700.2	997.9	313.15	11654.4	993.4	313.15	10614.5	988.7	313.15	9572.7	983.9
313.15	12688.4	997.8	313.15	11642.0	993.3	313.15	10602.1	988.7	313.15	9559.6	983.8
313.15	12677.0	997.8	313.15	11629.1	993.3	313.15	10588.9	988.6	313.15	9545.3	983.8
313.15	12661.8	997.7	313.15	11614.5	993.2	313.15	10575.8	988.5	313.16	9530.2	983.6
313.15	12648.1	997.7	313.15	11602.7	993.2	313.15	10563.2	988.5	313.15	9516.7	983.6
313.15	12634.4	997.6	313.15	11589.3	993.1	313.15	10550.0	988.4	313.15	9503.1	983.5
313.15	12619.9	997.6	313.15	11575.5	993.1	313.15	10536.0	988.4	313.15	9488.5	983.5
313.15	12605.6	997.5	313.15	11561.5	993.0	313.15	10522.5	988.3	313.15	9473.6	983.4
313.15	12592.1	997.4	313.15	11548.9	992.9	313.15	10509.4	988.2	313.15	9458.8	983.3
313.15	12578.3	997.4	313.15	11535.8	992.8	313.15	10497.0	988.2	313.15	9444.5	983.2
313.15	12565.3	997.3	313.15	11523.6	992.8	313.15	10485.8	988.1	313.15	9429.4	983.2
313.15	12553.2	997.3	313.15	11509.5	992.8	313.15	10472.4	988.1	313.15	9414.0	983.1
313.15	12540.8	997.2	313.15	11495.4	992.7	313.15	10458.6	988.0	313.15	9400.4	983.1
313.15	12527.7	997.2	313.15	11480.1	992.6	313.15	10445.5	987.9	313.15	9384.6	983.0
313.15	12514.7	997.1	313.15	11466.3	992.5	313.15	10432.3	987.9	313.15	9370.2	982.8
313.15	12501.9	997.0	313.15	11450.8	992.5	313.15	10419.0	987.8	313.15	9356.0	982.8
313.15	12489.2	997.0	313.15	11436.0	992.4	313.15	10406.9	987.7	313.15	9342.8	982.7
313.15	12477.0	996.9	313.15	11421.4	992.3	313.15	10394.4	987.7	313.15	9327.1	982.7
313.16	12463.8	996.9	313.15	11408.5	992.3	313.15	10381.3	987.6	313.15	9311.4	982.6
313.15	12451.4	996.8	313.15	11394.5	992.2	313.15	10369.5	987.6	313.15	9297.6	982.5

Valori della densità del fluido R1243zf _ *T*=40°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
313.15	9282.1	982.5	313.15	8215.0	977.2	313.15	7147.6	971.5	313.15	6057.8	965.6
313.15	9267.6	982.4	313.15	8200.3	977.1	313.15	7133.8	971.5	313.15	6044.3	965.5
313.15	9254.2	982.4	313.15	8186.9	977.0	313.15	7119.8	971.4	313.15	6031.4	965.4
313.15	9239.7	982.2	313.15	8171.9	976.9	313.15	7104.6	971.3	313.15	6017.4	965.3
313.15	9224.3	982.2	313.15	8156.7	976.9	313.15	7089.6	971.2	313.15	6003.2	965.3
313.15	9208.4	982.1	313.15	8141.2	976.7	313.15	7073.9	971.1	313.15	5988.4	965.1
313.15	9193.4	982.1	313.15	8126.5	976.7	313.15	7058.3	971.1	313.15	5974.3	965.1
313.15	9178.9	982.0	313.16	8112.4	976.6	313.15	7043.7	971.0	313.15	5959.9	965.0
313.15	9163.2	981.9	313.16	8100.0	976.6	313.15	7028.1	970.9	313.15	5943.8	964.9
313.15	9148.4	981.8	313.15	8086.0	976.5	313.15	7013.0	970.8	313.15	5930.3	964.8
313.15	9134.9	981.8	313.15	8072.8	976.4	313.15	6997.9	970.7	313.15	5916.1	964.7
313.15	9121.3	981.7	313.15	8059.9	976.3	313.15	6984.5	970.7	313.15	5900.8	964.7
313.16	9108.1	981.6	313.15	8047.0	976.3	313.15	6971.4	970.6	313.15	5887.6	964.6
313.15	9092.9	981.5	313.15	8035.3	976.2	313.15	6958.2	970.5	313.15	5871.6	964.5
313.15	9078.1	981.4	313.15	8021.5	976.1	313.15	6944.4	970.5	313.15	5857.0	964.4
313.15	9063.6	981.4	313.15	8007.9	976.1	313.15	6930.1	970.4	313.15	5842.7	964.3
313.15	9049.1	981.3	313.15	7993.2	976.0	313.15	6917.3	970.3	313.15	5828.7	964.2
313.15	9033.2	981.3	313.15	7979.1	976.0	313.15	6903.2	970.2	313.15	5815.4	964.2
313.15	9018.7	981.2	313.15	7966.0	975.8	313.15	6889.5	970.2	313.15	5801.0	964.1
313.15	9005.4	981.1	313.15	7952.9	975.8	313.15	6876.2	970.1	313.15	5786.2	964.0
313.15	8992.8	981.0	313.15	7937.6	975.7	313.15	6862.9	970.0	313.15	5772.7	963.9
313.15	8978.2	980.9	313.15	7923.2	975.6	313.15	6850.2	970.0	313.15	5760.6	963.8
313.15	8965.4	980.9	313.15	7908.4	975.6	313.15	6836.3	969.9	313.15	5747.5	963.8
313.15	8952.5	980.9	313.15	7894.2	975.5	313.15	6825.4	969.8	313.15	5734.8	963.7
313.15	8938.9	980.8	313.15	7880.3	975.4	313.15	6812.7	969.8	313.15	5722.7	963.6
313.15	8926.0	980.7	313.15	7867.7	975.4	313.15	6798.4	969.7	313.15	5710.1	963.6
313.15	8912.2	980.6	313.15	7855.6	975.3	313.15	6784.9	969.6	313.15	5696.8	963.5
313.15	8899.6	980.6	313.15	7843.4	975.2	313.15	6772.1	969.6	313.15	5684.0	963.4
313.15	8888.2	980.5	313.15	7831.9	975.2	313.15	6758.5	969.4	313.15	5672.8	963.3
313.15	8876.4	980.5	313.15	7819.2	975.1	313.15	6745.7	969.4	313.15	5660.5	963.3
313.15	8863.5	980.4	313.15	7806.0	975.0	313.15	6732.9	969.3	313.15	5648.1	963.2
313.15	8849.7	980.4	313.15	7793.7	975.0	313.15	6719.6	969.2	313.15	5635.3	963.1
313.15	8837.5	980.3	313.15	7781.0	974.9	313.16	6706.3	969.1	313.15	5623.2	963.1
313.15	8824.5	980.2	313.15	7767.7	974.8	313.15	6693.5	969.1	313.15	5609.9	963.0
313.15	8812.3	980.2	313.15	7752.8	974.8	313.15	6680.1	969.0	313.15	5597.9	962.9
313.15	8800.4	980.1	313.15	7738.7	974.7	313.15	6667.0	968.9	313.15	5585.3	962.8
313.15	8787.6	980.0	313.15	7724.6	974.6	313.15	6653.8	968.9	313.15	5572.7	962.7
313.15	8775.2	979.9	313.15	7711.1	974.5	313.15	6640.2	968.8	313.15	5561.5	962.7
313.15	8761.6	979.9	313.15	7697.5	974.5	313.15	6626.7	968.8	313.15	5548.7	962.6
313.15	8749.4	979.9	313.15	7684.0	974.4	313.15	6613.7	968.6	313.15	5535.0	962.5
313.15	8736.1	979.8	313.15	7670.9	974.3	313.15	6598.7	968.6	313.15	5522.2	962.4
313.15	8721.8	979.7	313.15	7658.7	974.3	313.15	6584.5	968.5	313.15	5509.6	962.4
313.16	8708.4	979.7	313.15	7645.3	974.2	313.15	6571.0	968.4	313.15	5498.4	962.3
313.15	8694.2	979.5	313.15	7633.0	974.1	313.15	6557.5	968.3	313.15	5486.3	962.2
313.16	8680.6	979.5	313.15	7619.4	974.1	313.15	6544.2	968.3	313.15	5473.5	962.2
313.16	8668.2	979.4	313.15	7607.1	974.0	313.15	6530.6	968.2	313.15	5460.0	962.1
313.15	8654.3	979.3	313.15	7594.7	973.9	313.15	6517.5	968.1	313.15	5446.7	962.0
313.15	8641.7	979.3	313.15	7582.3	973.9	313.15	6503.3	968.0	313.15	5433.9	962.0
313.15	8626.9	979.3	313.15	7569.4	973.8	313.15	6490.0	968.0	313.15	5421.8	961.9
313.15	8613.8	979.2	313.15	7557.4	973.7	313.15	6476.2	967.9	313.15	5409.7	961.8
313.15	8601.0	979.1	313.15	7544.7	973.7	313.15	6462.7	967.8	313.15	5395.7	961.7
313.15	8586.7	979.0	313.15	7530.7	973.6	313.15	6449.8	967.8	313.15	5382.9	961.6
313.15	8573.9	979.0	313.15	7517.0	973.5	313.15	6436.7	967.7	313.15	5367.7	961.6
313.16	8560.5	978.9	313.15	7502.7	973.4	313.15	6422.3	967.6	313.15	5353.8	961.5
313.15	8546.7	978.9	313.15	7487.7	973.3	313.15	6408.8	967.5	313.15	5340.3	961.4
313.15	8533.6	978.8	313.15	7474.1	973.3	313.15	6395.0	967.4	313.16	5325.6	961.3
313.15	8521.3	978.7	313.15	7460.1	973.2	313.15	6380.5	967.3	313.15	5311.3	961.2
313.15	8507.2	978.6	313.15	7446.2	973.2	313.15	6366.5	967.3	313.15	5296.6	961.1
313.15	8493.6	978.6	313.15	7430.5	973.1	313.15	6352.4	967.2	313.15	5283.0	961.0
313.15	8479.8	978.5	313.15	7418.0	973.0	313.15	6336.6	967.1	313.15	5267.5	960.9
313.15	8464.8	978.4	313.15	7402.5	972.9	313.15	6322.1	967.0	313.15	5253.0	960.8
313.15	8450.8	978.3	313.15	7387.8	972.9	313.15	6305.9	967.0	313.15	5239.9	960.8
313.15	8436.5	978.3	313.15	7372.3	972.8	313.15	6291.2	966.9	313.15	5224.8	960.7
313.15	8423.6	978.2	313.15	7357.5	972.7	313.15	6276.9	966.8	313.15	5209.8	960.6
313.16	8410.0	978.1	313.15	7342.5	972.6	313.15	6262.5	966.7	313.15	5194.8	960.5
313.16	8396.9	978.0	313.15	7328.5	972.5	313.15	6247.9	966.6	313.15	5179.1	960.4
313.16	8383.3	978.0	313.15	7314.3	972.5	313.15	6232.8	966.5	313.15	5164.1	960.4
313.15	8369.0	977.9	313.15	7300.2	972.4	313.15	6218.8	966.5	313.15	5148.0	960.2
313.15	8355.5	977.9	313.15	7286.5	972.3	313.15	6203.6	966.3	313.15	5133.6	960.2
313.15	8343.4	977.8	313.15	7273.7	972.2	313.15	6188.8	966.3	313.15	5118.7	960.1
313.15	8330.5	977.8	313.15	7259.8	972.1	313.15	6173.9	966.2	313.15	5102.3	960.0
313.15	8316.7	977.7	313.15	7245.4	972.1	313.15	6159.1	966.1	313.15	5087.6	959.9
313.15	8302.0	977.6	313.15	7232.3	972.0	313.15	6143.2	966.0	313.15	5073.4	959.8
313.15	8287.7	977.5	313.15	7218.8	971.9	313.15	6129.4	965.9	313.15	5059.2	959.6
313.15	8272.9	977.4	313.15	7204.5	971.9	313.15	6115.2	965.9	313.15	5044.9	959.6
313.15	8257.9	977.4	313.15	7190.6	971.8	313.15	6101.2	965.8	313.15	5030.9	959.6
313.16	8243.3	977.3	313.15	7177.3	971.7	313.15	6086.1	965.7	313.15	5017.4	959.5
313.15	8228.8	977.3	313.15	7162.6	971.6	313.15	6072.2	965.6	313.15	5003.0	959.4

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
313.15	4990.8	959.3	313.15	3858.9	952.2	313.15	2773.0	944.9	313.15	1723.7	937.3
313.15	4975.2	959.2	313.15	3843.5	952.1	313.15	2758.4	944.8	313.15	1709.1	937.2
313.15	4962.2	959.1	313.15	3828.6	952.0	313.15	2743.7	944.7	313.15	1694.6	937.1
313.15	4948.2	959.1	313.15	3812.9	951.9	313.15	2728.8	944.6	313.15	1681.5	936.9
313.15	4934.2	959.0	313.15	3796.3	951.8	313.15	2715.1	944.5	313.15	1669.6	936.9
313.15	4920.7	958.9	313.15	3781.5	951.7	313.15	2701.4	944.4	313.15	1656.6	936.8
313.15	4907.7	958.8	313.15	3767.0	951.6	313.15	2687.7	944.3	313.15	1643.2	936.7
313.15	4893.4	958.7	313.15	3750.9	951.5	313.15	2673.2	944.2	313.15	1633.3	936.6
313.15	4877.8	958.6	313.15	3736.0	951.4	313.15	2659.3	944.1	313.15	1621.0	936.5
313.15	4864.8	958.5	313.15	3722.0	951.3	313.15	2644.0	944.0	313.15	1609.0	936.4
313.15	4850.7	958.4	313.15	3708.8	951.2	313.15	2630.5	943.9	313.15	1597.4	936.3
313.15	4836.6	958.4	313.15	3692.7	951.1	313.15	2618.7	943.8	313.15	1584.9	936.2
313.15	4822.6	958.3	313.15	3677.8	951.0	313.15	2606.3	943.8	313.15	1572.6	936.2
313.15	4809.6	958.2	313.15	3664.3	951.0	313.15	2593.1	943.7	313.15	1560.3	936.0
313.15	4795.8	958.1	313.15	3651.5	950.9	313.15	2580.4	943.6	313.15	1547.3	935.9
313.15	4784.1	958.1	313.15	3638.7	950.8	313.15	2566.7	943.4	313.15	1535.8	935.8
313.15	4772.1	958.0	313.15	3626.2	950.7	313.15	2553.6	943.4	313.15	1523.8	935.8
313.15	4759.1	957.9	313.15	3613.1	950.6	313.15	2540.4	943.3	313.15	1511.7	935.7
313.15	4745.6	957.8	313.15	3600.3	950.5	313.15	2527.2	943.2	313.15	1499.2	935.5
313.15	4732.8	957.7	313.15	3587.8	950.5	313.15	2513.4	943.1	313.15	1486.5	935.4
313.15	4720.2	957.7	313.15	3575.0	950.3	313.15	2500.0	943.0	313.15	1473.2	935.3
313.15	4707.9	957.6	313.15	3560.3	950.3	313.15	2488.0	942.9	313.15	1459.5	935.2
313.15	4695.3	957.5	313.15	3546.4	950.2	313.15	2475.2	942.8	313.15	1445.4	935.2
313.15	4681.0	957.4	313.15	3532.6	950.1	313.15	2463.6	942.7	313.15	1432.2	935.0
313.15	4668.7	957.3	313.15	3519.4	950.0	313.15	2451.3	942.6	313.15	1419.2	934.9
313.15	4654.7	957.2	313.15	3506.0	949.9	313.15	2437.6	942.5	313.15	1406.7	934.8
313.15	4640.0	957.2	313.15	3492.9	949.8	313.15	2425.1	942.4	313.15	1393.0	934.7
313.15	4625.1	957.0	313.15	3478.9	949.7	313.15	2412.1	942.3	313.15	1379.5	934.6
313.15	4610.2	957.0	313.15	3464.7	949.7	313.15	2399.1	942.2	313.15	1366.7	934.5
313.15	4596.2	956.9	313.15	3451.3	949.6	313.15	2385.3	942.1	313.15	1353.1	934.4
313.15	4581.5	956.8	313.15	3437.0	949.5	313.15	2371.0	942.1	313.15	1339.4	934.3
313.15	4568.7	956.7	313.15	3423.6	949.4	313.15	2357.3	942.0	313.15	1326.2	934.2
313.15	4555.2	956.6	313.15	3412.0	949.3	313.15	2344.7	941.9	313.15	1312.3	934.2
313.15	4541.3	956.5	313.15	3398.9	949.2	313.15	2331.0	941.8	313.15	1298.3	934.0
313.15	4526.8	956.5	313.15	3385.0	949.1	313.15	2317.0	941.7	313.15	1285.8	933.9
313.15	4514.2	956.4	313.15	3372.5	949.0	313.15	2303.6	941.6	313.15	1273.6	933.8
313.15	4498.6	956.3	313.15	3359.7	948.9	313.15	2289.4	941.5	313.15	1260.6	933.7
313.15	4483.6	956.2	313.15	3348.1	948.8	313.15	2275.0	941.4	313.15	1247.8	933.6
313.15	4467.8	956.1	313.15	3333.2	948.8	313.15	2261.3	941.3	313.15	1235.8	933.5
313.15	4450.7	956.0	313.15	3319.0	948.6	313.15	2247.1	941.1	313.15	1222.6	933.4
313.15	4435.6	955.9	313.15	3305.7	948.5	313.15	2233.4	941.1	313.15	1209.9	933.3
313.15	4424.4	955.8	313.15	3291.6	948.5	313.15	2220.9	941.0	313.15	1196.1	933.2
313.15	4407.4	955.7	313.15	3277.6	948.4	313.15	2208.1	940.9	313.15	1182.7	933.1
313.15	4391.1	955.6	313.15	3263.4	948.3	313.15	2194.2	940.8	313.15	1168.6	933.0
313.15	4376.8	955.5	313.15	3249.7	948.2	313.15	2181.5	940.7	313.15	1154.6	932.9
313.15	4360.7	955.4	313.15	3236.1	948.1	313.15	2167.8	940.6	313.15	1141.6	932.8
313.15	4346.5	955.3	313.15	3222.5	948.0	313.15	2154.2	940.5	313.15	1128.5	932.7
313.15	4332.3	955.3	313.15	3209.4	947.9	313.15	2141.0	940.4	313.15	1116.4	932.6
313.15	4316.4	955.1	313.15	3195.9	947.8	313.15	2126.8	940.3	313.15	1102.7	932.5
313.15	4300.5	955.0	313.15	3182.5	947.7	313.15	2113.6	940.2	313.15	1089.3	932.3
313.15	4285.2	955.0	313.15	3168.8	947.6	313.15	2101.3	940.1	313.15	1076.6	932.2
313.15	4271.5	954.9	313.15	3156.0	947.6	313.15	2088.3	940.0	313.15	1063.8	932.1
313.15	4254.6	954.7	313.15	3143.2	947.4	313.15	2075.4	939.9	313.15	1050.4	932.0
313.15	4239.0	954.6	313.15	3128.5	947.4	313.15	2062.6	939.8	313.15	1038.6	931.9
313.15	4223.8	954.6	313.15	3113.6	947.3	313.15	2049.2	939.7	313.15	1024.2	931.8
313.15	4207.7	954.5	313.15	3099.0	947.2	313.15	2035.4	939.7	313.15	1011.2	931.7
313.15	4192.8	954.4	313.15	3081.9	947.1	313.15	2022.0	939.5	313.15	998.7	931.6
313.15	4177.7	954.3	313.15	3068.5	947.0	313.15	2008.5	939.4	313.15	985.7	931.5
313.15	4162.9	954.2	313.15	3053.6	946.9	313.15	1994.3	939.3	313.15	973.7	931.4
313.15	4148.0	954.1	313.15	3039.1	946.8	313.15	1980.2	939.2	313.15	961.4	931.3
313.15	4133.4	954.0	313.15	3024.7	946.7	313.15	1965.8	939.1	313.15	948.9	931.2
313.15	4117.5	953.9	313.15	3010.5	946.6	313.15	1953.3	939.1	313.15	935.4	931.1
313.15	4105.5	953.8	313.15	2996.3	946.5	313.15	1940.0	938.9	313.15	922.2	931.0
313.15	4088.9	953.7	313.15	2981.9	946.4	313.15	1926.6	938.8	313.15	909.0	930.9
313.15	4074.7	953.6	313.15	2968.0	946.3	313.15	1912.6	938.7	313.15	894.0	930.7
313.15	4059.8	953.5	313.15	2954.2	946.1	313.15	1897.8	938.6	313.15	880.8	930.7
313.15	4044.5	953.4	313.15	2940.7	946.1	313.15	1881.9	938.5	313.15	866.4	930.5
313.15	4029.6	953.3	313.15	2927.5	946.0	313.15	1867.5	938.4	313.15	853.6	930.4
313.15	4014.8	953.2	313.15	2915.2	945.9	313.15	1854.1	938.3			
313.15	3999.5	953.1	313.15	2901.2	945.8	313.15	1841.5	938.2			
313.15	3983.8	953.0	313.15	2887.0	945.7	313.15	1827.4	938.1			
313.15	3968.2	952.9	313.15	2872.8	945.6	313.15	1814.2	938.0			
313.15	3952.3	952.8	313.15	2858.7	945.5	313.15	1803.3	937.9			
313.15	3936.5	952.7	313.15	2844.9	945.4	313.15	1790.0	937.8			
313.15	3921.0	952.6	313.15	2829.0	945.3	313.15	1776.6	937.7			
313.15	3906.2	952.5	313.15	2815.1	945.2	313.15	1763.9	937.6			
313.15	3889.6	952.4	313.15	2800.2	945.1	313.15	1750.1	937.5			
313.15	3875.0	952.3	313.15	2786.3	945.0	313.15	1736.9	937.4			

Tabella C5: Valori della densità del fluido R1243zf per T = 323.15 K (50°C)

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
323.15	35011.6	1050.8	323.15	34084.8	1048.3	323.15	33125.2	1045.7	323.15	32153.5	1043.1
323.15	34999.5	1050.7	323.15	34071.3	1048.3	323.15	33111.7	1045.7	323.15	32139.6	1043.0
323.15	34986.7	1050.6	323.15	34059.9	1048.3	323.15	33097.5	1045.7	323.15	32126.8	1043.0
323.15	34974.0	1050.7	323.15	34047.6	1048.2	323.15	33084.6	1045.6	323.15	32113.5	1043.0
323.15	34961.9	1050.6	323.15	34035.7	1048.2	323.15	33071.8	1045.5	323.15	32100.1	1042.9
323.15	34949.1	1050.6	323.15	34020.9	1048.2	323.15	33058.4	1045.6	323.15	32086.9	1042.9
323.15	34936.9	1050.5	323.15	34008.2	1048.1	323.15	33045.0	1045.5	323.15	32072.4	1042.9
323.15	34925.5	1050.5	323.15	33996.7	1048.1	323.15	33031.5	1045.4	323.15	32057.3	1042.8
323.15	34913.3	1050.5	323.15	33983.8	1048.1	323.15	33016.6	1045.4	323.15	32042.5	1042.7
323.15	34902.4	1050.5	323.15	33972.6	1048.0	323.15	33001.8	1045.4	323.15	32028.6	1042.7
323.15	34891.3	1050.4	323.15	33960.1	1048.0	323.15	32989.3	1045.4	323.15	32014.4	1042.7
323.15	34878.2	1050.3	323.15	33946.5	1047.9	323.15	32977.2	1045.3	323.15	32001.5	1042.6
323.15	34866.5	1050.3	323.15	33933.7	1047.9	323.15	32964.1	1045.3	323.15	31987.6	1042.6
323.15	34852.9	1050.3	323.15	33923.2	1047.9	323.15	32950.1	1045.2	323.15	31975.4	1042.6
323.15	34840.4	1050.3	323.15	33910.7	1047.9	323.15	32936.6	1045.2	323.15	31961.8	1042.5
323.15	34828.8	1050.3	323.15	33896.8	1047.8	323.15	32923.6	1045.2	323.15	31949.0	1042.5
323.15	34816.0	1050.2	323.15	33883.2	1047.8	323.15	32909.9	1045.1	323.15	31936.5	1042.5
323.15	34802.9	1050.2	323.15	33868.4	1047.7	323.15	32896.8	1045.1	323.15	31922.7	1042.4
323.15	34789.5	1050.2	323.15	33854.5	1047.7	323.15	32884.2	1045.1	323.15	31909.1	1042.4
323.15	34774.2	1050.1	323.15	33840.5	1047.7	323.15	32871.0	1045.0	323.15	31895.6	1042.3
323.15	34760.1	1050.1	323.15	33827.9	1047.6	323.15	32857.0	1045.0	323.15	31882.5	1042.3
323.15	34745.9	1050.0	323.15	33814.4	1047.6	323.15	32844.7	1045.0	323.15	31868.4	1042.3
323.15	34731.2	1050.0	323.15	33801.1	1047.5	323.15	32831.8	1044.9	323.15	31854.3	1042.2
323.15	34717.5	1050.0	323.15	33786.6	1047.5	323.15	32818.3	1044.9	323.15	31840.5	1042.2
323.15	34704.1	1049.9	323.15	33773.3	1047.5	323.15	32804.5	1044.8	323.15	31825.6	1042.1
323.15	34691.1	1049.9	323.15	33759.3	1047.5	323.15	32792.6	1044.8	323.15	31812.5	1042.1
323.15	34677.4	1049.9	323.15	33745.3	1047.4	323.15	32779.9	1044.8	323.15	31798.9	1042.1
323.15	34663.7	1049.8	323.15	33730.2	1047.4	323.15	32767.0	1044.7	323.15	31785.6	1042.0
323.15	34649.6	1049.8	323.15	33717.0	1047.3	323.15	32754.1	1044.7	323.15	31773.7	1042.1
323.15	34636.8	1049.7	323.15	33705.1	1047.3	323.15	32741.2	1044.7	323.15	31759.9	1042.0
323.15	34625.4	1049.7	323.15	33691.2	1047.3	323.15	32728.6	1044.6	323.15	31746.7	1041.9
323.15	34613.3	1049.7	323.15	33676.7	1047.2	323.15	32717.1	1044.6	323.15	31733.9	1041.9
323.15	34600.0	1049.7	323.15	33661.8	1047.2	323.15	32704.9	1044.6	323.15	31721.2	1041.9
323.15	34586.0	1049.6	323.15	33647.8	1047.1	323.15	32691.4	1044.6	323.15	31707.1	1041.9
323.15	34572.4	1049.6	323.15	33635.6	1047.1	323.15	32677.5	1044.5	323.15	31695.3	1041.8
323.15	34559.9	1049.5	323.15	33621.7	1047.1	323.15	32666.1	1044.5	323.15	31682.7	1041.7
323.15	34546.2	1049.5	323.15	33607.9	1047.0	323.15	32652.4	1044.5	323.15	31668.9	1041.7
323.15	34532.5	1049.5	323.15	33593.8	1047.0	323.15	32639.1	1044.4	323.15	31655.1	1041.7
323.15	34518.8	1049.4	323.15	33581.1	1046.9	323.15	32627.5	1044.4	323.15	31642.4	1041.6
323.15	34505.7	1049.4	323.15	33568.1	1046.9	323.15	32613.3	1044.3	323.15	31629.5	1041.6
323.15	34492.9	1049.4	323.15	33554.7	1046.9	323.15	32599.7	1044.3	323.15	31615.7	1041.6
323.15	34481.2	1049.4	323.15	33541.1	1046.9	323.15	32585.8	1044.3	323.15	31603.2	1041.5
323.15	34468.2	1049.4	323.15	33527.3	1046.8	323.15	32571.7	1044.2	323.15	31590.2	1041.5
323.15	34455.2	1049.3	323.15	33514.0	1046.8	323.15	32557.1	1044.2	323.15	31577.2	1041.4
323.15	34441.1	1049.3	323.15	33500.9	1046.7	323.15	32541.9	1044.2	323.15	31563.6	1041.4
323.15	34428.0	1049.3	323.15	33488.0	1046.7	323.15	32526.8	1044.1	323.15	31549.4	1041.4
323.15	34415.6	1049.2	323.15	33474.4	1046.7	323.15	32514.1	1044.1	323.15	31536.9	1041.4
323.15	34402.1	1049.2	323.15	33461.1	1046.7	323.15	32499.8	1044.0	323.15	31523.8	1041.3
323.15	34389.7	1049.1	323.15	33447.5	1046.6	323.15	32487.7	1044.0	323.15	31511.3	1041.3
323.15	34377.1	1049.1	323.15	33433.4	1046.6	323.15	32473.8	1044.0	323.15	31498.1	1041.2
323.15	34364.1	1049.1	323.15	33420.1	1046.6	323.15	32460.5	1043.9	323.15	31485.3	1041.2
323.15	34351.7	1049.0	323.15	33407.3	1046.5	323.15	32444.4	1043.9	323.15	31472.2	1041.2
323.15	34337.7	1049.0	323.15	33393.3	1046.5	323.15	32431.2	1043.9	323.15	31458.5	1041.1
323.15	34325.1	1049.0	323.15	33379.6	1046.4	323.15	32417.6	1043.8	323.15	31444.7	1041.1
323.15	34312.1	1049.0	323.15	33365.7	1046.5	323.15	32404.3	1043.8	323.15	31431.3	1041.1
323.15	34299.5	1048.9	323.15	33353.9	1046.4	323.15	32389.9	1043.7	323.15	31418.4	1041.0
323.15	34285.8	1048.9	323.15	33339.3	1046.3	323.15	32375.1	1043.7	323.15	31405.7	1041.0
323.15	34274.3	1048.8	323.15	33326.5	1046.3	323.15	32361.8	1043.7	323.15	31391.9	1040.9
323.15	34261.6	1048.8	323.15	33312.1	1046.2	323.15	32347.7	1043.6	323.15	31378.8	1040.9
323.15	34249.3	1048.8	323.15	33298.4	1046.2	323.15	32334.0	1043.6	323.15	31364.9	1040.9
323.15	34237.3	1048.8	323.15	33285.2	1046.2	323.15	32319.3	1043.5	323.15	31350.9	1040.8
323.15	34224.5	1048.7	323.15	33270.8	1046.1	323.15	32305.3	1043.5	323.15	31338.7	1040.8
323.15	34210.8	1048.7	323.15	33257.2	1046.1	323.15	32291.8	1043.5	323.15	31325.5	1040.8
323.15	34198.8	1048.6	323.15	33243.8	1046.0	323.15	32277.5	1043.4	323.15	31311.5	1040.7
323.15	34185.4	1048.6	323.15	33229.7	1046.0	323.15	32262.8	1043.4	323.15	31299.2	1040.6
323.15	34173.5	1048.6	323.15	33217.4	1046.0	323.15	32250.2	1043.3	323.15	31286.7	1040.7
323.15	34160.7	1048.5	323.15	33205.5	1045.9	323.15	32236.7	1043.3	323.15	31273.2	1040.6
323.15	34148.5	1048.5	323.15	33192.2	1045.9	323.15	32223.8	1043.2	323.15	31260.6	1040.6
323.15	34135.1	1048.5	323.15	33178.5	1045.9	323.15	32210.1	1043.2	323.15	31246.8	1040.5
323.15	34123.6	1048.4	323.15	33165.9	1045.8	323.15	32196.7	1043.2	323.15	31234.2	1040.5
323.15	34109.7	1048.4	323.15	33152.3	1045.8	323.15	32183.0	1043.2	323.15	31221.1	1040.4
323.15	34095.8	1048.3	323.15	33138.6	1045.8	323.15	32167.7	1043.1	323.15	31209.5	1040.4

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
323.15	31195.5	1040.4	323.15	30179.1	1037.5	323.15	29182.0	1034.6	323.15	28171.8	1031.6
323.15	31180.3	1040.4	323.15	30166.0	1037.5	323.15	29169.2	1034.5	323.15	28158.9	1031.5
323.15	31166.4	1040.3	323.15	30153.7	1037.4	323.15	29155.6	1034.5	323.15	28145.4	1031.5
323.15	31153.9	1040.3	323.15	30141.9	1037.4	323.15	29142.0	1034.4	323.15	28130.5	1031.4
323.15	31141.2	1040.2	323.15	30128.1	1037.4	323.15	29130.7	1034.4	323.15	28116.1	1031.4
323.15	31125.8	1040.2	323.15	30116.1	1037.3	323.15	29119.2	1034.4	323.15	28103.0	1031.4
323.15	31109.9	1040.1	323.15	30102.5	1037.3	323.15	29106.9	1034.4	323.15	28089.8	1031.3
323.15	31095.4	1040.1	323.15	30089.7	1037.2	323.15	29093.6	1034.3	323.15	28077.0	1031.3
323.15	31081.9	1040.1	323.15	30075.4	1037.2	323.15	29082.5	1034.3	323.15	28064.4	1031.2
323.15	31067.7	1040.0	323.15	30064.3	1037.2	323.15	29070.6	1034.2	323.15	28051.0	1031.2
323.15	31055.0	1040.0	323.15	30053.7	1037.1	323.15	29058.2	1034.2	323.15	28037.0	1031.2
323.15	31040.8	1039.9	323.15	30040.1	1037.1	323.15	29045.4	1034.2	323.15	28023.3	1031.1
323.15	31027.2	1039.9	323.15	30027.0	1037.0	323.15	29033.5	1034.1	323.15	28011.1	1031.1
323.15	31015.3	1039.9	323.15	30013.8	1037.0	323.15	29022.2	1034.1	323.15	27996.7	1031.0
323.15	31002.4	1039.8	323.15	30000.3	1036.9	323.15	29011.3	1034.1	323.15	27983.8	1030.9
323.15	30991.2	1039.8	323.15	29986.0	1036.9	323.15	29000.6	1034.1	323.15	27970.8	1031.0
323.15	30979.5	1039.8	323.15	29973.0	1036.9	323.15	28988.8	1034.0	323.15	27956.2	1030.9
323.15	30966.2	1039.7	323.15	29960.2	1036.8	323.15	28977.0	1034.0	323.15	27941.4	1030.8
323.15	30953.4	1039.7	323.15	29947.3	1036.8	323.15	28964.5	1033.9	323.14	27927.0	1030.8
323.15	30940.2	1039.6	323.15	29935.0	1036.8	323.15	28951.7	1033.9	323.15	27912.6	1030.8
323.15	30926.8	1039.6	323.15	29923.0	1036.7	323.15	28939.1	1033.9	323.15	27897.3	1030.7
323.15	30912.4	1039.5	323.15	29909.1	1036.7	323.15	28928.1	1033.8	323.15	27883.6	1030.7
323.15	30898.3	1039.5	323.15	29897.4	1036.7	323.15	28916.1	1033.8	323.15	27870.0	1030.7
323.15	30884.4	1039.5	323.15	29885.2	1036.6	323.15	28902.7	1033.7	323.15	27855.5	1030.6
323.15	30871.5	1039.4	323.15	29872.1	1036.6	323.15	28892.4	1033.7	323.15	27841.4	1030.6
323.15	30859.7	1039.4	323.15	29859.8	1036.6	323.15	28879.4	1033.7	323.15	27829.1	1030.5
323.15	30846.1	1039.4	323.15	29848.0	1036.5	323.15	28866.5	1033.7	323.15	27816.4	1030.5
323.15	30832.4	1039.3	323.15	29836.1	1036.5	323.15	28853.0	1033.6	323.15	27803.8	1030.5
323.15	30819.3	1039.3	323.15	29823.0	1036.5	323.15	28840.6	1033.6	323.15	27790.6	1030.4
323.15	30806.3	1039.2	323.15	29810.3	1036.4	323.15	28828.1	1033.5	323.15	27777.7	1030.3
323.15	30792.2	1039.2	323.15	29799.6	1036.4	323.15	28817.2	1033.5	323.15	27763.9	1030.3
323.15	30780.7	1039.2	323.15	29785.7	1036.4	323.15	28804.1	1033.4	323.15	27751.6	1030.3
323.15	30768.6	1039.2	323.15	29772.9	1036.3	323.15	28790.7	1033.4	323.15	27737.7	1030.3
323.15	30755.9	1039.1	323.15	29758.7	1036.3	323.14	28778.0	1033.4	323.15	27723.8	1030.2
323.15	30743.3	1039.1	323.15	29745.9	1036.2	323.15	28766.9	1033.3	323.15	27711.2	1030.2
323.15	30730.9	1039.1	323.15	29731.6	1036.2	323.15	28754.3	1033.3	323.15	27698.8	1030.1
323.15	30717.5	1039.0	323.15	29718.6	1036.1	323.15	28742.4	1033.3	323.15	27686.2	1030.1
323.15	30705.8	1039.0	323.15	29705.2	1036.1	323.15	28729.5	1033.2	323.15	27671.8	1030.0
323.15	30692.2	1038.9	323.15	29691.3	1036.0	323.15	28717.7	1033.2	323.15	27658.7	1030.0
323.15	30679.1	1038.9	323.15	29678.2	1036.0	323.15	28705.1	1033.1	323.15	27644.4	1030.0
323.15	30666.6	1038.9	323.15	29664.5	1036.0	323.15	28691.5	1033.1	323.15	27630.8	1029.9
323.15	30651.9	1038.9	323.15	29651.8	1036.0	323.15	28678.0	1033.1	323.15	27617.2	1029.9
323.15	30638.7	1038.8	323.15	29637.5	1035.9	323.15	28665.6	1033.0	323.15	27603.8	1029.8
323.15	30625.3	1038.8	323.15	29624.1	1035.9	323.15	28653.2	1033.0	323.15	27589.3	1029.8
323.15	30611.5	1038.7	323.15	29611.2	1035.9	323.15	28639.6	1032.9	323.15	27575.4	1029.8
323.15	30598.2	1038.7	323.15	29598.8	1035.8	323.15	28626.4	1032.9	323.15	27562.6	1029.7
323.15	30586.0	1038.6	323.15	29584.7	1035.7	323.15	28615.2	1032.9	323.15	27547.7	1029.6
323.15	30572.0	1038.6	323.15	29572.5	1035.7	323.15	28601.7	1032.9	323.15	27532.9	1029.6
323.15	30557.9	1038.6	323.15	29559.6	1035.7	323.15	28587.7	1032.8	323.15	27520.0	1029.6
323.15	30545.7	1038.5	323.15	29547.9	1035.7	323.15	28574.7	1032.7	323.15	27505.6	1029.5
323.15	30533.4	1038.5	323.15	29534.3	1035.6	323.15	28561.9	1032.7	323.15	27491.4	1029.5
323.15	30521.6	1038.4	323.15	29522.4	1035.6	323.15	28548.3	1032.7	323.15	27479.1	1029.5
323.15	30508.2	1038.5	323.15	29509.9	1035.6	323.15	28535.5	1032.6	323.15	27464.9	1029.4
323.15	30494.2	1038.4	323.15	29497.1	1035.5	323.15	28521.8	1032.6	323.15	27452.1	1029.4
323.15	30481.6	1038.4	323.15	29484.0	1035.5	323.15	28509.7	1032.6	323.15	27438.0	1029.3
323.15	30469.6	1038.3	323.15	29470.7	1035.4	323.15	28497.4	1032.6	323.15	27425.4	1029.3
323.15	30458.5	1038.3	323.15	29459.2	1035.4	323.15	28483.4	1032.5	323.15	27411.8	1029.3
323.15	30445.2	1038.3	323.15	29446.1	1035.3	323.15	28468.0	1032.5	323.15	27397.2	1029.2
323.15	30433.2	1038.2	323.15	29434.1	1035.3	323.15	28454.5	1032.4	323.15	27382.7	1029.2
323.15	30420.6	1038.2	323.15	29421.0	1035.3	323.15	28440.0	1032.4	323.15	27369.1	1029.1
323.15	30407.3	1038.2	323.15	29406.9	1035.2	323.15	28426.3	1032.3	323.15	27356.8	1029.1
323.15	30394.5	1038.1	323.15	29393.2	1035.2	323.15	28412.3	1032.3	323.15	27343.0	1029.1
323.15	30381.0	1038.1	323.15	29379.4	1035.2	323.15	28397.5	1032.2	323.15	27330.6	1029.0
323.15	30368.6	1038.0	323.15	29365.9	1035.1	323.15	28383.7	1032.2	323.15	27316.5	1029.0
323.15	30355.3	1038.0	323.15	29354.4	1035.1	323.15	28368.4	1032.2	323.15	27303.5	1028.9
323.15	30342.8	1037.9	323.15	29341.5	1035.0	323.15	28353.7	1032.1	323.15	27289.5	1028.9
323.15	30330.4	1037.9	323.15	29329.7	1035.0	323.15	28339.2	1032.1	323.15	27274.5	1028.8
323.15	30317.2	1037.9	323.15	29317.3	1034.9	323.15	28326.2	1032.0	323.15	27260.2	1028.8
323.15	30301.6	1037.9	323.15	29304.1	1035.0	323.15	28311.3	1032.0	323.15	27246.8	1028.8
323.15	30289.0	1037.8	323.15	29291.7	1034.9	323.15	28297.0	1032.0	323.15	27232.0	1028.7
323.15	30275.7	1037.7	323.15	29278.9	1034.9	323.15	28283.9	1031.9	323.15	27218.1	1028.7
323.15	30264.4	1037.7	323.15	29267.5	1034.8	323.15	28269.5	1031.9	323.15	27204.7	1028.6
323.15	30252.7	1037.7	323.15	29255.7	1034.8	323.15	28254.6	1031.8	323.15	27190.4	1028.6
323.15	30240.3	1037.7	323.15	29243.0	1034.8	323.15	28241.5	1031.8	323.15	27176.6	1028.6
323.15	30227.6	1037.6	323.15	29230.7	1034.7	323.15	28227.3	1031.7	323.15	27163.8	1028.5
323.15	30215.0	1037.6	323.15	29219.4	1034.7	323.15	28213.7	1031.7	323.15	27151.0	1028.4
323.15	30202.1	1037.6	323.15	29207.4	1034.6	323.15	28200.6	1031.6	323.15	27137.3	1028.4
323.15	30190.9	1037.5	323.15	29195.4	1034.6	323.15	28185.9	1031.6	323.15	27122.8	1028.4

Valori della densità del fluido R1243zf _ *T*=50°C

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
323.15	27108.7	1028.3	323.15	26057.6	1025.0	323.15	24976.6	1021.6	323.15	23923.4	1018.1
323.15	27094.7	1028.3	323.15	26044.3	1025.0	323.15	24963.1	1021.5	323.15	23910.2	1018.0
323.15	27081.9	1028.2	323.15	26030.0	1025.0	323.15	24949.4	1021.5	323.15	23897.0	1018.0
323.15	27069.9	1028.2	323.15	26016.7	1024.9	323.15	24935.4	1021.4	323.15	23883.3	1018.0
323.15	27057.0	1028.2	323.15	26002.3	1024.9	323.15	24922.8	1021.4	323.15	23869.2	1017.9
323.15	27042.8	1028.1	323.15	25987.8	1024.8	323.15	24910.4	1021.3	323.15	23855.8	1017.9
323.15	27028.6	1028.1	323.15	25971.9	1024.8	323.15	24896.0	1021.3	323.15	23842.1	1017.8
323.15	27014.4	1028.0	323.15	25957.2	1024.7	323.15	24883.2	1021.3	323.15	23828.6	1017.8
323.15	27000.8	1028.0	323.15	25942.1	1024.7	323.15	24870.6	1021.2	323.15	23814.7	1017.7
323.15	26987.4	1028.0	323.15	25926.1	1024.6	323.15	24856.4	1021.2	323.15	23803.1	1017.7
323.15	26974.0	1027.9	323.15	25913.1	1024.6	323.15	24841.2	1021.1	323.15	23789.0	1017.7
323.15	26960.5	1027.9	323.15	25898.8	1024.5	323.15	24828.4	1021.1	323.15	23776.1	1017.6
323.15	26945.6	1027.8	323.15	25884.5	1024.5	323.15	24814.2	1021.1	323.15	23762.3	1017.5
323.15	26933.1	1027.8	323.15	25870.2	1024.4	323.15	24800.1	1021.0	323.15	23749.7	1017.5
323.15	26919.4	1027.7	323.15	25857.4	1024.4	323.15	24787.1	1021.0	323.15	23737.7	1017.4
323.15	26904.6	1027.7	323.15	25843.8	1024.4	323.15	24774.5	1020.9	323.15	23724.5	1017.4
323.15	26891.9	1027.7	323.15	25829.8	1024.3	323.15	24761.9	1020.9	323.15	23711.6	1017.4
323.15	26878.5	1027.6	323.15	25816.1	1024.3	323.15	24747.5	1020.8	323.15	23699.4	1017.4
323.15	26864.7	1027.6	323.15	25802.8	1024.3	323.15	24734.4	1020.8	323.15	23686.4	1017.3
323.15	26850.3	1027.6	323.15	25787.6	1024.2	323.15	24720.0	1020.7	323.15	23673.6	1017.2
323.15	26837.3	1027.5	323.15	25773.2	1024.2	323.15	24706.6	1020.7	323.15	23661.0	1017.2
323.15	26824.2	1027.5	323.15	25758.7	1024.1	323.15	24691.2	1020.6	323.15	23647.4	1017.2
323.15	26809.2	1027.4	323.15	25744.0	1024.0	323.15	24677.5	1020.6	323.15	23632.4	1017.1
323.15	26794.7	1027.4	323.15	25730.6	1024.0	323.15	24663.7	1020.5	323.15	23619.4	1017.1
323.15	26781.6	1027.3	323.15	25717.5	1024.0	323.15	24649.6	1020.5	323.15	23606.1	1017.0
323.15	26768.0	1027.2	323.15	25703.9	1023.9	323.15	24637.0	1020.4	323.15	23591.5	1017.0
323.15	26755.1	1027.2	323.15	25691.0	1023.9	323.15	24624.0	1020.4	323.15	23578.3	1016.9
323.15	26740.1	1027.2	323.15	25676.9	1023.8	323.15	24611.1	1020.4	323.15	23564.1	1016.9
323.15	26727.9	1027.2	323.15	25663.7	1023.8	323.15	24597.0	1020.3	323.15	23550.2	1016.8
323.15	26714.0	1027.1	323.15	25649.6	1023.7	323.15	24582.1	1020.3	323.15	23538.2	1016.8
323.15	26700.1	1027.1	323.15	25636.0	1023.7	323.15	24569.8	1020.2	323.15	23525.0	1016.7
323.15	26686.8	1027.0	323.15	25621.2	1023.6	323.15	24557.5	1020.2	323.15	23511.9	1016.7
323.15	26674.9	1027.0	323.15	25606.5	1023.6	323.15	24545.0	1020.2	323.15	23497.9	1016.7
323.15	26661.4	1027.0	323.15	25591.9	1023.6	323.15	24533.2	1020.1	323.15	23485.5	1016.6
323.15	26647.7	1026.9	323.15	25578.8	1023.5	323.15	24518.1	1020.1	323.15	23471.4	1016.6
323.15	26634.6	1026.9	323.15	25565.9	1023.5	323.15	24504.2	1020.1	323.15	23457.7	1016.5
323.15	26619.2	1026.8	323.15	25552.0	1023.4	323.15	24488.3	1020.0	323.15	23443.5	1016.5
323.15	26604.8	1026.8	323.15	25538.9	1023.4	323.15	24473.8	1019.9	323.15	23430.2	1016.4
323.15	26591.6	1026.7	323.15	25524.4	1023.4	323.15	24460.8	1019.9	323.15	23416.9	1016.4
323.15	26577.5	1026.7	323.15	25510.9	1023.3	323.15	24447.8	1019.8	323.15	23402.7	1016.4
323.15	26562.4	1026.6	323.15	25498.5	1023.2	323.15	24434.3	1019.8	323.15	23390.3	1016.3
323.15	26549.2	1026.6	323.15	25482.7	1023.2	323.15	24421.1	1019.8	323.15	23378.1	1016.3
323.15	26535.0	1026.5	323.15	25469.2	1023.2	323.15	24407.0	1019.7	323.15	23363.7	1016.2
323.15	26519.9	1026.5	323.15	25456.3	1023.1	323.15	24392.6	1019.7	323.15	23349.1	1016.2
323.15	26505.6	1026.4	323.15	25442.8	1023.1	323.15	24379.0	1019.6	323.15	23336.5	1016.1
323.15	26490.9	1026.4	323.15	25430.3	1023.1	323.15	24364.8	1019.6	323.15	23323.1	1016.1
323.15	26479.0	1026.4	323.15	25416.8	1023.0	323.15	24351.3	1019.5	323.15	23310.1	1016.0
323.15	26466.0	1026.3	323.15	25404.0	1023.0	323.15	24338.7	1019.5	323.15	23297.4	1016.0
323.15	26452.3	1026.3	323.15	25391.8	1022.9	323.15	24326.9	1019.5	323.15	23283.6	1016.0
323.15	26438.8	1026.2	323.15	25378.1	1022.9	323.15	24313.4	1019.4	323.15	23269.8	1015.9
323.15	26426.3	1026.2	323.15	25363.9	1022.8	323.15	24300.6	1019.4	323.15	23256.8	1015.9
323.15	26411.7	1026.2	323.15	25351.1	1022.8	323.15	24286.9	1019.3	323.15	23243.6	1015.8
323.15	26398.6	1026.1	323.15	25337.3	1022.7	323.15	24274.2	1019.3	323.15	23230.6	1015.8
323.15	26384.7	1026.1	323.15	25322.6	1022.7	323.15	24259.8	1019.2	323.15	23217.3	1015.7
323.15	26370.7	1026.0	323.15	25309.2	1022.6	323.15	24247.6	1019.2	323.15	23205.2	1015.7
323.15	26357.0	1026.0	323.15	25295.3	1022.6	323.15	24234.5	1019.1	323.15	23191.6	1015.6
323.15	26345.0	1025.9	323.15	25279.8	1022.5	323.15	24220.4	1019.1	323.15	23178.5	1015.6
323.15	26332.6	1025.9	323.15	25264.8	1022.5	323.15	24207.2	1019.1	323.15	23166.8	1015.6
323.15	26319.0	1025.9	323.15	25250.7	1022.5	323.15	24194.2	1019.0	323.15	23153.9	1015.5
323.15	26307.1	1025.8	323.15	25236.3	1022.4	323.15	24180.0	1018.9	323.15	23140.0	1015.5
323.15	26294.4	1025.8	323.15	25222.0	1022.3	323.15	24167.5	1018.9	323.15	23127.3	1015.4
323.15	26281.4	1025.7	323.15	25208.8	1022.3	323.15	24153.8	1018.9	323.15	23114.8	1015.3
323.15	26269.4	1025.7	323.15	25195.5	1022.3	323.15	24141.0	1018.8	323.15	23101.0	1015.3
323.15	26255.6	1025.6	323.15	25180.6	1022.2	323.15	24127.4	1018.8	323.15	23088.7	1015.3
323.15	26242.5	1025.6	323.15	25167.4	1022.2	323.15	24115.7	1018.7	323.15	23074.9	1015.2
323.15	26228.0	1025.6	323.15	25153.3	1022.1	323.15	24102.0	1018.7	323.15	23059.8	1015.2
323.15	26214.6	1025.5	323.15	25140.4	1022.1	323.15	24088.9	1018.7	323.15	23046.9	1015.2
323.15	26199.5	1025.5	323.15	25126.7	1022.1	323.15	24076.4	1018.6	323.15	23032.4	1015.1
323.15	26187.0	1025.4	323.15	25113.0	1022.0	323.15	24061.8	1018.5	323.15	23019.0	1015.0
323.15	26175.3	1025.4	323.15	25098.7	1022.0	323.15	24047.2	1018.5	323.15	23004.9	1015.0
323.15	26163.9	1025.4	323.15	25085.1	1021.9	323.15	24033.8	1018.5	323.15	22990.9	1015.0
323.15	26153.2	1025.3	323.15	25072.2	1021.9	323.15	24019.9	1018.4	323.15	22978.9	1014.9
323.15	26141.5	1025.3	323.15	25059.9	1021.8	323.15	24006.2	1018.4	323.15	22965.5	1014.9
323.15	26128.9	1025.2	323.15	25046.0	1021.8	323.15	23992.7	1018.3	323.15	22951.8	1014.8
323.15	26115.3	1025.2	323.15	25032.9	1021.7	323.15	23978.5	1018.3	323.15	22937.4	1014.8
323.15	26099.1	1025.2	323.15	25018.6	1021.7	323.15	23963.2	1018.2	323.15	22924.0	1014.7
323.15	26085.5	1025.1	323.15	25005.5	1021.7	323.15	23949.8	1018.2	323.15	22910.3	1014.7
323.15	26072.2	1025.1	323.15	24990.8	1021.6	323.15	23937.8	1018.2	323.15	22897.1	1014.6

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
323.15	22882.5	1014.6	323.15	21826.3	1010.9	323.15	20769.9	1007.2	323.15	19718.5	1003.3
323.15	22869.2	1014.6	323.15	21813.8	1010.8	323.15	20756.3	1007.1	323.15	19704.0	1003.3
323.15	22855.0	1014.5	323.15	21799.7	1010.8	323.15	20743.2	1007.1	323.15	19691.1	1003.2
323.15	22842.5	1014.4	323.15	21785.8	1010.8	323.15	20728.7	1007.0	323.15	19677.1	1003.1
323.15	22827.3	1014.4	323.15	21770.9	1010.7	323.15	20715.7	1006.9	323.15	19664.0	1003.1
323.15	22812.8	1014.4	323.15	21757.9	1010.7	323.15	20702.8	1006.9	323.15	19649.6	1003.1
323.15	22798.1	1014.3	323.15	21743.4	1010.6	323.15	20690.0	1006.9	323.15	19635.8	1002.9
323.15	22783.5	1014.2	323.15	21730.1	1010.6	323.15	20676.6	1006.8	323.15	19621.7	1002.9
323.15	22769.7	1014.2	323.15	21716.4	1010.5	323.15	20663.4	1006.8	323.15	19608.2	1002.8
323.15	22756.0	1014.1	323.15	21704.1	1010.5	323.15	20650.3	1006.7	323.15	19593.1	1002.8
323.15	22742.3	1014.1	323.15	21691.1	1010.4	323.15	20636.7	1006.7	323.15	19578.4	1002.7
323.15	22729.8	1014.1	323.15	21677.6	1010.4	323.15	20623.6	1006.6	323.15	19563.9	1002.7
323.15	22716.6	1014.0	323.15	21661.0	1010.3	323.15	20609.0	1006.6	323.15	19551.5	1002.6
323.15	22702.0	1013.9	323.15	21646.4	1010.2	323.15	20595.6	1006.5	323.15	19538.3	1002.6
323.15	22688.7	1013.9	323.15	21632.9	1010.2	323.15	20582.6	1006.5	323.15	19524.3	1002.5
323.15	22673.8	1013.9	323.15	21618.4	1010.2	323.15	20567.7	1006.4	323.15	19511.0	1002.5
323.15	22659.2	1013.8	323.15	21604.0	1010.1	323.15	20556.0	1006.4	323.15	19496.1	1002.5
323.15	22645.2	1013.8	323.15	21590.9	1010.1	323.15	20542.9	1006.3	323.15	19483.4	1002.4
323.15	22631.5	1013.7	323.15	21576.5	1010.1	323.15	20529.7	1006.3	323.15	19470.6	1002.4
323.15	22619.0	1013.7	323.15	21561.8	1010.0	323.15	20515.5	1006.2	323.15	19458.3	1002.3
323.15	22606.0	1013.6	323.15	21549.1	1009.9	323.15	20501.4	1006.2	323.15	19444.0	1002.2
323.15	22592.5	1013.6	323.15	21535.8	1009.9	323.15	20488.5	1006.1	323.15	19430.0	1002.2
323.15	22578.6	1013.6	323.15	21522.7	1009.8	323.15	20474.9	1006.1	323.15	19417.1	1002.1
323.15	22566.4	1013.5	323.15	21509.3	1009.8	323.15	20461.7	1006.1	323.15	19403.6	1002.1
323.15	22553.8	1013.5	323.15	21496.6	1009.8	323.15	20450.2	1006.0	323.15	19390.9	1002.0
323.15	22540.1	1013.4	323.15	21483.8	1009.7	323.15	20436.1	1005.9	323.15	19376.6	1002.0
323.15	22526.2	1013.3	323.15	21470.5	1009.6	323.15	20423.4	1005.9	323.15	19363.8	1001.9
323.15	22514.6	1013.3	323.15	21458.2	1009.6	323.15	20410.8	1005.8	323.15	19350.3	1001.9
323.15	22501.0	1013.3	323.15	21444.7	1009.6	323.15	20396.9	1005.8	323.15	19336.4	1001.8
323.15	22487.3	1013.2	323.15	21429.8	1009.5	323.15	20383.4	1005.7	323.15	19322.2	1001.8
323.15	22474.6	1013.2	323.15	21416.6	1009.5	323.15	20371.1	1005.7	323.15	19308.9	1001.7
323.15	22459.9	1013.1	323.15	21403.2	1009.5	323.15	20357.1	1005.6	323.15	19294.8	1001.7
323.15	22446.3	1013.1	323.15	21390.8	1009.3	323.15	20344.2	1005.6	323.15	19281.9	1001.6
323.15	22431.7	1013.1	323.15	21376.7	1009.3	323.15	20332.5	1005.5	323.15	19267.8	1001.6
323.15	22419.7	1013.0	323.15	21363.1	1009.3	323.15	20318.8	1005.5	323.15	19253.2	1001.5
323.15	22405.2	1013.0	323.15	21349.0	1009.2	323.15	20305.6	1005.4	323.15	19239.8	1001.5
323.15	22391.7	1012.9	323.15	21334.5	1009.2	323.15	20292.7	1005.4	323.15	19225.8	1001.4
323.15	22377.2	1012.9	323.15	21321.0	1009.1	323.15	20279.8	1005.3	323.15	19212.2	1001.4
323.15	22363.1	1012.8	323.15	21308.8	1009.1	323.15	20266.4	1005.3	323.15	19199.6	1001.3
323.15	22351.0	1012.7	323.15	21294.6	1009.0	323.15	20254.9	1005.3	323.15	19185.8	1001.3
323.15	22336.7	1012.7	323.15	21280.3	1009.0	323.15	20241.7	1005.2	323.15	19172.7	1001.2
323.15	22323.7	1012.6	323.15	21266.6	1008.9	323.15	20227.7	1005.2	323.15	19158.0	1001.2
323.15	22310.3	1012.6	323.15	21253.0	1008.9	323.15	20213.0	1005.1	323.15	19145.7	1001.1
323.15	22295.2	1012.6	323.15	21238.9	1008.8	323.15	20200.4	1005.0	323.15	19132.2	1001.0
323.15	22280.4	1012.5	323.15	21224.2	1008.8	323.15	20186.1	1005.0	323.15	19119.0	1001.0
323.15	22267.1	1012.5	323.15	21210.9	1008.7	323.15	20172.7	1005.0	323.15	19105.7	1001.0
323.15	22252.0	1012.4	323.15	21196.2	1008.7	323.15	20159.2	1004.9	323.15	19092.6	1000.9
323.15	22238.7	1012.3	323.15	21182.4	1008.6	323.15	20145.5	1004.9	323.15	19079.0	1000.8
323.15	22226.0	1012.3	323.15	21168.0	1008.5	323.15	20131.5	1004.8	323.15	19065.5	1000.8
323.15	22211.5	1012.3	323.15	21153.4	1008.5	323.15	20118.6	1004.7	323.15	19052.4	1000.8
323.15	22198.2	1012.2	323.15	21139.0	1008.5	323.15	20104.7	1004.7	323.15	19039.4	1000.7
323.15	22183.7	1012.2	323.15	21125.0	1008.5	323.15	20090.6	1004.7	323.15	19026.4	1000.7
323.15	22171.1	1012.1	323.15	21111.8	1008.4	323.15	20076.7	1004.6	323.15	19014.3	1000.6
323.15	22157.7	1012.1	323.15	21097.8	1008.3	323.15	20063.1	1004.5	323.15	19001.6	1000.6
323.15	22144.8	1012.0	323.15	21083.8	1008.3	323.15	20050.4	1004.5	323.15	18987.4	1000.5
323.15	22130.5	1012.0	323.15	21070.9	1008.3	323.15	20036.7	1004.5	323.15	18975.3	1000.4
323.15	22117.9	1012.0	323.15	21056.8	1008.1	323.15	20023.4	1004.4	323.15	18961.5	1000.4
323.15	22104.3	1011.9	323.15	21044.5	1008.1	323.15	20009.6	1004.3	323.15	18947.2	1000.3
323.15	22089.4	1011.8	323.15	21032.3	1008.1	323.15	19995.8	1004.3	323.15	18933.7	1000.3
323.15	22075.7	1011.8	323.15	21019.2	1008.1	323.15	19982.6	1004.2	323.15	18919.1	1000.2
323.15	22062.7	1011.8	323.15	21005.1	1008.0	323.15	19969.1	1004.2	323.15	18905.2	1000.2
323.15	22049.2	1011.7	323.15	20993.7	1008.0	323.15	19954.2	1004.1	323.15	18891.3	1000.2
323.15	22037.1	1011.7	323.15	20979.8	1007.9	323.15	19939.0	1004.1	323.15	18878.0	1000.1
323.15	22023.5	1011.6	323.15	20967.2	1007.9	323.15	19925.5	1004.0	323.15	18863.6	1000.0
323.15	22010.9	1011.6	323.15	20954.1	1007.8	323.15	19912.6	1004.0	323.15	18849.9	1000.0
323.15	21997.7	1011.5	323.15	20941.1	1007.8	323.15	19899.9	1003.9	323.15	18835.7	999.9
323.15	21984.1	1011.5	323.15	20929.4	1007.7	323.15	19886.7	1003.9	323.15	18821.5	999.9
323.15	21972.5	1011.4	323.15	20914.4	1007.7	323.15	19872.4	1003.8	323.15	18809.0	999.8
323.15	21958.1	1011.4	323.15	20901.1	1007.7	323.15	19858.2	1003.8	323.15	18795.7	999.8
323.15	21944.7	1011.3	323.15	20888.0	1007.6	323.15	19845.0	1003.7	323.15	18782.0	999.7
323.15	21931.1	1011.3	323.15	20874.5	1007.5	323.15	19829.3	1003.7	323.15	18769.2	999.7
323.15	21916.4	1011.2	323.15	20861.4	1007.5	323.15	19813.4	1003.6	323.15	18754.8	999.6
323.15	21903.6	1011.2	323.15	20849.3	1007.5	323.15	19799.0	1003.6	323.15	18741.3	999.5
323.15	21891.6	1011.1	323.15	20837.8	1007.4	323.15	19785.5	1003.5	323.15	18728.5	999.5
323.15	21878.1	1011.1	323.15	20823.5	1007.4	323.15	19771.9	1003.5	323.15	18714.9	999.4
323.15	21864.8	1011.1	323.15	20810.1	1007.3	323.15	19758.8	1003.4	323.15	18701.0	999.4
323.15	21852.3	1011.0	323.15	20797.4	1007.3	323.15	19745.3	1003.3	323.15	18687.6	999.3
323.15	21839.7	1011.0	323.15	20783.2	1007.2	323.15	19732.8	1003.3	323.15	18674.1	999.3

Valori della densità del fluido R1243zf _ *T*=50°C

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
323.15	18661.5	999.2	323.15	17600.8	995.1	323.15	16547.3	990.8	323.15	15459.8	986.2
323.15	18649.0	999.2	323.15	17588.3	995.1	323.15	16533.9	990.7	323.15	15445.9	986.2
323.15	18636.6	999.1	323.15	17575.7	995.0	323.15	16519.6	990.7	323.15	15431.3	986.1
323.15	18623.8	999.1	323.15	17561.4	995.0	323.15	16506.4	990.6	323.15	15418.4	986.1
323.15	18610.8	999.0	323.15	17548.5	994.8	323.15	16493.3	990.6	323.15	15404.6	986.0
323.15	18599.5	999.0	323.15	17536.1	994.8	323.15	16480.7	990.5	323.15	15391.0	985.9
323.15	18586.1	998.9	323.15	17522.2	994.8	323.15	16466.5	990.5	323.15	15377.4	985.9
323.15	18573.0	998.9	323.15	17509.7	994.7	323.15	16453.4	990.4	323.15	15363.0	985.8
323.15	18558.9	998.8	323.15	17496.9	994.7	323.15	16438.7	990.4	323.15	15348.6	985.7
323.15	18545.3	998.8	323.15	17482.4	994.6	323.16	16424.8	990.3	323.15	15334.2	985.7
323.15	18531.3	998.8	323.15	17469.2	994.6	323.15	16410.4	990.2	323.15	15319.3	985.6
323.15	18516.8	998.7	323.15	17456.3	994.5	323.15	16396.4	990.2	323.15	15304.8	985.6
323.15	18502.7	998.6	323.16	17442.8	994.5	323.15	16382.4	990.1	323.15	15289.8	985.5
323.15	18489.1	998.6	323.16	17430.3	994.4	323.15	16366.6	990.1	323.15	15275.3	985.4
323.15	18474.1	998.6	323.15	17418.1	994.3	323.15	16351.1	990.0	323.15	15262.3	985.4
323.15	18461.2	998.5	323.15	17405.3	994.3	323.15	16337.7	989.9	323.15	15248.7	985.3
323.15	18446.3	998.4	323.15	17391.6	994.2	323.15	16322.2	989.9	323.15	15235.2	985.2
323.15	18432.6	998.3	323.15	17378.2	994.2	323.15	16308.3	989.8	323.15	15221.8	985.2
323.15	18419.3	998.3	323.15	17364.7	994.1	323.15	16294.9	989.8	323.15	15208.5	985.2
323.15	18403.9	998.2	323.15	17350.5	994.1	323.15	16280.1	989.7	323.15	15195.3	985.1
323.15	18390.2	998.2	323.15	17338.1	994.0	323.15	16267.4	989.6	323.15	15181.1	985.0
323.15	18376.7	998.1	323.15	17325.6	994.0	323.15	16255.2	989.6	323.15	15167.3	985.0
323.15	18361.9	998.1	323.15	17312.2	993.9	323.15	16241.2	989.6	323.15	15155.0	984.9
323.15	18347.8	998.0	323.15	17299.2	993.9	323.15	16226.4	989.5	323.15	15142.0	984.9
323.15	18334.4	998.0	323.15	17285.7	993.8	323.15	16212.9	989.4	323.15	15129.5	984.8
323.15	18320.4	997.9	323.15	17271.4	993.8	323.15	16200.0	989.3	323.15	15116.8	984.7
323.15	18307.0	997.9	323.15	17257.2	993.7	323.15	16185.8	989.3	323.15	15103.6	984.7
323.15	18292.9	997.8	323.15	17244.5	993.7	323.15	16172.5	989.3	323.15	15090.1	984.7
323.15	18278.9	997.8	323.15	17231.4	993.6	323.15	16158.8	989.2	323.15	15075.9	984.6
323.15	18264.5	997.7	323.15	17218.3	993.6	323.15	16143.2	989.1	323.15	15061.9	984.5
323.15	18251.8	997.6	323.15	17204.4	993.5	323.15	16129.4	989.1	323.15	15047.6	984.5
323.15	18237.6	997.6	323.15	17191.8	993.5	323.15	16114.9	989.0	323.15	15034.1	984.4
323.15	18226.2	997.6	323.15	17178.4	993.4	323.15	16101.3	988.9	323.15	15020.6	984.3
323.15	18212.0	997.5	323.15	17165.6	993.3	323.15	16086.7	988.9	323.15	15005.6	984.3
323.15	18197.7	997.5	323.15	17153.7	993.3	323.15	16070.9	988.8	323.15	14991.6	984.2
323.15	18184.5	997.4	323.15	17141.6	993.2	323.15	16057.2	988.8	323.15	14977.4	984.2
323.15	18170.6	997.3	323.15	17128.6	993.2	323.15	16043.2	988.7	323.15	14964.3	984.1
323.15	18157.2	997.3	323.15	17114.5	993.1	323.15	16027.7	988.6	323.15	14951.2	984.1
323.15	18141.6	997.2	323.15	17101.5	993.1	323.15	16015.2	988.6	323.15	14937.7	984.0
323.15	18127.8	997.2	323.15	17086.9	993.0	323.15	16000.9	988.6	323.15	14925.5	983.9
323.15	18114.4	997.1	323.15	17072.0	993.0	323.15	15986.5	988.5	323.15	14911.6	983.9
323.15	18101.7	997.1	323.15	17058.2	992.9	323.15	15971.2	988.4	323.15	14897.5	983.8
323.15	18088.1	997.0	323.15	17045.3	992.9	323.15	15958.2	988.4	323.15	14884.8	983.7
323.15	18073.8	997.0	323.15	17029.4	992.8	323.15	15944.4	988.3	323.15	14871.4	983.7
323.15	18061.0	996.9	323.15	17015.1	992.8	323.15	15930.4	988.3	323.15	14858.1	983.6
323.15	18046.8	996.9	323.15	17000.6	992.7	323.15	15915.2	988.2	323.15	14842.6	983.5
323.15	18032.4	996.8	323.15	16986.8	992.6	323.15	15902.6	988.1	323.15	14829.1	983.5
323.15	18018.4	996.8	323.15	16972.4	992.5	323.15	15889.0	988.1	323.15	14815.8	983.4
323.15	18006.0	996.7	323.15	16957.9	992.5	323.15	15877.0	988.0	323.15	14802.1	983.4
323.15	17992.8	996.6	323.15	16942.7	992.4	323.15	15864.1	988.0	323.15	14787.5	983.3
323.15	17978.9	996.6	323.15	16928.9	992.4	323.15	15850.5	987.9	323.15	14772.4	983.2
323.15	17966.1	996.5	323.15	16915.1	992.3	323.15	15837.3	987.9	323.15	14757.2	983.2
323.15	17952.6	996.5	323.15	16901.2	992.3	323.15	15822.8	987.8	323.15	14742.8	983.1
323.15	17940.0	996.4	323.15	16887.7	992.2	323.15	15808.7	987.7	323.15	14726.1	983.1
323.15	17927.6	996.4	323.15	16875.2	992.1	323.15	15795.1	987.7	323.15	14710.3	983.0
323.15	17914.2	996.3	323.15	16860.8	992.1	323.15	15781.1	987.6	323.15	14695.2	982.9
323.15	17900.0	996.3	323.15	16847.3	992.1	323.15	15765.7	987.5	323.15	14680.4	982.8
323.15	17886.7	996.2	323.15	16834.2	992.0	323.15	15752.4	987.5	323.15	14667.0	982.7
323.15	17872.1	996.2	323.15	16819.7	991.9	323.15	15738.1	987.4	323.15	14652.4	982.8
323.15	17858.5	996.1	323.15	16805.5	991.9	323.15	15723.4	987.4	323.15	14637.9	982.6
323.15	17846.0	996.1	323.15	16792.6	991.8	323.15	15709.9	987.3	323.15	14623.2	982.6
323.15	17833.7	996.0	323.15	16778.4	991.8	323.15	15696.3	987.2	323.15	14608.0	982.5
323.15	17819.4	996.0	323.15	16765.2	991.7	323.15	15683.3	987.2	323.15	14593.9	982.5
323.15	17805.0	995.9	323.15	16751.0	991.6	323.15	15669.6	987.1	323.15	14579.0	982.4
323.15	17791.2	995.8	323.15	16738.2	991.6	323.15	15655.2	987.0	323.15	14565.2	982.3
323.15	17778.1	995.8	323.15	16724.9	991.5	323.15	15640.9	987.0	323.15	14551.0	982.3
323.15	17766.1	995.7	323.15	16712.7	991.5	323.15	15627.3	987.0	323.15	14537.3	982.2
323.15	17752.5	995.7	323.15	16698.9	991.4	323.15	15614.2	986.9	323.15	14522.8	982.1
323.15	17739.8	995.7	323.15	16685.2	991.4	323.15	15600.0	986.8	323.15	14509.0	982.1
323.15	17725.1	995.6	323.15	16672.6	991.3	323.15	15584.4	986.8	323.15	14493.7	982.0
323.15	17712.1	995.5	323.15	16658.8	991.2	323.15	15570.2	986.7	323.15	14479.7	982.0
323.15	17698.8	995.5	323.15	16644.9	991.2	323.15	15555.9	986.7	323.15	14465.0	981.9
323.15	17684.6	995.4	323.15	16630.5	991.2	323.15	15542.9	986.6	323.15	14451.2	981.8
323.15	17669.0	995.3	323.15	16615.1	991.1	323.15	15529.0	986.5	323.15	14436.9	981.8
323.15	17654.8	995.3	323.15	16601.6	991.0	323.15	15515.0	986.5	323.15	14422.4	981.7
323.15	17640.8	995.3	323.15	16586.7	991.0	323.15	15501.8	986.4	323.15	14409.4	981.6
323.15	17627.3	995.2	323.15	16573.9	990.9	323.15	15487.2	986.4	323.15	14394.8	981.6
323.15	17613.3	995.2	323.15	16560.1	990.8	323.15	15472.8	986.3	323.15	14381.4	981.5

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
323.15	14368.1	981.4	323.15	13316.0	976.6	323.15	12241.6	971.5	323.15	11179.1	966.2
323.15	14353.9	981.4	323.15	13303.6	976.6	323.15	12227.5	971.5	323.15	11165.1	966.2
323.15	14339.6	981.3	323.15	13289.9	976.5	323.15	12213.7	971.4	323.15	11150.8	966.1
323.15	14326.6	981.3	323.15	13276.6	976.5	323.15	12199.8	971.3	323.15	11138.1	966.0
323.15	14313.4	981.2	323.15	13262.7	976.4	323.15	12185.1	971.3	323.15	11124.5	965.9
323.15	14300.6	981.1	323.15	13247.8	976.3	323.15	12171.9	971.1	323.15	11112.3	965.9
323.15	14288.0	981.1	323.15	13234.3	976.2	323.15	12158.8	971.1	323.15	11097.2	965.8
323.15	14273.2	981.1	323.15	13220.4	976.2	323.15	12144.5	971.1	323.15	11084.9	965.8
323.15	14259.4	981.0	323.15	13206.7	976.1	323.15	12129.9	971.0	323.15	11071.4	965.7
323.15	14245.0	980.9	323.15	13193.1	976.1	323.15	12116.0	970.9	323.15	11057.9	965.6
323.15	14230.4	980.8	323.15	13178.6	976.0	323.15	12102.2	970.9	323.15	11043.7	965.6
323.15	14217.2	980.8	323.15	13164.1	975.9	323.15	12088.9	970.8	323.15	11031.3	965.5
323.15	14203.5	980.7	323.15	13149.0	975.8	323.15	12075.3	970.7	323.15	11017.6	965.4
323.15	14189.1	980.7	323.15	13135.2	975.8	323.15	12061.4	970.7	323.15	11005.0	965.3
323.15	14176.5	980.6	323.15	13122.0	975.7	323.15	12047.7	970.6	323.15	10990.9	965.3
323.15	14162.3	980.5	323.15	13109.3	975.7	323.15	12034.5	970.5	323.15	10976.4	965.2
323.15	14148.2	980.5	323.15	13095.3	975.6	323.15	12019.8	970.4	323.15	10962.5	965.1
323.15	14134.5	980.4	323.15	13082.1	975.6	323.15	12005.3	970.4	323.15	10951.0	965.1
323.15	14121.7	980.3	323.15	13069.4	975.5	323.15	11992.1	970.3	323.15	10937.7	965.0
323.15	14110.0	980.3	323.15	13055.6	975.4	323.15	11977.8	970.2	323.15	10923.3	964.9
323.15	14096.1	980.3	323.15	13041.9	975.4	323.15	11963.8	970.2	323.15	10908.9	964.8
323.15	14083.7	980.2	323.15	13028.1	975.3	323.15	11951.0	970.2	323.15	10895.2	964.8
323.15	14070.4	980.1	323.15	13014.7	975.2	323.15	11937.7	970.1	323.15	10881.8	964.7
323.15	14056.1	980.1	323.15	13001.7	975.2	323.15	11923.0	969.9	323.15	10867.3	964.7
323.15	14042.9	980.0	323.15	12987.9	975.1	323.15	11909.2	969.9	323.15	10853.4	964.6
323.15	14030.8	979.9	323.15	12975.4	975.1	323.15	11896.1	969.8	323.15	10839.1	964.5
323.15	14018.7	979.9	323.15	12961.0	975.0	323.15	11881.7	969.8	323.15	10826.4	964.4
323.15	14007.1	979.8	323.15	12946.4	974.9	323.15	11867.5	969.7	323.15	10813.3	964.3
323.15	13993.0	979.8	323.15	12930.9	974.8	323.15	11853.5	969.6	323.15	10800.4	964.3
323.15	13979.8	979.7	323.15	12916.4	974.8	323.15	11838.8	969.6	323.15	10786.9	964.2
323.15	13967.6	979.6	323.15	12902.4	974.7	323.15	11824.8	969.5	323.15	10774.6	964.1
323.15	13954.8	979.6	323.15	12889.6	974.6	323.15	11811.0	969.4	323.15	10762.0	964.1
323.15	13942.2	979.5	323.15	12875.0	974.6	323.15	11796.1	969.4	323.15	10748.6	964.0
323.15	13928.8	979.4	323.15	12861.1	974.5	323.15	11782.6	969.3	323.15	10736.6	964.0
323.15	13915.7	979.4	323.15	12845.6	974.4	323.15	11769.4	969.2	323.15	10723.2	963.9
323.15	13901.7	979.3	323.15	12832.6	974.4	323.15	11755.6	969.1	323.15	10711.3	963.8
323.15	13889.4	979.3	323.15	12820.0	974.3	323.15	11742.7	969.1	323.15	10698.4	963.7
323.15	13875.5	979.2	323.15	12807.4	974.2	323.15	11730.5	969.0	323.15	10686.9	963.7
323.15	13861.6	979.2	323.15	12794.0	974.2	323.15	11717.3	968.9	323.15	10674.0	963.7
323.15	13848.9	979.1	323.15	12779.8	974.1	323.15	11703.5	968.9	323.15	10661.1	963.6
323.15	13834.3	979.0	323.15	12765.4	974.1	323.15	11691.1	968.8	323.15	10648.7	963.5
323.15	13820.1	979.0	323.15	12751.0	974.0	323.15	11676.7	968.8	323.15	10636.6	963.5
323.15	13806.5	979.0	323.15	12738.1	973.9	323.15	11662.9	968.7	323.15	10623.2	963.4
323.15	13792.5	978.8	323.15	12725.0	973.9	323.15	11650.0	968.6	323.15	10610.6	963.3
323.15	13778.9	978.8	323.15	12709.9	973.8	323.15	11637.0	968.6	323.15	10597.2	963.2
323.15	13766.3	978.7	323.15	12695.8	973.7	323.15	11622.9	968.5	323.15	10585.3	963.1
323.15	13752.4	978.7	323.15	12682.2	973.7	323.15	11608.6	968.4	323.15	10571.9	963.1
323.15	13737.8	978.6	323.15	12668.0	973.6	323.15	11594.3	968.4	323.15	10559.5	963.0
323.15	13725.9	978.5	323.15	12654.1	973.6	323.15	11580.9	968.3	323.15	10546.8	962.9
323.15	13712.5	978.5	323.15	12640.8	973.5	323.15	11566.9	968.2	323.15	10532.9	962.9
323.15	13698.4	978.4	323.15	12626.3	973.4	323.15	11553.1	968.1	323.15	10519.8	962.8
323.15	13684.5	978.3	323.15	12613.0	973.4	323.15	11540.0	968.1	323.15	10507.4	962.7
323.15	13670.8	978.3	323.15	12600.5	973.2	323.15	11527.1	968.0	323.15	10494.2	962.7
323.15	13657.1	978.3	323.15	12586.6	973.2	323.15	11513.0	967.9	323.15	10482.3	962.6
323.15	13643.4	978.2	323.15	12571.8	973.1	323.15	11499.6	967.9	323.15	10469.2	962.6
323.15	13629.4	978.1	323.15	12557.4	973.1	323.15	11486.4	967.8	323.15	10456.4	962.5
323.15	13616.7	978.1	323.15	12543.4	973.0	323.15	11472.1	967.7	323.15	10442.7	962.4
323.15	13602.5	978.0	323.15	12530.6	972.9	323.15	11457.3	967.6	323.15	10429.8	962.3
323.15	13588.7	977.9	323.15	12517.9	972.9	323.15	11444.0	967.6	323.15	10417.7	962.3
323.15	13576.3	977.8	323.15	12504.7	972.8	323.15	11430.2	967.5	323.15	10403.6	962.2
323.15	13562.0	977.8	323.15	12491.3	972.8	323.15	11418.0	967.5	323.15	10390.2	962.1
323.15	13547.6	977.7	323.15	12477.2	972.7	323.15	11405.7	967.4	323.15	10377.0	962.1
323.15	13534.1	977.7	323.15	12464.5	972.6	323.15	11393.2	967.3	323.15	10364.2	962.0
323.15	13519.1	977.6	323.15	12449.7	972.6	323.15	11379.4	967.2	323.15	10352.5	962.0
323.15	13504.3	977.6	323.15	12435.6	972.5	323.15	11366.4	967.2	323.15	10339.8	961.9
323.15	13490.6	977.5	323.15	12421.0	972.4	323.15	11353.8	967.1	323.15	10327.6	961.8
323.15	13478.3	977.4	323.15	12407.8	972.4	323.15	11340.7	967.1	323.15	10315.3	961.8
323.16	13463.8	977.3	323.15	12393.6	972.3	323.15	11329.2	967.0	323.15	10302.1	961.7
323.15	13450.9	977.3	323.15	12380.2	972.2	323.15	11315.8	966.9	323.15	10290.4	961.6
323.15	13437.4	977.2	323.15	12365.7	972.2	323.15	11301.2	966.8	323.15	10278.5	961.6
323.15	13424.7	977.1	323.15	12351.4	972.1	323.15	11287.1	966.8	323.15	10266.5	961.5
323.15	13410.4	977.1	323.15	12337.2	972.0	323.15	11273.1	966.7	323.15	10254.9	961.4
323.15	13396.4	977.0	323.15	12323.8	971.9	323.15	11259.2	966.7	323.15	10241.3	961.4
323.15	13383.9	977.0	323.15	12311.1	971.9	323.15	11245.3	966.6	323.15	10228.4	961.3
323.15	13369.2	976.9	323.15	12296.9	971.8	323.15	11231.6	966.5	323.15	10214.6	961.2
323.15	13354.7	976.8	323.15	12282.5	971.8	323.15	11219.3	966.4	323.15	10201.7	961.1
323.15	13343.5	976.8	323.15	12268.6	971.7	323.15	11205.0	966.4	323.15	10188.5	961.1
323.15	13328.4	976.7	323.15	12255.5	971.6	323.15	11191.7	966.3	323.15	10175.9	961.0

Valori della densità del fluido R1243zf _ *T*=50°C

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
323.15	10162.2	960.9	323.15	9180.3	955.6	323.15	8225.0	950.0	323.15	7323.2	944.6
323.15	10149.5	960.8	323.15	9167.3	955.5	323.15	8213.3	950.0	323.15	7312.3	944.5
323.15	10136.1	960.8	323.15	9155.2	955.4	323.15	8201.4	949.9	323.15	7299.9	944.4
323.15	10123.1	960.7	323.15	9143.0	955.3	323.15	8190.3	949.9	323.15	7288.8	944.3
323.15	10109.6	960.6	323.15	9131.1	955.3	323.15	8178.5	949.7	323.15	7277.1	944.3
323.15	10095.7	960.6	323.15	9119.4	955.2	323.15	8166.9	949.7	323.15	7266.7	944.2
323.15	10082.8	960.5	323.15	9107.5	955.2	323.15	8155.1	949.6	323.15	7255.2	944.2
323.15	10069.7	960.4	323.15	9095.0	955.1	323.15	8143.4	949.6	323.15	7243.4	944.1
323.15	10056.6	960.4	323.15	9084.5	955.0	323.15	8132.4	949.5	323.15	7232.1	944.0
323.15	10043.0	960.3	323.15	9073.0	954.9	323.15	8120.7	949.4	323.15	7220.1	943.9
323.15	10030.6	960.2	323.15	9061.1	954.9	323.15	8109.6	949.4	323.15	7207.9	943.9
323.15	10019.3	960.2	323.15	9049.0	954.8	323.15	8097.0	949.3	323.15	7196.4	943.8
323.15	10006.2	960.1	323.15	9037.2	954.7	323.15	8085.8	949.2	323.15	7185.4	943.7
323.15	9993.3	960.1	323.15	9025.4	954.7	323.15	8076.5	949.2	323.15	7174.0	943.7
323.15	9980.2	960.0	323.15	9013.2	954.6	323.15	8065.6	949.1	323.15	7161.8	943.6
323.15	9968.1	959.9	323.15	9000.4	954.6	323.15	8054.4	949.0	323.15	7150.2	943.5
323.15	9955.2	959.9	323.15	8988.2	954.5	323.15	8042.3	949.0	323.15	7138.3	943.4
323.15	9943.3	959.7	323.15	8976.3	954.4	323.15	8031.0	948.9	323.15	7125.9	943.3
323.15	9931.1	959.7	323.15	8963.2	954.3	323.15	8019.9	948.9	323.15	7113.8	943.3
323.15	9917.8	959.6	323.15	8950.7	954.3	323.15	8008.5	948.7	323.15	7103.1	943.2
323.15	9905.5	959.6	323.15	8937.7	954.2	323.15	7997.5	948.7	323.15	7092.1	943.1
323.15	9893.6	959.5	323.15	8926.3	954.1	323.15	7986.5	948.6	323.15	7080.5	943.0
323.15	9881.0	959.5	323.15	8913.9	954.0	323.15	7974.9	948.6	323.15	7070.3	943.0
323.15	9868.5	959.4	323.15	8900.5	954.0	323.15	7963.0	948.5	323.15	7059.8	942.9
323.15	9855.0	959.3	323.15	8888.4	953.9	323.15	7952.0	948.4	323.15	7048.2	942.8
323.15	9842.7	959.2	323.15	8876.6	953.8	323.15	7939.7	948.4	323.15	7036.1	942.8
323.15	9829.7	959.2	323.15	8863.1	953.8	323.15	7928.4	948.3	323.15	7023.9	942.7
323.15	9816.6	959.1	323.15	8849.5	953.7	323.15	7915.9	948.2	323.15	7013.2	942.7
323.15	9804.1	959.0	323.15	8836.4	953.6	323.15	7904.9	948.1	323.15	7004.0	942.6
323.15	9791.0	959.0	323.15	8825.0	953.5	323.15	7893.3	948.1	323.15	6993.5	942.5
323.15	9777.9	958.9	323.15	8812.9	953.5	323.15	7880.9	948.0	323.15	6981.4	942.4
323.15	9764.8	958.8	323.15	8801.6	953.4	323.15	7868.5	947.9	323.15	6969.0	942.4
323.15	9753.8	958.7	323.15	8788.3	953.4	323.15	7856.4	947.8	323.15	6958.3	942.3
323.15	9741.2	958.7	323.15	8776.7	953.3	323.15	7843.7	947.8	323.15	6948.2	942.2
323.15	9727.4	958.6	323.15	8764.2	953.2	323.15	7831.4	947.7	323.15	6937.4	942.2
323.15	9713.9	958.5	323.15	8752.3	953.2	323.15	7820.0	947.7	323.15	6926.2	942.1
323.15	9701.7	958.4	323.15	8740.3	953.0	323.15	7807.4	947.6	323.15	6914.8	942.0
323.15	9688.4	958.3	323.15	8728.0	953.0	323.15	7795.6	947.5	323.15	6902.9	941.9
323.15	9675.5	958.3	323.15	8715.2	952.9	323.15	7783.7	947.4	323.15	6890.8	941.9
323.15	9662.8	958.2	323.15	8702.8	952.9	323.15	7772.3	947.4	323.15	6879.7	941.7
323.15	9649.7	958.2	323.15	8692.2	952.8	323.15	7761.8	947.3	323.15	6868.0	941.7
323.15	9637.1	958.1	323.15	8679.8	952.7	323.15	7750.7	947.2	323.15	6856.9	941.7
323.15	9625.6	958.0	323.15	8667.8	952.6	323.15	7740.5	947.1	323.15	6845.3	941.6
323.15	9612.9	958.0	323.15	8655.5	952.6	323.15	7727.9	947.1	323.15	6834.5	941.5
323.15	9601.0	957.9	323.15	8642.4	952.5	323.15	7715.3	947.0	323.15	6824.1	941.4
323.15	9589.1	957.8	323.15	8629.7	952.5	323.15	7705.4	947.0	323.15	6811.8	941.3
323.15	9576.0	957.8	323.15	8618.1	952.3	323.15	7693.6	946.9	323.15	6800.1	941.3
323.15	9563.3	957.7	323.15	8605.9	952.3	323.15	7682.4	946.8	323.15	6788.5	941.2
323.15	9551.1	957.6	323.15	8593.1	952.2	323.16	7669.8	946.7	323.15	6777.5	941.1
323.15	9539.2	957.6	323.15	8581.4	952.1	323.15	7658.1	946.7	323.15	6767.3	941.1
323.15	9527.6	957.5	323.15	8569.2	952.1	323.15	7646.2	946.6	323.15	6756.7	941.0
323.15	9515.0	957.4	323.15	8556.4	952.0	323.15	7634.6	946.5	323.15	6744.3	940.9
323.15	9503.5	957.3	323.15	8542.8	951.9	323.15	7623.3	946.4	323.15	6733.2	940.9
323.15	9491.1	957.3	323.15	8530.5	951.9	323.15	7612.1	946.4	323.15	6723.4	940.8
323.15	9479.4	957.2	323.15	8518.0	951.8	323.15	7602.1	946.3	323.15	6711.5	940.7
323.15	9466.8	957.2	323.15	8505.7	951.7	323.15	7591.0	946.2	323.15	6700.1	940.7
323.15	9453.7	957.1	323.15	8492.7	951.6	323.15	7579.1	946.2	323.15	6689.6	940.6
323.15	9441.7	957.0	323.15	8480.4	951.6	323.15	7567.9	946.1	323.15	6678.0	940.5
323.15	9427.9	956.9	323.15	8467.8	951.5	323.15	7556.8	946.1	323.15	6666.8	940.4
323.15	9415.7	956.9	323.15	8455.4	951.4	323.15	7546.0	946.0	323.15	6656.1	940.4
323.15	9402.3	956.7	323.15	8443.8	951.4	323.15	7533.4	945.9	323.15	6645.4	940.3
323.15	9390.3	956.7	323.15	8431.4	951.3	323.15	7521.6	945.8	323.15	6634.8	940.2
323.15	9378.5	956.7	323.15	8418.9	951.2	323.15	7509.9	945.7	323.15	6623.1	940.1
323.15	9366.4	956.6	323.15	8406.0	951.1	323.15	7498.2	945.7	323.15	6612.9	940.1
323.15	9352.6	956.5	323.15	8393.8	951.1	323.15	7486.5	945.6	323.15	6602.0	940.0
323.15	9339.9	956.4	323.15	8380.5	951.0	323.15	7475.4	945.6	323.15	6591.1	939.9
323.15	9328.0	956.4	323.15	8368.1	950.9	323.15	7463.2	945.5	323.15	6580.9	939.8
323.15	9315.8	956.3	323.15	8356.7	950.8	323.15	7451.4	945.4	323.15	6570.8	939.8
323.15	9303.7	956.3	323.15	8344.3	950.8	323.15	7439.5	945.3	323.15	6559.4	939.7
323.15	9292.0	956.2	323.15	8332.2	950.6	323.15	7428.7	945.2	323.15	6549.2	939.6
323.15	9279.7	956.1	323.15	8320.4	950.6	323.15	7417.6	945.2	323.15	6537.6	939.5
323.15	9265.9	956.0	323.15	8308.1	950.5	323.15	7405.8	945.1	323.15	6527.9	939.5
323.15	9253.7	956.0	323.15	8295.7	950.5	323.14	7393.8	945.0	323.15	6516.9	939.4
323.15	9241.2	955.9	323.15	8284.1	950.4	323.15	7382.0	944.9	323.15	6506.9	939.4
323.15	9228.4	955.9	323.15	8272.0	950.4	323.15	7370.6	944.9	323.15	6494.8	939.3
323.15	9216.6	955.8	323.15	8260.6	950.3	323.15	7358.2	944.8	323.15	6483.4	939.2
323.15	9205.0	955.7	323.15	8248.6	950.2	323.15	7346.8	944.7	323.15	6472.3	939.1
323.15	9192.8	955.6	323.15	8236.7	950.1	323.15	7334.4	944.7	323.15	6460.8	939.1

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
323.15	6450.2	939.0	323.15	5570.1	933.1	323.15	4665.6	926.5	323.15	3749.8	919.5
323.15	6439.7	938.9	323.15	5558.5	933.0	323.15	4654.6	926.5	323.15	3738.0	919.4
323.15	6428.3	938.8	323.15	5546.4	932.9	323.15	4644.1	926.4	323.15	3724.8	919.3
323.15	6417.7	938.8	323.15	5535.1	932.8	323.15	4632.8	926.3	323.15	3712.4	919.2
323.15	6406.8	938.7	323.15	5522.7	932.7	323.15	4622.5	926.2	323.15	3700.1	919.1
323.15	6396.1	938.6	323.15	5512.3	932.7	323.15	4611.0	926.2	323.15	3687.6	919.0
323.15	6385.4	938.6	323.15	5502.1	932.6	323.15	4600.3	926.1	323.15	3675.7	918.9
323.15	6375.2	938.5	323.15	5490.7	932.5	323.15	4588.9	926.0	323.15	3663.2	918.8
323.15	6364.9	938.4	323.15	5480.0	932.4	323.15	4577.7	925.9	323.15	3651.8	918.7
323.15	6354.7	938.4	323.15	5468.9	932.4	323.15	4566.2	925.8	323.15	3639.8	918.6
323.15	6344.9	938.3	323.15	5456.1	932.3	323.15	4553.9	925.7	323.15	3629.1	918.6
323.15	6334.5	938.2	323.15	5444.4	932.2	323.15	4542.5	925.6	323.15	3616.1	918.5
323.15	6323.8	938.2	323.15	5432.8	932.1	323.15	4530.8	925.6	323.15	3603.8	918.4
323.15	6312.9	938.1	323.15	5421.0	932.0	323.15	4518.5	925.5	323.15	3591.3	918.3
323.15	6301.7	938.0	323.15	5409.2	931.9	323.15	4506.9	925.4	323.15	3580.2	918.1
323.15	6289.6	937.9	323.15	5398.0	931.8	323.15	4494.6	925.3	323.15	3568.8	918.1
323.15	6278.8	937.9	323.15	5386.6	931.8	323.15	4483.0	925.2	323.15	3557.7	918.0
323.15	6267.1	937.8	323.15	5374.9	931.7	323.15	4471.4	925.1	323.15	3546.7	917.9
323.15	6255.5	937.7	323.15	5362.9	931.6	323.15	4459.5	925.0	323.15	3534.2	917.8
323.15	6244.8	937.6	323.15	5351.3	931.5	323.15	4448.2	924.9	323.15	3522.4	917.7
323.15	6233.6	937.6	323.15	5340.6	931.4	323.15	4436.8	924.9	323.15	3510.3	917.6
323.15	6223.2	937.5	323.15	5329.4	931.4	323.15	4424.2	924.8	323.15	3499.7	917.5
323.15	6211.6	937.4	323.15	5318.2	931.3	323.15	4412.6	924.7	323.15	3487.1	917.4
323.15	6200.6	937.4	323.15	5306.2	931.2	323.15	4401.0	924.5	323.15	3474.6	917.3
323.15	6190.8	937.3	323.15	5295.1	931.1	323.15	4388.7	924.5	323.15	3462.5	917.2
323.15	6179.2	937.2	323.15	5284.1	931.0	323.15	4375.5	924.4	323.15	3449.8	917.1
323.15	6167.8	937.1	323.15	5273.2	931.0	323.15	4363.6	924.3	323.15	3438.2	917.0
323.15	6158.1	937.1	323.15	5262.7	930.9	323.15	4351.3	924.2	323.15	3427.8	916.9
323.15	6146.5	937.0	323.15	5251.7	930.8	323.15	4338.8	924.1	323.15	3416.6	916.8
323.15	6136.2	936.9	323.15	5240.8	930.7	323.15	4326.7	924.0	323.15	3406.0	916.8
323.15	6124.8	936.9	323.15	5228.2	930.6	323.15	4315.0	923.9	323.15	3394.9	916.6
323.15	6113.7	936.8	323.15	5216.8	930.6	323.15	4303.6	923.8	323.15	3384.4	916.6
323.15	6103.0	936.7	323.15	5205.1	930.5	323.15	4292.1	923.7	323.15	3373.3	916.4
323.15	6092.8	936.6	323.15	5193.8	930.4	323.15	4279.8	923.7	323.15	3362.2	916.4
323.15	6082.4	936.6	323.15	5182.9	930.3	323.15	4267.9	923.5	323.15	3350.6	916.3
323.15	6071.3	936.5	323.15	5171.8	930.2	323.15	4255.1	923.5	323.15	3339.8	916.2
323.15	6060.0	936.4	323.15	5160.8	930.2	323.15	4243.0	923.4	323.15	3328.6	916.1
323.15	6048.2	936.3	323.15	5150.1	930.1	323.15	4230.9	923.3	323.15	3317.2	916.0
323.15	6036.3	936.2	323.15	5138.5	930.0	323.15	4218.9	923.2	323.15	3305.5	915.9
323.15	6024.0	936.2	323.15	5127.1	929.9	323.15	4207.5	923.1	323.15	3294.1	915.8
323.15	6011.1	936.1	323.15	5114.1	929.8	323.15	4195.7	923.0	323.15	3280.9	915.7
323.15	5999.3	936.0	323.15	5102.4	929.7	323.15	4183.8	922.9	323.15	3269.7	915.6
323.15	5987.8	935.9	323.15	5090.6	929.7	323.15	4172.5	922.9	323.15	3258.4	915.5
323.15	5976.3	935.8	323.15	5078.5	929.6	323.15	4161.6	922.8	323.15	3246.3	915.4
323.15	5965.4	935.8	323.15	5067.4	929.5	323.15	4149.7	922.6	323.15	3233.8	915.3
323.15	5953.7	935.7	323.15	5055.8	929.4	323.15	4137.9	922.6	323.15	3222.9	915.2
323.15	5941.9	935.6	323.15	5043.7	929.3	323.15	4125.8	922.5	323.15	3211.6	915.1
323.15	5930.0	935.5	323.15	5031.6	929.2	323.15	4114.6	922.4	323.15	3199.2	915.0
323.15	5917.8	935.4	323.15	5019.7	929.2	323.15	4102.9	922.3	323.15	3187.6	914.9
323.15	5906.5	935.4	323.15	5008.4	929.0	323.15	4091.3	922.2	323.15	3176.3	914.8
323.15	5895.6	935.3	323.15	4997.6	929.0	323.15	4081.3	922.1	323.15	3163.3	914.7
323.15	5884.1	935.2	323.15	4986.0	928.9	323.15	4069.0	922.0	323.15	3150.8	914.6
323.15	5872.1	935.1	323.15	4974.0	928.8	323.15	4056.6	921.9	323.15	3138.9	914.5
323.15	5860.5	935.1	323.15	4963.1	928.8	323.15	4044.6	921.8	323.15	3127.3	914.4
323.15	5849.0	935.0	323.15	4952.3	928.7	323.15	4031.6	921.8	323.15	3115.8	914.3
323.15	5836.7	934.9	323.15	4939.3	928.6	323.15	4019.7	921.7	323.15	3104.6	914.2
323.15	5826.4	934.8	323.15	4927.7	928.5	323.15	4008.3	921.6	323.15	3091.9	914.1
323.15	5815.1	934.7	323.15	4915.2	928.3	323.15	3997.2	921.5	323.15	3079.6	914.0
323.15	5803.3	934.7	323.15	4902.6	928.3	323.15	3985.4	921.3	323.15	3067.9	913.9
323.15	5792.5	934.6	323.15	4890.8	928.2	323.15	3974.3	921.2	323.15	3056.6	913.8
323.15	5780.5	934.5	323.15	4878.9	928.1	323.15	3962.4	921.2	323.15	3045.3	913.7
323.15	5768.4	934.4	323.15	4866.3	928.0	323.15	3949.7	921.1	323.15	3034.6	913.6
323.15	5757.4	934.3	323.15	4854.3	927.9	323.15	3937.6	921.0	323.15	3022.3	913.5
323.15	5745.1	934.3	323.15	4842.7	927.9	323.15	3925.2	920.9	323.15	3011.2	913.4
323.15	5733.5	934.2	323.15	4831.2	927.8	323.15	3913.7	920.8	323.15	2998.7	913.3
323.15	5724.1	934.1	323.15	4818.7	927.7	323.15	3902.2	920.7	323.15	2986.2	913.2
323.15	5710.8	934.0	323.15	4806.9	927.6	323.15	3890.7	920.6	323.15	2973.8	913.1
323.15	5698.6	934.0	323.15	4795.2	927.5	323.15	3877.7	920.6	323.15	2961.5	913.0
323.15	5687.0	933.9	323.15	4783.6	927.4	323.15	3865.8	920.5	323.15	2950.4	912.9
323.15	5673.9	933.8	323.15	4772.3	927.4	323.15	3853.1	920.3	323.15	2939.6	912.8
323.15	5662.8	933.7	323.15	4760.6	927.2	323.15	3840.7	920.2	323.15	2927.7	912.7
323.15	5651.0	933.6	323.15	4749.0	927.2	323.15	3827.7	920.1	323.15	2916.8	912.6
323.15	5639.1	933.6	323.15	4737.9	927.1	323.15	3816.1	920.1	323.15	2905.3	912.5
323.15	5627.2	933.5	323.15	4725.5	927.0	323.15	3805.3	919.9	323.15	2893.2	912.4
323.15	5615.4	933.4	323.15	4713.2	926.9	323.15	3795.3	919.8	323.15	2881.9	912.3
323.15	5604.2	933.3	323.15	4701.8	926.8	323.15	3784.0	919.8	323.15	2871.5	912.2
323.15	5593.0	933.2	323.15	4690.4	926.8	323.15	3772.6	919.7	323.15	2858.9	912.1
323.15	5581.6	933.1	323.15	4677.1	926.6	323.15	3760.9	919.6	323.15	2847.1	912.0

Valori della densità del fluido R1243zf _ *T*=50°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
323.15	2835.0	911.9	323.15	2367.6	907.8	323.15	1910.5	903.6	323.15	1461.8	899.1
323.15	2822.8	911.8	323.15	2355.8	907.7	323.15	1899.0	903.4	323.15	1450.4	899.0
323.15	2809.8	911.7	323.15	2343.3	907.6	323.15	1888.4	903.4	323.15	1437.4	898.9
323.15	2798.2	911.6	323.15	2331.4	907.5	323.15	1877.9	903.2	323.15	1424.9	898.8
323.15	2786.8	911.5	323.15	2320.1	907.4	323.15	1866.8	903.1	323.15	1413.6	898.7
323.15	2774.8	911.4	323.15	2307.8	907.2	323.15	1856.0	903.0	323.15	1402.8	898.6
323.15	2763.0	911.3	323.15	2296.3	907.2	323.15	1845.6	902.9	323.15	1391.2	898.4
323.15	2751.4	911.2	323.15	2284.4	907.0	323.15	1834.5	902.8	323.15	1379.4	898.3
323.15	2739.8	911.1	323.15	2272.4	906.9	323.15	1821.7	902.7	323.15	1368.5	898.2
323.15	2727.5	911.0	323.15	2259.8	906.8	323.15	1810.2	902.6	323.15	1356.2	898.1
323.15	2715.4	910.9	323.15	2248.0	906.7	323.15	1798.4	902.4	323.15	1345.4	898.0
323.15	2702.2	910.7	323.15	2236.5	906.6	323.15	1786.8	902.3	323.15	1334.3	897.9
323.15	2690.2	910.7	323.15	2224.4	906.5	323.15	1775.3	902.2	323.15	1323.5	897.8
323.15	2678.6	910.5	323.15	2212.9	906.4	323.15	1764.1	902.1	323.15	1311.9	897.7
323.15	2665.8	910.4	323.15	2202.4	906.3	323.15	1752.8	902.0	323.15	1299.8	897.5
323.15	2654.0	910.3	323.15	2190.6	906.2	323.15	1741.9	901.9	323.15	1288.1	897.4
323.15	2640.7	910.2	323.15	2179.1	906.1	323.15	1731.3	901.8	323.15	1277.5	897.3
323.15	2629.0	910.1	323.15	2168.4	905.9	323.15	1720.2	901.7	323.15	1266.3	897.2
323.15	2616.9	910.0	323.15	2156.4	905.8	323.15	1709.3	901.6	323.15	1254.3	897.1
323.15	2605.7	909.9	323.15	2144.4	905.7	323.15	1697.8	901.5	323.15	1243.4	896.9
323.15	2593.2	909.8	323.15	2133.3	905.6	323.15	1685.5	901.4	323.15	1232.1	896.9
323.15	2581.0	909.7	323.15	2121.2	905.5	323.15	1672.5	901.3	323.15	1220.6	896.7
323.15	2570.3	909.6	323.15	2109.1	905.4	323.15	1659.8	901.1	323.15	1209.3	896.6
323.15	2558.5	909.5	323.15	2098.0	905.3	323.15	1647.8	901.0	323.15	1197.9	896.5
323.15	2545.8	909.4	323.15	2085.6	905.2	323.15	1636.0	900.9	323.15	1187.5	896.4
323.15	2534.2	909.3	323.15	2074.0	905.1	323.15	1624.2	900.8	323.15	1176.5	896.2
323.15	2522.3	909.1	323.15	2062.9	905.0	323.15	1611.9	900.6	323.15	1165.3	896.1
323.15	2510.3	909.0	323.15	2051.8	904.8	323.15	1600.0	900.5	323.15	1154.7	896.0
323.15	2498.8	908.9	323.15	2039.9	904.8	323.15	1588.9	900.4	323.15	1142.9	895.9
323.15	2486.7	908.8	323.15	2028.2	904.6	323.15	1577.9	900.3	323.15	1131.1	895.8
323.15	2474.9	908.7	323.15	2016.8	904.5	323.15	1566.3	900.2	323.15	1119.8	895.6
323.15	2462.4	908.7	323.15	2004.5	904.4	323.15	1554.5	900.1	323.15	1109.2	895.5
323.15	2451.0	908.5	323.15	1992.3	904.3	323.15	1542.9	900.0	323.15	1097.7	895.4
323.15	2439.9	908.4	323.15	1980.4	904.2	323.15	1532.8	899.9	323.15	1086.8	895.3
323.15	2428.6	908.3	323.15	1969.1	904.0	323.15	1520.5	899.7	323.15	1075.2	895.2
323.15	2415.8	908.2	323.15	1956.3	903.9	323.15	1508.5	899.6			
323.15	2403.7	908.1	323.15	1945.3	903.8	323.15	1497.2	899.5			
323.15	2392.4	908.0	323.15	1932.7	903.7	323.15	1485.3	899.4			
323.15	2380.3	907.9	323.15	1921.4	903.6	323.15	1473.1	899.3			

Tabella C6: Valori della densità del fluido R1243zf per T = 333.15 K (60°C)

T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]
333.15	35004.0	1033.2	333.15	34047.0	1030.5	333.15	32986.8	1027.5	333.14	31906.2	1024.2
333.15	34990.4	1033.2	333.15	34033.3	1030.5	333.15	32973.1	1027.5	333.14	31890.7	1024.2
333.15	34977.1	1033.2	333.15	34018.4	1030.5	333.15	32956.9	1027.4	333.14	31876.8	1024.2
333.15	34964.8	1033.1	333.15	34005.4	1030.4	333.15	32942.6	1027.3	333.14	31862.0	1024.1
333.15	34952.0	1033.1	333.15	33991.9	1030.4	333.15	32928.3	1027.3	333.15	31847.6	1024.1
333.15	34937.7	1033.1	333.15	33979.5	1030.4	333.15	32912.5	1027.3	333.15	31832.5	1024.1
333.15	34925.5	1033.0	333.15	33965.7	1030.3	333.15	32898.5	1027.2	333.15	31817.9	1024.0
333.15	34914.3	1033.0	333.15	33951.9	1030.2	333.15	32883.9	1027.2	333.15	31804.1	1024.0
333.15	34902.0	1033.0	333.15	33938.4	1030.2	333.15	32869.8	1027.1	333.15	31789.5	1023.9
333.15	34889.4	1032.9	333.15	33922.2	1030.1	333.15	32854.0	1027.1	333.15	31776.4	1023.9
333.15	34876.5	1032.9	333.15	33907.6	1030.1	333.15	32840.3	1027.0	333.14	31762.7	1023.8
333.15	34864.8	1032.9	333.15	33891.6	1030.1	333.15	32825.1	1027.0	333.14	31747.3	1023.8
333.15	34852.6	1032.8	333.15	33875.8	1030.0	333.15	32811.4	1026.9	333.14	31731.9	1023.8
333.15	34841.3	1032.8	333.15	33860.8	1030.0	333.15	32797.0	1026.9	333.14	31717.3	1023.7
333.15	34828.3	1032.7	333.15	33845.8	1030.0	333.15	32781.2	1026.8	333.14	31701.7	1023.7
333.15	34815.0	1032.7	333.15	33831.8	1029.9	333.15	32768.3	1026.8	333.14	31686.7	1023.6
333.15	34804.1	1032.7	333.15	33817.6	1029.9	333.15	32752.2	1026.8	333.15	31669.7	1023.6
333.15	34792.9	1032.6	333.15	33801.8	1029.8	333.15	32738.0	1026.7	333.15	31656.3	1023.5
333.15	34781.0	1032.6	333.15	33787.3	1029.8	333.15	32722.1	1026.7	333.14	31642.8	1023.5
333.15	34769.0	1032.6	333.15	33773.6	1029.8	333.15	32707.3	1026.6	333.14	31628.3	1023.4
333.15	34756.4	1032.6	333.15	33759.4	1029.7	333.15	32693.4	1026.6	333.14	31613.5	1023.4
333.15	34744.9	1032.5	333.15	33747.1	1029.6	333.15	32679.8	1026.6	333.14	31598.2	1023.4
333.15	34732.1	1032.5	333.15	33732.4	1029.6	333.15	32665.6	1026.5	333.14	31582.9	1023.3
333.15	34719.0	1032.5	333.15	33718.9	1029.6	333.15	32652.6	1026.5	333.14	31569.4	1023.3
333.15	34706.5	1032.4	333.15	33704.9	1029.5	333.15	32639.1	1026.5	333.15	31554.9	1023.2
333.15	34695.3	1032.4	333.15	33689.5	1029.5	333.15	32624.2	1026.4	333.15	31539.7	1023.2
333.15	34682.5	1032.3	333.15	33674.6	1029.4	333.15	32610.3	1026.3	333.15	31524.4	1023.1
333.15	34670.2	1032.3	333.15	33660.2	1029.4	333.15	32594.8	1026.3	333.15	31508.5	1023.1
333.15	34657.7	1032.2	333.15	33644.2	1029.4	333.15	32581.7	1026.3	333.15	31494.2	1023.0
333.15	34645.6	1032.2	333.15	33629.0	1029.3	333.15	32568.9	1026.3	333.15	31480.4	1023.0
333.15	34635.2	1032.2	333.15	33615.1	1029.3	333.15	32557.3	1026.2	333.15	31466.8	1022.9
333.15	34624.3	1032.2	333.15	33599.9	1029.3	333.15	32544.9	1026.2	333.14	31451.8	1022.9
333.15	34612.1	1032.2	333.15	33584.8	1029.2	333.15	32530.9	1026.1	333.14	31437.4	1022.8
333.15	34598.7	1032.1	333.15	33571.2	1029.2	333.15	32518.5	1026.1	333.14	31424.0	1022.8
333.15	34584.8	1032.1	333.15	33556.9	1029.1	333.15	32505.0	1026.0	333.14	31409.7	1022.8
333.15	34571.9	1032.0	333.15	33542.1	1029.1	333.15	32492.3	1026.0	333.14	31394.4	1022.7
333.15	34558.0	1032.0	333.15	33527.7	1029.1	333.15	32478.6	1026.0	333.14	31378.6	1022.7
333.15	34545.1	1032.0	333.15	33513.0	1029.0	333.15	32464.5	1025.9	333.15	31363.6	1022.7
333.15	34533.0	1031.9	333.15	33498.8	1029.0	333.15	32449.8	1025.9	333.15	31347.9	1022.6
333.15	34521.4	1031.9	333.15	33484.6	1028.9	333.15	32436.0	1025.8	333.15	31334.5	1022.6
333.15	34508.5	1031.9	333.15	33470.5	1028.9	333.15	32423.3	1025.8	333.15	31320.0	1022.5
333.15	34495.7	1031.8	333.15	33457.7	1028.8	333.15	32407.9	1025.8	333.15	31305.8	1022.4
333.15	34482.5	1031.8	333.15	33443.5	1028.8	333.15	32393.2	1025.8	333.15	31293.0	1022.4
333.15	34471.6	1031.7	333.14	33430.0	1028.8	333.15	32377.3	1025.7	333.15	31279.2	1022.4
333.15	34458.5	1031.7	333.15	33415.3	1028.7	333.14	32362.3	1025.6	333.14	31266.3	1022.4
333.15	34444.4	1031.7	333.15	33400.8	1028.7	333.14	32347.2	1025.6	333.14	31250.6	1022.3
333.15	34431.6	1031.6	333.14	33387.2	1028.6	333.15	32333.7	1025.6	333.14	31234.8	1022.2
333.15	34420.0	1031.6	333.15	33372.3	1028.6	333.15	32319.9	1025.5	333.14	31218.9	1022.2
333.15	34406.8	1031.6	333.15	33355.7	1028.5	333.15	32303.5	1025.4	333.15	31204.5	1022.2
333.15	34393.8	1031.5	333.15	33339.7	1028.5	333.15	32287.8	1025.4	333.15	31191.6	1022.1
333.15	34379.5	1031.5	333.15	33326.1	1028.5	333.15	32272.3	1025.4	333.15	31177.0	1022.1
333.15	34366.2	1031.4	333.15	33312.8	1028.4	333.15	32257.8	1025.3	333.15	31163.7	1022.0
333.15	34353.4	1031.4	333.15	33300.1	1028.4	333.15	32241.3	1025.3	333.15	31149.3	1022.0
333.15	34338.7	1031.3	333.15	33286.1	1028.3	333.15	32226.3	1025.3	333.15	31134.8	1022.0
333.15	34324.6	1031.3	333.15	33272.6	1028.3	333.14	32209.9	1025.2	333.14	31121.6	1021.9
333.15	34311.1	1031.3	333.15	33260.2	1028.3	333.14	32195.1	1025.1	333.14	31107.5	1021.9
333.14	34294.6	1031.2	333.14	33247.9	1028.3	333.15	32179.4	1025.1	333.14	31093.1	1021.8
333.15	34280.2	1031.2	333.14	33235.9	1028.2	333.15	32164.7	1025.1	333.15	31079.9	1021.8
333.14	34264.8	1031.1	333.15	33223.8	1028.2	333.15	32150.1	1025.0	333.15	31066.5	1021.8
333.15	34251.7	1031.1	333.15	33209.0	1028.1	333.15	32137.0	1025.0	333.15	31053.6	1021.7
333.15	34235.7	1031.1	333.15	33196.3	1028.1	333.15	32121.4	1024.9	333.15	31038.6	1021.6
333.15	34223.3	1031.0	333.15	33182.4	1028.1	333.15	32107.3	1024.9	333.15	31024.2	1021.6
333.15	34211.7	1031.0	333.15	33167.4	1028.1	333.15	32094.7	1024.8	333.14	31009.6	1021.6
333.15	34199.7	1031.0	333.15	33153.0	1028.0	333.15	32079.5	1024.8	333.15	30993.9	1021.5
333.15	34187.2	1030.9	333.15	33137.7	1027.9	333.14	32065.0	1024.7	333.14	30979.7	1021.5
333.15	34174.9	1030.9	333.15	33123.4	1027.9	333.14	32049.4	1024.7	333.14	30965.1	1021.4
333.15	34162.1	1030.8	333.15	33110.0	1027.8	333.15	32034.8	1024.7	333.14	30949.0	1021.4
333.15	34149.8	1030.8	333.14	33095.7	1027.8	333.15	32021.4	1024.6	333.14	30935.4	1021.4
333.15	34137.5	1030.8	333.14	33082.0	1027.7	333.15	32005.6	1024.6	333.15	30921.4	1021.3
333.15	34125.3	1030.8	333.15	33069.5	1027.7	333.15	31992.5	1024.5	333.15	30909.1	1021.3
333.15	34113.9	1030.7	333.15	33054.5	1027.7	333.15	31976.9	1024.5	333.15	30895.9	1021.2
333.15	34101.7	1030.7	333.15	33043.0	1027.6	333.15	31962.7	1024.4	333.14	30882.8	1021.2
333.15	34087.9	1030.6	333.14	33029.1	1027.6	333.15	31949.0	1024.4	333.14	30870.2	1021.2
333.15	34073.9	1030.6	333.15	33015.8	1027.6	333.15	31934.6	1024.4	333.14	30858.4	1021.1
333.15	34061.1	1030.6	333.15	32999.5	1027.5	333.14	31921.0	1024.3	333.14	30846.6	1021.0

Valori della densità del fluido R1243zf _ *T*=60°C

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
333.14	30833.6	1021.0	333.15	29748.6	1017.7	333.15	28621.5	1014.1	333.15	27544.9	1010.6
333.14	30820.5	1021.0	333.15	29735.1	1017.6	333.15	28606.6	1014.1	333.15	27531.5	1010.5
333.15	30806.6	1021.0	333.15	29719.3	1017.6	333.15	28593.5	1014.0	333.15	27517.0	1010.5
333.15	30793.2	1020.9	333.15	29704.4	1017.5	333.15	28579.0	1014.0	333.15	27502.8	1010.5
333.15	30780.1	1020.9	333.15	29691.3	1017.5	333.15	28565.5	1013.9	333.15	27487.8	1010.4
333.15	30766.5	1020.8	333.15	29676.8	1017.4	333.15	28551.2	1013.9	333.15	27473.2	1010.4
333.15	30753.0	1020.8	333.15	29662.1	1017.4	333.15	28539.1	1013.8	333.15	27458.5	1010.3
333.15	30738.7	1020.7	333.15	29647.2	1017.3	333.15	28526.8	1013.8	333.15	27444.8	1010.3
333.14	30725.4	1020.7	333.15	29632.1	1017.3	333.15	28513.4	1013.8	333.15	27431.4	1010.2
333.14	30711.7	1020.7	333.15	29617.8	1017.3	333.15	28500.1	1013.7	333.15	27418.9	1010.1
333.14	30696.3	1020.6	333.15	29602.8	1017.2	333.15	28486.6	1013.7	333.14	27405.5	1010.1
333.14	30682.2	1020.5	333.15	29588.1	1017.2	333.15	28471.8	1013.6	333.15	27391.7	1010.1
333.14	30668.2	1020.6	333.15	29573.6	1017.2	333.15	28458.4	1013.6	333.15	27379.1	1010.1
333.14	30653.4	1020.5	333.15	29557.7	1017.1	333.15	28442.7	1013.5	333.15	27364.7	1010.0
333.15	30639.6	1020.5	333.15	29543.1	1017.1	333.15	28428.6	1013.5	333.15	27350.1	1010.0
333.15	30625.9	1020.4	333.15	29527.7	1017.0	333.15	28415.9	1013.4	333.15	27335.6	1009.9
333.15	30611.3	1020.4	333.15	29513.4	1017.0	333.15	28399.6	1013.4	333.15	27320.3	1009.8
333.15	30596.1	1020.3	333.15	29498.0	1016.9	333.15	28383.3	1013.3	333.15	27308.3	1009.8
333.14	30582.1	1020.3	333.15	29483.3	1016.8	333.15	28369.9	1013.3	333.15	27295.7	1009.8
333.14	30567.7	1020.2	333.15	29468.5	1016.8	333.15	28354.9	1013.2	333.15	27281.4	1009.7
333.14	30552.2	1020.2	333.15	29455.3	1016.8	333.15	28340.9	1013.2	333.15	27267.9	1009.7
333.14	30535.9	1020.1	333.15	29442.5	1016.8	333.15	28328.8	1013.2	333.15	27256.5	1009.7
333.14	30521.3	1020.1	333.15	29429.1	1016.7	333.15	28315.7	1013.1	333.15	27244.2	1009.6
333.15	30509.3	1020.0	333.15	29415.8	1016.6	333.15	28302.3	1013.1	333.15	27231.5	1009.5
333.15	30497.3	1020.0	333.15	29402.0	1016.6	333.15	28289.6	1013.0	333.15	27216.6	1009.5
333.15	30486.9	1020.0	333.15	29388.5	1016.6	333.15	28276.9	1013.0	333.15	27202.0	1009.4
333.15	30473.9	1019.9	333.15	29374.8	1016.5	333.15	28263.8	1013.0	333.15	27189.3	1009.4
333.15	30462.3	1019.9	333.15	29361.6	1016.5	333.15	28250.5	1012.9	333.15	27174.5	1009.4
333.15	30449.6	1019.9	333.15	29348.3	1016.4	333.15	28235.3	1012.8	333.15	27159.7	1009.3
333.15	30435.5	1019.8	333.15	29331.7	1016.4	333.15	28221.7	1012.8	333.15	27144.6	1009.3
333.15	30420.5	1019.8	333.15	29317.1	1016.3	333.15	28206.3	1012.8	333.15	27132.0	1009.2
333.15	30404.2	1019.7	333.15	29303.3	1016.3	333.15	28190.6	1012.7	333.15	27119.3	1009.2
333.15	30388.0	1019.7	333.15	29286.9	1016.2	333.15	28177.3	1012.7	333.15	27105.6	1009.1
333.15	30374.1	1019.6	333.15	29271.3	1016.2	333.15	28162.0	1012.7	333.15	27093.0	1009.1
333.15	30360.1	1019.6	333.15	29256.8	1016.1	333.15	28148.0	1012.6	333.15	27079.1	1009.1
333.15	30346.0	1019.5	333.15	29241.5	1016.1	333.15	28134.1	1012.6	333.15	27064.8	1009.0
333.15	30332.9	1019.5	333.15	29226.4	1016.1	333.15	28122.4	1012.5	333.15	27051.7	1008.9
333.15	30318.4	1019.4	333.15	29212.0	1016.0	333.15	28108.8	1012.5	333.15	27038.4	1008.9
333.15	30303.6	1019.4	333.15	29196.8	1016.0	333.15	28094.8	1012.4	333.15	27025.0	1008.9
333.15	30288.9	1019.4	333.15	29181.7	1015.9	333.15	28078.8	1012.3	333.14	27010.7	1008.8
333.15	30273.9	1019.3	333.15	29166.7	1015.9	333.15	28063.3	1012.3	333.14	26996.0	1008.8
333.15	30259.6	1019.3	333.15	29151.8	1015.8	333.15	28050.2	1012.3	333.14	26981.9	1008.7
333.15	30246.9	1019.3	333.15	29138.3	1015.7	333.15	28038.2	1012.2	333.15	26967.3	1008.7
333.15	30231.7	1019.2	333.15	29124.5	1015.7	333.15	28027.1	1012.2	333.15	26953.6	1008.6
333.15	30219.0	1019.2	333.15	29109.6	1015.7	333.15	28012.5	1012.1	333.15	26939.5	1008.6
333.15	30205.9	1019.1	333.15	29095.6	1015.6	333.15	27998.6	1012.1	333.15	26926.9	1008.5
333.15	30192.1	1019.1	333.15	29082.5	1015.6	333.15	27985.9	1012.0	333.15	26912.1	1008.5
333.15	30177.5	1019.0	333.15	29068.0	1015.6	333.15	27971.8	1012.0	333.15	26897.9	1008.4
333.15	30163.8	1019.0	333.15	29053.8	1015.5	333.15	27958.1	1011.9	333.15	26885.1	1008.4
333.15	30152.0	1019.0	333.15	29039.5	1015.4	333.15	27943.4	1011.9	333.15	26874.6	1008.4
333.15	30137.9	1018.9	333.15	29025.7	1015.4	333.15	27930.0	1011.8	333.14	26863.1	1008.4
333.15	30123.7	1018.8	333.15	29012.8	1015.4	333.15	27914.0	1011.8	333.15	26849.4	1008.2
333.15	30109.9	1018.8	333.15	28998.8	1015.3	333.15	27899.4	1011.8	333.14	26839.0	1008.2
333.15	30095.5	1018.7	333.15	28984.3	1015.2	333.15	27882.0	1011.7	333.15	26826.7	1008.2
333.15	30080.7	1018.7	333.15	28970.5	1015.2	333.15	27868.4	1011.7	333.15	26814.8	1008.2
333.15	30067.0	1018.7	333.15	28955.4	1015.2	333.15	27854.0	1011.6	333.15	26801.7	1008.1
333.15	30053.6	1018.6	333.15	28941.2	1015.1	333.15	27840.7	1011.6	333.15	26789.0	1008.1
333.15	30042.3	1018.6	333.15	28927.7	1015.1	333.15	27827.8	1011.5	333.15	26776.3	1008.0
333.15	30028.7	1018.6	333.15	28913.1	1015.0	333.15	27813.9	1011.5	333.15	26760.1	1007.9
333.15	30017.2	1018.5	333.15	28898.7	1015.0	333.15	27802.0	1011.5	333.15	26747.0	1008.0
333.15	30004.9	1018.5	333.15	28884.3	1014.9	333.15	27788.3	1011.4	333.15	26732.7	1007.9
333.15	29992.1	1018.4	333.15	28871.2	1014.9	333.15	27776.0	1011.4	333.15	26718.7	1007.8
333.15	29980.1	1018.4	333.15	28856.8	1014.9	333.15	27764.1	1011.3	333.15	26705.5	1007.8
333.14	29965.8	1018.4	333.15	28841.8	1014.8	333.14	27752.0	1011.3	333.15	26691.3	1007.8
333.15	29951.1	1018.3	333.15	28826.2	1014.7	333.14	27739.2	1011.2	333.15	26678.3	1007.7
333.15	29934.9	1018.3	333.15	28811.2	1014.7	333.14	27726.1	1011.2	333.15	26665.3	1007.7
333.14	29918.6	1018.2	333.15	28795.9	1014.7	333.15	27713.3	1011.2	333.15	26652.3	1007.6
333.15	29903.3	1018.2	333.15	28780.6	1014.6	333.15	27699.3	1011.1	333.15	26639.0	1007.6
333.15	29888.6	1018.1	333.14	28765.9	1014.6	333.15	27682.7	1011.1	333.15	26625.3	1007.5
333.15	29874.7	1018.1	333.15	28752.1	1014.5	333.15	27669.9	1011.0	333.15	26612.5	1007.4
333.15	29861.5	1018.1	333.15	28736.7	1014.5	333.15	27656.0	1011.0	333.15	26599.8	1007.5
333.15	29847.8	1018.0	333.15	28723.1	1014.5	333.15	27642.5	1010.9	333.15	26585.5	1007.4
333.15	29834.0	1017.9	333.15	28709.9	1014.4	333.15	27629.3	1010.9	333.15	26573.3	1007.3
333.15	29819.9	1017.9	333.15	28696.3	1014.3	333.14	27614.1	1010.8	333.15	26560.0	1007.3
333.15	29805.6	1017.8	333.15	28681.4	1014.3	333.14	27599.1	1010.7	333.15	26546.6	1007.2
333.15	29792.0	1017.8	333.15	28666.6	1014.2	333.14	27584.8	1010.7	333.15	26533.0	1007.2
333.15	29776.9	1017.7	333.15	28651.8	1014.2	333.14	27572.3	1010.7	333.15	26519.4	1007.2
333.15	29762.8	1017.7	333.15	28635.7	1014.1	333.15	27559.3	1010.6	333.15	26504.5	1007.1

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
333.15	26491.1	1007.0	333.15	25470.7	1003.6	333.15	24457.1	1000.0	333.15	23468.0	996.4
333.15	26477.6	1007.0	333.15	25458.3	1003.5	333.15	24443.0	1000.0	333.15	23456.5	996.4
333.15	26463.1	1007.0	333.15	25446.5	1003.5	333.15	24429.5	999.9	333.15	23444.8	996.3
333.15	26448.1	1006.9	333.15	25434.3	1003.4	333.15	24416.6	999.9	333.15	23432.9	996.3
333.15	26434.9	1006.9	333.15	25422.7	1003.4	333.15	24404.5	999.8	333.15	23421.6	996.3
333.15	26421.3	1006.9	333.15	25409.7	1003.4	333.15	24390.7	999.8	333.15	23410.1	996.2
333.15	26408.0	1006.8	333.15	25397.1	1003.3	333.15	24378.7	999.7	333.15	23397.9	996.2
333.15	26394.8	1006.7	333.15	25384.5	1003.3	333.15	24366.4	999.6	333.15	23384.8	996.1
333.15	26381.1	1006.7	333.15	25372.2	1003.3	333.15	24355.6	999.7	333.15	23372.7	996.1
333.15	26365.8	1006.6	333.15	25358.5	1003.2	333.15	24343.7	999.6	333.15	23360.0	996.0
333.15	26353.3	1006.6	333.15	25345.0	1003.1	333.15	24330.9	999.6	333.15	23347.6	996.0
333.15	26339.9	1006.5	333.15	25330.8	1003.1	333.15	24318.9	999.5	333.15	23334.4	996.0
333.15	26327.2	1006.5	333.15	25320.0	1003.1	333.15	24304.4	999.4	333.15	23322.4	995.9
333.15	26313.0	1006.4	333.15	25307.8	1003.0	333.15	24291.3	999.4	333.15	23309.8	995.8
333.15	26300.7	1006.4	333.15	25294.9	1002.9	333.15	24277.6	999.4	333.15	23298.3	995.8
333.15	26288.9	1006.4	333.15	25282.3	1002.9	333.15	24264.0	999.3	333.14	23285.8	995.7
333.15	26275.0	1006.3	333.15	25268.5	1002.9	333.15	24251.6	999.3	333.14	23273.7	995.7
333.15	26262.6	1006.3	333.15	25255.6	1002.8	333.15	24239.9	999.2	333.14	23262.6	995.7
333.15	26247.6	1006.2	333.15	25242.3	1002.8	333.15	24226.5	999.2	333.15	23251.3	995.6
333.15	26232.7	1006.1	333.15	25230.0	1002.8	333.15	24213.7	999.1	333.15	23239.0	995.6
333.15	26218.7	1006.1	333.15	25217.6	1002.7	333.15	24201.1	999.1	333.15	23225.7	995.6
333.15	26206.7	1006.1	333.15	25204.1	1002.7	333.15	24188.0	999.1	333.15	23213.4	995.5
333.15	26193.8	1006.0	333.15	25190.4	1002.6	333.15	24176.7	999.0	333.15	23201.3	995.4
333.15	26182.1	1006.0	333.15	25177.6	1002.5	333.15	24163.4	999.0	333.15	23188.9	995.4
333.15	26169.7	1005.9	333.15	25163.8	1002.5	333.15	24150.2	998.9	333.15	23176.3	995.3
333.15	26157.3	1005.9	333.15	25151.0	1002.4	333.15	24137.2	998.9	333.15	23164.3	995.3
333.15	26145.4	1005.9	333.15	25136.8	1002.4	333.15	24125.1	998.8	333.15	23150.8	995.3
333.15	26132.8	1005.8	333.15	25123.9	1002.4	333.15	24113.4	998.8	333.14	23138.6	995.2
333.15	26120.5	1005.8	333.15	25112.2	1002.3	333.15	24100.8	998.7	333.15	23125.0	995.1
333.15	26107.1	1005.8	333.15	25099.6	1002.3	333.15	24089.2	998.7	333.15	23113.6	995.1
333.15	26095.2	1005.7	333.15	25087.3	1002.2	333.15	24076.7	998.6	333.15	23100.6	995.1
333.15	26083.8	1005.7	333.15	25075.7	1002.2	333.15	24063.3	998.6	333.15	23087.5	995.0
333.15	26069.3	1005.6	333.15	25061.7	1002.1	333.15	24051.2	998.6	333.15	23075.0	995.0
333.15	26055.4	1005.6	333.15	25048.5	1002.1	333.15	24040.4	998.5	333.15	23060.4	994.9
333.15	26042.3	1005.5	333.15	25034.8	1002.0	333.15	24026.9	998.4	333.15	23045.8	994.9
333.15	26029.8	1005.5	333.15	25021.2	1002.0	333.15	24014.1	998.4	333.15	23030.8	994.8
333.15	26017.5	1005.4	333.15	25009.6	1002.0	333.15	24001.7	998.4	333.15	23017.2	994.7
333.15	26004.3	1005.4	333.15	24998.5	1001.9	333.15	23990.3	998.3	333.15	23003.6	994.7
333.15	25991.3	1005.4	333.15	24984.3	1001.9	333.15	23977.2	998.2	333.15	22989.0	994.7
333.15	25977.1	1005.3	333.15	24971.0	1001.8	333.15	23964.4	998.3	333.15	22975.7	994.6
333.15	25964.0	1005.2	333.15	24957.9	1001.8	333.15	23950.9	998.2	333.15	22961.6	994.6
333.15	25951.3	1005.2	333.15	24944.9	1001.7	333.15	23937.9	998.1	333.15	22947.2	994.5
333.15	25937.4	1005.2	333.15	24931.5	1001.7	333.15	23925.8	998.1	333.15	22935.7	994.5
333.15	25925.2	1005.1	333.15	24917.5	1001.6	333.15	23913.5	998.0	333.15	22921.3	994.4
333.15	25911.5	1005.1	333.15	24906.6	1001.6	333.15	23900.4	998.0	333.15	22906.2	994.3
333.15	25896.9	1005.0	333.15	24893.2	1001.5	333.15	23887.9	998.0	333.15	22892.6	994.3
333.15	25883.9	1005.0	333.15	24880.3	1001.5	333.15	23876.1	997.9	333.15	22878.2	994.2
333.15	25870.0	1004.9	333.15	24867.3	1001.5	333.15	23863.7	997.9	333.15	22863.9	994.2
333.15	25857.2	1004.9	333.15	24853.8	1001.4	333.15	23851.4	997.8	333.14	22851.3	994.1
333.15	25844.0	1004.8	333.15	24841.1	1001.4	333.15	23837.3	997.8	333.14	22838.3	994.1
333.15	25831.2	1004.8	333.15	24828.1	1001.3	333.14	23825.3	997.7	333.14	22826.0	994.0
333.15	25820.5	1004.7	333.15	24815.3	1001.3	333.15	23811.3	997.6	333.15	22811.2	994.0
333.14	25808.8	1004.7	333.15	24801.6	1001.2	333.15	23798.7	997.6	333.15	22798.1	993.9
333.15	25795.7	1004.7	333.15	24788.6	1001.2	333.15	23786.0	997.6	333.15	22785.6	993.9
333.14	25783.8	1004.6	333.15	24776.7	1001.1	333.15	23773.7	997.5	333.15	22773.5	993.9
333.15	25770.5	1004.6	333.15	24764.7	1001.1	333.15	23760.8	997.5	333.15	22758.7	993.8
333.15	25756.1	1004.5	333.15	24752.4	1001.1	333.15	23747.2	997.4	333.15	22743.7	993.7
333.15	25742.9	1004.5	333.15	24739.6	1001.0	333.15	23733.5	997.4	333.15	22729.2	993.7
333.15	25728.8	1004.5	333.15	24727.7	1000.9	333.15	23721.8	997.4	333.15	22714.1	993.6
333.15	25716.1	1004.4	333.15	24714.1	1000.9	333.15	23709.3	997.3	333.14	22699.6	993.6
333.15	25701.9	1004.4	333.15	24700.7	1000.9	333.15	23695.8	997.3	333.15	22686.8	993.5
333.15	25688.1	1004.4	333.15	24688.9	1000.8	333.15	23681.8	997.2	333.15	22673.5	993.5
333.15	25676.2	1004.3	333.15	24675.3	1000.8	333.15	23670.3	997.2	333.15	22659.9	993.4
333.15	25663.9	1004.3	333.15	24660.9	1000.7	333.15	23656.8	997.1	333.15	22646.7	993.4
333.15	25652.0	1004.2	333.15	24647.4	1000.7	333.15	23644.2	997.1	333.15	22634.2	993.3
333.15	25639.8	1004.2	333.15	24634.5	1000.7	333.15	23631.4	997.0	333.15	22621.4	993.3
333.15	25627.4	1004.1	333.15	24622.1	1000.6	333.15	23617.6	997.0	333.15	22608.7	993.2
333.15	25613.5	1004.1	333.15	24609.6	1000.6	333.15	23603.9	996.9	333.15	22595.1	993.2
333.15	25600.7	1004.0	333.15	24596.4	1000.5	333.15	23592.2	996.9	333.15	22581.1	993.1
333.15	25587.3	1003.9	333.15	24583.0	1000.4	333.15	23580.0	996.8	333.15	22567.4	993.1
333.15	25572.5	1003.9	333.15	24569.4	1000.4	333.15	23566.8	996.8	333.15	22553.8	993.0
333.15	25559.9	1003.9	333.15	24552.9	1000.3	333.15	23554.4	996.8	333.15	22537.6	993.0
333.15	25547.4	1003.9	333.15	24537.5	1000.3	333.15	23542.5	996.7	333.15	22522.5	992.9
333.15	25534.8	1003.8	333.15	24524.1	1000.2	333.15	23530.1	996.7	333.15	22509.2	992.9
333.15	25519.8	1003.7	333.15	24511.9	1000.2	333.15	23516.6	996.6	333.15	22494.7	992.8
333.15	25506.9	1003.7	333.15	24498.8	1000.2	333.15	23505.1	996.6	333.15	22481.1	992.7
333.15	25493.1	1003.7	333.15	24484.3	1000.1	333.15	23492.0	996.5	333.15	22468.7	992.7
333.15	25481.3	1003.6	333.15	24469.4	1000.1	333.15	23479.5	996.5	333.15	22455.3	992.7

Valori della densità del fluido R1243zf _ *T*=60°C

T [K]	*p* [kPa]	*ρ* [kg/m^3]	*T* [K]	*p* [kPa]	*ρ* [kg/m^3]	*T* [K]	*p* [kPa]	*ρ* [kg/m^3]	*T* [K]	*p* [kPa]	*ρ* [kg/m^3]
333.15	22442.9	992.6	333.15	21394.7	988.5	333.14	20359.7	984.4	333.14	19307.5	980.1
333.15	22430.0	992.5	333.15	21382.4	988.5	333.15	20345.3	984.4	333.14	19292.5	980.1
333.14	22416.0	992.5	333.15	21370.3	988.5	333.15	20331.0	984.3	333.14	19278.3	980.0
333.14	22402.9	992.4	333.15	21358.3	988.4	333.15	20317.4	984.2	333.14	19265.3	980.0
333.14	22388.0	992.4	333.15	21347.0	988.4	333.15	20302.6	984.2	333.14	19250.4	979.9
333.15	22375.4	992.3	333.15	21333.1	988.3	333.14	20289.3	984.2	333.15	19236.0	979.8
333.15	22361.5	992.3	333.14	21320.5	988.3	333.14	20276.2	984.1	333.15	19221.9	979.8
333.15	22347.2	992.2	333.14	21306.0	988.2	333.14	20264.2	984.0	333.15	19207.0	979.7
333.15	22332.3	992.2	333.14	21294.7	988.2	333.14	20251.7	984.0	333.15	19193.5	979.7
333.15	22319.8	992.1	333.14	21282.0	988.1	333.14	20240.0	984.0	333.15	19179.9	979.6
333.15	22306.4	992.1	333.15	21269.6	988.1	333.14	20226.9	983.9	333.14	19165.5	979.5
333.15	22292.7	992.0	333.14	21256.2	988.0	333.14	20212.5	983.8	333.14	19150.8	979.5
333.14	22278.6	992.0	333.15	21242.8	988.0	333.15	20201.2	983.8	333.14	19137.4	979.4
333.15	22265.8	991.9	333.15	21229.1	987.9	333.15	20187.8	983.8	333.14	19123.4	979.4
333.14	22252.5	991.9	333.15	21216.8	987.9	333.15	20175.4	983.7	333.15	19110.2	979.3
333.15	22236.2	991.8	333.15	21203.7	987.8	333.15	20161.8	983.6	333.15	19096.5	979.3
333.15	22221.6	991.8	333.15	21189.1	987.7	333.14	20149.7	983.6	333.15	19081.5	979.2
333.15	22207.9	991.7	333.15	21175.1	987.7	333.14	20138.0	983.5	333.15	19066.0	979.1
333.15	22193.2	991.6	333.15	21162.6	987.6	333.14	20125.7	983.5	333.15	19051.7	979.1
333.15	22179.6	991.6	333.14	21149.4	987.6	333.14	20110.9	983.4	333.15	19037.6	979.0
333.15	22167.1	991.5	333.14	21136.9	987.5	333.14	20096.5	983.4	333.15	19024.1	978.9
333.15	22153.0	991.5	333.14	21122.8	987.5	333.14	20082.2	983.3	333.15	19009.5	978.9
333.15	22140.6	991.4	333.14	21108.2	987.4	333.14	20068.9	983.3	333.14	18993.4	978.8
333.15	22128.0	991.4	333.15	21095.6	987.4	333.14	20055.7	983.3	333.14	18978.6	978.8
333.15	22114.4	991.4	333.14	21082.4	987.3	333.15	20043.6	983.2	333.14	18964.8	978.7
333.14	22100.9	991.3	333.15	21068.1	987.3	333.15	20031.9	983.1	333.14	18950.2	978.6
333.15	22087.5	991.2	333.15	21054.6	987.2	333.15	20018.7	983.1	333.14	18936.0	978.6
333.15	22074.4	991.2	333.15	21040.9	987.2	333.15	20006.1	983.0	333.14	18921.9	978.5
333.15	22060.6	991.1	333.15	21027.4	987.1	333.14	19992.8	983.0	333.14	18908.1	978.5
333.15	22047.4	991.1	333.14	21012.7	987.0	333.14	19980.7	982.9	333.14	18893.5	978.4
333.15	22034.9	991.1	333.15	20998.6	987.0	333.14	19967.7	982.8	333.14	18878.4	978.4
333.15	22020.5	991.0	333.15	20984.8	986.9	333.14	19956.0	982.8	333.14	18863.9	978.3
333.15	22006.1	990.9	333.15	20970.3	986.9	333.14	19944.1	982.8	333.14	18849.6	978.2
333.15	21993.2	990.9	333.15	20957.2	986.8	333.15	19930.3	982.7	333.14	18834.0	978.1
333.15	21979.8	990.8	333.15	20943.3	986.8	333.15	19916.3	982.7	333.14	18818.9	978.1
333.15	21966.5	990.8	333.15	20930.5	986.7	333.15	19901.8	982.6	333.14	18804.8	978.0
333.15	21951.7	990.7	333.15	20917.4	986.7	333.14	19888.1	982.5	333.14	18790.4	978.0
333.15	21938.7	990.7	333.15	20903.9	986.6	333.14	19876.1	982.5	333.15	18775.2	977.9
333.15	21925.1	990.6	333.15	20891.1	986.5	333.14	19862.7	982.4	333.15	18761.6	977.8
333.15	21910.8	990.6	333.15	20878.1	986.5	333.14	19848.4	982.4	333.15	18746.8	977.8
333.15	21897.3	990.5	333.14	20865.2	986.5	333.14	19835.6	982.3	333.14	18732.8	977.7
333.15	21883.7	990.5	333.14	20852.1	986.4	333.14	19822.6	982.2	333.14	18718.5	977.7
333.15	21870.7	990.4	333.14	20838.9	986.4	333.14	19808.9	982.2	333.14	18705.8	977.6
333.15	21856.6	990.3	333.14	20824.9	986.3	333.14	19794.9	982.2	333.14	18692.7	977.6
333.15	21843.5	990.3	333.14	20812.2	986.3	333.14	19783.2	982.1	333.14	18679.7	977.5
333.15	21829.7	990.2	333.15	20798.1	986.2	333.14	19768.1	982.0	333.14	18665.7	977.4
333.15	21818.2	990.2	333.15	20785.1	986.1	333.14	19754.0	982.0	333.15	18651.2	977.4
333.15	21802.8	990.1	333.15	20771.4	986.1	333.14	19738.9	981.9	333.15	18636.7	977.3
333.14	21789.5	990.1	333.15	20756.6	986.0	333.14	19724.8	981.8	333.15	18622.5	977.2
333.14	21776.2	990.0	333.15	20743.6	986.0	333.14	19710.8	981.8	333.15	18609.5	977.2
333.15	21762.9	990.0	333.15	20729.1	986.0	333.14	19695.9	981.7	333.14	18595.4	977.1
333.14	21750.6	989.9	333.15	20716.6	985.9	333.14	19682.0	981.7	333.14	18581.1	977.1
333.14	21737.2	989.9	333.15	20702.9	985.8	333.14	19666.1	981.6	333.14	18566.9	977.0
333.15	21723.8	989.8	333.15	20687.9	985.8	333.14	19651.7	981.6	333.14	18554.1	977.0
333.14	21710.7	989.8	333.14	20674.8	985.7	333.15	19639.2	981.5	333.14	18540.8	976.9
333.15	21698.5	989.8	333.15	20661.2	985.6	333.15	19627.2	981.4	333.14	18528.5	976.9
333.15	21685.4	989.7	333.14	20648.5	985.6	333.14	19614.9	981.4	333.14	18515.1	976.8
333.15	21673.2	989.7	333.15	20637.1	985.6	333.14	19601.5	981.4	333.14	18502.6	976.7
333.15	21659.9	989.5	333.15	20625.1	985.5	333.14	19588.1	981.3	333.14	18490.9	976.7
333.14	21647.6	989.5	333.15	20613.2	985.5	333.14	19575.3	981.3	333.15	18477.6	976.6
333.14	21633.1	989.5	333.15	20599.4	985.4	333.14	19561.8	981.2	333.14	18464.9	976.6
333.14	21619.0	989.4	333.15	20586.8	985.4	333.14	19549.1	981.1	333.14	18451.0	976.5
333.14	21605.5	989.4	333.15	20574.1	985.3	333.15	19535.3	981.1	333.14	18437.3	976.5
333.15	21591.0	989.3	333.15	20561.4	985.3	333.15	19521.0	981.0	333.14	18423.0	976.4
333.15	21577.0	989.3	333.15	20548.8	985.2	333.15	19505.6	981.0	333.14	18408.6	976.3
333.15	21563.6	989.2	333.15	20535.2	985.1	333.15	19490.8	980.9	333.14	18394.9	976.3
333.15	21550.9	989.2	333.15	20520.9	985.1	333.15	19474.5	980.8	333.14	18381.4	976.2
333.15	21538.5	989.1	333.15	20507.3	985.0	333.15	19460.1	980.8	333.14	18367.0	976.1
333.15	21524.9	989.1	333.15	20495.0	985.0	333.14	19445.1	980.7	333.14	18353.7	976.1
333.15	21513.0	989.0	333.14	20479.4	984.9	333.15	19432.2	980.7	333.15	18341.1	976.0
333.15	21501.0	989.0	333.15	20466.7	984.9	333.15	19418.2	980.6	333.15	18326.3	976.0
333.15	21488.0	988.9	333.15	20453.9	984.8	333.15	19404.3	980.5	333.15	18311.9	975.9
333.15	21474.7	988.8	333.15	20440.5	984.8	333.15	19389.7	980.5	333.15	18299.2	975.9
333.15	21461.9	988.8	333.14	20427.9	984.7	333.14	19375.5	980.4	333.15	18285.3	975.8
333.14	21447.4	988.7	333.14	20414.9	984.6	333.14	19361.2	980.4	333.15	18272.7	975.8
333.14	21433.9	988.7	333.14	20402.4	984.6	333.14	19348.2	980.3	333.14	18260.0	975.7
333.15	21421.2	988.6	333.14	20387.9	984.5	333.15	19335.0	980.3	333.14	18246.2	975.6
333.15	21408.5	988.6	333.15	20374.5	984.5	333.15	19320.7	980.2	333.14	18232.7	975.6

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
333.14	18217.5	975.5	333.14	17066.3	970.5	333.15	15947.0	965.3	333.14	14880.6	960.2
333.14	18204.9	975.5	333.14	17052.8	970.4	333.15	15933.8	965.2	333.14	14868.0	960.1
333.14	18191.1	975.4	333.14	17037.9	970.3	333.15	15919.9	965.1	333.14	14854.6	960.1
333.14	18177.7	975.3	333.14	17024.5	970.3	333.15	15908.3	965.1	333.15	14839.9	960.0
333.14	18163.4	975.3	333.14	17009.9	970.2	333.14	15896.3	965.1	333.15	14824.5	959.9
333.15	18150.0	975.2	333.14	16996.8	970.1	333.14	15883.8	965.0	333.14	14810.3	959.8
333.15	18136.2	975.2	333.15	16984.1	970.1	333.14	15870.8	964.9	333.15	14797.4	959.7
333.14	18121.7	975.1	333.15	16972.5	970.0	333.14	15857.0	964.9	333.15	14784.2	959.7
333.14	18106.0	975.0	333.14	16960.0	969.9	333.14	15842.2	964.8	333.15	14771.5	959.6
333.14	18090.8	975.0	333.14	16946.4	969.9	333.15	15828.8	964.7	333.15	14759.6	959.6
333.14	18076.6	974.9	333.14	16933.6	969.8	333.15	15815.7	964.7	333.15	14747.0	959.5
333.14	18062.1	974.8	333.14	16918.1	969.8	333.15	15804.5	964.6	333.15	14734.3	959.4
333.14	18046.8	974.8	333.14	16903.1	969.7	333.15	15791.8	964.6	333.15	14722.1	959.4
333.14	18030.6	974.7	333.14	16888.9	969.6	333.15	15779.6	964.5	333.15	14708.7	959.3
333.14	18013.9	974.7	333.14	16874.7	969.6	333.15	15766.4	964.4	333.15	14694.5	959.2
333.14	17999.6	974.6	333.14	16858.9	969.5	333.15	15753.8	964.4	333.15	14680.8	959.2
333.14	17985.2	974.5	333.14	16845.1	969.4	333.15	15742.4	964.3	333.15	14667.1	959.1
333.14	17970.9	974.4	333.14	16830.7	969.4	333.15	15728.8	964.2	333.15	14653.6	959.0
333.14	17958.1	974.4	333.14	16816.3	969.3	333.14	15715.4	964.2	333.15	14641.1	959.0
333.14	17943.9	974.3	333.14	16801.1	969.2	333.14	15701.8	964.1	333.15	14627.4	958.9
333.14	17931.7	974.3	333.14	16787.6	969.2	333.15	15687.7	964.1	333.15	14614.6	958.9
333.14	17917.9	974.2	333.14	16773.2	969.1	333.14	15673.8	964.0	333.15	14602.2	958.8
333.14	17905.0	974.2	333.14	16759.9	969.1	333.15	15661.3	963.9	333.15	14589.4	958.7
333.14	17891.3	974.1	333.14	16746.2	969.0	333.15	15648.5	963.9	333.15	14576.8	958.7
333.15	17877.3	974.1	333.14	16732.5	968.9	333.15	15635.0	963.8	333.15	14563.5	958.6
333.15	17864.7	974.0	333.14	16719.4	968.9	333.15	15622.8	963.7	333.15	14547.5	958.5
333.15	17850.7	973.9	333.15	16704.9	968.8	333.15	15608.3	963.7	333.15	14535.1	958.4
333.14	17837.7	973.9	333.14	16690.7	968.7	333.15	15595.0	963.6	333.15	14521.0	958.4
333.14	17824.2	973.8	333.14	16675.0	968.7	333.15	15581.1	963.5	333.15	14507.5	958.3
333.14	17810.6	973.7	333.14	16660.3	968.6	333.15	15566.6	963.5	333.15	14493.8	958.3
333.14	17796.9	973.7	333.14	16645.9	968.5	333.15	15552.5	963.4	333.15	14479.9	958.2
333.14	17783.9	973.6	333.14	16630.9	968.4	333.15	15536.9	963.3	333.15	14465.7	958.1
333.14	17769.3	973.6	333.14	16615.1	968.4	333.14	15521.3	963.3	333.15	14451.5	958.1
333.14	17756.2	973.5	333.14	16600.0	968.3	333.14	15507.9	963.2	333.15	14437.9	958.0
333.14	17740.6	973.4	333.14	16586.2	968.3	333.14	15493.5	963.1	333.15	14423.5	957.9
333.14	17725.5	973.3	333.14	16572.7	968.2	333.14	15480.0	963.1	333.15	14409.6	957.8
333.14	17711.8	973.3	333.15	16558.4	968.1	333.14	15467.4	963.0	333.15	14397.2	957.8
333.15	17696.9	973.3	333.15	16544.5	968.1	333.15	15455.8	962.9	333.14	14382.3	957.7
333.15	17682.1	973.2	333.15	16528.5	968.0	333.15	15443.2	962.9	333.14	14367.8	957.6
333.15	17667.7	973.1	333.15	16512.8	967.9	333.15	15428.1	962.8	333.15	14352.7	957.5
333.15	17652.2	973.0	333.14	16499.4	967.8	333.15	15415.4	962.7	333.15	14337.1	957.5
333.14	17635.9	973.0	333.14	16485.0	967.8	333.15	15402.6	962.7	333.15	14321.9	957.4
333.14	17621.5	972.9	333.14	16470.8	967.7	333.15	15387.4	962.6	333.15	14306.0	957.3
333.14	17606.2	972.9	333.14	16457.0	967.7	333.15	15373.5	962.6	333.15	14289.9	957.2
333.14	17591.4	972.8	333.14	16442.6	967.6	333.15	15361.0	962.5	333.15	14274.9	957.2
333.14	17574.9	972.7	333.15	16428.8	967.5	333.15	15347.3	962.4	333.15	14259.6	957.1
333.14	17559.2	972.6	333.15	16412.4	967.5	333.15	15334.3	962.4	333.15	14246.2	957.0
333.15	17543.9	972.6	333.15	16397.3	967.4	333.15	15319.7	962.3	333.14	14231.4	956.9
333.15	17527.4	972.5	333.15	16380.8	967.3	333.15	15306.3	962.2	333.14	14215.7	956.8
333.15	17510.7	972.4	333.15	16366.1	967.2	333.15	15290.8	962.2	333.14	14202.0	956.8
333.15	17494.2	972.3	333.14	16351.6	967.1	333.15	15276.8	962.1	333.14	14187.7	956.7
333.15	17478.5	972.3	333.14	16335.6	967.1	333.15	15262.6	962.0	333.14	14173.6	956.7
333.14	17462.0	972.2	333.14	16320.7	967.0	333.15	15249.1	961.9	333.14	14158.8	956.6
333.14	17448.7	972.2	333.14	16304.6	966.9	333.15	15235.5	961.9	333.15	14144.9	956.5
333.14	17432.3	972.1	333.14	16289.7	966.8	333.15	15221.8	961.8	333.15	14129.8	956.4
333.14	17416.3	972.0	333.14	16274.6	966.8	333.15	15207.7	961.7	333.15	14116.1	956.3
333.14	17400.0	971.9	333.14	16260.4	966.8	333.14	15194.2	961.7	333.15	14102.6	956.3
333.14	17384.6	971.9	333.14	16246.0	966.7	333.14	15180.5	961.6	333.15	14087.5	956.2
333.14	17369.6	971.8	333.15	16232.6	966.6	333.15	15166.9	961.6	333.14	14073.1	956.1
333.14	17354.8	971.7	333.15	16218.4	966.5	333.15	15154.6	961.5	333.14	14058.3	956.1
333.14	17339.8	971.7	333.14	16204.1	966.5	333.15	15140.6	961.4	333.14	14045.3	956.0
333.14	17324.2	971.6	333.14	16190.5	966.4	333.15	15126.1	961.4	333.14	14029.7	955.9
333.14	17308.7	971.5	333.14	16177.6	966.3	333.15	15112.9	961.3	333.14	14015.8	955.9
333.14	17294.0	971.5	333.14	16163.1	966.3	333.15	15098.2	961.2	333.14	14001.6	955.8
333.14	17279.5	971.4	333.14	16148.2	966.2	333.15	15081.3	961.1	333.15	13986.9	955.7
333.14	17264.9	971.3	333.14	16133.4	966.2	333.15	15066.8	961.1	333.15	13972.4	955.6
333.14	17249.0	971.3	333.14	16117.3	966.1	333.15	15052.5	961.0	333.15	13960.3	955.6
333.14	17233.4	971.2	333.14	16102.2	966.0	333.15	15038.3	960.9	333.14	13945.9	955.5
333.14	17216.9	971.1	333.15	16087.0	965.9	333.15	15024.9	960.9	333.14	13931.3	955.4
333.14	17199.9	971.1	333.15	16072.8	965.8	333.15	15009.5	960.8	333.14	13915.8	955.3
333.14	17184.8	971.0	333.14	16058.0	965.8	333.15	14994.3	960.7	333.14	13901.1	955.3
333.15	17169.6	970.9	333.14	16043.3	965.7	333.15	14980.4	960.6	333.14	13887.2	955.2
333.14	17154.4	970.9	333.14	16029.1	965.6	333.15	14965.7	960.6	333.14	13871.4	955.1
333.14	17140.3	970.8	333.14	16014.6	965.6	333.14	14951.5	960.5	333.14	13856.6	955.0
333.14	17127.1	970.7	333.14	16000.5	965.5	333.14	14937.5	960.5	333.15	13840.0	955.0
333.14	17111.1	970.6	333.14	15987.0	965.4	333.14	14921.9	960.3	333.15	13825.4	954.9
333.14	17096.3	970.6	333.14	15973.3	965.4	333.14	14906.1	960.3	333.15	13812.0	954.8
333.14	17080.8	970.5	333.14	15958.5	965.4	333.14	14892.7	960.2	333.15	13798.3	954.7

Valori della densità del fluido R1243zf _ *T*=60°C

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
333.15	13785.2	954.7	333.15	12733.3	949.1	333.15	11756.2	943.7	333.15	10767.5	938.0
333.14	13772.0	954.6	333.15	12720.1	949.0	333.15	11743.9	943.6	333.15	10755.3	937.9
333.14	13760.2	954.5	333.15	12705.9	949.0	333.15	11731.2	943.6	333.15	10741.8	937.8
333.14	13748.2	954.5	333.15	12692.4	948.9	333.15	11718.1	943.5	333.14	10729.1	937.7
333.14	13734.5	954.4	333.15	12680.2	948.8	333.15	11705.4	943.4	333.14	10717.6	937.7
333.14	13720.5	954.3	333.15	12668.7	948.7	333.14	11692.5	943.4	333.14	10705.4	937.6
333.15	13707.9	954.3	333.14	12655.3	948.7	333.14	11679.2	943.3	333.15	10692.3	937.5
333.15	13695.8	954.2	333.14	12643.4	948.6	333.15	11666.5	943.2	333.15	10680.0	937.5
333.15	13680.2	954.1	333.14	12632.8	948.5	333.15	11655.0	943.1	333.15	10667.4	937.4
333.15	13666.5	954.1	333.14	12621.5	948.5	333.15	11642.3	943.1	333.15	10654.3	937.3
333.15	13653.8	954.0	333.14	12610.0	948.4	333.15	11629.0	943.0	333.15	10641.9	937.2
333.15	13640.7	953.9	333.14	12597.8	948.4	333.15	11617.7	942.9	333.15	10630.2	937.2
333.15	13627.0	953.8	333.14	12585.8	948.3	333.15	11607.2	942.9	333.15	10618.9	937.1
333.14	13613.6	953.8	333.14	12573.9	948.2	333.15	11596.2	942.8	333.15	10605.8	937.0
333.14	13600.1	953.7	333.15	12564.1	948.2	333.15	11584.7	942.7	333.15	10592.2	936.9
333.14	13586.7	953.6	333.15	12552.3	948.1	333.15	11572.7	942.7	333.15	10580.4	936.9
333.14	13572.4	953.5	333.15	12540.1	948.0	333.15	11560.0	942.6	333.15	10567.3	936.8
333.14	13557.7	953.5	333.15	12529.4	948.0	333.15	11547.9	942.5	333.15	10554.1	936.7
333.14	13543.7	953.4	333.14	12517.1	947.9	333.15	11537.0	942.5	333.15	10541.9	936.6
333.15	13529.9	953.3	333.14	12505.1	947.9	333.15	11524.6	942.4	333.15	10528.4	936.6
333.15	13517.3	953.2	333.14	12493.4	947.8	333.15	11512.6	942.3	333.15	10514.7	936.5
333.15	13504.5	953.2	333.14	12482.2	947.8	333.15	11503.8	942.3	333.15	10501.6	936.4
333.14	13491.1	953.1	333.14	12470.4	947.7	333.14	11492.3	942.2	333.15	10489.1	936.3
333.14	13477.6	953.0	333.15	12459.1	947.6	333.14	11480.5	942.1	333.15	10475.6	936.2
333.14	13464.8	953.0	333.15	12445.9	947.5	333.15	11469.6	942.1	333.15	10463.2	936.1
333.14	13451.7	952.9	333.15	12433.8	947.5	333.15	11456.8	942.0	333.15	10450.5	936.1
333.15	13439.6	952.8	333.15	12421.1	947.4	333.15	11444.0	941.9	333.15	10436.9	936.0
333.15	13425.8	952.8	333.15	12407.8	947.4	333.15	11431.3	941.8	333.15	10423.8	935.9
333.15	13413.7	952.7	333.15	12394.2	947.3	333.15	11418.5	941.8	333.15	10409.9	935.8
333.15	13399.8	952.7	333.15	12380.6	947.2	333.15	11405.1	941.7	333.15	10395.4	935.7
333.15	13386.9	952.6	333.15	12367.4	947.1	333.15	11392.3	941.6	333.15	10381.9	935.7
333.15	13373.4	952.5	333.15	12355.3	947.1	333.15	11379.2	941.6	333.15	10367.4	935.6
333.15	13360.7	952.4	333.15	12341.6	947.0	333.15	11365.7	941.5	333.15	10354.5	935.5
333.15	13347.3	952.3	333.15	12327.5	946.9	333.14	11353.2	941.4	333.15	10340.8	935.4
333.14	13334.2	952.3	333.15	12314.1	946.9	333.15	11339.6	941.3	333.15	10326.4	935.3
333.14	13321.9	952.2	333.15	12300.4	946.7	333.15	11326.3	941.3	333.15	10312.0	935.2
333.14	13309.3	952.2	333.15	12286.6	946.7	333.15	11313.9	941.2	333.15	10298.9	935.2
333.14	13296.2	952.1	333.15	12274.2	946.6	333.15	11300.6	941.1	333.15	10283.7	935.1
333.15	13283.1	952.0	333.15	12262.8	946.5	333.15	11287.7	941.0	333.15	10269.5	935.0
333.15	13268.7	952.0	333.15	12251.1	946.5	333.15	11275.0	941.0	333.15	10254.5	934.9
333.14	13254.8	951.9	333.14	12238.5	946.4	333.15	11263.2	940.9	333.15	10240.5	934.8
333.15	13241.7	951.8	333.14	12226.0	946.3	333.15	11249.7	940.8	333.15	10226.8	934.7
333.15	13227.3	951.7	333.14	12213.4	946.3	333.15	11236.1	940.7	333.15	10212.3	934.7
333.14	13213.3	951.7	333.14	12200.7	946.2	333.15	11223.9	940.6	333.15	10200.5	934.6
333.14	13199.9	951.6	333.14	12188.2	946.1	333.15	11211.0	940.6	333.15	10185.9	934.4
333.14	13186.3	951.5	333.15	12176.0	946.1	333.15	11198.0	940.5	333.15	10172.4	934.4
333.15	13173.1	951.4	333.15	12163.1	946.0	333.15	11184.6	940.4	333.15	10158.5	934.2
333.15	13160.1	951.4	333.15	12150.2	945.9	333.15	11171.2	940.4	333.15	10144.7	934.2
333.15	13147.3	951.3	333.15	12137.9	945.9	333.15	11158.6	940.3	333.15	10129.4	934.1
333.15	13133.4	951.3	333.14	12124.9	945.8	333.15	11146.4	940.2	333.15	10116.0	934.0
333.15	13119.3	951.2	333.14	12111.8	945.7	333.15	11133.3	940.1	333.15	10101.3	933.9
333.15	13106.8	951.1	333.14	12098.3	945.7	333.15	11119.3	940.0	333.15	10087.1	933.9
333.15	13093.0	951.0	333.14	12085.3	945.5	333.15	11105.6	940.0	333.15	10072.6	933.8
333.14	13079.0	951.0	333.14	12072.2	945.5	333.15	11093.2	939.9	333.15	10058.9	933.6
333.14	13065.9	950.9	333.15	12059.2	945.4	333.15	11079.6	939.8	333.15	10044.9	933.6
333.14	13052.0	950.8	333.15	12047.0	945.3	333.15	11066.3	939.7	333.15	10029.9	933.5
333.14	13036.8	950.7	333.15	12033.6	945.3	333.14	11054.6	939.7	333.15	10014.1	933.4
333.14	13022.9	950.7	333.15	12020.7	945.2	333.15	11041.5	939.6	333.15	9999.4	933.3
333.15	13009.5	950.6	333.15	12008.0	945.1	333.15	11027.6	939.5	333.15	9984.3	933.2
333.15	12994.9	950.5	333.15	11994.6	945.1	333.15	11015.0	939.4	333.15	9970.6	933.1
333.15	12980.3	950.4	333.15	11981.8	945.0	333.15	11001.7	939.4	333.15	9957.6	933.0
333.15	12967.6	950.3	333.14	11969.6	944.9	333.15	10987.7	939.3	333.15	9943.9	933.0
333.15	12952.2	950.3	333.14	11957.3	944.8	333.15	10973.8	939.2	333.15	9930.2	932.9
333.15	12938.2	950.2	333.14	11945.0	944.8	333.15	10960.3	939.1	333.15	9917.5	932.8
333.14	12924.2	950.1	333.14	11932.0	944.7	333.15	10947.9	939.0	333.15	9903.7	932.7
333.15	12909.9	950.1	333.15	11920.6	944.6	333.15	10935.0	939.0	333.15	9889.3	932.6
333.15	12895.3	950.0	333.14	11907.3	944.6	333.15	10922.0	938.9	333.15	9873.7	932.5
333.15	12881.5	949.9	333.15	11895.0	944.5	333.15	10909.1	938.8	333.15	9859.5	932.5
333.15	12869.0	949.8	333.15	11883.1	944.4	333.15	10896.0	938.7	333.15	9847.1	932.4
333.15	12855.1	949.8	333.14	11869.8	944.3	333.15	10883.5	938.7	333.15	9834.7	932.3
333.15	12841.2	949.7	333.14	11856.5	944.3	333.15	10869.7	938.6	333.15	9822.6	932.2
333.15	12828.4	949.6	333.14	11843.9	944.2	333.15	10857.5	938.5	333.15	9810.2	932.1
333.15	12813.6	949.6	333.14	11831.6	944.1	333.15	10844.6	938.5	333.16	9795.8	932.0
333.15	12799.9	949.5	333.15	11817.2	944.1	333.15	10832.6	938.4	333.15	9783.4	932.0
333.15	12787.0	949.4	333.14	11805.4	944.0	333.15	10819.9	938.3	333.15	9771.0	931.9
333.15	12772.9	949.3	333.14	11793.8	943.9	333.15	10807.7	938.3	333.15	9757.4	931.8
333.14	12759.2	949.3	333.15	11781.9	943.8	333.15	10794.2	938.1	333.15	9743.3	931.7
333.15	12746.9	949.2	333.15	11768.8	943.8	333.15	10780.7	938.1	333.15	9730.0	931.6

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
333.15	9715.4	931.5	333.15	8674.0	924.8	333.15	7657.8	917.7	333.15	6660.6	910.3
333.15	9701.3	931.4	333.15	8660.2	924.7	333.15	7644.6	917.6	333.15	6647.3	910.1
333.15	9688.5	931.4	333.15	8647.6	924.6	333.15	7631.4	917.5	333.15	6632.8	910.1
333.15	9675.4	931.2	333.15	8633.3	924.5	333.15	7618.4	917.4	333.15	6620.8	910.0
333.15	9662.7	931.2	333.15	8619.3	924.3	333.15	7605.2	917.3	333.15	6608.1	909.8
333.15	9649.9	931.1	333.15	8607.1	924.3	333.15	7591.9	917.2	333.15	6594.3	909.8
333.15	9637.8	931.1	333.15	8593.1	924.2	333.15	7578.2	917.1	333.15	6581.6	909.7
333.15	9624.4	931.0	333.15	8580.0	924.1	333.15	7565.1	917.0	333.15	6569.5	909.6
333.15	9610.8	930.8	333.15	8567.4	924.0	333.15	7551.8	916.9	333.15	6557.0	909.5
333.15	9596.7	930.8	333.15	8554.9	923.9	333.15	7538.8	916.8	333.15	6545.1	909.3
333.15	9583.6	930.7	333.15	8543.1	923.8	333.15	7526.1	916.8	333.15	6533.2	909.3
333.15	9570.5	930.6	333.15	8530.2	923.8	333.15	7513.5	916.7	333.15	6521.4	909.2
333.15	9557.9	930.5	333.15	8517.1	923.7	333.15	7501.7	916.6	333.15	6507.6	909.1
333.15	9544.5	930.5	333.15	8503.6	923.6	333.15	7489.8	916.5	333.15	6494.8	909.0
333.15	9530.9	930.4	333.15	8491.3	923.5	333.15	7476.3	916.4	333.15	6480.8	908.9
333.15	9517.7	930.2	333.15	8478.3	923.4	333.15	7463.6	916.3	333.15	6466.5	908.7
333.15	9505.5	930.2	333.15	8466.7	923.3	333.15	7450.4	916.2	333.15	6452.9	908.7
333.15	9494.0	930.1	333.15	8454.3	923.2	333.15	7436.5	916.1	333.15	6440.8	908.6
333.15	9480.2	930.1	333.15	8443.2	923.2	333.15	7424.1	916.0	333.15	6430.4	908.5
333.15	9467.8	929.9	333.15	8430.9	923.1	333.15	7410.8	915.9	333.15	6418.3	908.4
333.15	9455.4	929.9	333.15	8419.8	923.0	333.15	7397.0	915.8	333.15	6406.4	908.3
333.15	9443.5	929.8	333.15	8406.9	922.9	333.15	7383.3	915.7	333.15	6392.8	908.2
333.15	9432.1	929.7	333.15	8392.8	922.9	333.15	7369.9	915.6	333.15	6379.3	908.1
333.15	9419.4	929.7	333.15	8378.8	922.8	333.15	7358.5	915.5	333.15	6366.5	908.0
333.15	9406.6	929.6	333.15	8366.5	922.7	333.15	7346.6	915.4	333.15	6354.4	907.9
333.15	9393.6	929.4	333.15	8355.2	922.6	333.15	7334.8	915.3	333.15	6340.6	907.8
333.15	9381.7	929.4	333.15	8342.4	922.5	333.15	7321.9	915.2	333.15	6327.8	907.7
333.15	9368.9	929.3	333.15	8329.5	922.4	333.15	7311.4	915.2	333.15	6315.7	907.5
333.15	9356.0	929.2	333.15	8316.6	922.3	333.15	7297.1	915.1	333.14	6302.6	907.5
333.15	9342.6	929.2	333.15	8304.2	922.3	333.15	7285.2	915.0	333.15	6289.5	907.3
333.15	9328.6	929.1	333.15	8291.4	922.1	333.15	7272.8	914.9	333.15	6276.7	907.3
333.15	9314.0	929.0	333.15	8278.8	922.0	333.15	7259.3	914.8	333.15	6263.4	907.2
333.15	9299.6	928.9	333.15	8265.4	922.0	333.15	7245.8	914.7	333.15	6250.1	907.0
333.15	9285.0	928.8	333.15	8252.5	921.9	333.15	7233.1	914.6	333.15	6236.3	906.9
333.15	9270.5	928.7	333.15	8238.5	921.8	333.15	7217.7	914.5	333.15	6222.7	906.8
333.15	9255.4	928.6	333.15	8223.2	921.7	333.15	7203.9	914.4	333.15	6209.9	906.7
333.15	9242.2	928.5	333.15	8208.3	921.6	333.15	7191.1	914.3	333.15	6196.2	906.6
333.15	9228.6	928.4	333.15	8195.8	921.5	333.15	7179.6	914.2	333.15	6181.6	906.5
333.15	9214.4	928.3	333.15	8183.1	921.4	333.15	7167.7	914.1	333.14	6168.6	906.4
333.15	9200.7	928.2	333.15	8169.7	921.3	333.15	7154.1	914.0	333.14	6155.5	906.3
333.15	9187.1	928.1	333.15	8158.3	921.3	333.15	7142.6	913.9	333.15	6140.3	906.1
333.15	9173.3	928.1	333.15	8145.1	921.1	333.15	7129.4	913.8	333.15	6126.6	906.1
333.15	9159.8	928.0	333.15	8132.6	921.0	333.15	7115.6	913.7	333.15	6112.8	905.9
333.15	9147.3	927.9	333.15	8118.8	921.0	333.15	7102.8	913.6	333.15	6099.3	905.8
333.15	9134.0	927.8	333.15	8106.6	920.9	333.15	7089.9	913.6	333.15	6085.5	905.7
333.15	9120.2	927.7	333.15	8094.0	920.8	333.15	7075.2	913.4	333.15	6071.5	905.6
333.15	9107.3	927.6	333.15	8080.7	920.7	333.15	7062.6	913.3	333.15	6058.6	905.5
333.15	9093.7	927.6	333.15	8068.0	920.6	333.15	7047.8	913.2	333.15	6044.9	905.4
333.15	9080.1	927.4	333.15	8053.0	920.5	333.15	7035.0	913.1	333.15	6031.6	905.2
333.15	9067.0	927.3	333.15	8040.1	920.4	333.15	7022.6	913.0	333.15	6019.3	905.2
333.15	9052.5	927.3	333.15	8026.2	920.3	333.15	7009.8	912.9	333.15	6006.5	905.1
333.15	9037.9	927.2	333.15	8012.6	920.2	333.15	6996.0	912.8	333.15	5993.1	905.0
333.15	9024.3	927.1	333.15	7998.8	920.1	333.15	6981.8	912.7	333.15	5981.5	904.9
333.15	9009.8	927.0	333.15	7985.9	920.0	333.15	6969.4	912.6	333.15	5967.8	904.8
333.15	8996.4	926.9	333.14	7973.3	920.0	333.15	6956.6	912.5	333.15	5955.2	904.7
333.15	8982.6	926.8	333.15	7958.1	919.8	333.15	6944.0	912.4	333.15	5943.3	904.6
333.15	8968.6	926.7	333.15	7945.2	919.7	333.15	6931.3	912.3	333.15	5929.6	904.5
333.15	8955.2	926.6	333.15	7931.4	919.7	333.15	6917.5	912.3	333.15	5915.8	904.4
333.15	8942.2	926.5	333.15	7918.1	919.6	333.15	6904.5	912.1	333.15	5902.2	904.2
333.15	8928.0	926.4	333.15	7904.2	919.4	333.15	6889.7	912.0	333.15	5888.9	904.1
333.15	8914.0	926.3	333.15	7892.6	919.4	333.15	6877.6	911.9	333.15	5875.6	904.0
333.15	8900.5	926.3	333.15	7878.8	919.2	333.15	6864.8	911.8	333.15	5862.8	903.9
333.15	8887.3	926.2	333.15	7866.2	919.2	333.15	6851.4	911.7	333.15	5850.3	903.8
333.15	8873.5	926.1	333.14	7852.9	919.1	333.15	6839.3	911.6	333.15	5838.1	903.7
333.15	8860.6	926.0	333.14	7840.4	919.0	333.15	6829.4	911.5	333.15	5825.6	903.6
333.15	8846.5	925.9	333.15	7827.8	918.9	333.15	6817.9	911.5	333.15	5814.0	903.5
333.15	8832.0	925.8	333.15	7815.7	918.8	333.15	6806.8	911.4	333.15	5801.6	903.4
333.15	8819.4	925.7	333.15	7801.7	918.7	333.15	6795.4	911.3	333.15	5789.7	903.3
333.15	8805.5	925.7	333.15	7788.3	918.6	333.15	6782.8	911.2	333.15	5777.1	903.2
333.15	8791.8	925.6	333.15	7775.9	918.5	333.15	6769.6	911.1	333.15	5765.0	903.0
333.15	8777.0	925.4	333.15	7764.0	918.4	333.15	6757.3	911.0	333.15	5752.9	903.0
333.15	8763.4	925.3	333.15	7750.3	918.3	333.15	6746.2	910.9	333.15	5741.5	902.8
333.15	8750.1	925.3	333.15	7737.4	918.2	333.15	6733.3	910.8	333.15	5729.0	902.8
333.15	8737.9	925.2	333.15	7724.5	918.2	333.15	6721.1	910.7	333.15	5716.6	902.7
333.15	8724.6	925.1	333.15	7711.9	918.1	333.15	6709.6	910.6	333.15	5704.0	902.6
333.15	8710.9	925.0	333.15	7699.1	918.0	333.15	6698.4	910.5	333.15	5692.0	902.5
333.15	8698.8	924.9	333.15	7685.6	917.9	333.15	6686.2	910.4	333.15	5680.8	902.4
333.15	8685.7	924.9	333.15	7672.0	917.8	333.15	6674.1	910.3	333.15	5669.6	902.2

Valori della densità del fluido R1243zf _ *T*=60°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
333.15	5656.8	902.2	333.15	4655.2	893.4	333.14	3608.8	883.3	333.15	2589.4	872.1
333.15	5643.8	902.0	333.15	4642.4	893.3	333.14	3595.1	883.1	333.15	2574.5	872.0
333.15	5633.3	902.0	333.15	4629.6	893.1	333.14	3583.0	883.0	333.15	2559.7	871.8
333.15	5622.1	901.9	333.15	4616.4	893.1	333.14	3571.5	882.9	333.15	2546.2	871.6
333.15	5609.8	901.8	333.15	4603.3	892.9	333.15	3560.0	882.7	333.14	2531.8	871.5
333.15	5597.5	901.7	333.15	4590.8	892.8	333.15	3546.8	882.6	333.14	2517.4	871.3
333.15	5584.9	901.6	333.15	4578.0	892.7	333.15	3534.3	882.5	333.14	2504.8	871.2
333.15	5573.0	901.5	333.15	4565.5	892.6	333.15	3519.4	882.4	333.15	2490.6	871.0
333.15	5560.9	901.4	333.15	4552.7	892.5	333.15	3506.1	882.2	333.15	2477.2	870.8
333.15	5547.9	901.3	333.15	4538.9	892.3	333.15	3491.7	882.1	333.14	2463.2	870.7
333.15	5534.8	901.1	333.15	4525.4	892.2	333.14	3478.4	881.9	333.14	2449.5	870.5
333.15	5522.5	901.0	333.15	4512.9	892.1	333.15	3465.4	881.8	333.14	2436.3	870.4
333.15	5510.9	900.9	333.15	4499.6	892.0	333.14	3453.6	881.6	333.14	2423.1	870.2
333.15	5498.8	900.8	333.15	4487.5	891.8	333.14	3440.8	881.6	333.14	2410.1	870.1
333.15	5486.2	900.7	333.15	4473.8	891.7	333.14	3427.3	881.4	333.14	2396.6	869.9
333.15	5473.8	900.7	333.15	4459.0	891.6	333.14	3414.1	881.2	333.14	2382.2	869.7
333.15	5461.0	900.5	333.15	4444.8	891.5	333.14	3400.9	881.2	333.15	2370.3	869.6
333.15	5448.5	900.4	333.15	4430.3	891.3	333.15	3388.0	881.0	333.14	2356.6	869.4
333.15	5435.9	900.3	333.15	4415.4	891.2	333.15	3375.1	880.8	333.15	2343.2	869.3
333.15	5422.6	900.2	333.15	4402.1	891.0	333.15	3362.3	880.7	333.15	2330.2	869.1
333.15	5409.1	900.0	333.15	4387.7	890.9	333.15	3349.7	880.5	333.14	2317.4	868.9
333.15	5395.8	900.0	333.15	4373.8	890.8	333.14	3335.1	880.4	333.15	2304.2	868.8
333.15	5382.7	899.8	333.15	4360.3	890.6	333.14	3321.5	880.3	333.15	2291.7	868.6
333.15	5369.3	899.7	333.15	4347.2	890.5	333.14	3307.8	880.1	333.14	2278.7	868.5
333.14	5355.3	899.6	333.15	4332.5	890.4	333.14	3294.6	880.0	333.14	2265.4	868.3
333.14	5342.2	899.5	333.15	4318.1	890.2	333.14	3280.6	879.8	333.14	2252.2	868.1
333.15	5329.8	899.4	333.15	4302.4	890.1	333.14	3266.2	879.7	333.14	2238.7	868.0
333.15	5317.0	899.3	333.15	4288.2	890.0	333.14	3253.4	879.5	333.14	2225.8	867.8
333.15	5303.7	899.2	333.15	4273.7	889.8	333.14	3238.5	879.4	333.14	2212.3	867.6
333.15	5290.2	899.0	333.15	4261.4	889.7	333.14	3225.8	879.2	333.14	2198.1	867.5
333.15	5276.3	898.9	333.15	4246.8	889.6	333.15	3212.7	879.1	333.14	2185.3	867.4
333.15	5262.2	898.8	333.15	4233.7	889.4	333.15	3200.2	879.0	333.14	2172.1	867.1
333.15	5247.3	898.7	333.15	4219.8	889.3	333.15	3188.8	878.8	333.14	2158.6	867.0
333.15	5234.0	898.5	333.15	4205.6	889.2	333.14	3175.8	878.7	333.14	2144.3	866.8
333.15	5220.9	898.5	333.15	4192.1	889.0	333.14	3163.8	878.6	333.14	2130.8	866.7
333.15	5208.4	898.3	333.14	4178.5	888.9	333.14	3151.7	878.5	333.14	2117.8	866.6
333.15	5195.8	898.2	333.15	4165.3	888.8	333.14	3138.5	878.3	333.14	2106.2	866.3
333.15	5184.2	898.1	333.14	4150.6	888.7	333.14	3125.9	878.2	333.14	2092.5	866.1
333.15	5170.5	898.0	333.15	4137.8	888.5	333.15	3113.6	878.0	333.15	2079.7	866.0
333.15	5157.6	897.9	333.15	4124.3	888.4	333.15	3100.2	877.9	333.15	2066.1	865.8
333.15	5145.0	897.8	333.15	4110.6	888.3	333.15	3087.4	877.8	333.15	2053.5	865.7
333.15	5132.5	897.7	333.15	4096.2	888.1	333.15	3074.2	877.6	333.15	2040.1	865.5
333.15	5120.2	897.6	333.15	4084.1	888.0	333.15	3062.3	877.5	333.14	2026.3	865.3
333.15	5107.9	897.4	333.15	4071.2	887.9	333.15	3048.3	877.3	333.15	2013.4	865.2
333.15	5094.8	897.3	333.15	4058.3	887.8	333.14	3035.1	877.2	333.14	2000.1	865.0
333.15	5080.1	897.2	333.15	4044.5	887.6	333.14	3022.4	877.0	333.14	1987.6	864.8
333.15	5065.4	897.0	333.14	4031.7	887.5	333.14	3007.9	876.9	333.14	1975.4	864.6
333.15	5049.3	896.9	333.14	4018.0	887.4	333.14	2994.5	876.8	333.14	1962.1	864.5
333.15	5035.7	896.8	333.14	4003.6	887.3	333.15	2979.6	876.6	333.14	1949.9	864.4
333.14	5022.0	896.7	333.14	3990.5	887.1	333.15	2967.4	876.4	333.15	1938.0	864.2
333.15	5008.7	896.6	333.14	3977.0	886.9	333.15	2954.2	876.3	333.15	1926.4	864.0
333.15	4994.8	896.5	333.15	3963.0	886.8	333.15	2940.2	876.1	333.15	1914.4	863.9
333.15	4982.2	896.4	333.15	3949.6	886.7	333.15	2927.2	876.0	333.15	1902.2	863.7
333.15	4970.6	896.2	333.15	3935.4	886.6	333.15	2913.8	875.8	333.14	1889.4	863.6
333.15	4956.6	896.1	333.15	3922.1	886.4	333.15	2899.4	875.7	333.14	1876.4	863.4
333.15	4945.7	896.1	333.15	3909.1	886.3	333.15	2886.4	875.5	333.14	1864.1	863.2
333.15	4932.1	895.9	333.15	3896.0	886.1	333.15	2873.4	875.4	333.14	1851.4	863.1
333.15	4919.1	895.8	333.15	3883.3	886.0	333.15	2859.6	875.2	333.14	1837.7	862.9
333.15	4906.1	895.7	333.14	3870.0	885.9	333.15	2847.1	875.1	333.14	1824.5	862.7
333.15	4894.4	895.6	333.15	3857.7	885.8	333.15	2833.8	874.9	333.15	1811.4	862.6
333.15	4882.2	895.5	333.15	3844.2	885.6	333.15	2820.2	874.8	333.15	1798.0	862.4
333.15	4869.8	895.4	333.15	3831.4	885.5	333.14	2806.7	874.6	333.15	1784.5	862.2
333.15	4857.3	895.2	333.15	3818.1	885.4	333.15	2792.2	874.5	333.15	1771.6	862.1
333.15	4845.1	895.1	333.15	3804.9	885.3	333.15	2780.6	874.4	333.14	1759.3	861.8
333.15	4832.5	895.0	333.15	3793.2	885.1	333.15	2767.9	874.2	333.14	1746.0	861.7
333.15	4820.0	894.9	333.15	3781.6	885.0	333.15	2754.7	874.0	333.14	1733.3	861.6
333.15	4806.7	894.8	333.15	3769.1	884.9	333.15	2742.6	873.9	333.14	1720.3	861.4
333.15	4794.4	894.7	333.15	3755.4	884.8	333.15	2731.3	873.8	333.14	1708.3	861.2
333.15	4782.3	894.6	333.14	3741.6	884.6	333.15	2719.5	873.7	333.14	1695.7	861.0
333.15	4769.8	894.4	333.15	3728.4	884.5	333.15	2706.6	873.5	333.15	1682.3	860.9
333.15	4758.9	894.4	333.15	3715.6	884.4	333.15	2694.1	873.3	333.15	1668.4	860.7
333.15	4745.6	894.2	333.15	3702.6	884.2	333.15	2681.2	873.3	333.15	1654.7	860.5
333.15	4732.6	894.1	333.15	3688.9	884.1	333.15	2668.1	873.1	333.15	1642.2	860.3
333.15	4719.3	894.0	333.15	3676.7	884.0	333.15	2656.8	872.9	333.15	1628.7	860.1
333.15	4706.4	893.9	333.15	3664.2	883.8	333.15	2643.8	872.8			
333.15	4693.2	893.7	333.15	3648.4	883.6	333.15	2630.8	872.6			
333.15	4680.4	893.6	333.15	3635.3	883.6	333.15	2617.1	872.4			
333.15	4667.8	893.5	333.14	3623.0	883.4	333.15	2602.9	872.3			

Tabella C7: Valori della densità del fluido R1243zf per T = 343.15 K (70°C)

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
343.15	35002.5	1015.5	343.15	34104.7	1012.8	343.15	33186.8	1010.0	343.15	32179.1	1006.9
343.15	34989.4	1015.5	343.15	34091.1	1012.8	343.15	33175.7	1010.0	343.15	32164.4	1006.8
343.15	34976.1	1015.5	343.15	34077.5	1012.8	343.15	33163.2	1009.9	343.15	32148.3	1006.7
343.15	34964.5	1015.4	343.15	34064.5	1012.7	343.15	33150.9	1009.9	343.15	32134.0	1006.7
343.15	34953.6	1015.4	343.15	34050.7	1012.7	343.15	33138.0	1009.9	343.15	32118.4	1006.7
343.15	34941.4	1015.4	343.15	34037.2	1012.6	343.15	33125.8	1009.8	343.15	32103.7	1006.6
343.15	34928.5	1015.4	343.15	34023.3	1012.6	343.15	33113.9	1009.8	343.15	32088.5	1006.5
343.15	34916.8	1015.3	343.15	34009.7	1012.6	343.15	33100.5	1009.8	343.15	32072.1	1006.5
343.15	34905.1	1015.3	343.15	33997.3	1012.5	343.15	33088.0	1009.7	343.15	32057.4	1006.4
343.15	34892.3	1015.2	343.15	33985.3	1012.5	343.15	33075.5	1009.7	343.15	32042.6	1006.4
343.15	34880.4	1015.2	343.15	33974.1	1012.5	343.15	33063.0	1009.6	343.15	32026.5	1006.3
343.15	34869.2	1015.2	343.15	33961.6	1012.4	343.15	33051.7	1009.6	343.15	32011.3	1006.3
343.15	34858.4	1015.1	343.15	33949.6	1012.4	343.15	33039.1	1009.5	343.15	31997.9	1006.3
343.15	34847.0	1015.1	343.15	33936.7	1012.3	343.15	33025.8	1009.5	343.15	31983.4	1006.2
343.15	34832.8	1015.0	343.15	33924.5	1012.3	343.15	33014.3	1009.5	343.15	31969.6	1006.2
343.15	34817.8	1015.0	343.15	33911.3	1012.2	343.15	33002.1	1009.5	343.15	31956.4	1006.1
343.15	34803.7	1015.0	343.15	33898.3	1012.2	343.15	32988.8	1009.4	343.15	31943.0	1006.1
343.15	34790.7	1014.9	343.15	33885.0	1012.2	343.15	32976.2	1009.3	343.15	31928.2	1006.1
343.15	34776.4	1014.9	343.15	33871.7	1012.2	343.15	32963.1	1009.3	343.15	31914.8	1006.0
343.15	34765.2	1014.8	343.15	33859.3	1012.1	343.15	32951.0	1009.3	343.15	31900.3	1006.0
343.15	34753.0	1014.8	343.15	33846.3	1012.1	343.15	32937.9	1009.2	343.15	31886.7	1005.9
343.15	34739.6	1014.8	343.15	33832.4	1012.0	343.15	32925.3	1009.2	343.15	31872.1	1005.9
343.15	34727.8	1014.8	343.15	33819.8	1012.0	343.15	32912.6	1009.2	343.15	31858.0	1005.8
343.15	34715.2	1014.7	343.15	33806.9	1011.9	343.15	32899.5	1009.1	343.15	31845.3	1005.8
343.15	34704.3	1014.6	343.15	33794.6	1011.9	343.15	32885.9	1009.1	343.15	31831.0	1005.7
343.15	34691.9	1014.7	343.15	33782.2	1011.9	343.15	32873.5	1009.0	343.15	31816.5	1005.7
343.15	34680.4	1014.6	343.15	33770.0	1011.8	343.15	32860.1	1009.0	343.15	31802.2	1005.6
343.15	34668.6	1014.6	343.15	33756.9	1011.8	343.15	32846.2	1009.0	343.15	31786.1	1005.6
343.15	34656.0	1014.5	343.15	33745.0	1011.7	343.15	32834.2	1008.9	343.15	31771.4	1005.5
343.15	34646.4	1014.5	343.15	33731.1	1011.7	343.15	32822.6	1008.8	343.15	31755.9	1005.5
343.15	34633.9	1014.4	343.15	33718.5	1011.7	343.15	32808.9	1008.8	343.15	31742.0	1005.4
343.15	34621.7	1014.5	343.15	33705.0	1011.6	343.15	32795.3	1008.8	343.15	31726.9	1005.4
343.15	34610.2	1014.4	343.15	33693.0	1011.6	343.15	32780.7	1008.7	343.15	31714.3	1005.4
343.15	34600.1	1014.4	343.15	33680.1	1011.6	343.15	32766.9	1008.7	343.15	31700.3	1005.3
343.15	34587.5	1014.3	343.15	33666.8	1011.5	343.15	32752.7	1008.6	343.15	31686.4	1005.3
343.15	34576.3	1014.3	343.15	33652.6	1011.4	343.15	32738.5	1008.6	343.15	31674.5	1005.2
343.15	34563.4	1014.3	343.15	33638.1	1011.4	343.15	32723.6	1008.5	343.15	31662.1	1005.2
343.15	34549.7	1014.2	343.15	33625.3	1011.4	343.15	32709.9	1008.5	343.15	31648.7	1005.1
343.15	34535.8	1014.2	343.15	33612.2	1011.3	343.15	32695.2	1008.5	343.15	31636.1	1005.1
343.15	34522.2	1014.1	343.15	33599.4	1011.3	343.15	32680.8	1008.5	343.15	31623.7	1005.1
343.15	34508.3	1014.1	343.15	33586.5	1011.3	343.15	32666.2	1008.4	343.15	31610.9	1005.0
343.15	34493.8	1014.0	343.15	33574.0	1011.2	343.15	32653.2	1008.4	343.15	31597.1	1005.0
343.15	34481.3	1014.0	343.15	33560.7	1011.2	343.15	32639.3	1008.3	343.15	31583.4	1004.9
343.15	34470.0	1014.0	343.15	33549.4	1011.1	343.15	32625.8	1008.2	343.15	31570.9	1004.9
343.15	34457.5	1013.9	343.15	33535.9	1011.1	343.15	32611.5	1008.2	343.15	31558.7	1004.8
343.15	34444.3	1013.9	343.15	33521.8	1011.0	343.15	32597.1	1008.1	343.15	31545.9	1004.8
343.15	34430.6	1013.9	343.15	33509.7	1011.0	343.15	32582.8	1008.1	343.15	31533.8	1004.8
343.15	34418.9	1013.8	343.15	33495.9	1011.0	343.15	32568.8	1008.1	343.15	31520.4	1004.7
343.15	34406.1	1013.8	343.15	33483.6	1011.0	343.15	32554.5	1008.1	343.15	31507.1	1004.7
343.15	34393.1	1013.7	343.15	33469.8	1010.9	343.15	32538.9	1008.0	343.15	31493.5	1004.6
343.15	34381.0	1013.7	343.15	33457.0	1010.9	343.15	32523.7	1007.9	343.15	31478.8	1004.6
343.15	34368.3	1013.6	343.15	33444.0	1010.8	343.15	32506.9	1007.9	343.15	31465.3	1004.6
343.15	34356.6	1013.6	343.15	33430.6	1010.7	343.15	32491.6	1007.9	343.15	31452.3	1004.5
343.15	34344.3	1013.6	343.15	33418.1	1010.8	343.15	32477.0	1007.8	343.15	31438.1	1004.4
343.15	34333.0	1013.5	343.15	33405.0	1010.7	343.15	32462.0	1007.8	343.15	31424.6	1004.4
343.15	34321.6	1013.5	343.15	33392.9	1010.7	343.15	32446.0	1007.7	343.15	31412.4	1004.4
343.15	34309.5	1013.5	343.15	33381.5	1010.7	343.15	32431.2	1007.7	343.15	31399.9	1004.4
343.15	34297.4	1013.4	343.15	33369.3	1010.6	343.15	32414.9	1007.6	343.15	31387.5	1004.3
343.15	34284.6	1013.4	343.15	33357.9	1010.5	343.15	32399.2	1007.5	343.15	31375.2	1004.2
343.15	34271.6	1013.4	343.15	33345.4	1010.5	343.15	32383.1	1007.5	343.15	31361.6	1004.2
343.15	34260.2	1013.3	343.15	33333.1	1010.5	343.15	32365.7	1007.4	343.15	31349.4	1004.2
343.15	34247.4	1013.3	343.15	33320.9	1010.4	343.15	32349.1	1007.4	343.15	31336.0	1004.1
343.15	34235.5	1013.3	343.15	33309.4	1010.4	343.15	32331.5	1007.3	343.15	31323.2	1004.1
343.15	34222.0	1013.2	343.15	33298.1	1010.4	343.14	32315.5	1007.2	343.15	31309.8	1004.0
343.15	34209.1	1013.2	343.15	33285.9	1010.3	343.15	32300.5	1007.2	343.15	31295.1	1004.0
343.15	34195.9	1013.1	343.15	33273.1	1010.3	343.15	32285.5	1007.2	343.15	31282.3	1003.9
343.15	34182.6	1013.1	343.15	33260.5	1010.2	343.15	32270.4	1007.1	343.15	31267.9	1003.9
343.15	34168.5	1013.0	343.15	33248.3	1010.2	343.15	32254.4	1007.1	343.15	31254.9	1003.9
343.15	34154.3	1013.0	343.15	33235.7	1010.2	343.15	32239.9	1007.0	343.15	31242.4	1003.8
343.15	34141.7	1013.0	343.15	33223.4	1010.1	343.15	32225.1	1007.0	343.15	31228.5	1003.8
343.15	34129.3	1012.9	343.15	33210.7	1010.1	343.15	32209.9	1006.9	343.15	31214.4	1003.7
343.15	34116.8	1012.9	343.15	33198.3	1010.1	343.15	32195.9	1006.9	343.15	31200.1	1003.7

Valori della densità del fluido R1243zf _ *T*=70°C

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
343.15	31185.8	1003.6	343.15	30114.2	1000.1	343.15	28982.1	996.2	343.15	27950.9	992.7
343.15	31171.3	1003.6	343.15	30099.5	1000.1	343.15	28968.4	996.2	343.15	27937.3	992.6
343.15	31157.9	1003.5	343.15	30084.7	1000.0	343.15	28952.9	996.2	343.15	27925.7	992.6
343.15	31145.2	1003.5	343.15	30070.3	1000.0	343.15	28939.1	996.1	343.15	27912.8	992.6
343.15	31131.5	1003.5	343.15	30056.3	999.9	343.15	28926.5	996.1	343.15	27901.0	992.5
343.15	31118.3	1003.4	343.15	30043.0	999.9	343.15	28912.2	996.0	343.15	27887.0	992.5
343.15	31103.1	1003.4	343.15	30030.3	999.8	343.15	28898.7	996.0	343.15	27873.3	992.4
343.15	31089.0	1003.3	343.15	30016.3	999.8	343.15	28885.3	995.9	343.15	27860.9	992.4
343.15	31076.2	1003.3	343.15	30001.8	999.7	343.15	28872.6	995.9	343.15	27847.2	992.3
343.15	31062.6	1003.3	343.15	29987.8	999.7	343.15	28858.3	995.8	343.15	27835.8	992.3
343.15	31050.0	1003.2	343.15	29972.8	999.6	343.15	28844.6	995.8	343.15	27822.9	992.2
343.15	31037.2	1003.1	343.15	29958.3	999.5	343.15	28831.8	995.7	343.15	27810.5	992.2
343.15	31024.0	1003.2	343.15	29945.0	999.6	343.15	28819.6	995.8	343.15	27797.9	992.1
343.15	31012.3	1003.1	343.15	29930.4	999.5	343.15	28806.5	995.7	343.15	27786.5	992.1
343.15	30999.1	1003.0	343.15	29915.9	999.5	343.15	28793.9	995.6	343.15	27773.0	992.0
343.15	30986.1	1003.0	343.15	29902.2	999.4	343.15	28780.8	995.6	343.15	27759.1	992.0
343.15	30974.2	1002.9	343.15	29887.9	999.4	343.15	28768.0	995.6	343.15	27745.9	992.0
343.15	30960.4	1002.9	343.15	29874.0	999.3	343.15	28754.4	995.5	343.15	27732.5	991.9
343.15	30948.0	1002.9	343.15	29858.4	999.3	343.15	28742.9	995.5	343.15	27720.1	991.9
343.15	30935.2	1002.8	343.15	29845.2	999.2	343.15	28730.3	995.4	343.15	27709.6	991.8
343.15	30922.6	1002.8	343.15	29830.0	999.2	343.15	28717.9	995.4	343.15	27698.2	991.8
343.15	30908.3	1002.7	343.15	29816.3	999.1	343.15	28705.1	995.3	343.15	27686.1	991.8
343.15	30894.9	1002.7	343.15	29802.0	999.0	343.15	28692.5	995.3	343.15	27673.5	991.7
343.15	30882.6	1002.6	343.15	29788.9	999.0	343.15	28679.4	995.2	343.15	27660.6	991.7
343.15	30870.3	1002.6	343.15	29774.2	999.0	343.15	28666.1	995.2	343.15	27646.3	991.6
343.15	30856.4	1002.6	343.15	29760.7	998.9	343.15	28653.0	995.1	343.15	27633.9	991.6
343.15	30842.3	1002.5	343.15	29747.4	998.9	343.15	28639.0	995.1	343.15	27620.6	991.5
343.15	30827.1	1002.4	343.15	29733.4	998.8	343.15	28627.8	995.1	343.15	27607.0	991.5
343.15	30812.9	1002.4	343.15	29721.0	998.8	343.15	28613.9	995.0	343.15	27592.3	991.4
343.15	30799.8	1002.4	343.15	29707.7	998.7	343.15	28600.1	995.0	343.15	27578.8	991.4
343.15	30786.2	1002.3	343.15	29694.9	998.7	343.15	28587.2	994.9	343.15	27565.0	991.3
343.15	30771.9	1002.3	343.15	29681.2	998.6	343.15	28574.6	994.9	343.15	27550.7	991.3
343.15	30756.7	1002.2	343.15	29667.1	998.6	343.15	28561.5	994.8	343.15	27536.2	991.2
343.15	30741.2	1002.2	343.15	29653.1	998.6	343.15	28548.4	994.8	343.15	27523.0	991.2
343.15	30728.1	1002.1	343.15	29639.1	998.5	343.15	28534.3	994.7	343.15	27510.6	991.1
343.15	30713.4	1002.1	343.15	29624.0	998.5	343.15	28519.9	994.7	343.15	27497.3	991.1
343.15	30698.4	1002.1	343.15	29610.1	998.4	343.15	28506.2	994.6	343.15	27484.7	991.1
343.15	30684.5	1002.0	343.15	29595.1	998.3	343.15	28494.2	994.6	343.15	27471.6	991.0
343.15	30670.5	1002.0	343.15	29579.8	998.3	343.15	28480.3	994.5	343.15	27457.7	990.9
343.15	30656.1	1001.9	343.15	29565.0	998.3	343.15	28467.4	994.5	343.15	27445.3	990.9
343.15	30641.5	1001.9	343.15	29550.6	998.2	343.15	28453.2	994.4	343.15	27431.6	990.8
343.15	30628.1	1001.8	343.15	29533.6	998.1	343.15	28440.6	994.4	343.15	27419.1	990.8
343.15	30614.1	1001.8	343.15	29518.6	998.1	343.15	28426.6	994.3	343.15	27404.8	990.7
343.15	30599.3	1001.7	343.15	29502.1	998.0	343.15	28412.6	994.3	343.15	27392.4	990.7
343.15	30585.9	1001.7	343.15	29484.6	998.0	343.15	28398.4	994.3	343.15	27379.9	990.7
343.15	30573.6	1001.7	343.15	29468.1	997.9	343.15	28385.7	994.2	343.15	27366.8	990.6
343.15	30559.9	1001.5	343.15	29451.7	997.8	343.15	28373.7	994.2	343.15	27353.9	990.6
343.15	30546.7	1001.6	343.15	29435.7	997.8	343.15	28359.7	994.1	343.15	27339.8	990.5
343.15	30534.4	1001.5	343.15	29421.5	997.8	343.15	28347.4	994.0	343.15	27326.8	990.5
343.15	30520.5	1001.4	343.15	29404.4	997.7	343.15	28333.7	994.0	343.15	27313.7	990.4
343.15	30506.3	1001.4	343.15	29388.7	997.7	343.15	28321.0	994.0	343.15	27302.6	990.4
343.15	30493.3	1001.4	343.15	29371.7	997.6	343.15	28307.7	994.0	343.15	27290.2	990.3
343.15	30478.3	1001.4	343.15	29356.0	997.5	343.15	28295.2	993.9	343.15	27276.1	990.3
343.15	30464.6	1001.3	343.15	29341.2	997.5	343.15	28283.1	993.8	343.15	27262.1	990.2
343.15	30450.2	1001.2	343.15	29325.3	997.5	343.15	28271.2	993.8	343.15	27249.3	990.2
343.15	30436.9	1001.2	343.15	29310.1	997.4	343.15	28258.1	993.8	343.15	27235.0	990.2
343.15	30422.2	1001.1	343.15	29294.6	997.3	343.15	28244.8	993.7	343.15	27220.1	990.1
343.15	30408.6	1001.1	343.15	29278.8	997.3	343.15	28231.4	993.7	343.15	27206.5	990.0
343.15	30394.4	1001.0	343.15	29264.3	997.3	343.15	28218.0	993.6	343.15	27192.1	990.0
343.15	30380.6	1000.9	343.15	29249.8	997.2	343.15	28204.7	993.6	343.15	27178.3	989.9
343.15	30367.4	1001.0	343.15	29233.8	997.1	343.15	28190.2	993.5	343.15	27165.9	989.9
343.15	30353.9	1000.9	343.15	29219.3	997.1	343.15	28175.8	993.5	343.15	27151.5	989.9
343.15	30339.4	1000.9	343.15	29205.2	997.0	343.15	28160.9	993.4	343.15	27136.6	989.7
343.15	30325.0	1000.8	343.15	29190.3	997.0	343.15	28146.8	993.4	343.15	27124.1	989.7
343.15	30310.7	1000.8	343.15	29175.8	996.9	343.15	28133.7	993.3	343.15	27110.5	989.7
343.15	30298.3	1000.7	343.15	29160.9	996.9	343.15	28119.1	993.3	343.15	27095.7	989.6
343.15	30285.3	1000.7	343.15	29147.5	996.8	343.15	28105.3	993.2	343.15	27080.9	989.6
343.15	30271.4	1000.6	343.15	29133.1	996.8	343.15	28092.7	993.2	343.15	27067.2	989.5
343.15	30257.2	1000.6	343.15	29120.7	996.8	343.15	28079.3	993.1	343.15	27054.6	989.5
343.15	30243.6	1000.5	343.15	29106.5	996.7	343.15	28067.2	993.1	343.15	27042.0	989.5
343.15	30228.9	1000.5	343.15	29093.2	996.7	343.15	28055.0	993.1	343.15	27029.9	989.4
343.15	30214.4	1000.4	343.15	29079.6	996.6	343.15	28041.4	993.0	343.15	27017.0	989.3
343.15	30201.0	1000.4	343.15	29065.3	996.6	343.15	28028.4	993.0	343.15	27002.9	989.3
343.15	30186.3	1000.3	343.15	29052.1	996.5	343.15	28014.6	992.9	343.15	26990.6	989.2
343.15	30171.3	1000.3	343.15	29038.4	996.4	343.15	28001.3	992.9	343.15	26978.1	989.2
343.15	30157.7	1000.3	343.15	29024.3	996.4	343.15	27988.0	992.8	343.15	26964.0	989.2
343.15	30143.4	1000.2	343.15	29010.9	996.4	343.15	27975.8	992.7	343.15	26951.1	989.1
343.15	30128.1	1000.2	343.15	28996.1	996.3	343.15	27963.7	992.7	343.15	26935.7	989.0

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
343.15	26920.9	989.0	343.15	25838.7	985.1	343.15	24743.4	980.9	343.15	23675.0	976.7
343.15	26905.4	989.0	343.15	25824.9	985.0	343.15	24727.3	980.8	343.15	23660.4	976.6
343.15	26889.8	988.9	343.15	25813.0	985.0	343.15	24710.4	980.8	343.15	23646.2	976.6
343.15	26875.0	988.9	343.15	25800.9	984.9	343.15	24693.1	980.6	343.15	23632.3	976.5
343.15	26859.6	988.8	343.15	25787.1	984.8	343.15	24676.6	980.6	343.15	23618.0	976.5
343.16	26844.5	988.7	343.15	25775.3	984.8	343.15	24660.3	980.6	343.15	23603.7	976.4
343.15	26829.6	988.7	343.15	25761.2	984.7	343.15	24645.6	980.5	343.15	23589.6	976.4
343.15	26814.5	988.6	343.15	25748.9	984.7	343.15	24629.9	980.4	343.15	23574.8	976.3
343.15	26799.1	988.6	343.15	25736.3	984.6	343.15	24614.8	980.4	343.15	23560.9	976.2
343.15	26784.1	988.5	343.15	25723.2	984.6	343.15	24599.9	980.3	343.15	23546.6	976.2
343.15	26768.6	988.5	343.15	25711.1	984.5	343.15	24585.0	980.3	343.15	23532.8	976.1
343.15	26753.4	988.4	343.15	25698.6	984.5	343.15	24570.0	980.2	343.15	23518.4	976.1
343.15	26740.4	988.3	343.15	25685.0	984.4	343.15	24555.1	980.2	343.15	23504.2	976.0
343.15	26725.8	988.3	343.15	25672.0	984.4	343.15	24539.1	980.1	343.15	23490.3	976.0
343.15	26710.9	988.3	343.15	25659.9	984.4	343.15	24525.2	980.0	343.15	23475.6	975.9
343.15	26696.6	988.2	343.15	25646.0	984.3	343.15	24510.4	980.0	343.15	23461.2	975.8
343.15	26682.6	988.2	343.15	25632.4	984.2	343.15	24496.6	979.9	343.15	23446.1	975.8
343.15	26667.9	988.1	343.15	25619.3	984.2	343.15	24481.4	979.8	343.15	23432.2	975.8
343.15	26653.8	988.0	343.15	25605.1	984.2	343.15	24467.5	979.8	343.15	23418.8	975.7
343.15	26639.3	988.0	343.15	25592.8	984.1	343.15	24453.1	979.8	343.15	23404.0	975.6
343.15	26624.8	987.9	343.15	25581.0	984.0	343.15	24440.5	979.7	343.15	23390.9	975.5
343.15	26611.8	987.9	343.15	25567.5	984.0	343.15	24427.3	979.7	343.15	23377.3	975.5
343.15	26596.7	987.8	343.15	25555.0	983.9	343.15	24414.4	979.6	343.15	23363.1	975.4
343.15	26582.6	987.8	343.15	25542.4	983.9	343.15	24400.7	979.5	343.15	23348.3	975.4
343.15	26568.8	987.7	343.15	25529.1	983.8	343.15	24387.6	979.5	343.15	23333.3	975.4
343.15	26554.6	987.7	343.15	25515.4	983.8	343.15	24374.9	979.4	343.15	23319.3	975.3
343.15	26539.7	987.6	343.15	25503.3	983.7	343.15	24361.4	979.4	343.15	23305.5	975.2
343.15	26525.3	987.6	343.15	25489.5	983.7	343.15	24348.0	979.3	343.14	23292.8	975.2
343.15	26510.3	987.5	343.15	25476.6	983.7	343.15	24335.8	979.3	343.15	23278.5	975.1
343.15	26495.4	987.4	343.15	25460.9	983.6	343.15	24322.7	979.3	343.15	23264.9	975.1
343.15	26481.4	987.4	343.15	25444.4	983.6	343.15	24309.6	979.2	343.15	23253.6	975.0
343.15	26466.5	987.3	343.15	25427.4	983.5	343.15	24297.2	979.2	343.15	23240.4	975.0
343.15	26451.9	987.3	343.15	25412.4	983.4	343.15	24284.3	979.1	343.15	23228.7	974.9
343.15	26436.0	987.2	343.15	25396.8	983.4	343.15	24270.9	979.0	343.15	23216.8	974.9
343.15	26420.5	987.2	343.15	25380.7	983.3	343.15	24257.6	979.0	343.15	23204.8	974.8
343.15	26407.4	987.2	343.15	25367.0	983.2	343.15	24244.0	978.9	343.15	23192.3	974.8
343.15	26393.8	987.1	343.15	25354.1	983.2	343.15	24231.0	978.9	343.15	23180.1	974.7
343.15	26378.6	987.0	343.15	25340.4	983.1	343.15	24218.6	978.8	343.15	23168.5	974.6
343.15	26363.6	987.0	343.15	25326.5	983.1	343.15	24205.1	978.8	343.15	23155.7	974.6
343.15	26350.1	986.9	343.15	25311.8	983.0	343.15	24192.6	978.7	343.15	23143.0	974.5
343.15	26333.9	986.8	343.15	25297.4	983.0	343.15	24179.5	978.7	343.15	23128.9	974.5
343.15	26319.1	986.8	343.14	25283.3	982.9	343.15	24167.9	978.6	343.15	23115.9	974.5
343.15	26305.1	986.8	343.15	25268.7	982.9	343.15	24155.7	978.6	343.15	23104.0	974.4
343.15	26291.6	986.7	343.15	25255.0	982.9	343.15	24143.5	978.5	343.15	23090.8	974.4
343.15	26278.8	986.7	343.15	25242.0	982.8	343.15	24130.9	978.5	343.15	23078.7	974.3
343.15	26266.8	986.6	343.15	25227.9	982.7	343.15	24117.9	978.4	343.15	23066.9	974.2
343.15	26252.8	986.5	343.15	25214.3	982.7	343.15	24105.4	978.4	343.15	23054.6	974.2
343.15	26239.7	986.5	343.15	25202.0	982.6	343.15	24093.1	978.3	343.15	23042.2	974.1
343.15	26225.3	986.5	343.15	25190.3	982.6	343.15	24079.8	978.3	343.15	23029.0	974.1
343.15	26212.1	986.4	343.15	25176.6	982.5	343.15	24067.1	978.3	343.15	23016.8	974.1
343.15	26199.4	986.3	343.15	25163.7	982.5	343.15	24054.9	978.2	343.15	23003.8	974.0
343.15	26186.0	986.3	343.15	25150.6	982.5	343.16	24041.4	978.1	343.15	22991.2	974.0
343.15	26173.9	986.3	343.15	25137.6	982.4	343.16	24028.3	978.1	343.15	22979.7	973.9
343.15	26160.6	986.2	343.15	25124.7	982.4	343.15	24015.0	978.0	343.15	22966.9	973.8
343.15	26148.0	986.2	343.15	25109.8	982.3	343.16	24002.2	978.0	343.15	22956.0	973.8
343.15	26136.0	986.1	343.15	25096.2	982.2	343.15	23989.3	978.0	343.15	22945.4	973.8
343.15	26122.4	986.0	343.15	25082.1	982.2	343.15	23977.7	977.9	343.15	22934.3	973.7
343.15	26109.1	986.0	343.15	25066.1	982.1	343.15	23964.8	977.9	343.15	22923.1	973.7
343.15	26096.0	986.0	343.15	25051.2	982.1	343.15	23952.7	977.8	343.15	22912.3	973.6
343.15	26082.4	985.9	343.15	25036.0	982.0	343.15	23940.0	977.7	343.15	22900.8	973.6
343.15	26068.4	985.9	343.15	25019.8	981.9	343.15	23927.6	977.7	343.15	22888.3	973.5
343.15	26054.3	985.8	343.15	25006.2	981.9	343.15	23915.9	977.7	343.15	22875.4	973.5
343.15	26041.8	985.8	343.15	24990.5	981.8	343.15	23903.1	977.6	343.15	22861.7	973.4
343.15	26027.7	985.8	343.15	24975.6	981.8	343.15	23889.8	977.6	343.15	22848.8	973.4
343.15	26015.8	985.7	343.15	24962.7	981.7	343.15	23877.8	977.5	343.15	22836.1	973.3
343.15	26003.7	985.7	343.15	24949.1	981.7	343.15	23863.1	977.5	343.15	22822.7	973.3
343.16	25989.0	985.6	343.15	24933.8	981.6	343.15	23849.2	977.4	343.15	22808.3	973.2
343.15	25975.8	985.5	343.15	24920.7	981.6	343.15	23835.8	977.4	343.15	22795.3	973.1
343.15	25962.9	985.5	343.15	24905.9	981.5	343.15	23821.9	977.3	343.15	22783.2	973.1
343.15	25950.4	985.5	343.15	24891.2	981.5	343.15	23806.6	977.2	343.15	22770.7	973.0
343.15	25938.2	985.4	343.15	24874.2	981.4	343.15	23792.8	977.2	343.15	22758.1	973.0
343.15	25925.7	985.3	343.15	24858.1	981.3	343.15	23776.2	977.1	343.15	22746.3	972.9
343.15	25913.9	985.3	343.15	24842.4	981.3	343.15	23762.3	977.1	343.15	22733.2	972.9
343.15	25901.9	985.3	343.15	24826.4	981.2	343.15	23744.8	977.0	343.15	22721.6	972.9
343.15	25889.3	985.2	343.15	24811.2	981.1	343.15	23730.0	976.9	343.15	22709.6	972.8
343.15	25876.9	985.2	343.15	24794.8	981.1	343.15	23716.6	976.9	343.15	22697.8	972.8
343.15	25864.2	985.1	343.15	24776.2	981.0	343.15	23703.0	976.8	343.15	22684.7	972.7
343.15	25852.2	985.1	343.15	24759.9	980.9	343.15	23688.0	976.7	343.15	22671.0	972.7

Valori della densità del fluido R1243zf _ *T*=70°C

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
343.15	22657.2	972.6	343.15	21683.9	968.5	343.15	20647.7	964.1	343.15	19670.0	959.8
343.15	22644.4	972.6	343.15	21669.0	968.5	343.15	20635.6	964.0	343.15	19656.0	959.7
343.15	22631.0	972.5	343.15	21656.0	968.4	343.15	20622.6	964.0	343.15	19641.4	959.6
343.15	22618.6	972.4	343.15	21642.2	968.4	343.15	20610.0	963.9	343.15	19627.6	959.6
343.15	22605.4	972.4	343.15	21628.7	968.3	343.15	20596.9	963.9	343.15	19613.5	959.5
343.15	22593.7	972.4	343.15	21616.6	968.3	343.15	20584.5	963.8	343.15	19598.9	959.4
343.15	22581.5	972.3	343.15	21602.8	968.2	343.15	20572.2	963.7	343.15	19585.3	959.4
343.15	22568.4	972.2	343.15	21589.9	968.2	343.15	20558.1	963.7	343.15	19569.9	959.3
343.15	22556.1	972.2	343.15	21577.4	968.1	343.15	20545.3	963.6	343.15	19555.9	959.2
343.15	22543.4	972.1	343.15	21564.4	968.0	343.15	20531.9	963.6	343.15	19541.8	959.1
343.15	22530.3	972.1	343.15	21550.3	968.0	343.15	20520.0	963.5	343.15	19528.4	959.1
343.15	22517.9	972.0	343.15	21536.1	967.9	343.15	20507.1	963.4	343.15	19513.8	959.0
343.15	22504.7	972.0	343.15	21520.6	967.8	343.15	20495.6	963.4	343.15	19498.7	958.9
343.15	22491.8	971.9	343.15	21504.0	967.8	343.15	20483.3	963.4	343.15	19482.4	958.9
343.15	22480.4	971.9	343.15	21487.7	967.7	343.15	20471.1	963.3	343.15	19466.6	958.8
343.15	22469.1	971.9	343.15	21471.9	967.7	343.15	20457.6	963.3	343.15	19452.4	958.7
343.15	22456.5	971.8	343.15	21457.1	967.6	343.15	20447.1	963.2	343.15	19438.3	958.7
343.15	22444.2	971.7	343.15	21442.1	967.5	343.15	20434.3	963.2	343.15	19423.4	958.6
343.15	22430.6	971.7	343.15	21425.2	967.5	343.15	20421.5	963.1	343.15	19410.4	958.6
343.15	22416.4	971.6	343.15	21410.8	967.4	343.15	20409.7	963.0	343.15	19397.0	958.5
343.15	22403.5	971.6	343.15	21396.3	967.3	343.15	20397.1	963.0	343.15	19382.7	958.4
343.15	22392.0	971.5	343.15	21381.2	967.3	343.15	20384.4	962.9	343.15	19367.7	958.3
343.15	22379.5	971.5	343.15	21367.2	967.2	343.15	20372.2	962.9	343.15	19354.1	958.3
343.15	22367.1	971.4	343.15	21351.5	967.1	343.15	20358.2	962.8	343.15	19338.3	958.2
343.15	22355.4	971.4	343.15	21337.5	967.1	343.15	20344.9	962.8	343.15	19324.7	958.1
343.15	22343.0	971.3	343.15	21322.8	967.0	343.15	20331.4	962.7	343.15	19309.7	958.1
343.15	22330.5	971.3	343.15	21309.7	967.0	343.15	20317.8	962.6	343.15	19294.7	958.0
343.15	22319.1	971.2	343.15	21295.6	966.9	343.15	20305.9	962.6	343.15	19280.7	958.0
343.15	22308.7	971.2	343.15	21282.5	966.8	343.15	20293.4	962.5	343.15	19265.9	957.9
343.15	22296.2	971.1	343.15	21268.0	966.8	343.15	20279.8	962.5	343.15	19250.7	957.8
343.15	22284.7	971.1	343.15	21255.6	966.7	343.15	20266.0	962.4	343.15	19235.6	957.7
343.15	22274.9	971.0	343.15	21243.3	966.7	343.15	20253.4	962.4	343.15	19220.1	957.7
343.15	22264.3	971.0	343.15	21229.5	966.6	343.15	20239.8	962.3	343.15	19204.7	957.6
343.15	22253.0	970.9	343.15	21217.6	966.6	343.15	20225.9	962.2	343.15	19191.4	957.5
343.15	22243.2	970.9	343.15	21204.8	966.5	343.15	20214.6	962.2	343.15	19177.8	957.5
343.15	22231.8	970.8	343.15	21191.2	966.5	343.15	20201.4	962.1	343.15	19164.8	957.4
343.15	22220.6	970.8	343.15	21177.2	966.4	343.15	20188.5	962.0	343.15	19152.0	957.4
343.15	22208.8	970.8	343.15	21164.4	966.4	343.15	20177.4	962.0	343.15	19139.2	957.3
343.15	22198.2	970.7	343.15	21151.7	966.3	343.15	20164.4	961.9	343.15	19126.7	957.2
343.15	22186.6	970.7	343.15	21139.4	966.2	343.15	20151.7	961.9	343.15	19113.1	957.2
343.15	22174.5	970.6	343.15	21126.7	966.2	343.15	20139.7	961.8	343.15	19100.2	957.1
343.15	22163.3	970.6	343.15	21115.2	966.1	343.15	20129.6	961.8	343.15	19086.4	957.1
343.15	22151.3	970.5	343.15	21102.0	966.0	343.15	20115.7	961.7	343.15	19073.5	957.0
343.15	22141.0	970.5	343.15	21089.5	966.0	343.16	20103.6	961.7	343.15	19058.7	956.9
343.15	22128.1	970.4	343.15	21076.4	965.9	343.16	20092.4	961.6	343.15	19046.4	956.9
343.15	22115.5	970.4	343.15	21063.1	965.9	343.15	20080.3	961.6	343.15	19034.7	956.8
343.15	22104.1	970.3	343.15	21050.8	965.8	343.15	20068.4	961.5	343.15	19020.9	956.8
343.15	22091.8	970.2	343.15	21037.3	965.8	343.15	20058.3	961.5	343.15	19008.1	956.7
343.15	22079.6	970.2	343.15	21024.5	965.7	343.15	20045.8	961.4	343.15	18996.1	956.7
343.15	22068.0	970.2	343.15	21012.6	965.7	343.15	20033.1	961.4	343.15	18982.7	956.6
343.15	22056.6	970.1	343.15	20999.0	965.6	343.15	20020.8	961.3	343.15	18969.4	956.5
343.15	22044.5	970.0	343.15	20986.3	965.6	343.15	20008.5	961.3	343.15	18955.5	956.4
343.15	22033.2	970.0	343.15	20974.6	965.5	343.15	19996.4	961.2	343.15	18941.5	956.4
343.15	22019.5	970.0	343.15	20962.2	965.4	343.15	19983.7	961.1	343.15	18928.0	956.3
343.15	22007.6	969.9	343.15	20949.1	965.4	343.15	19973.4	961.1	343.15	18916.0	956.3
343.15	21995.3	969.8	343.15	20936.1	965.3	343.15	19961.8	961.1	343.15	18903.7	956.2
343.15	21984.5	969.9	343.15	20924.0	965.3	343.15	19950.0	961.0	343.15	18890.4	956.1
343.15	21971.9	969.7	343.15	20912.2	965.2	343.15	19940.1	961.0	343.15	18876.7	956.1
343.15	21960.6	969.7	343.15	20899.6	965.2	343.15	19928.5	960.9	343.15	18864.9	956.0
343.15	21949.6	969.7	343.15	20884.0	965.1	343.15	19917.6	960.9	343.15	18852.2	956.0
343.15	21937.1	969.6	343.15	20871.2	965.0	343.15	19905.0	960.8	343.15	18839.3	955.9
343.15	21925.3	969.6	343.15	20856.8	965.0	343.16	19891.8	960.7	343.15	18827.9	955.9
343.15	21913.0	969.5	343.15	20844.4	964.9	343.15	19879.0	960.7	343.15	18814.1	955.8
343.15	21899.5	969.5	343.15	20831.8	964.9	343.15	19866.0	960.6	343.15	18801.8	955.7
343.15	21885.9	969.4	343.15	20818.5	964.8	343.15	19853.1	960.6	343.15	18789.8	955.8
343.15	21871.6	969.3	343.15	20804.9	964.8	343.15	19839.9	960.5	343.15	18776.5	955.6
343.15	21857.8	969.3	343.15	20792.4	964.7	343.15	19824.7	960.4	343.15	18763.0	955.6
343.15	21843.5	969.2	343.15	20780.3	964.6	343.15	19812.1	960.4	343.15	18752.7	955.5
343.15	21827.8	969.2	343.15	20769.1	964.6	343.15	19800.1	960.3	343.16	18740.2	955.5
343.15	21812.2	969.1	343.15	20756.6	964.5	343.15	19787.8	960.3	343.16	18727.7	955.4
343.15	21798.4	969.0	343.15	20743.6	964.5	343.15	19775.1	960.2	343.15	18715.4	955.3
343.15	21783.6	969.0	343.15	20731.0	964.4	343.15	19762.1	960.1	343.15	18702.3	955.2
343.15	21768.6	968.9	343.15	20717.7	964.4	343.15	19748.8	960.1	343.15	18688.5	955.2
343.15	21754.2	968.8	343.15	20706.4	964.3	343.15	19735.6	960.0	343.15	18675.7	955.2
343.15	21739.3	968.8	343.15	20695.1	964.3	343.15	19722.2	960.0	343.15	18661.9	955.1
343.15	21724.6	968.7	343.15	20683.8	964.2	343.15	19707.8	959.9	343.15	18649.8	955.0
343.15	21710.9	968.7	343.15	20671.7	964.2	343.15	19695.0	959.9	343.15	18636.9	954.9
343.15	21698.4	968.6	343.15	20660.7	964.1	343.15	19682.5	959.8	343.15	18625.5	954.9

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
343.15	18613.7	954.9	343.15	17627.8	950.1	343.15	16556.8	944.8	343.15	15567.7	939.6
343.15	18601.3	954.8	343.15	17611.0	950.0	343.15	16543.3	944.7	343.15	15553.3	939.5
343.15	18588.3	954.7	343.15	17596.0	950.0	343.15	16530.5	944.6	343.15	15541.0	939.4
343.15	18576.0	954.7	343.15	17580.9	949.9	343.15	16518.5	944.6	343.15	15527.8	939.4
343.15	18563.3	954.6	343.15	17567.8	949.8	343.15	16505.5	944.4	343.15	15514.7	939.3
343.15	18550.9	954.6	343.15	17553.6	949.8	343.15	16492.0	944.4	343.15	15501.4	939.2
343.15	18538.9	954.5	343.15	17539.3	949.7	343.15	16478.4	944.4	343.15	15487.5	939.1
343.15	18525.1	954.4	343.15	17523.8	949.6	343.15	16465.6	944.3	343.15	15473.6	939.0
343.15	18513.7	954.4	343.15	17508.9	949.5	343.15	16454.0	944.2	343.15	15460.5	939.0
343.15	18501.8	954.4	343.16	17493.7	949.5	343.15	16441.3	944.2	343.15	15447.7	938.9
343.15	18489.2	954.3	343.16	17478.3	949.4	343.15	16429.5	944.1	343.15	15433.6	938.9
343.15	18476.8	954.2	343.15	17463.1	949.3	343.15	16416.0	944.0	343.15	15420.8	938.8
343.15	18466.5	954.2	343.15	17448.4	949.2	343.15	16403.7	944.0	343.15	15407.4	938.7
343.15	18453.6	954.1	343.15	17434.6	949.2	343.15	16390.7	943.9	343.15	15394.6	938.7
343.15	18440.9	954.1	343.15	17418.7	949.1	343.15	16378.5	943.8	343.15	15381.3	938.6
343.15	18427.9	953.9	343.15	17404.4	949.0	343.15	16366.0	943.8	343.15	15367.1	938.5
343.15	18414.1	953.9	343.15	17389.5	948.9	343.15	16352.8	943.7	343.15	15352.6	938.4
343.15	18402.8	953.8	343.15	17373.6	948.8	343.15	16340.0	943.6	343.15	15338.1	938.4
343.15	18390.5	953.8	343.15	17360.4	948.8	343.15	16327.6	943.6	343.15	15324.2	938.3
343.15	18378.0	953.7	343.15	17345.2	948.8	343.15	16315.3	943.5	343.15	15311.2	938.2
343.15	18367.0	953.7	343.15	17329.6	948.6	343.15	16302.5	943.5	343.15	15297.2	938.1
343.15	18355.5	953.6	343.15	17314.5	948.6	343.15	16289.4	943.4	343.15	15282.4	938.1
343.15	18343.5	953.6	343.15	17300.8	948.5	343.15	16278.2	943.3	343.15	15268.6	938.0
343.15	18331.4	953.5	343.15	17286.3	948.4	343.15	16265.8	943.3	343.15	15253.9	937.9
343.15	18319.0	953.4	343.15	17273.5	948.4	343.15	16253.1	943.2	343.15	15239.5	937.8
343.15	18306.4	953.4	343.15	17257.6	948.3	343.15	16238.3	943.1	343.15	15225.3	937.8
343.15	18294.3	953.3	343.15	17243.5	948.2	343.15	16225.2	943.1	343.15	15211.4	937.7
343.15	18282.4	953.3	343.15	17229.3	948.2	343.15	16213.7	943.0	343.15	15198.4	937.6
343.15	18270.4	953.2	343.15	17213.7	948.1	343.15	16200.8	942.9	343.15	15184.7	937.5
343.15	18259.7	953.2	343.15	17199.4	948.0	343.15	16189.3	942.9	343.15	15171.5	937.5
343.15	18248.5	953.1	343.15	17184.0	948.0	343.15	16177.1	942.8	343.15	15158.7	937.4
343.15	18237.2	953.1	343.15	17169.7	947.9	343.15	16164.9	942.7	343.15	15145.9	937.3
343.15	18226.5	953.0	343.15	17153.2	947.8	343.15	16151.2	942.7	343.15	15133.6	937.3
343.15	18213.5	952.9	343.15	17137.5	947.7	343.15	16137.0	942.6	343.15	15119.3	937.2
343.15	18202.1	952.9	343.15	17122.6	947.6	343.15	16124.1	942.5	343.15	15105.4	937.1
343.15	18189.9	952.8	343.15	17108.9	947.6	343.15	16109.6	942.5	343.15	15092.5	937.0
343.15	18178.8	952.8	343.15	17094.4	947.5	343.15	16095.9	942.4	343.15	15078.6	937.0
343.15	18168.2	952.7	343.15	17080.2	947.4	343.15	16083.6	942.3	343.15	15065.9	936.9
343.15	18155.6	952.7	343.15	17066.7	947.4	343.15	16071.9	942.2	343.15	15052.9	936.8
343.15	18142.4	952.6	343.15	17054.4	947.3	343.15	16058.4	942.2	343.15	15040.4	936.7
343.15	18130.3	952.6	343.14	17041.7	947.2	343.15	16045.7	942.1	343.15	15027.4	936.7
343.15	18118.0	952.5	343.14	17028.8	947.1	343.15	16032.9	942.1	343.15	15014.0	936.6
343.15	18107.9	952.5	343.15	17016.0	947.1	343.15	16020.9	942.0	343.15	15001.6	936.5
343.15	18095.4	952.4	343.15	17001.5	947.0	343.15	16007.2	941.9	343.15	14989.0	936.5
343.15	18083.3	952.3	343.15	16988.7	947.0	343.15	15994.9	941.9	343.15	14976.6	936.4
343.15	18069.9	952.3	343.15	16975.5	946.9	343.15	15982.2	941.8	343.15	14965.7	936.4
343.15	18057.0	952.2	343.15	16962.3	946.9	343.15	15969.4	941.7	343.15	14953.9	936.3
343.15	18046.0	952.1	343.15	16948.3	946.7	343.15	15956.2	941.6	343.15	14941.7	936.2
343.15	18034.7	952.1	343.15	16935.5	946.7	343.15	15944.9	941.6	343.15	14929.8	936.1
343.15	18023.4	952.0	343.15	16921.9	946.6	343.15	15932.5	941.5	343.15	14918.2	936.1
343.15	18011.5	952.0	343.15	16910.9	946.6	343.15	15921.2	941.5	343.15	14905.5	936.0
343.15	18000.0	951.9	343.15	16897.9	946.5	343.15	15909.8	941.4	343.15	14892.5	935.9
343.15	17987.5	951.8	343.15	16884.6	946.4	343.15	15898.0	941.3	343.15	14879.4	935.9
343.15	17974.9	951.8	343.15	16871.5	946.4	343.16	15884.8	941.3	343.15	14867.8	935.8
343.15	17962.6	951.7	343.15	16859.1	946.3	343.16	15871.8	941.2	343.15	14855.1	935.7
343.15	17948.7	951.7	343.15	16845.0	946.2	343.16	15860.3	941.1	343.15	14842.8	935.6
343.15	17934.9	951.6	343.15	16832.4	946.2	343.16	15847.7	941.1	343.15	14829.2	935.6
343.15	17919.5	951.5	343.15	16819.8	946.1	343.15	15835.5	941.0	343.15	14816.4	935.5
343.15	17905.1	951.5	343.15	16806.3	946.1	343.15	15822.6	941.0	343.15	14805.4	935.4
343.15	17889.6	951.4	343.15	16794.2	946.0	343.15	15811.5	940.8	343.15	14793.9	935.4
343.15	17875.7	951.3	343.15	16780.4	945.9	343.15	15797.8	940.8	343.15	14783.0	935.3
343.15	17860.8	951.3	343.15	16768.6	945.8	343.15	15785.7	940.7	343.15	14770.1	935.3
343.15	17846.1	951.2	343.15	16757.0	945.8	343.15	15773.0	940.7	343.15	14757.4	935.2
343.15	17831.3	951.1	343.15	16745.1	945.7	343.15	15760.1	940.6	343.15	14744.7	935.1
343.15	17818.2	951.0	343.15	16732.0	945.6	343.15	15748.6	940.6	343.15	14733.4	935.0
343.15	17804.1	951.0	343.15	16719.3	945.6	343.15	15735.8	940.5	343.15	14720.9	935.0
343.15	17789.3	950.9	343.15	16707.5	945.5	343.15	15722.1	940.4	343.15	14708.2	934.9
343.15	17776.3	950.8	343.15	16695.9	945.5	343.15	15709.1	940.4	343.15	14696.6	934.9
343.15	17762.8	950.8	343.15	16683.2	945.4	343.15	15696.2	940.3	343.15	14683.3	934.7
343.15	17749.8	950.7	343.15	16671.4	945.3	343.15	15683.0	940.2	343.15	14671.1	934.7
343.15	17736.0	950.6	343.15	16658.7	945.2	343.15	15671.2	940.1	343.15	14659.6	934.6
343.15	17722.7	950.6	343.15	16646.6	945.2	343.15	15658.5	940.1	343.15	14646.9	934.6
343.15	17709.6	950.5	343.15	16633.9	945.2	343.15	15645.4	939.9	343.15	14634.6	934.5
343.15	17695.8	950.5	343.15	16621.1	945.1	343.15	15632.4	939.9	343.15	14623.0	934.4
343.15	17682.3	950.4	343.15	16606.8	945.0	343.15	15619.7	939.8	343.15	14611.5	934.4
343.15	17669.0	950.3	343.15	16594.6	945.0	343.15	15606.0	939.8	343.15	14600.2	934.3
343.15	17655.9	950.3	343.15	16583.7	944.9	343.15	15593.5	939.7	343.15	14587.5	934.3
343.15	17643.1	950.2	343.15	16570.2	944.8	343.15	15581.0	939.7	343.15	14575.2	934.1

Valori della densità del fluido R1243zf _ *T*=70°C

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
343.15	14563.5	934.1	343.15	13608.3	928.6	343.15	12630.5	922.8	343.16	11721.9	917.0
343.15	14550.3	934.0	343.15	13594.7	928.6	343.15	12618.3	922.7	343.16	11709.5	916.9
343.15	14538.1	934.0	343.15	13581.2	928.5	343.15	12606.9	922.6	343.15	11696.8	916.9
343.15	14526.5	933.8	343.15	13568.4	928.4	343.15	12595.6	922.6	343.16	11682.7	916.8
343.15	14514.7	933.8	343.15	13554.6	928.3	343.15	12584.2	922.5	343.16	11669.8	916.7
343.15	14502.3	933.8	343.15	13540.7	928.2	343.15	12574.1	922.4	343.16	11656.9	916.6
343.15	14490.2	933.7	343.15	13527.4	928.2	343.16	12563.4	922.3	343.15	11643.5	916.5
343.15	14477.3	933.6	343.15	13512.9	928.1	343.15	12552.3	922.2	343.15	11631.5	916.4
343.15	14466.2	933.6	343.15	13500.0	928.0	343.15	12541.3	922.2	343.16	11619.8	916.4
343.15	14453.9	933.5	343.15	13486.4	927.9	343.15	12529.3	922.1	343.16	11608.1	916.3
343.15	14442.0	933.4	343.15	13471.7	927.8	343.15	12517.4	922.0	343.16	11595.7	916.2
343.15	14430.8	933.4	343.15	13456.7	927.7	343.15	12506.8	922.0	343.16	11583.8	916.1
343.16	14418.0	933.3	343.15	13442.8	927.7	343.15	12494.9	921.9	343.16	11572.0	916.0
343.15	14405.3	933.2	343.15	13429.1	927.6	343.16	12483.3	921.9	343.15	11559.9	916.0
343.15	14393.5	933.2	343.15	13416.4	927.5	343.16	12472.4	921.8	343.15	11547.9	915.9
343.15	14381.3	933.1	343.15	13403.4	927.4	343.16	12460.8	921.8	343.15	11536.1	915.8
343.15	14367.2	933.0	343.15	13389.3	927.4	343.15	12449.4	921.6	343.15	11524.3	915.8
343.15	14354.8	932.9	343.15	13376.7	927.3	343.16	12439.3	921.6	343.15	11513.2	915.6
343.15	14341.5	932.9	343.15	13364.2	927.2	343.15	12428.1	921.5	343.15	11500.1	915.6
343.15	14327.8	932.8	343.15	13351.4	927.1	343.15	12416.8	921.4	343.15	11487.9	915.5
343.15	14314.6	932.7	343.15	13337.3	927.0	343.15	12404.7	921.4	343.15	11476.3	915.4
343.15	14300.2	932.7	343.15	13323.4	926.9	343.15	12393.7	921.3	343.15	11464.1	915.4
343.15	14287.1	932.6	343.15	13310.0	926.9	343.15	12382.6	921.2	343.15	11452.3	915.3
343.15	14274.7	932.5	343.15	13296.8	926.8	343.15	12371.7	921.2	343.15	11440.5	915.2
343.15	14263.4	932.4	343.15	13282.3	926.7	343.15	12361.3	921.1	343.15	11428.9	915.1
343.15	14251.9	932.4	343.15	13268.3	926.6	343.15	12350.8	921.0	343.15	11418.2	915.0
343.15	14240.1	932.3	343.15	13255.2	926.6	343.16	12340.1	921.0	343.15	11406.9	915.0
343.15	14228.0	932.2	343.15	13241.7	926.5	343.15	12329.6	920.9	343.15	11395.1	914.9
343.15	14215.2	932.2	343.15	13228.6	926.4	343.15	12318.3	920.8	343.15	11384.1	914.8
343.15	14203.4	932.1	343.15	13216.4	926.3	343.15	12306.1	920.7	343.15	11372.4	914.7
343.15	14191.2	932.0	343.15	13204.2	926.2	343.15	12295.1	920.7	343.15	11361.5	914.7
343.15	14178.4	932.0	343.15	13191.7	926.2	343.15	12283.7	920.6	343.15	11351.7	914.6
343.15	14166.5	931.9	343.15	13180.7	926.1	343.15	12273.2	920.5	343.15	11342.8	914.5
343.16	14154.7	931.8	343.15	13168.3	926.0	343.15	12262.5	920.5	343.15	11332.2	914.4
343.15	14143.7	931.8	343.15	13155.8	925.9	343.15	12251.7	920.4	343.15	11320.4	914.4
343.15	14132.0	931.7	343.15	13143.7	925.9	343.15	12241.6	920.3	343.15	11309.6	914.3
343.15	14119.8	931.6	343.15	13131.3	925.8	343.15	12230.5	920.3	343.15	11299.1	914.2
343.15	14108.7	931.5	343.15	13119.0	925.7	343.15	12220.1	920.2	343.15	11288.4	914.2
343.15	14095.8	931.5	343.15	13105.8	925.7	343.15	12208.1	920.1	343.15	11278.5	914.1
343.15	14085.0	931.4	343.15	13093.2	925.6	343.15	12196.9	920.0	343.16	11267.5	914.0
343.15	14073.5	931.3	343.15	13082.2	925.5	343.15	12186.1	920.0	343.16	11257.3	913.9
343.15	14062.7	931.3	343.15	13069.9	925.4	343.15	12175.9	919.9	343.16	11246.7	913.9
343.15	14050.9	931.2	343.15	13058.1	925.4	343.15	12164.9	919.8	343.16	11235.6	913.8
343.15	14039.8	931.1	343.15	13046.9	925.3	343.15	12153.9	919.8	343.15	11224.6	913.7
343.15	14028.5	931.1	343.15	13035.0	925.2	343.15	12141.3	919.7	343.15	11212.7	913.7
343.15	14016.1	931.0	343.15	13022.7	925.2	343.15	12129.8	919.7	343.15	11200.9	913.6
343.15	14004.8	930.9	343.15	13011.7	925.1	343.15	12118.6	919.5	343.15	11190.4	913.5
343.15	13991.9	930.9	343.15	13001.1	925.0	343.15	12107.3	919.5	343.15	11179.5	913.5
343.15	13979.9	930.8	343.15	12989.8	925.0	343.15	12095.4	919.4	343.15	11169.2	913.4
343.15	13966.9	930.7	343.15	12977.7	924.9	343.15	12083.0	919.4	343.15	11159.1	913.3
343.15	13955.4	930.7	343.15	12965.9	924.8	343.15	12072.1	919.3	343.15	11148.4	913.2
343.15	13942.5	930.6	343.15	12954.4	924.8	343.15	12061.0	919.2	343.15	11136.7	913.2
343.15	13930.6	930.5	343.15	12941.3	924.6	343.15	12049.2	919.1	343.15	11125.7	913.1
343.15	13918.8	930.4	343.15	12928.1	924.6	343.15	12038.0	919.1	343.15	11114.0	913.0
343.15	13907.8	930.4	343.15	12915.4	924.5	343.15	12027.2	919.0	343.15	11103.3	913.0
343.15	13896.4	930.4	343.15	12903.0	924.4	343.15	12014.7	918.9	343.15	11091.2	912.9
343.15	13885.7	930.2	343.15	12890.4	924.4	343.15	12003.1	918.8	343.15	11080.5	912.8
343.15	13874.0	930.2	343.15	12877.8	924.3	343.15	11990.4	918.7	343.15	11069.0	912.7
343.15	13861.4	930.1	343.15	12865.5	924.2	343.15	11978.2	918.7	343.15	11058.1	912.7
343.15	13848.6	930.0	343.15	12855.0	924.2	343.15	11966.1	918.6	343.15	11047.6	912.6
343.15	13837.3	930.0	343.15	12842.7	924.1	343.15	11952.6	918.5	343.15	11035.8	912.5
343.15	13825.5	929.9	343.15	12830.6	924.0	343.15	11939.5	918.4	343.15	11026.3	912.4
343.15	13813.8	929.8	343.15	12818.9	924.0	343.15	11926.5	918.4	343.15	11015.5	912.3
343.15	13801.5	929.8	343.15	12806.2	923.8	343.15	11914.6	918.2	343.15	11004.2	912.3
343.15	13789.6	929.7	343.15	12792.6	923.8	343.15	11901.7	918.2	343.15	10994.4	912.2
343.15	13778.3	929.6	343.15	12780.1	923.7	343.16	11889.3	918.1	343.15	10983.7	912.1
343.15	13767.2	929.6	343.15	12767.7	923.6	343.16	11876.4	918.0	343.15	10972.3	912.0
343.15	13755.1	929.5	343.15	12756.9	923.5	343.16	11864.1	918.0	343.15	10962.5	912.0
343.15	13741.9	929.4	343.15	12745.5	923.5	343.16	11852.0	917.9	343.15	10951.7	911.9
343.15	13728.3	929.3	343.15	12732.8	923.4	343.16	11838.3	917.7	343.15	10941.7	911.8
343.15	13714.4	929.3	343.15	12721.1	923.3	343.16	11826.4	917.7	343.15	10932.7	911.8
343.15	13702.4	929.2	343.15	12710.6	923.3	343.16	11814.1	917.6	343.15	10922.2	911.7
343.15	13688.8	929.1	343.15	12699.0	923.2	343.16	11798.4	917.5	343.15	10911.7	911.7
343.15	13674.8	929.0	343.15	12687.5	923.1	343.16	11785.2	917.5	343.15	10900.9	911.6
343.15	13662.1	929.0	343.15	12676.6	923.0	343.16	11771.9	917.3	343.15	10889.7	911.5
343.15	13648.7	928.8	343.15	12666.0	923.0	343.16	11759.4	917.3	343.15	10879.2	911.4
343.15	13634.7	928.7	343.15	12654.2	922.9	343.16	11747.2	917.2	343.15	10869.1	911.3
343.15	13621.9	928.7	343.15	12641.4	922.8	343.16	11735.3	917.1	343.15	10859.1	911.3

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
343.15	10847.4	911.2	343.15	9994.1	905.2	343.15	9179.1	899.2	343.15	8378.9	892.9
343.15	10836.4	911.1	343.15	9981.7	905.1	343.15	9169.2	899.1	343.15	8369.3	892.8
343.15	10825.4	911.0	343.15	9968.8	905.0	343.15	9160.0	899.0	343.15	8361.0	892.7
343.15	10814.7	911.0	343.15	9957.5	904.9	343.15	9150.7	899.0	343.15	8350.8	892.6
343.15	10804.5	910.9	343.15	9945.2	904.8	343.15	9140.1	898.8	343.15	8340.8	892.5
343.15	10793.7	910.8	343.15	9933.7	904.8	343.15	9129.5	898.8	343.15	8330.5	892.5
343.15	10783.7	910.8	343.15	9923.4	904.7	343.15	9120.1	898.7	343.15	8320.6	892.4
343.15	10773.8	910.7	343.15	9911.8	904.6	343.15	9110.2	898.6	343.15	8309.8	892.3
343.15	10762.6	910.6	343.15	9901.4	904.5	343.15	9100.1	898.5	343.15	8300.1	892.2
343.15	10752.7	910.6	343.15	9889.7	904.4	343.15	9090.8	898.4	343.15	8291.0	892.1
343.15	10742.4	910.5	343.15	9879.7	904.4	343.15	9080.4	898.4	343.15	8281.0	892.0
343.15	10732.6	910.4	343.15	9868.9	904.3	343.16	9070.4	898.3	343.15	8272.0	892.0
343.15	10722.2	910.3	343.15	9858.0	904.2	343.16	9061.1	898.2	343.15	8262.3	891.9
343.15	10713.2	910.3	343.15	9847.0	904.1	343.16	9051.0	898.2	343.15	8252.6	891.8
343.15	10703.2	910.3	343.15	9835.3	904.1	343.15	9040.6	898.1	343.15	8243.4	891.8
343.15	10692.7	910.1	343.15	9822.9	903.9	343.15	9031.5	898.0	343.15	8234.7	891.7
343.15	10683.1	910.1	343.15	9812.6	903.9	343.15	9022.0	897.9	343.15	8225.3	891.6
343.15	10672.2	910.0	343.15	9801.0	903.8	343.15	9012.2	897.9	343.15	8215.2	891.5
343.15	10661.2	909.9	343.15	9789.0	903.7	343.15	9002.9	897.8	343.15	8205.1	891.4
343.15	10651.2	909.8	343.15	9776.7	903.7	343.15	8993.0	897.7	343.15	8195.2	891.4
343.15	10639.7	909.8	343.15	9765.4	903.6	343.15	8983.9	897.6	343.15	8186.6	891.3
343.15	10629.0	909.7	343.15	9752.8	903.5	343.15	8976.5	897.6	343.15	8177.5	891.2
343.15	10618.4	909.6	343.15	9741.2	903.3	343.15	8966.5	897.5	343.15	8167.8	891.2
343.15	10608.9	909.6	343.15	9731.8	903.3	343.15	8957.5	897.4	343.15	8158.9	891.0
343.15	10598.9	909.5	343.15	9722.1	903.3	343.15	8947.5	897.4	343.15	8148.3	891.0
343.15	10589.5	909.4	343.15	9712.0	903.2	343.15	8938.3	897.3	343.15	8138.3	890.9
343.15	10579.5	909.3	343.15	9701.8	903.0	343.15	8927.7	897.2	343.15	8129.0	890.8
343.15	10568.8	909.3	343.15	9693.0	903.0	343.15	8917.9	897.1	343.15	8119.5	890.7
343.15	10558.9	909.2	343.15	9683.5	903.0	343.15	8906.9	897.0	343.15	8109.9	890.6
343.15	10548.8	909.1	343.15	9673.9	902.9	343.15	8895.2	897.0	343.15	8101.1	890.6
343.15	10538.5	909.1	343.15	9663.0	902.8	343.15	8885.0	896.8	343.15	8092.6	890.5
343.15	10527.3	909.0	343.15	9652.6	902.7	343.15	8873.6	896.8	343.15	8083.3	890.5
343.15	10517.5	908.9	343.15	9643.0	902.6	343.15	8862.2	896.7	343.15	8073.1	890.4
343.15	10507.0	908.8	343.15	9632.7	902.5	343.15	8851.4	896.7	343.15	8063.8	890.3
343.15	10497.2	908.8	343.15	9623.6	902.5	343.15	8841.1	896.5	343.15	8054.0	890.2
343.15	10487.2	908.7	343.15	9614.1	902.4	343.15	8830.9	896.4	343.15	8045.5	890.1
343.15	10476.7	908.7	343.15	9604.0	902.4	343.15	8820.5	896.4	343.16	8036.6	890.0
343.15	10466.5	908.6	343.15	9594.0	902.3	343.15	8809.5	896.3	343.16	8026.7	890.0
343.15	10456.4	908.5	343.15	9585.2	902.2	343.15	8798.6	896.2	343.16	8017.6	889.9
343.15	10445.9	908.4	343.16	9574.3	902.2	343.15	8787.7	896.1	343.16	8008.1	889.8
343.15	10435.2	908.4	343.15	9564.3	902.1	343.15	8777.8	896.0	343.16	7998.8	889.7
343.15	10426.1	908.3	343.15	9554.0	902.0	343.15	8766.6	896.0	343.16	7989.3	889.7
343.15	10416.5	908.2	343.15	9543.5	901.9	343.15	8754.9	895.9	343.15	7980.0	889.6
343.15	10406.3	908.1	343.15	9534.0	901.8	343.15	8743.8	895.8	343.16	7970.4	889.5
343.15	10395.0	908.1	343.15	9523.5	901.8	343.15	8732.1	895.7	343.15	7960.0	889.4
343.15	10382.9	908.0	343.15	9512.9	901.7	343.15	8720.9	895.6	343.16	7947.7	889.3
343.15	10371.7	907.9	343.15	9503.4	901.6	343.15	8709.5	895.5	343.16	7937.9	889.2
343.16	10360.7	907.8	343.15	9492.7	901.5	343.15	8698.8	895.4	343.16	7929.2	889.1
343.15	10349.3	907.7	343.15	9482.0	901.4	343.15	8688.3	895.3	343.16	7919.6	889.1
343.15	10338.5	907.7	343.15	9472.4	901.4	343.15	8677.9	895.2	343.16	7910.3	889.0
343.15	10326.4	907.6	343.16	9462.1	901.3	343.15	8667.8	895.2	343.16	7901.3	888.9
343.15	10314.0	907.5	343.16	9452.3	901.2	343.15	8656.4	895.1	343.15	7891.3	888.8
343.15	10301.4	907.5	343.16	9442.6	901.1	343.15	8646.9	895.0	343.15	7882.3	888.8
343.15	10289.6	907.3	343.15	9431.6	901.1	343.15	8636.2	894.9	343.15	7871.5	888.7
343.15	10276.8	907.2	343.15	9421.7	901.0	343.15	8625.5	894.8	343.15	7861.8	888.6
343.15	10264.3	907.2	343.15	9410.7	900.9	343.15	8615.5	894.8	343.15	7851.6	888.5
343.15	10253.2	907.0	343.15	9400.4	900.8	343.15	8604.7	894.7	343.15	7841.1	888.4
343.15	10240.8	907.0	343.15	9390.4	900.7	343.15	8593.3	894.6	343.15	7831.1	888.3
343.15	10227.9	906.9	343.15	9379.3	900.7	343.15	8582.3	894.5	343.15	7821.2	888.3
343.15	10216.6	906.8	343.15	9370.0	900.6	343.15	8570.0	894.4	343.15	7810.5	888.1
343.15	10203.8	906.7	343.15	9360.2	900.5	343.15	8559.7	894.3	343.15	7799.9	888.1
343.15	10191.7	906.7	343.15	9349.8	900.4	343.15	8549.2	894.2	343.15	7788.5	888.0
343.15	10179.4	906.6	343.15	9339.9	900.4	343.15	8539.0	894.2	343.15	7777.8	887.9
343.16	10168.0	906.5	343.15	9328.5	900.3	343.15	8527.6	894.1	343.15	7768.8	887.8
343.15	10156.1	906.3	343.15	9316.8	900.2	343.15	8517.3	894.0	343.15	7759.3	887.7
343.15	10144.6	906.3	343.15	9306.2	900.1	343.15	8507.3	893.9	343.15	7748.2	887.6
343.15	10133.4	906.2	343.15	9296.2	900.0	343.15	8496.7	893.8	343.15	7738.4	887.5
343.15	10121.5	906.1	343.15	9286.8	900.0	343.15	8486.7	893.7	343.15	7727.4	887.5
343.15	10109.1	906.1	343.15	9277.7	899.9	343.15	8477.3	893.7	343.15	7716.0	887.3
343.15	10096.8	906.0	343.15	9266.1	899.9	343.15	8466.7	893.5	343.15	7705.3	887.3
343.15	10084.8	905.9	343.15	9256.1	899.7	343.15	8457.4	893.5	343.15	7693.9	887.2
343.15	10073.1	905.8	343.15	9246.8	899.6	343.15	8449.0	893.4	343.15	7683.5	887.0
343.15	10061.9	905.7	343.15	9236.1	899.6	343.15	8439.3	893.4	343.15	7673.0	886.9
343.15	10051.4	905.6	343.15	9225.8	899.5	343.16	8429.2	893.2	343.15	7662.3	886.9
343.15	10040.4	905.6	343.15	9215.3	899.5	343.16	8419.3	893.2	343.15	7651.3	886.8
343.15	10028.8	905.4	343.15	9206.8	899.4	343.15	8409.3	893.1	343.15	7640.0	886.7
343.15	10018.2	905.4	343.15	9197.5	899.3	343.15	8400.9	893.0	343.15	7629.0	886.6
343.15	10005.8	905.3	343.15	9188.9	899.3	343.15	8390.0	892.9	343.15	7618.0	886.4

Valori della densità del fluido R1243zf _ *T*=70°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
343.15	7606.8	886.4	343.15	6706.1	878.3	343.15	5820.7	869.7	343.15	4917.3	860.0
343.15	7595.0	886.3	343.15	6695.4	878.2	343.15	5809.2	869.6	343.15	4905.9	859.8
343.15	7584.0	886.2	343.15	6683.5	878.1	343.15	5797.1	869.5	343.15	4894.8	859.7
343.15	7573.3	886.1	343.15	6672.9	878.0	343.15	5784.4	869.3	343.15	4883.8	859.6
343.15	7562.4	886.1	343.15	6661.2	877.9	343.15	5772.3	869.2	343.15	4872.3	859.5
343.15	7550.7	885.9	343.15	6650.1	877.8	343.15	5760.1	869.1	343.15	4860.2	859.3
343.15	7538.8	885.8	343.15	6639.1	877.7	343.15	5747.1	868.9	343.15	4849.7	859.2
343.15	7526.3	885.7	343.15	6628.4	877.6	343.15	5735.4	868.8	343.15	4837.9	859.0
343.15	7513.4	885.6	343.15	6618.0	877.5	343.15	5723.4	868.7	343.15	4825.5	858.9
343.16	7501.3	885.5	343.15	6607.8	877.4	343.15	5711.7	868.6	343.15	4815.1	858.8
343.15	7490.0	885.4	343.15	6597.4	877.3	343.15	5700.1	868.5	343.15	4803.3	858.7
343.16	7477.2	885.3	343.15	6586.4	877.2	343.15	5687.5	868.3	343.15	4793.6	858.5
343.16	7464.9	885.2	343.15	6575.2	877.1	343.15	5674.7	868.2	343.15	4782.4	858.4
343.16	7453.7	885.1	343.15	6564.6	877.0	343.15	5663.8	868.1	343.15	4772.7	858.3
343.15	7442.7	885.0	343.15	6553.2	876.9	343.15	5651.5	868.0	343.15	4762.1	858.2
343.15	7431.6	884.9	343.15	6541.8	876.8	343.15	5638.4	867.8	343.15	4750.9	858.1
343.15	7420.2	884.8	343.15	6531.4	876.7	343.15	5627.1	867.7	343.15	4740.8	858.0
343.15	7407.5	884.7	343.15	6519.7	876.6	343.15	5615.2	867.6	343.15	4730.3	857.8
343.15	7395.2	884.5	343.15	6508.4	876.5	343.15	5604.0	867.5	343.15	4717.8	857.7
343.15	7383.0	884.5	343.15	6496.0	876.4	343.15	5592.7	867.4	343.15	4706.2	857.5
343.15	7368.8	884.3	343.15	6485.5	876.2	343.15	5580.8	867.2	343.15	4695.1	857.4
343.15	7356.2	884.2	343.15	6475.0	876.2	343.15	5569.9	867.1	343.15	4684.8	857.3
343.15	7344.7	884.1	343.15	6462.4	876.0	343.15	5558.7	867.0	343.15	4673.5	857.2
343.15	7332.2	884.0	343.15	6452.0	875.9	343.15	5547.1	866.9	343.15	4662.4	857.0
343.15	7319.6	883.9	343.15	6441.0	875.8	343.15	5535.5	866.8	343.15	4651.0	856.9
343.15	7305.4	883.8	343.15	6429.7	875.7	343.15	5523.2	866.6	343.15	4638.2	856.8
343.15	7293.5	883.7	343.15	6419.2	875.6	343.15	5511.8	866.5	343.15	4627.8	856.7
343.15	7280.4	883.6	343.15	6408.5	875.6	343.15	5499.3	866.4	343.15	4614.3	856.5
343.15	7268.5	883.5	343.15	6398.7	875.4	343.15	5487.6	866.3	343.15	4602.9	856.3
343.15	7257.3	883.4	343.15	6387.6	875.3	343.15	5475.6	866.1	343.15	4589.9	856.2
343.15	7246.4	883.3	343.15	6376.5	875.2	343.15	5463.9	866.0	343.15	4577.1	856.0
343.15	7235.0	883.1	343.15	6365.8	875.1	343.15	5453.4	865.9	343.15	4564.3	855.9
343.15	7224.1	883.0	343.15	6355.5	875.0	343.15	5441.8	865.8	343.15	4551.7	855.7
343.15	7212.7	882.9	343.15	6345.3	874.9	343.15	5430.3	865.6	343.15	4539.7	855.6
343.15	7201.1	882.8	343.15	6336.6	874.8	343.15	5419.4	865.5	343.15	4527.5	855.5
343.15	7189.6	882.7	343.15	6325.1	874.7	343.15	5409.0	865.4	343.15	4514.5	855.3
343.15	7177.8	882.6	343.15	6313.3	874.6	343.15	5397.4	865.3	343.14	4502.2	855.2
343.15	7166.5	882.5	343.15	6302.4	874.5	343.15	5386.2	865.2	343.15	4489.7	855.0
343.15	7155.2	882.4	343.15	6292.7	874.4	343.15	5374.3	865.0	343.15	4477.4	854.8
343.15	7142.8	882.3	343.15	6281.3	874.3	343.15	5362.8	864.9	343.15	4463.8	854.7
343.15	7131.8	882.2	343.15	6269.6	874.1	343.15	5352.0	864.8	343.15	4450.8	854.5
343.15	7121.0	882.2	343.15	6258.9	874.0	343.15	5340.5	864.7	343.15	4439.2	854.4
343.15	7109.3	882.0	343.15	6247.3	873.9	343.15	5329.1	864.6	343.15	4426.4	854.2
343.15	7097.0	881.9	343.15	6236.2	873.8	343.15	5317.7	864.4	343.15	4413.7	854.1
343.15	7087.0	881.8	343.15	6225.3	873.7	343.15	5306.6	864.4	343.15	4403.2	853.9
343.15	7075.0	881.7	343.15	6215.7	873.6	343.15	5296.8	864.2	343.15	4389.5	853.8
343.15	7064.1	881.6	343.15	6205.5	873.5	343.15	5284.9	864.1	343.15	4376.2	853.6
343.15	7052.5	881.5	343.15	6194.6	873.4	343.15	5274.4	864.0	343.15	4364.8	853.5
343.15	7041.8	881.4	343.15	6183.9	873.4	343.15	5262.1	863.8	343.15	4351.4	853.4
343.15	7029.5	881.3	343.15	6173.5	873.2	343.15	5249.8	863.7	343.15	4339.8	853.2
343.15	7018.3	881.2	343.15	6162.6	873.1	343.15	5237.9	863.6	343.15	4327.4	853.0
343.15	7006.9	881.1	343.15	6152.8	873.0	343.15	5225.4	863.4	343.15	4314.4	852.9
343.15	6995.0	881.0	343.15	6142.6	872.9	343.15	5214.3	863.3	343.15	4302.3	852.7
343.15	6983.4	880.8	343.15	6131.3	872.7	343.15	5204.3	863.2	343.15	4289.6	852.6
343.15	6971.9	880.8	343.15	6119.2	872.7	343.15	5194.6	863.1	343.15	4277.2	852.5
343.15	6960.6	880.7	343.15	6106.6	872.5	343.15	5182.9	862.9	343.15	4264.5	852.3
343.15	6949.4	880.6	343.15	6094.9	872.4	343.15	5171.8	862.8	343.15	4251.4	852.1
343.15	6938.2	880.4	343.15	6082.4	872.3	343.15	5160.5	862.7	343.15	4238.9	852.0
343.15	6928.0	880.4	343.15	6070.3	872.2	343.15	5148.8	862.6	343.15	4226.1	851.8
343.15	6916.2	880.3	343.15	6058.2	872.1	343.15	5137.5	862.4	343.15	4212.4	851.7
343.15	6904.9	880.2	343.15	6045.8	872.0	343.15	5125.6	862.3	343.15	4201.1	851.5
343.15	6893.6	880.0	343.15	6032.7	871.8	343.15	5113.7	862.2	343.15	4188.9	851.3
343.15	6882.6	880.0	343.15	6020.4	871.7	343.15	5101.9	862.1	343.15	4174.3	851.1
343.15	6871.7	879.9	343.15	6007.9	871.6	343.15	5089.3	861.9	343.15	4161.5	851.0
343.15	6860.8	879.8	343.15	5995.1	871.4	343.15	5077.5	861.8	343.15	4149.7	850.9
343.15	6849.9	879.7	343.15	5983.6	871.3	343.15	5066.4	861.7	343.15	4137.6	850.7
343.15	6839.6	879.5	343.15	5971.0	871.2	343.15	5054.2	861.5	343.15	4126.5	850.5
343.15	6828.7	879.5	343.15	5958.9	871.1	343.15	5042.4	861.4	343.15	4113.6	850.4
343.15	6817.6	879.4	343.15	5946.2	870.9	343.15	5031.2	861.2	343.15	4101.4	850.3
343.15	6806.8	879.3	343.15	5934.5	870.9	343.15	5020.1	861.2	343.15	4089.7	850.1
343.15	6796.2	879.1	343.15	5922.6	870.7	343.15	5008.2	861.0	343.15	4079.3	850.0
343.15	6785.2	879.1	343.15	5909.4	870.6	343.15	4997.8	860.9	343.15	4068.2	849.8
343.15	6773.2	879.0	343.15	5898.0	870.4	343.15	4985.7	860.7	343.15	4056.1	849.7
343.15	6762.5	878.8	343.15	5884.0	870.3	343.15	4974.2	860.6	343.15	4044.8	849.5
343.15	6750.1	878.8	343.15	5871.9	870.2	343.15	4963.3	860.5	343.15	4033.4	849.4
343.15	6739.4	878.6	343.15	5859.1	870.1	343.15	4952.4	860.4	343.15	4023.0	849.2
343.15	6728.7	878.5	343.15	5845.3	870.0	343.15	4941.0	860.2	343.15	4011.2	849.1
343.15	6717.3	878.4	343.15	5833.2	869.8	343.15	4929.4	860.1	343.15	4000.5	848.9

T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]
343.15	3989.1	848.8	343.15	3475.4	841.9	343.15	2944.8	834.2	343.15	2408.0	825.6
343.15	3977.6	848.6	343.15	3464.6	841.8	343.15	2932.8	834.0	343.15	2396.2	825.4
343.15	3967.4	848.5	343.15	3453.9	841.6	343.15	2919.8	833.9	343.15	2386.7	825.2
343.15	3956.7	848.4	343.15	3442.8	841.5	343.15	2907.0	833.7	343.15	2377.0	825.0
343.15	3946.1	848.3	343.15	3431.9	841.4	343.15	2895.2	833.4	343.15	2366.0	824.9
343.15	3934.5	848.1	343.15	3421.1	841.2	343.15	2882.7	833.3	343.15	2356.3	824.7
343.15	3924.3	847.9	343.15	3410.4	841.0	343.15	2868.8	833.1	343.15	2345.1	824.5
343.15	3913.7	847.8	343.15	3399.8	840.9	343.15	2856.5	832.8	343.15	2335.0	824.3
343.15	3901.8	847.7	343.15	3389.9	840.8	343.15	2844.6	832.7	343.15	2323.9	824.1
343.15	3890.5	847.5	343.15	3379.2	840.6	343.15	2831.9	832.5	343.15	2313.7	824.0
343.15	3880.1	847.4	343.15	3368.9	840.5	343.15	2819.1	832.3	343.15	2303.9	823.8
343.15	3868.2	847.2	343.15	3358.3	840.3	343.15	2807.6	832.1	343.15	2292.7	823.6
343.15	3857.4	847.1	343.15	3348.1	840.2	343.15	2795.7	831.9	343.15	2282.1	823.4
343.15	3846.9	846.9	343.15	3338.0	840.0	343.15	2784.1	831.7	343.15	2271.5	823.2
343.15	3835.1	846.8	343.15	3328.0	839.8	343.15	2772.3	831.5	343.15	2260.4	823.1
343.15	3823.9	846.7	343.15	3317.2	839.7	343.15	2760.3	831.4	343.15	2249.8	822.9
343.15	3812.4	846.5	343.15	3306.7	839.5	343.15	2750.3	831.2	343.15	2239.8	822.7
343.15	3802.2	846.4	343.15	3296.4	839.4	343.15	2738.1	831.0	343.15	2230.1	822.4
343.15	3792.2	846.2	343.15	3286.0	839.3	343.15	2726.9	830.8	343.15	2219.1	822.3
343.15	3781.6	846.1	343.15	3276.2	839.1	343.15	2716.3	830.7	343.15	2209.4	822.1
343.15	3771.0	845.9	343.15	3264.7	838.9	343.14	2704.2	830.5	343.15	2198.0	821.9
343.15	3760.0	845.8	343.15	3255.7	838.8	343.14	2693.2	830.3	343.15	2188.1	821.7
343.15	3748.4	845.7	343.15	3244.2	838.7	343.15	2682.1	830.1	343.15	2177.2	821.5
343.15	3737.4	845.5	343.15	3233.8	838.5	343.15	2672.3	829.9	343.15	2165.7	821.3
343.15	3727.1	845.4	343.15	3221.9	838.4	343.15	2661.3	829.8	343.15	2155.0	821.1
343.15	3716.3	845.2	343.15	3210.3	838.2	343.15	2649.4	829.6	343.15	2145.4	820.9
343.15	3705.2	845.1	343.15	3198.1	838.0	343.15	2639.8	829.5	343.15	2134.8	820.8
343.15	3694.0	844.9	343.15	3185.5	837.8	343.15	2628.7	829.3	343.15	2125.3	820.5
343.15	3683.7	844.8	343.15	3174.1	837.7	343.15	2618.3	829.1	343.15	2114.4	820.4
343.15	3674.0	844.7	343.15	3161.8	837.5	343.15	2607.4	828.9	343.15	2103.3	820.2
343.15	3663.3	844.5	343.15	3149.3	837.3	343.15	2596.7	828.7	343.15	2093.4	819.9
343.15	3652.7	844.3	343.15	3137.8	837.1	343.15	2584.7	828.5	343.15	2082.4	819.8
343.15	3641.3	844.2	343.15	3126.8	836.9	343.15	2573.3	828.3	343.15	2072.6	819.6
343.15	3628.8	844.1	343.15	3114.8	836.8	343.15	2561.6	828.1	343.15	2062.0	819.4
343.15	3617.6	843.9	343.15	3103.2	836.6	343.15	2551.4	828.0	343.15	2051.7	819.3
343.15	3607.7	843.8	343.15	3091.7	836.4	343.15	2540.7	827.8	343.14	2041.5	819.0
343.15	3597.1	843.6	343.15	3079.3	836.2	343.15	2529.0	827.6	343.15	2030.8	818.9
343.15	3586.1	843.5	343.15	3067.8	836.1	343.15	2517.6	827.4	343.15	2020.5	818.6
343.15	3574.6	843.3	343.15	3056.4	835.9	343.15	2507.0	827.2	343.14	2010.5	818.5
343.15	3562.7	843.2	343.15	3044.3	835.7	343.15	2494.2	827.0			
343.15	3551.6	843.0	343.15	3033.0	835.6	343.15	2483.3	826.9			
343.15	3540.5	842.9	343.15	3021.6	835.3	343.15	2471.6	826.6			
343.15	3529.7	842.7	343.15	3008.6	835.2	343.15	2460.6	826.5			
343.15	3519.4	842.6	343.15	2996.1	835.0	343.15	2449.3	826.3			
343.15	3507.6	842.4	343.15	2983.8	834.8	343.15	2438.4	826.1			
343.15	3496.8	842.2	343.15	2970.6	834.6	343.14	2427.8	825.9			
343.15	3486.6	842.1	343.15	2957.4	834.4	343.14	2418.6	825.8			

Tabella C8: Valori della densità del fluido R1243zf per *T* = 353.15 K (80°C)

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
353.15	35008.5	997.6	353.15	34057.8	994.5	353.15	33026.9	991.2	353.15	32016.7	987.7
353.15	34999.0	997.6	353.15	34045.4	994.5	353.15	33014.0	991.1	353.15	32001.2	987.7
353.15	34990.3	997.5	353.15	34033.0	994.5	353.15	33001.8	991.1	353.15	31986.1	987.6
353.15	34980.4	997.5	353.15	34020.2	994.4	353.15	32989.7	991.0	353.15	31972.7	987.6
353.15	34968.0	997.5	353.15	34005.8	994.3	353.15	32977.2	990.9	353.14	31959.9	987.5
353.15	34954.3	997.4	353.15	33990.6	994.3	353.15	32964.2	990.9	353.15	31946.1	987.5
353.15	34940.4	997.4	353.15	33976.8	994.2	353.15	32952.5	990.9	353.15	31932.3	987.4
353.15	34927.3	997.4	353.15	33963.4	994.2	353.14	32939.7	990.8	353.15	31919.1	987.4
353.15	34913.5	997.3	353.14	33950.6	994.2	353.14	32926.5	990.8	353.15	31905.6	987.4
353.15	34900.0	997.2	353.14	33935.6	994.1	353.14	32914.3	990.7	353.15	31893.2	987.3
353.15	34887.3	997.2	353.15	33922.3	994.1	353.14	32902.2	990.7	353.14	31878.9	987.3
353.15	34874.6	997.2	353.15	33908.9	994.0	353.15	32888.1	990.7	353.14	31866.8	987.2
353.15	34863.0	997.1	353.15	33895.9	994.0	353.15	32874.9	990.6	353.15	31853.2	987.1
353.15	34850.9	997.1	353.15	33882.6	994.0	353.15	32860.8	990.6	353.15	31839.1	987.1
353.15	34838.6	997.0	353.15	33868.7	993.9	353.15	32848.2	990.5	353.15	31826.7	987.1
353.15	34826.3	997.0	353.15	33856.0	993.9	353.14	32834.2	990.5	353.15	31814.9	987.0
353.15	34813.3	997.0	353.15	33842.9	993.8	353.14	32822.7	990.4	353.15	31801.4	987.0
353.15	34799.6	996.9	353.15	33828.4	993.8	353.14	32810.0	990.4	353.15	31787.6	986.9
353.14	34787.0	996.9	353.15	33814.2	993.7	353.14	32798.3	990.3	353.15	31773.5	986.9
353.14	34774.8	996.8	353.15	33800.7	993.7	353.14	32786.7	990.3	353.15	31760.1	986.8
353.14	34763.1	996.8	353.15	33786.2	993.7	353.14	32774.8	990.3	353.15	31746.4	986.8
353.14	34751.5	996.8	353.15	33771.2	993.6	353.15	32764.2	990.2	353.15	31732.2	986.7
353.15	34738.9	996.8	353.15	33757.8	993.5	353.15	32752.5	990.2	353.15	31717.9	986.7
353.15	34725.9	996.7	353.15	33743.9	993.5	353.15	32740.9	990.2	353.15	31703.5	986.6
353.15	34713.6	996.6	353.15	33728.7	993.4	353.14	32728.2	990.1	353.15	31689.9	986.6
353.15	34702.0	996.6	353.15	33714.9	993.4	353.15	32715.5	990.1	353.14	31676.1	986.5
353.15	34689.7	996.6	353.15	33700.0	993.4	353.15	32703.5	990.0	353.15	31663.4	986.5
353.15	34676.0	996.5	353.15	33686.9	993.3	353.14	32691.5	990.0	353.15	31649.2	986.5
353.15	34664.6	996.5	353.14	33672.1	993.3	353.14	32678.8	990.0	353.15	31635.9	986.4
353.15	34651.9	996.4	353.15	33655.8	993.2	353.15	32666.5	989.9	353.15	31622.3	986.3
353.15	34640.5	996.4	353.15	33640.8	993.1	353.15	32654.2	989.9	353.14	31608.4	986.3
353.15	34629.4	996.4	353.15	33626.1	993.1	353.15	32641.8	989.8	353.14	31593.6	986.3
353.15	34616.3	996.3	353.15	33611.7	993.0	353.15	32628.2	989.8	353.14	31580.4	986.2
353.15	34603.6	996.3	353.15	33596.3	993.0	353.15	32614.9	989.8	353.15	31566.3	986.1
353.15	34591.9	996.3	353.15	33582.1	992.9	353.15	32602.4	989.7	353.15	31553.2	986.1
353.15	34579.2	996.2	353.14	33568.7	992.9	353.15	32591.1	989.7	353.15	31541.2	986.1
353.15	34567.1	996.2	353.15	33553.6	992.8	353.15	32578.5	989.6	353.14	31529.0	986.0
353.15	34555.3	996.1	353.15	33539.3	992.8	353.15	32566.2	989.6	353.14	31517.1	986.0
353.15	34541.4	996.1	353.15	33523.7	992.8	353.15	32553.1	989.5	353.14	31504.7	985.9
353.15	34528.7	996.0	353.15	33510.4	992.8	353.15	32539.0	989.5	353.14	31493.7	985.9
353.15	34516.4	996.0	353.15	33497.3	992.7	353.15	32523.4	989.4	353.14	31480.0	985.9
353.15	34504.5	996.0	353.15	33481.5	992.6	353.15	32510.8	989.4	353.14	31468.3	985.8
353.15	34492.3	995.9	353.15	33467.7	992.6	353.15	32497.1	989.3	353.14	31456.4	985.8
353.15	34479.6	995.9	353.15	33454.9	992.5	353.15	32481.0	989.3	353.14	31444.8	985.7
353.15	34466.8	995.9	353.15	33441.0	992.5	353.15	32466.8	989.2	353.15	31430.7	985.7
353.15	34453.8	995.8	353.15	33427.5	992.5	353.15	32452.0	989.2	353.15	31417.1	985.7
353.15	34440.9	995.8	353.15	33412.3	992.4	353.15	32438.8	989.1	353.15	31403.1	985.6
353.15	34428.4	995.7	353.15	33400.5	992.4	353.15	32425.1	989.1	353.15	31388.1	985.5
353.15	34414.7	995.7	353.15	33388.1	992.3	353.15	32410.7	989.0	353.15	31372.2	985.5
353.15	34401.8	995.6	353.15	33373.0	992.3	353.15	32397.1	989.0	353.15	31360.1	985.4
353.15	34388.7	995.6	353.15	33358.1	992.2	353.15	32382.8	989.0	353.14	31346.1	985.4
353.14	34373.5	995.6	353.15	33345.4	992.2	353.15	32368.1	988.9	353.14	31331.3	985.4
353.14	34359.8	995.5	353.15	33331.4	992.1	353.15	32352.8	988.9	353.14	31317.8	985.3
353.14	34346.3	995.4	353.15	33316.8	992.1	353.15	32338.5	988.8	353.14	31305.7	985.3
353.14	34331.9	995.4	353.14	33303.7	992.0	353.15	32323.5	988.8	353.14	31292.5	985.2
353.14	34318.0	995.3	353.14	33290.4	992.0	353.14	32309.4	988.8	353.14	31278.6	985.2
353.14	34302.5	995.3	353.14	33276.4	992.0	353.14	32295.8	988.7	353.14	31265.8	985.1
353.15	34289.6	995.3	353.14	33263.1	991.9	353.14	32280.5	988.6	353.15	31250.1	985.0
353.15	34276.7	995.2	353.14	33249.5	991.9	353.15	32266.2	988.5	353.15	31236.4	985.0
353.15	34265.4	995.2	353.15	33237.0	991.9	353.15	32252.7	988.5	353.15	31224.6	985.0
353.15	34252.7	995.1	353.15	33224.5	991.8	353.15	32237.5	988.5	353.15	31211.1	984.9
353.15	34240.0	995.1	353.15	33210.1	991.9	353.15	32220.6	988.4	353.15	31198.0	984.9
353.15	34226.3	995.1	353.15	33197.0	991.7	353.15	32205.8	988.4	353.15	31183.7	984.8
353.15	34212.8	995.0	353.15	33183.7	991.5	353.15	32191.2	988.3	353.15	31171.0	984.8
353.15	34200.0	995.0	353.15	33171.7	991.6	353.15	32177.0	988.3	353.15	31159.6	984.8
353.15	34186.2	994.9	353.14	33158.2	991.6	353.15	32162.0	988.2	353.15	31146.1	984.7
353.14	34173.9	994.9	353.14	33144.6	991.5	353.15	32145.8	988.2	353.15	31133.1	984.7
353.15	34160.3	994.9	353.14	33133.0	991.5	353.15	32132.8	988.1	353.15	31118.9	984.6
353.15	34147.2	994.8	353.15	33120.8	991.5	353.15	32118.5	988.1	353.14	31105.9	984.6
353.15	34134.4	994.8	353.15	33106.6	991.4	353.15	32105.4	988.0	353.14	31094.6	984.5
353.15	34120.8	994.7	353.15	33094.2	991.4	353.15	32090.7	988.0	353.14	31080.1	984.5
353.15	34108.3	994.7	353.15	33080.8	991.3	353.15	32075.2	987.9	353.14	31067.2	984.4
353.15	34096.0	994.7	353.15	33067.1	991.2	353.15	32060.3	987.9	353.15	31052.4	984.4
353.15	34083.4	994.6	353.15	33052.8	991.2	353.15	32044.7	987.8	353.15	31039.0	984.3
353.15	34071.0	994.6	353.15	33040.1	991.2	353.15	32031.0	987.7	353.15	31025.7	984.3

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
353.15	31011.7	984.2	353.15	29910.6	980.3	353.14	28807.6	976.3	353.14	27723.2	972.2
353.15	30997.0	984.2	353.14	29898.8	980.3	353.14	28795.2	976.2	353.14	27708.7	972.1
353.15	30981.3	984.1	353.14	29885.2	980.2	353.14	28780.0	976.1	353.14	27695.6	972.1
353.15	30966.3	984.1	353.14	29872.9	980.1	353.15	28766.6	976.1	353.14	27681.7	972.0
353.15	30952.6	984.1	353.14	29859.8	980.1	353.14	28751.9	976.1	353.14	27669.7	972.0
353.15	30937.8	984.0	353.14	29847.9	980.1	353.14	28739.5	976.1	353.14	27656.9	971.9
353.15	30923.3	984.0	353.14	29835.7	980.1	353.14	28724.9	976.0	353.14	27643.2	971.9
353.15	30907.5	983.9	353.15	29820.8	980.0	353.14	28710.8	975.9	353.15	27628.6	971.8
353.15	30892.3	983.8	353.15	29806.5	980.0	353.14	28696.8	975.8	353.14	27616.0	971.8
353.15	30877.4	983.7	353.15	29791.7	979.9	353.14	28683.3	975.8	353.14	27602.7	971.7
353.15	30861.7	983.7	353.15	29778.2	979.8	353.14	28669.0	975.7	353.15	27588.9	971.7
353.15	30848.1	983.7	353.15	29763.8	979.8	353.15	28655.6	975.7	353.14	27574.7	971.6
353.15	30833.2	983.6	353.14	29750.8	979.8	353.14	28641.3	975.6	353.15	27561.3	971.5
353.15	30818.7	983.6	353.14	29737.3	979.7	353.14	28627.8	975.6	353.15	27547.7	971.5
353.15	30803.1	983.5	353.14	29723.4	979.6	353.14	28613.7	975.6	353.14	27533.7	971.5
353.15	30788.5	983.4	353.14	29709.3	979.6	353.14	28601.7	975.5	353.14	27520.3	971.4
353.15	30773.2	983.4	353.14	29695.3	979.5	353.14	28589.0	975.5	353.14	27507.5	971.4
353.14	30759.2	983.3	353.14	29682.4	979.5	353.14	28575.8	975.4	353.14	27494.3	971.3
353.14	30744.8	983.3	353.14	29668.1	979.4	353.14	28563.8	975.4	353.14	27481.3	971.2
353.15	30728.8	983.2	353.15	29653.1	979.4	353.14	28549.5	975.3	353.14	27468.4	971.2
353.14	30714.3	983.2	353.15	29639.6	979.3	353.14	28537.1	975.3	353.14	27455.1	971.2
353.15	30699.3	983.1	353.15	29625.6	979.3	353.14	28524.9	975.3	353.14	27441.5	971.1
353.15	30684.3	983.1	353.15	29612.2	979.3	353.14	28510.0	975.2	353.14	27427.7	971.1
353.14	30666.2	983.0	353.15	29598.9	979.2	353.14	28495.6	975.1	353.14	27414.0	971.0
353.14	30650.4	982.9	353.15	29583.9	979.1	353.14	28482.6	975.1	353.14	27399.9	970.9
353.15	30634.9	982.9	353.14	29569.9	979.1	353.14	28468.4	975.0	353.14	27386.4	970.9
353.14	30620.5	982.9	353.14	29554.2	979.0	353.14	28455.2	975.0	353.14	27372.7	970.8
353.15	30605.6	982.8	353.14	29538.9	979.0	353.15	28440.8	974.9	353.14	27358.6	970.8
353.14	30591.6	982.8	353.14	29523.6	978.9	353.14	28427.1	974.9	353.14	27346.1	970.7
353.14	30576.5	982.7	353.15	29508.5	978.9	353.14	28414.1	974.8	353.14	27332.0	970.7
353.14	30564.1	982.6	353.15	29493.2	978.8	353.14	28399.6	974.7	353.14	27319.0	970.6
353.14	30549.8	982.6	353.15	29479.6	978.8	353.14	28386.2	974.7	353.14	27304.3	970.5
353.14	30536.1	982.6	353.15	29463.2	978.7	353.14	28373.0	974.7	353.14	27291.8	970.5
353.14	30522.9	982.5	353.15	29447.9	978.6	353.14	28359.4	974.6	353.14	27278.0	970.5
353.14	30509.3	982.4	353.14	29433.4	978.6	353.14	28345.3	974.5	353.14	27264.3	970.4
353.14	30494.5	982.4	353.14	29416.8	978.5	353.14	28330.8	974.5	353.14	27250.9	970.4
353.14	30482.4	982.3	353.14	29402.5	978.5	353.14	28317.1	974.5	353.14	27237.3	970.3
353.14	30467.5	982.3	353.14	29386.9	978.4	353.14	28302.4	974.4	353.14	27223.2	970.3
353.14	30453.1	982.2	353.14	29371.4	978.4	353.14	28288.8	974.3	353.14	27209.3	970.2
353.14	30439.8	982.2	353.14	29357.3	978.3	353.15	28275.7	974.3	353.14	27197.6	970.2
353.14	30423.7	982.1	353.15	29343.3	978.3	353.15	28261.9	974.3	353.15	27183.1	970.1
353.14	30409.2	982.1	353.15	29327.8	978.2	353.15	28248.9	974.2	353.15	27170.9	970.1
353.15	30396.4	982.1	353.15	29314.3	978.2	353.14	28234.8	974.1	353.15	27156.5	970.0
353.15	30383.5	982.0	353.15	29300.2	978.1	353.14	28221.4	974.1	353.15	27143.4	970.0
353.14	30370.6	981.9	353.15	29284.5	978.0	353.14	28206.7	974.0	353.15	27129.5	969.9
353.14	30355.8	981.9	353.14	29269.6	978.0	353.14	28191.5	974.0	353.14	27115.8	969.9
353.14	30340.7	981.8	353.14	29255.1	977.9	353.14	28177.7	973.9	353.14	27103.1	969.8
353.14	30327.2	981.8	353.14	29239.4	977.9	353.14	28163.8	973.8	353.14	27090.0	969.8
353.14	30314.6	981.8	353.14	29225.3	977.8	353.14	28150.2	973.8	353.14	27077.7	969.7
353.14	30301.9	981.7	353.14	29209.6	977.8	353.15	28137.1	973.8	353.14	27064.0	969.7
353.14	30288.1	981.7	353.15	29195.3	977.7	353.15	28122.5	973.7	353.14	27050.8	969.5
353.15	30274.4	981.6	353.15	29182.2	977.7	353.15	28107.9	973.7	353.14	27038.9	969.6
353.14	30260.3	981.6	353.15	29167.6	977.6	353.15	28093.7	973.6	353.14	27027.2	969.5
353.15	30246.9	981.5	353.15	29153.9	977.6	353.15	28079.6	973.5	353.14	27014.0	969.5
353.15	30234.6	981.4	353.15	29139.5	977.5	353.15	28065.3	973.5	353.14	27000.2	969.4
353.14	30222.0	981.4	353.15	29124.9	977.4	353.15	28051.2	973.5	353.14	26988.4	969.4
353.14	30207.8	981.4	353.15	29111.0	977.4	353.14	28036.0	973.4	353.14	26974.6	969.3
353.14	30192.6	981.4	353.15	29097.3	977.3	353.14	28022.6	973.3	353.14	26960.9	969.3
353.15	30179.7	981.3	353.15	29083.8	977.3	353.14	28009.5	973.3	353.14	26946.8	969.2
353.15	30165.2	981.2	353.15	29069.9	977.2	353.14	27994.5	973.2	353.15	26932.7	969.2
353.15	30152.1	981.2	353.14	29057.0	977.2	353.14	27980.6	973.2	353.15	26919.9	969.1
353.15	30138.5	981.1	353.14	29043.1	977.2	353.14	27966.5	973.1	353.15	26907.3	969.0
353.15	30124.6	981.1	353.14	29029.9	977.1	353.14	27951.0	973.1	353.15	26893.2	969.0
353.15	30110.8	981.0	353.14	29015.8	977.0	353.15	27936.6	973.0	353.15	26879.0	968.9
353.14	30097.8	981.0	353.14	29000.7	977.0	353.15	27921.3	973.0	353.15	26865.6	968.9
353.14	30083.9	980.9	353.14	28987.5	976.9	353.15	27906.8	972.9	353.14	26851.0	968.8
353.14	30069.3	980.9	353.14	28973.4	976.9	353.15	27892.4	972.8	353.14	26837.2	968.8
353.14	30056.9	980.8	353.14	28958.5	976.8	353.14	27877.3	972.8	353.14	26822.8	968.7
353.15	30043.5	980.8	353.14	28945.6	976.8	353.14	27863.9	972.7	353.14	26808.7	968.6
353.15	30030.9	980.7	353.14	28930.3	976.7	353.14	27849.0	972.7	353.14	26795.4	968.6
353.15	30018.4	980.7	353.14	28916.3	976.7	353.14	27834.8	972.6	353.15	26780.9	968.6
353.15	30004.1	980.7	353.14	28904.6	976.6	353.14	27819.5	972.6	353.15	26767.3	968.5
353.15	29990.6	980.6	353.14	28890.1	976.6	353.14	27804.9	972.5	353.15	26754.1	968.5
353.15	29977.7	980.6	353.14	28876.4	976.5	353.14	27791.7	972.4	353.15	26739.3	968.4
353.15	29964.2	980.5	353.14	28862.5	976.5	353.14	27777.6	972.4	353.15	26724.9	968.3
353.15	29950.1	980.4	353.14	28847.7	976.5	353.14	27764.0	972.3	353.14	26711.0	968.3
353.15	29937.6	980.4	353.14	28834.7	976.4	353.14	27751.2	972.3	353.14	26698.0	968.2
353.15	29923.8	980.4	353.14	28820.4	976.3	353.14	27737.5	972.3	353.14	26683.2	968.2

Valori della densità del fluido R1243zf _ *T*=80°C

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
353.14	26668.5	968.1	353.15	25648.4	964.0	353.14	24556.4	959.5	353.14	23488.1	954.9
353.14	26654.9	968.0	353.15	25634.7	964.0	353.14	24543.2	959.4	353.14	23473.3	954.9
353.14	26640.0	968.0	353.15	25621.0	963.9	353.14	24529.4	959.4	353.14	23461.5	954.8
353.14	26626.0	968.0	353.15	25607.0	963.9	353.14	24516.1	959.3	353.14	23449.4	954.7
353.14	26611.7	967.9	353.15	25592.9	963.8	353.14	24501.3	959.3	353.14	23435.6	954.7
353.14	26598.4	967.8	353.15	25578.3	963.8	353.15	24487.2	959.3	353.14	23421.6	954.6
353.15	26583.7	967.8	353.15	25565.0	963.7	353.15	24472.1	959.2	353.14	23407.7	954.6
353.15	26569.4	967.7	353.14	25551.7	963.6	353.15	24459.2	959.1	353.14	23394.5	954.5
353.15	26555.9	967.6	353.14	25536.2	963.6	353.14	24444.5	959.0	353.14	23381.2	954.5
353.15	26540.9	967.6	353.14	25521.5	963.5	353.14	24431.2	959.0	353.14	23368.2	954.5
353.14	26527.2	967.5	353.14	25507.2	963.4	353.14	24416.8	958.9	353.14	23355.3	954.4
353.14	26514.5	967.5	353.14	25492.0	963.4	353.14	24403.9	958.9	353.14	23340.9	954.3
353.14	26500.3	967.4	353.14	25478.5	963.3	353.14	24389.1	958.8	353.14	23326.2	954.2
353.14	26485.7	967.4	353.14	25462.7	963.2	353.14	24376.8	958.7	353.14	23312.6	954.2
353.14	26472.2	967.3	353.14	25447.9	963.2	353.14	24363.3	958.7	353.14	23299.0	954.1
353.14	26458.6	967.3	353.14	25434.5	963.1	353.14	24350.5	958.7	353.14	23286.0	954.1
353.14	26445.1	967.2	353.14	25419.8	963.1	353.14	24337.3	958.6	353.14	23273.1	954.0
353.14	26431.6	967.2	353.14	25404.4	963.0	353.14	24323.3	958.5	353.14	23260.5	953.9
353.15	26418.3	967.1	353.14	25389.7	963.0	353.14	24310.8	958.5	353.14	23246.9	953.9
353.14	26404.9	967.1	353.14	25375.9	962.9	353.14	24296.5	958.4	353.14	23234.1	953.8
353.15	26391.2	967.0	353.14	25359.7	962.8	353.14	24283.5	958.3	353.14	23221.1	953.8
353.15	26377.3	967.0	353.14	25344.1	962.8	353.14	24269.9	958.3	353.14	23207.4	953.7
353.15	26364.3	966.9	353.14	25328.9	962.7	353.14	24254.4	958.2	353.14	23194.7	953.7
353.14	26352.5	966.8	353.14	25312.9	962.6	353.14	24240.6	958.2	353.14	23181.2	953.6
353.14	26340.9	966.8	353.14	25298.7	962.6	353.14	24226.2	958.1	353.14	23167.7	953.5
353.14	26328.5	966.8	353.14	25283.7	962.5	353.14	24212.6	958.1	353.14	23153.2	953.5
353.14	26315.0	966.7	353.14	25268.8	962.5	353.14	24198.8	958.0	353.14	23140.3	953.4
353.14	26303.0	966.6	353.14	25254.9	962.4	353.14	24185.1	957.9	353.14	23127.3	953.4
353.15	26289.9	966.6	353.14	25239.5	962.3	353.14	24171.2	957.9	353.14	23114.1	953.3
353.15	26276.7	966.6	353.14	25223.7	962.3	353.14	24157.3	957.8	353.14	23101.5	953.2
353.15	26264.2	966.5	353.14	25209.0	962.3	353.14	24142.7	957.8	353.14	23087.8	953.2
353.15	26251.6	966.4	353.14	25194.5	962.1	353.14	24129.5	957.7	353.14	23075.0	953.1
353.15	26239.0	966.4	353.14	25181.3	962.1	353.14	24116.7	957.7	353.14	23061.5	953.1
353.15	26227.3	966.3	353.14	25168.9	962.0	353.14	24104.0	957.5	353.14	23049.1	953.0
353.14	26213.1	966.2	353.14	25153.3	962.0	353.14	24089.2	957.5	353.14	23035.2	953.0
353.14	26200.5	966.3	353.14	25138.9	961.9	353.14	24075.5	957.4	353.14	23023.2	952.9
353.14	26187.9	966.2	353.14	25124.7	961.9	353.14	24060.1	957.4	353.14	23009.5	952.9
353.14	26174.9	966.1	353.14	25109.9	961.8	353.14	24046.4	957.4	353.14	22996.3	952.8
353.14	26162.8	966.1	353.14	25098.2	961.8	353.15	24031.4	957.3	353.14	22982.7	952.8
353.14	26150.3	966.1	353.14	25083.7	961.7	353.15	24017.1	957.2	353.14	22969.3	952.6
353.14	26137.7	966.0	353.14	25070.8	961.6	353.15	24003.1	957.2	353.14	22954.5	952.6
353.14	26124.5	965.9	353.14	25057.4	961.6	353.15	23989.3	957.1	353.14	22942.2	952.6
353.14	26112.3	965.9	353.15	25043.4	961.5	353.15	23976.1	957.1	353.14	22928.8	952.5
353.15	26100.5	965.8	353.15	25029.6	961.5	353.15	23963.1	957.0	353.14	22915.6	952.4
353.15	26087.4	965.8	353.14	25015.5	961.4	353.15	23949.7	956.9	353.14	22901.4	952.4
353.15	26075.7	965.8	353.14	25002.7	961.4	353.15	23935.9	956.9	353.14	22888.4	952.3
353.15	26062.4	965.7	353.14	24988.7	961.3	353.15	23922.1	956.8	353.14	22875.2	952.3
353.15	26049.7	965.6	353.14	24973.5	961.3	353.14	23909.2	956.8	353.14	22861.3	952.2
353.14	26037.2	965.6	353.14	24960.8	961.2	353.14	23895.1	956.7	353.14	22848.1	952.1
353.14	26023.2	965.5	353.14	24946.6	961.2	353.14	23882.6	956.6	353.14	22834.6	952.1
353.14	26010.7	965.5	353.14	24933.1	961.1	353.14	23868.7	956.6	353.14	22820.5	952.0
353.14	25997.8	965.4	353.14	24920.3	961.0	353.14	23853.7	956.5	353.14	22807.9	952.0
353.14	25985.0	965.4	353.14	24904.6	961.0	353.14	23840.9	956.5	353.14	22795.4	951.9
353.14	25972.6	965.3	353.15	24892.6	960.9	353.14	23826.7	956.4	353.13	22780.3	951.8
353.14	25961.2	965.3	353.14	24880.6	960.9	353.14	23812.5	956.4	353.13	22767.3	951.8
353.14	25948.7	965.3	353.14	24866.4	960.8	353.14	23799.8	956.3	353.14	22752.3	951.7
353.14	25935.9	965.2	353.14	24852.8	960.8	353.14	23786.4	956.2	353.13	22738.0	951.7
353.14	25924.7	965.1	353.14	24839.7	960.7	353.14	23773.6	956.2	353.13	22724.9	951.6
353.15	25911.6	965.1	353.14	24826.0	960.7	353.14	23760.5	956.1	353.13	22712.6	951.5
353.14	25898.5	965.0	353.14	24812.9	960.6	353.14	23747.2	956.1	353.13	22699.4	951.5
353.14	25885.0	964.9	353.14	24799.2	960.5	353.14	23733.7	956.0	353.13	22685.4	951.4
353.14	25871.2	964.9	353.14	24786.5	960.5	353.14	23721.1	955.9	353.13	22672.2	951.4
353.14	25859.2	964.9	353.14	24774.3	960.4	353.14	23706.7	955.9	353.13	22656.4	951.3
353.14	25848.3	964.8	353.14	24762.4	960.4	353.14	23694.0	955.8	353.14	22644.4	951.2
353.15	25835.6	964.8	353.14	24749.9	960.3	353.14	23680.2	955.8	353.14	22630.7	951.2
353.15	25822.9	964.7	353.14	24737.3	960.3	353.14	23665.9	955.7	353.14	22618.1	951.1
353.15	25810.7	964.7	353.14	24725.0	960.2	353.14	23653.2	955.7	353.14	22604.8	951.0
353.15	25797.7	964.6	353.15	24711.4	960.2	353.14	23639.4	955.6	353.14	22592.0	951.0
353.15	25784.4	964.6	353.15	24698.3	960.1	353.14	23626.6	955.5	353.14	22579.2	950.9
353.14	25771.6	964.5	353.15	24685.5	960.1	353.14	23612.9	955.5	353.14	22565.7	950.9
353.14	25758.2	964.5	353.15	24671.1	960.0	353.14	23599.6	955.5	353.14	22553.2	950.8
353.14	25744.2	964.4	353.15	24657.4	960.0	353.14	23584.1	955.4	353.14	22539.5	950.7
353.14	25732.0	964.3	353.15	24643.4	959.9	353.14	23571.1	955.3	353.14	22526.4	950.7
353.14	25717.2	964.3	353.15	24629.6	959.8	353.14	23557.0	955.3	353.14	22511.0	950.6
353.15	25702.4	964.3	353.14	24614.5	959.8	353.14	23542.8	955.2	353.14	22497.8	950.6
353.15	25689.1	964.2	353.14	24600.9	959.7	353.15	23529.5	955.1	353.14	22483.1	950.5
353.15	25674.9	964.1	353.14	24586.6	959.6	353.14	23515.1	955.1	353.14	22470.5	950.5
353.15	25662.3	964.0	353.14	24572.5	959.6	353.14	23501.8	955.0	353.14	22458.5	950.4

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
353.14	22445.9	950.3	353.15	21420.1	945.6	353.15	20372.7	940.7	353.14	19370.0	935.7
353.14	22432.7	950.3	353.15	21406.7	945.5	353.15	20359.0	940.6	353.14	19358.4	935.6
353.14	22420.0	950.2	353.15	21391.2	945.5	353.15	20347.0	940.5	353.14	19346.5	935.6
353.13	22407.3	950.2	353.15	21377.2	945.4	353.15	20335.6	940.4	353.14	19333.8	935.5
353.13	22394.3	950.1	353.15	21365.3	945.4	353.15	20322.9	940.4	353.14	19321.7	935.4
353.14	22381.5	950.0	353.15	21351.9	945.3	353.15	20311.1	940.3	353.15	19307.4	935.4
353.14	22367.1	950.0	353.15	21338.9	945.3	353.15	20298.9	940.3	353.15	19294.4	935.3
353.14	22353.9	949.9	353.15	21326.8	945.2	353.15	20287.3	940.2	353.15	19281.8	935.2
353.14	22340.6	949.8	353.15	21313.7	945.1	353.15	20274.3	940.2	353.15	19270.0	935.1
353.14	22329.0	949.8	353.15	21300.6	945.1	353.15	20261.3	940.1	353.15	19257.4	935.1
353.14	22317.6	949.7	353.15	21287.5	945.1	353.15	20249.6	940.0	353.14	19244.1	935.0
353.15	22306.3	949.7	353.15	21274.1	944.8	353.15	20237.6	940.0	353.14	19231.2	935.0
353.15	22292.6	949.6	353.15	21259.3	944.9	353.15	20224.7	939.9	353.14	19217.3	934.9
353.15	22280.8	949.6	353.15	21244.9	944.8	353.15	20213.8	939.9	353.14	19204.3	934.8
353.15	22267.1	949.5	353.15	21230.8	944.7	353.15	20200.9	939.8	353.15	19191.8	934.8
353.15	22254.0	949.5	353.15	21215.9	944.7	353.15	20187.3	939.7	353.15	19178.5	934.7
353.15	22240.8	949.4	353.15	21202.2	944.6	353.15	20175.0	939.7	353.15	19166.4	934.6
353.15	22228.2	949.4	353.15	21188.8	944.5	353.15	20161.6	939.6	353.15	19154.5	934.6
353.15	22213.5	949.3	353.15	21174.1	944.5	353.15	20149.3	939.6	353.15	19139.7	934.5
353.15	22201.4	949.2	353.15	21159.6	944.4	353.15	20136.4	939.5	353.15	19125.7	934.4
353.15	22188.9	949.2	353.15	21145.1	944.3	353.15	20123.6	939.4	353.15	19112.0	934.3
353.15	22176.7	949.1	353.14	21129.8	944.2	353.15	20109.3	939.4	353.15	19098.8	934.3
353.15	22163.6	949.1	353.14	21115.5	944.2	353.15	20096.1	939.3	353.14	19085.9	934.2
353.15	22151.3	949.0	353.14	21100.5	944.1	353.15	20083.9	939.2	353.14	19072.3	934.2
353.15	22139.2	949.0	353.14	21086.7	944.1	353.15	20069.2	939.2	353.15	19059.5	934.1
353.15	22127.3	948.9	353.15	21075.2	944.0	353.15	20054.5	939.1	353.15	19047.9	934.0
353.15	22114.0	948.8	353.15	21061.4	944.0	353.14	20041.2	939.0	353.15	19036.1	934.0
353.15	22098.2	948.7	353.15	21048.9	943.9	353.14	20028.3	939.0	353.15	19022.4	933.9
353.15	22083.3	948.7	353.15	21035.0	943.8	353.14	20016.0	938.9	353.15	19010.0	933.8
353.15	22068.6	948.7	353.15	21022.7	943.8	353.14	20002.8	938.8	353.15	18996.6	933.8
353.15	22055.8	948.6	353.15	21009.7	943.7	353.14	19990.3	938.8	353.15	18981.8	933.7
353.15	22042.9	948.5	353.15	20997.2	943.6	353.14	19977.6	938.7	353.15	18967.5	933.6
353.15	22030.6	948.5	353.15	20984.7	943.6	353.14	19964.8	938.6	353.15	18952.7	933.6
353.15	22018.4	948.4	353.15	20971.3	943.6	353.14	19953.3	938.6	353.15	18938.8	933.5
353.15	22005.9	948.3	353.15	20957.9	943.5	353.15	19940.6	938.5	353.15	18924.4	933.4
353.15	21993.8	948.3	353.15	20944.4	943.4	353.15	19927.6	938.4	353.15	18910.9	933.3
353.15	21982.3	948.3	353.15	20932.0	943.3	353.15	19913.8	938.4	353.15	18897.5	933.3
353.15	21969.4	948.2	353.15	20919.4	943.3	353.15	19900.1	938.3	353.14	18882.5	933.2
353.15	21957.7	948.1	353.15	20906.4	943.2	353.15	19885.7	938.2	353.15	18869.7	933.1
353.15	21945.0	948.1	353.15	20892.5	943.2	353.14	19872.3	938.2	353.15	18855.0	933.0
353.15	21933.1	948.0	353.15	20878.3	943.1	353.14	19859.2	938.1	353.15	18840.9	933.0
353.15	21921.0	948.0	353.15	20866.0	943.1	353.14	19847.4	938.1	353.15	18827.4	932.9
353.15	21909.2	947.9	353.15	20852.7	943.0	353.14	19835.7	938.0	353.15	18814.3	932.8
353.15	21896.6	947.9	353.15	20838.7	942.9	353.14	19823.8	937.9	353.15	18799.2	932.8
353.15	21885.0	947.8	353.15	20825.6	942.8	353.14	19809.7	937.9	353.14	18785.5	932.7
353.16	21870.8	947.7	353.15	20813.0	942.8	353.14	19797.3	937.8	353.14	18772.1	932.6
353.16	21857.5	947.6	353.15	20800.4	942.7	353.14	19784.7	937.8	353.14	18759.0	932.6
353.15	21845.3	947.6	353.15	20786.4	942.7	353.14	19771.6	937.7	353.14	18745.5	932.5
353.15	21830.7	947.5	353.15	20774.6	942.6	353.14	19760.2	937.6	353.14	18732.9	932.4
353.15	21816.8	947.5	353.15	20762.2	942.5	353.14	19747.6	937.6	353.14	18720.3	932.4
353.15	21804.0	947.4	353.15	20748.1	942.5	353.14	19734.3	937.5	353.14	18706.0	932.3
353.15	21790.4	947.4	353.15	20735.5	942.4	353.15	19720.8	937.4	353.14	18691.8	932.2
353.15	21777.5	947.3	353.15	20720.7	942.3	353.15	19708.2	937.3	353.14	18676.7	932.1
353.15	21762.9	947.2	353.15	20707.3	942.2	353.15	19694.5	937.3	353.14	18664.2	932.1
353.15	21749.6	947.2	353.15	20692.8	942.2	353.15	19680.7	937.2	353.15	18649.8	932.0
353.15	21736.0	947.1	353.15	20679.4	942.2	353.14	19667.9	937.2	353.15	18636.4	931.9
353.15	21722.6	947.1	353.15	20665.9	942.1	353.14	19654.0	937.1	353.15	18623.2	931.9
353.15	21707.8	946.9	353.15	20652.1	942.0	353.14	19641.2	937.0	353.15	18608.0	931.8
353.15	21694.8	946.9	353.15	20638.8	941.9	353.14	19628.2	937.0	353.15	18594.2	931.7
353.15	21680.7	946.8	353.14	20625.1	941.8	353.14	19615.1	936.9	353.14	18579.3	931.6
353.15	21665.4	946.8	353.14	20612.5	941.8	353.15	19603.0	936.9	353.14	18565.6	931.6
353.15	21652.4	946.7	353.14	20600.5	941.8	353.15	19590.0	936.8	353.14	18551.5	931.5
353.15	21639.4	946.7	353.15	20587.2	941.7	353.15	19577.2	936.7	353.14	18537.1	931.4
353.15	21626.0	946.6	353.15	20573.7	941.6	353.15	19565.1	936.7	353.14	18523.0	931.3
353.15	21613.7	946.5	353.15	20558.7	941.5	353.15	19552.6	936.6	353.14	18508.1	931.3
353.15	21599.8	946.5	353.15	20544.9	941.5	353.15	19539.3	936.5	353.15	18494.1	931.2
353.15	21587.2	946.4	353.15	20530.4	941.4	353.15	19527.5	936.5	353.15	18479.9	931.1
353.15	21572.9	946.4	353.15	20518.3	941.4	353.15	19515.5	936.4	353.15	18466.2	931.0
353.15	21560.1	946.3	353.15	20505.0	941.3	353.14	19502.1	936.4	353.15	18452.6	930.9
353.15	21547.1	946.2	353.15	20492.9	941.2	353.14	19489.5	936.3	353.15	18438.4	930.9
353.15	21535.4	946.2	353.15	20480.3	941.2	353.15	19475.4	936.2	353.14	18424.4	930.8
353.15	21522.1	946.1	353.15	20466.2	941.1	353.15	19461.9	936.1	353.14	18411.4	930.7
353.15	21509.1	946.1	353.14	20453.3	941.0	353.15	19448.7	936.1	353.14	18397.4	930.7
353.15	21495.7	946.0	353.15	20439.3	941.0	353.15	19434.4	936.0	353.14	18383.5	930.6
353.15	21481.9	945.9	353.15	20424.5	940.9	353.15	19421.4	936.0	353.14	18369.8	930.5
353.15	21465.9	945.9	353.15	20411.0	940.8	353.15	19408.4	935.9	353.14	18354.1	930.4
353.15	21450.6	945.8	353.15	20397.3	940.8	353.14	19395.1	935.8	353.14	18340.4	930.4
353.15	21434.6	945.7	353.15	20385.3	940.7	353.14	19382.0	935.7	353.14	18327.8	930.3

Valori della densità del fluido R1243zf _ *T*=80°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
353.14	18314.4	930.2	353.14	17235.6	924.4	353.15	16077.1	917.8	353.16	14970.4	911.2
353.15	18300.8	930.2	353.15	17222.4	924.4	353.15	16064.1	917.8	353.15	14956.6	911.1
353.15	18287.1	930.1	353.15	17208.2	924.2	353.15	16050.4	917.7	353.16	14944.0	911.0
353.15	18273.2	930.0	353.15	17193.5	924.2	353.15	16035.6	917.6	353.15	14929.4	910.9
353.15	18259.7	930.0	353.15	17180.6	924.1	353.15	16019.6	917.5	353.15	14915.5	910.8
353.15	18246.1	929.8	353.15	17166.1	924.0	353.15	16005.8	917.4	353.15	14903.1	910.8
353.14	18232.4	929.8	353.15	17153.0	923.9	353.15	15991.2	917.3	353.15	14888.3	910.7
353.14	18217.0	929.7	353.15	17137.8	923.9	353.15	15977.2	917.3	353.15	14874.1	910.6
353.14	18203.2	929.6	353.15	17123.6	923.8	353.15	15963.5	917.2	353.15	14860.7	910.5
353.14	18189.5	929.6	353.15	17108.5	923.7	353.15	15950.1	917.1	353.15	14848.2	910.4
353.14	18176.0	929.5	353.14	17093.8	923.6	353.15	15936.1	917.0	353.15	14834.3	910.4
353.14	18160.8	929.4	353.14	17076.1	923.5	353.14	15921.3	916.9	353.15	14821.8	910.2
353.15	18147.3	929.3	353.14	17060.1	923.4	353.14	15905.3	916.8	353.15	14808.9	910.2
353.15	18134.4	929.3	353.14	17045.1	923.3	353.15	15890.0	916.7	353.15	14796.8	910.1
353.15	18119.5	929.2	353.14	17029.7	923.3	353.15	15875.8	916.7	353.15	14784.3	910.0
353.15	18105.1	929.1	353.14	17013.5	923.2	353.15	15861.3	916.5	353.15	14770.6	909.9
353.14	18090.5	929.0	353.14	16997.9	923.1	353.15	15847.3	916.5	353.15	14756.3	909.8
353.14	18075.4	928.9	353.14	16983.7	923.0	353.15	15833.6	916.4	353.15	14742.9	909.7
353.14	18060.2	928.9	353.14	16968.7	922.9	353.15	15820.3	916.3	353.15	14728.7	909.7
353.14	18045.3	928.8	353.14	16954.3	922.8	353.15	15805.4	916.2	353.15	14716.9	909.6
353.14	18031.0	928.7	353.14	16939.2	922.7	353.15	15791.3	916.1	353.15	14704.9	909.5
353.14	18017.4	928.7	353.14	16924.7	922.6	353.15	15776.8	916.1	353.15	14692.1	909.4
353.14	18003.3	928.6	353.14	16908.5	922.6	353.15	15761.6	915.9	353.15	14679.0	909.4
353.15	17988.4	928.5	353.14	16893.3	922.5	353.15	15746.9	915.9	353.15	14666.0	909.3
353.15	17975.0	928.5	353.14	16876.7	922.4	353.15	15733.1	915.7	353.15	14651.6	909.2
353.15	17960.3	928.3	353.14	16862.4	922.3	353.15	15717.7	915.7	353.16	14638.6	909.1
353.14	17924.2	928.1	353.15	16847.9	922.2	353.15	15703.4	915.6	353.15	14626.3	909.0
353.14	17911.1	928.1	353.15	16832.5	922.1	353.15	15687.5	915.6	353.15	14612.4	908.9
353.14	17898.1	928.0	353.15	16816.8	922.1	353.15	15674.2	915.4	353.15	14598.7	908.9
353.14	17883.8	927.8	353.15	16801.8	922.0	353.15	15660.5	915.4	353.15	14586.1	908.7
353.14	17868.0	927.8	353.14	16787.5	921.9	353.15	15645.3	915.0	353.15	14573.7	908.7
353.14	17856.1	927.8	353.14	16772.0	921.8	353.15	15628.9	915.2	353.15	14560.4	908.6
353.14	17845.7	927.7	353.14	16755.8	921.7	353.15	15614.1	915.1	353.15	14546.6	908.5
353.15	17835.2	927.7	353.14	16741.7	921.6	353.15	15599.1	915.0	353.15	14532.9	908.4
353.14	17824.2	927.7	353.14	16726.6	921.5	353.15	15585.3	914.9	353.15	14519.8	908.3
353.15	17812.0	927.5	353.14	16711.1	921.5	353.15	15570.2	914.8	353.15	14505.3	908.3
353.14	17797.7	927.5	353.14	16695.5	921.4	353.15	15556.0	914.7	353.15	14490.8	908.1
353.14	17783.9	927.4	353.14	16679.3	921.3	353.15	15541.0	914.6	353.15	14477.0	908.1
353.14	17771.1	927.3	353.14	16664.6	921.2	353.15	15528.6	914.5	353.15	14462.9	908.0
353.14	17757.9	927.3	353.14	16649.3	921.1	353.15	15513.9	914.5	353.15	14448.4	907.9
353.14	17745.6	927.1	353.14	16632.8	921.0	353.15	15499.6	914.4	353.15	14435.0	907.8
353.14	17733.2	927.1	353.14	16617.0	921.0	353.15	15484.5	914.3	353.15	14420.3	907.7
353.14	17720.0	927.1	353.14	16601.1	920.8	353.15	15470.4	914.2	353.15	14405.0	907.6
353.14	17705.8	927.0	353.14	16586.1	920.8	353.15	15455.2	914.1	353.15	14390.9	907.5
353.15	17693.3	926.9	353.14	16571.8	920.6	353.15	15440.8	914.0	353.15	14377.0	907.4
353.14	17680.5	926.9	353.14	16556.5	920.6	353.15	15427.9	914.0	353.15	14361.3	907.3
353.14	17665.6	926.7	353.14	16540.9	920.5	353.15	15412.9	913.9	353.15	14346.7	907.3
353.14	17653.2	926.7	353.15	16527.6	920.4	353.15	15398.5	913.8	353.15	14332.9	907.2
353.14	17639.3	926.6	353.15	16512.4	920.4	353.15	15385.1	913.7	353.15	14317.7	907.1
353.14	17626.2	926.5	353.15	16498.0	920.2	353.15	15370.6	913.6	353.15	14304.2	907.0
353.14	17611.2	926.5	353.15	16484.3	920.2	353.15	15355.9	913.5	353.15	14292.0	906.9
353.14	17597.4	926.4	353.15	16469.2	920.1	353.15	15342.7	913.4	353.15	14277.9	906.8
353.14	17584.6	926.3	353.15	16455.3	920.0	353.15	15329.4	913.4	353.15	14264.4	906.7
353.14	17571.5	926.2	353.15	16440.6	919.9	353.15	15316.1	913.3	353.15	14250.5	906.6
353.14	17556.7	926.1	353.15	16425.4	919.8	353.15	15303.3	913.2	353.15	14235.4	906.5
353.15	17543.9	926.1	353.15	16410.0	919.7	353.15	15287.5	913.1	353.15	14220.8	906.4
353.15	17529.6	926.1	353.15	16397.6	919.7	353.15	15274.1	913.0	353.15	14206.5	906.3
353.14	17516.3	926.0	353.15	16382.6	919.6	353.15	15259.2	912.9	353.15	14191.4	906.3
353.14	17502.4	925.9	353.15	16368.0	919.5	353.15	15245.3	912.8	353.15	14176.4	906.2
353.14	17489.9	925.8	353.15	16353.6	919.4	353.15	15230.4	912.8	353.15	14162.0	906.1
353.14	17477.1	925.7	353.15	16338.5	919.3	353.15	15214.3	912.7	353.16	14147.8	905.9
353.14	17464.8	925.7	353.15	16322.1	919.3	353.15	15200.5	912.6	353.16	14136.0	905.9
353.14	17451.7	925.6	353.15	16307.9	919.1	353.15	15187.6	912.5	353.16	14122.5	905.8
353.14	17439.7	925.5	353.15	16293.5	919.1	353.15	15174.3	912.4	353.15	14107.8	905.7
353.14	17425.8	925.5	353.15	16279.4	919.0	353.15	15160.6	912.3	353.15	14093.5	905.6
353.14	17410.6	925.4	353.15	16263.8	918.9	353.15	15146.9	912.3	353.15	14078.7	905.5
353.14	17397.8	925.3	353.15	16250.7	918.8	353.15	15132.5	912.2	353.15	14064.3	905.4
353.14	17385.0	925.2	353.15	16238.6	918.7	353.16	15117.5	912.1	353.15	14052.1	905.4
353.15	17371.1	925.2	353.15	16223.8	918.7	353.16	15105.0	912.0	353.15	14037.8	905.3
353.15	17359.1	925.1	353.15	16208.7	918.6	353.16	15091.4	911.9	353.15	14023.4	905.2
353.15	17345.0	925.0	353.15	16194.4	918.5	353.15	15078.4	911.9	353.15	14009.3	905.1
353.15	17331.2	924.9	353.15	16178.9	918.4	353.15	15066.2	911.7	353.16	13995.4	905.0
353.15	17316.2	924.9	353.15	16163.7	918.3	353.15	15052.0	911.7	353.16	13981.1	904.9
353.15	17302.2	924.8	353.15	16150.9	918.2	353.15	15037.7	911.6	353.15	13966.7	904.8
353.15	17289.2	924.7	353.15	16134.8	918.2	353.15	15024.9	911.5	353.15	13953.2	904.7
353.14	17276.6	924.6	353.15	16120.4	918.1	353.15	15012.0	911.4	353.15	13939.6	904.6
353.14	17263.4	924.6	353.15	16105.7	918.0	353.15	14997.4	911.3	353.15	13925.9	904.5
353.14	17249.2	924.5	353.15	16091.5	917.9	353.16	14983.2	911.2	353.15	13912.8	904.4

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
353.15	13898.7	904.3	353.15	12868.1	897.4	353.15	11813.0	889.8	353.15	10799.1	882.0
353.15	13884.9	904.3	353.15	12855.1	897.3	353.15	11800.8	889.7	353.15	10785.8	881.9
353.15	13870.6	904.2	353.15	12843.7	897.2	353.15	11788.2	889.7	353.15	10772.8	881.8
353.15	13857.9	904.1	353.15	12831.2	897.1	353.15	11775.3	889.5	353.15	10760.9	881.7
353.15	13844.9	904.0	353.16	12818.8	897.1	353.15	11762.7	889.5	353.15	10748.9	881.6
353.15	13831.6	903.9	353.16	12806.6	897.0	353.15	11750.4	889.4	353.15	10737.7	881.6
353.15	13817.8	903.8	353.16	12794.8	896.9	353.15	11737.9	889.3	353.15	10725.0	881.4
353.15	13803.5	903.7	353.15	12781.9	896.8	353.15	11725.6	889.2	353.15	10713.5	881.3
353.15	13790.2	903.6	353.15	12770.6	896.7	353.15	11712.3	889.1	353.15	10699.2	881.2
353.15	13776.3	903.5	353.15	12756.2	896.7	353.15	11697.8	889.0	353.15	10685.4	881.1
353.15	13761.5	903.4	353.15	12741.9	896.5	353.15	11684.1	888.9	353.15	10671.3	881.0
353.15	13749.0	903.4	353.15	12727.8	896.4	353.15	11672.1	888.7	353.14	10657.0	880.9
353.15	13735.5	903.3	353.15	12714.4	896.3	353.15	11658.8	888.7	353.14	10644.0	880.8
353.15	13721.9	903.2	353.15	12700.4	896.2	353.15	11645.7	888.5	353.14	10629.7	880.7
353.14	13708.4	903.1	353.15	12686.4	896.1	353.15	11634.5	888.5	353.15	10615.7	880.5
353.14	13693.8	903.0	353.15	12672.3	896.1	353.15	11622.0	888.4	353.15	10603.2	880.4
353.14	13678.9	902.9	353.16	12659.1	895.9	353.15	11610.3	888.3	353.15	10589.9	880.4
353.15	13666.0	902.8	353.16	12644.1	895.8	353.15	11597.8	888.2	353.15	10576.7	880.3
353.15	13651.8	902.7	353.16	12629.0	895.7	353.15	11584.0	888.1	353.15	10565.7	880.1
353.15	13637.0	902.6	353.16	12614.7	895.7	353.15	11570.8	888.0	353.15	10551.8	880.1
353.15	13624.4	902.5	353.15	12600.7	895.5	353.15	11558.6	887.9	353.15	10538.3	879.9
353.15	13611.3	902.4	353.15	12586.4	895.4	353.15	11544.5	887.8	353.15	10525.8	879.8
353.15	13597.3	902.4	353.15	12573.2	895.4	353.15	11531.2	887.7	353.15	10511.6	879.7
353.15	13584.7	902.3	353.15	12558.7	895.2	353.15	11517.1	887.6	353.15	10497.9	879.6
353.15	13572.2	902.2	353.15	12545.1	895.1	353.15	11503.2	887.5	353.15	10483.6	879.4
353.15	13560.0	902.1	353.15	12530.2	895.0	353.15	11490.0	887.4	353.15	10470.0	879.4
353.15	13546.3	902.0	353.15	12516.0	894.9	353.15	11475.9	887.3	353.15	10457.8	879.3
353.15	13532.3	901.9	353.15	12501.7	894.8	353.15	11461.8	887.2	353.15	10443.9	879.2
353.15	13518.0	901.9	353.15	12488.2	894.7	353.15	11449.9	887.1	353.15	10429.5	879.0
353.15	13504.6	901.8	353.15	12474.2	894.6	353.15	11436.3	887.0	353.15	10414.1	878.9
353.15	13492.2	901.7	353.15	12459.8	894.6	353.15	11423.5	886.9	353.15	10399.5	878.8
353.15	13479.4	901.6	353.15	12445.4	894.4	353.15	11410.6	886.8	353.15	10386.3	878.6
353.15	13467.5	901.5	353.16	12431.0	894.3	353.15	11398.1	886.7	353.15	10372.3	878.6
353.16	13455.7	901.4	353.15	12416.1	894.2	353.15	11384.1	886.6	353.15	10358.7	878.4
353.15	13443.5	901.3	353.15	12401.0	894.1	353.15	11371.9	886.5	353.15	10343.9	878.3
353.15	13429.8	901.3	353.15	12386.7	894.0	353.15	11359.7	886.4	353.15	10329.4	878.2
353.15	13415.3	901.1	353.15	12372.0	893.9	353.15	11347.1	886.3	353.15	10315.2	878.1
353.15	13401.6	901.1	353.15	12358.4	893.8	353.15	11334.1	886.2	353.15	10300.7	878.0
353.15	13387.6	901.0	353.15	12343.4	893.7	353.15	11320.5	886.1	353.15	10286.1	877.9
353.15	13374.4	900.9	353.15	12330.8	893.6	353.15	11307.7	886.0	353.15	10272.3	877.7
353.15	13360.3	900.8	353.15	12316.5	893.5	353.15	11294.7	885.9	353.15	10258.1	877.6
353.15	13345.7	900.7	353.15	12302.4	893.4	353.15	11280.8	885.8	353.15	10242.7	877.5
353.15	13332.5	900.6	353.15	12288.0	893.3	353.15	11269.4	885.7	353.15	10229.0	877.4
353.15	13319.7	900.5	353.15	12275.6	893.2	353.15	11254.3	885.6	353.15	10214.1	877.2
353.15	13305.4	900.4	353.15	12264.3	893.1	353.15	11241.6	885.5	353.15	10199.6	877.1
353.15	13291.3	900.3	353.15	12251.6	893.0	353.15	11228.8	885.4	353.15	10185.2	877.0
353.15	13278.7	900.2	353.15	12237.8	893.0	353.15	11214.2	885.3	353.15	10171.7	876.9
353.15	13266.1	900.1	353.15	12224.3	892.9	353.15	11200.3	885.2	353.15	10156.2	876.8
353.15	13252.9	900.1	353.15	12211.0	892.8	353.15	11185.9	885.1	353.15	10140.3	876.6
353.15	13241.1	899.9	353.15	12196.8	892.7	353.15	11171.7	885.0	353.15	10126.1	876.5
353.15	13228.5	899.9	353.15	12183.0	892.6	353.15	11159.1	884.8	353.15	10111.2	876.4
353.15	13215.5	899.8	353.15	12168.7	892.5	353.15	11144.7	884.8	353.15	10095.9	876.3
353.15	13203.6	899.7	353.15	12155.5	892.4	353.15	11133.4	884.7	353.15	10081.1	876.1
353.15	13190.6	899.7	353.15	12143.0	892.2	353.14	11121.2	884.6	353.15	10066.8	876.0
353.15	13177.9	899.5	353.15	12128.6	892.2	353.15	11109.5	884.5	353.15	10051.7	875.9
353.15	13165.0	899.5	353.15	12114.9	892.1	353.15	11097.0	884.4	353.15	10037.6	875.8
353.15	13151.0	899.4	353.15	12100.6	892.0	353.15	11084.4	884.3	353.15	10022.6	875.7
353.15	13137.4	899.3	353.15	12088.6	891.9	353.15	11071.3	884.2	353.15	10008.4	875.5
353.15	13124.9	899.2	353.15	12076.6	891.8	353.15	11060.3	884.1	353.15	9993.4	875.4
353.15	13111.5	899.1	353.15	12064.6	891.7	353.15	11048.1	884.0	353.15	9977.9	875.3
353.15	13097.9	899.0	353.15	12050.6	891.6	353.15	11034.2	883.9	353.15	9963.4	875.1
353.15	13085.2	898.9	353.15	12038.2	891.5	353.15	11021.3	883.8	353.15	9948.8	875.0
353.15	13072.7	898.8	353.15	12025.9	891.4	353.14	11009.5	883.7	353.15	9935.0	874.9
353.15	13060.5	898.7	353.15	12011.8	891.3	353.15	10996.7	883.6	353.15	9920.2	874.8
353.15	13046.6	898.7	353.15	11998.2	891.2	353.15	10983.6	883.5	353.15	9904.5	874.7
353.15	13034.1	898.6	353.15	11985.8	891.1	353.15	10971.1	883.4	353.15	9890.4	874.5
353.15	13021.9	898.5	353.15	11972.3	891.0	353.15	10958.0	883.3	353.15	9877.0	874.4
353.15	13010.0	898.4	353.15	11959.5	891.0	353.15	10945.0	883.2	353.15	9861.5	874.3
353.15	12996.8	898.3	353.15	11946.8	890.8	353.15	10932.6	883.1	353.15	9847.1	874.1
353.15	12984.0	898.2	353.15	11933.0	890.7	353.15	10920.5	883.0	353.15	9833.4	874.0
353.15	12971.5	898.2	353.15	11920.1	890.6	353.15	10908.4	882.9	353.15	9817.9	873.9
353.15	12958.5	898.0	353.15	11907.4	890.5	353.15	10894.2	882.8	353.15	9804.2	873.8
353.15	12944.0	898.0	353.15	11893.9	890.4	353.15	10880.1	882.7	353.15	9790.9	873.7
353.15	12931.3	897.8	353.15	11881.2	890.3	353.15	10867.6	882.5	353.15	9776.8	873.6
353.15	12918.9	897.8	353.15	11869.0	890.3	353.15	10854.0	882.4	353.15	9763.9	873.5
353.15	12905.1	897.7	353.15	11855.4	890.2	353.15	10839.5	882.3	353.15	9750.8	873.3
353.15	12891.8	897.6	353.15	11841.9	890.1	353.15	10826.3	882.3	353.15	9737.4	873.2
353.15	12880.3	897.5	353.15	11827.3	889.9	353.15	10812.4	882.1	353.15	9724.3	873.1

Valori della densità del fluido R1243zf _ *T*=80°C

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
353.15	9710.0	873.0	353.15	8699.6	863.8	353.15	7666.5	853.5	353.15	6585.6	841.6
353.15	9696.4	872.9	353.15	8685.8	863.7	353.15	7655.3	853.5	353.15	6571.3	841.4
353.15	9682.9	872.8	353.15	8670.6	863.6	353.15	7642.4	853.3	353.15	6558.0	841.3
353.15	9669.2	872.6	353.15	8657.0	863.5	353.15	7627.9	853.2	353.15	6544.0	841.1
353.15	9656.3	872.5	353.15	8643.7	863.3	353.15	7613.9	853.0	353.15	6529.4	840.9
353.15	9643.2	872.4	353.15	8630.8	863.2	353.15	7600.3	852.9	353.15	6514.9	840.8
353.15	9629.6	872.3	353.15	8619.6	863.1	353.15	7587.2	852.7	353.15	6501.5	840.6
353.15	9615.3	872.2	353.15	8606.1	862.9	353.15	7573.5	852.6	353.15	6485.9	840.4
353.15	9602.4	872.1	353.15	8593.3	862.9	353.15	7559.0	852.5	353.15	6472.5	840.2
353.15	9587.8	871.9	353.15	8581.0	862.7	353.15	7547.5	852.3	353.15	6458.7	840.1
353.15	9575.3	871.8	353.15	8567.2	862.6	353.15	7533.7	852.2	353.15	6445.7	839.9
353.15	9561.1	871.7	353.15	8554.4	862.5	353.15	7520.6	852.1	353.15	6432.8	839.8
353.15	9548.8	871.5	353.15	8541.2	862.3	353.15	7506.8	851.9	353.15	6419.6	839.6
353.15	9537.5	871.5	353.15	8529.5	862.2	353.15	7493.5	851.7	353.15	6406.2	839.4
353.15	9524.1	871.3	353.15	8517.4	862.1	353.15	7479.7	851.6	353.15	6392.2	839.3
353.15	9510.4	871.2	353.15	8504.3	862.0	353.15	7466.1	851.4	353.15	6378.7	839.1
353.15	9498.1	871.1	353.15	8491.4	861.9	353.15	7452.8	851.3	353.15	6365.6	838.9
353.15	9484.8	871.0	353.15	8478.4	861.7	353.15	7440.0	851.2	353.15	6352.8	838.8
353.15	9471.1	870.9	353.15	8465.0	861.6	353.15	7426.5	851.0	353.15	6338.3	838.6
353.15	9458.2	870.7	353.15	8451.4	861.5	353.15	7413.8	850.9	353.15	6325.3	838.5
353.15	9446.0	870.7	353.15	8437.4	861.3	353.15	7399.3	850.7	353.15	6312.2	838.3
353.15	9432.9	870.5	353.15	8422.4	861.2	353.15	7385.5	850.6	353.15	6298.9	838.1
353.15	9420.6	870.4	353.15	8407.7	861.0	353.15	7373.7	850.5	353.15	6285.8	838.0
353.15	9406.9	870.3	353.15	8392.8	860.9	353.15	7359.8	850.4	353.15	6272.8	837.8
353.15	9394.9	870.2	353.15	8378.9	860.8	353.15	7346.5	850.2	353.15	6259.2	837.7
353.15	9380.9	870.1	353.15	8365.3	860.6	353.15	7333.5	850.1	353.15	6247.4	837.5
353.15	9367.8	870.0	353.15	8351.5	860.5	353.15	7319.7	849.9	353.15	6233.4	837.4
353.15	9354.8	869.9	353.15	8337.4	860.4	353.15	7306.6	849.7	353.15	6220.8	837.2
353.15	9341.5	869.8	353.15	8325.0	860.2	353.15	7294.2	849.7	353.15	6208.2	837.0
353.15	9328.5	869.6	353.15	8310.5	860.1	353.15	7281.4	849.5	353.15	6195.1	836.9
353.15	9314.9	869.5	353.15	8297.7	860.0	353.15	7268.8	849.3	353.15	6182.5	836.7
353.15	9300.4	869.3	353.15	8286.4	859.7	353.15	7256.1	849.2	353.15	6169.5	836.5
353.15	9285.6	869.3	353.15	8272.8	859.8	353.15	7242.4	849.0	353.15	6156.6	836.3
353.15	9272.5	869.1	353.15	8260.7	859.6	353.15	7230.9	848.9	353.15	6142.9	836.2
353.15	9259.2	869.0	353.15	8248.6	859.5	353.15	7217.4	848.8	353.15	6129.6	836.1
353.15	9247.3	868.9	353.15	8234.5	859.4	353.15	7203.8	848.6	353.15	6117.4	835.9
353.15	9235.6	868.8	353.15	8222.2	859.2	353.15	7190.7	848.5	353.15	6102.7	835.7
353.15	9222.7	868.7	353.16	8208.1	859.1	353.15	7177.7	848.3	353.15	6089.4	835.6
353.15	9210.2	868.5	353.15	8194.8	859.0	353.15	7164.2	848.2	353.15	6077.1	835.4
353.15	9197.6	868.4	353.15	8182.4	858.8	353.15	7149.6	848.0	353.15	6062.1	835.2
353.15	9185.5	868.3	353.15	8169.5	858.7	353.15	7134.4	847.8	353.15	6049.6	835.1
353.15	9173.6	868.2	353.15	8156.5	858.6	353.15	7120.6	847.7	353.15	6036.0	834.9
353.15	9159.9	868.1	353.15	8143.1	858.4	353.15	7106.8	847.5	353.15	6023.0	834.7
353.15	9147.5	868.0	353.15	8130.3	858.4	353.15	7091.6	847.4	353.15	6010.9	834.5
353.15	9135.3	867.9	353.15	8115.6	858.2	353.15	7077.2	847.2	353.15	5998.0	834.3
353.15	9123.8	867.8	353.15	8101.8	858.0	353.15	7064.3	847.1	353.15	5985.7	834.2
353.15	9110.5	867.7	353.15	8088.5	857.9	353.15	7049.1	846.9	353.15	5974.6	834.1
353.15	9097.2	867.5	353.15	8075.3	857.8	353.15	7035.1	846.8	353.15	5962.2	833.9
353.15	9085.0	867.4	353.15	8062.4	857.7	353.15	7020.7	846.6	353.15	5948.2	833.7
353.15	9070.5	867.3	353.15	8048.4	857.5	353.15	7005.8	846.4	353.15	5934.9	833.6
353.15	9058.3	867.1	353.15	8036.0	857.4	353.15	6992.2	846.2	353.15	5920.4	833.4
353.15	9045.2	867.0	353.15	8023.9	857.3	353.15	6978.0	846.1	353.15	5906.6	833.2
353.15	9031.8	866.9	353.15	8011.0	857.1	353.15	6963.5	845.9	353.15	5893.6	833.0
353.15	9020.4	866.8	353.15	7997.4	857.0	353.15	6949.0	845.7	353.15	5879.8	832.9
353.15	9007.6	866.7	353.15	7984.8	856.8	353.15	6932.6	845.6	353.15	5868.5	832.7
353.15	8996.1	866.6	353.16	7971.8	856.7	353.15	6918.3	845.4	353.15	5855.6	832.6
353.15	8984.4	866.5	353.15	7959.3	856.6	353.15	6904.5	845.3	353.15	5844.4	832.3
353.15	8971.8	866.4	353.15	7945.3	856.4	353.15	6890.2	845.1	353.15	5830.0	832.2
353.15	8958.1	866.2	353.15	7932.7	856.3	353.15	6876.7	844.9	353.15	5817.1	832.0
353.15	8944.9	866.2	353.15	7919.6	856.2	353.15	6862.0	844.8	353.15	5802.7	831.9
353.15	8930.9	866.0	353.15	7905.8	856.0	353.15	6846.8	844.6	353.15	5789.6	831.7
353.15	8918.5	865.8	353.15	7892.2	855.9	353.15	6832.1	844.5	353.15	5777.0	831.5
353.15	8904.8	865.7	353.15	7878.0	855.8	353.15	6818.2	844.3	353.15	5763.3	831.3
353.15	8891.7	865.6	353.15	7863.9	855.6	353.15	6803.6	844.1	353.15	5750.7	831.2
353.15	8879.6	865.5	353.15	7851.1	855.5	353.15	6788.8	844.0	353.15	5737.5	831.0
353.15	8867.4	865.4	353.15	7837.8	855.3	353.15	6776.2	843.8	353.15	5723.3	830.8
353.15	8854.9	865.3	353.15	7824.5	855.2	353.15	6760.3	843.6	353.15	5712.0	830.7
353.15	8842.9	865.1	353.15	7812.1	855.1	353.15	6745.0	843.4	353.15	5698.0	830.5
353.15	8830.5	865.0	353.15	7799.5	855.0	353.15	6730.3	843.2	353.15	5684.9	830.3
353.15	8818.1	865.0	353.15	7785.9	854.8	353.15	6715.1	843.1	353.15	5671.8	830.1
353.15	8805.0	864.8	353.15	7773.7	854.7	353.15	6700.8	842.9	353.15	5658.6	830.0
353.15	8793.4	864.7	353.15	7758.8	854.5	353.15	6685.6	842.7	353.15	5646.2	829.8
353.15	8781.1	864.6	353.15	7744.9	854.4	353.15	6671.8	842.6	353.15	5634.1	829.6
353.15	8767.4	864.5	353.15	7731.8	854.3	353.15	6657.8	842.5	353.15	5621.0	829.4
353.15	8754.0	864.3	353.15	7719.3	854.1	353.15	6642.2	842.3	353.15	5608.5	829.2
353.15	8741.1	864.2	353.15	7705.0	854.0	353.15	6628.3	842.1	353.15	5595.2	829.1
353.15	8727.8	864.1	353.15	7692.9	853.8	353.15	6613.6	841.9	353.15	5582.6	828.9
353.15	8713.2	864.0	353.15	7680.3	853.7	353.15	6599.6	841.7	353.15	5569.2	828.8

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
353.15	5555.2	828.6	353.15	4747.2	816.9	353.15	4017.8	804.8	353.15	3278.6	790.4
353.15	5540.5	828.3	353.15	4733.8	816.7	353.15	4005.0	804.5	353.15	3263.5	790.1
353.15	5527.7	828.2	353.15	4721.6	816.5	353.15	3992.0	804.3	353.15	3249.3	789.7
353.15	5516.5	828.0	353.15	4708.6	816.3	353.15	3979.3	804.1	353.15	3235.8	789.5
353.15	5503.2	827.9	353.15	4694.4	816.1	353.15	3966.3	803.9	353.15	3222.0	789.1
353.15	5490.2	827.7	353.15	4682.8	815.9	353.15	3953.3	803.6	353.15	3207.9	788.9
353.16	5476.6	827.5	353.15	4669.3	815.7	353.15	3939.7	803.4	353.15	3193.9	788.6
353.15	5463.6	827.3	353.15	4655.6	815.5	353.15	3928.8	803.2	353.15	3180.2	788.3
353.15	5450.0	827.1	353.15	4642.7	815.2	353.15	3915.8	803.0	353.15	3166.2	788.0
353.15	5436.8	826.9	353.15	4629.0	815.1	353.15	3904.0	802.7	353.15	3152.5	787.7
353.15	5422.3	826.7	353.15	4616.0	814.8	353.15	3891.4	802.5	353.15	3139.5	787.3
353.15	5408.3	826.6	353.15	4601.3	814.6	353.15	3878.6	802.3	353.15	3124.9	787.1
353.15	5394.5	826.4	353.15	4588.3	814.4	353.15	3866.4	802.0	353.15	3111.2	786.7
353.15	5381.8	826.2	353.15	4576.6	814.2	353.15	3854.3	801.8	353.15	3097.4	786.4
353.15	5368.4	826.0	353.15	4563.9	814.0	353.15	3841.3	801.6	353.15	3082.8	786.1
353.15	5354.0	825.8	353.15	4549.9	813.8	353.15	3828.7	801.3	353.15	3068.3	785.7
353.15	5340.2	825.6	353.15	4537.1	813.6	353.15	3814.5	801.1	353.15	3054.4	785.4
353.15	5326.3	825.4	353.15	4524.1	813.4	353.15	3801.5	800.8	353.15	3041.9	785.1
353.15	5312.9	825.2	353.15	4512.8	813.1	353.15	3789.0	800.6	353.15	3027.9	784.9
353.15	5299.9	825.0	353.15	4498.6	812.9	353.15	3775.9	800.3	353.15	3014.9	784.6
353.15	5285.9	824.8	353.15	4485.4	812.7	353.15	3763.2	800.1	353.15	3001.5	784.3
353.15	5270.9	824.6	353.15	4473.0	812.5	353.15	3750.8	799.9	353.15	2988.4	784.0
353.15	5257.4	824.4	353.15	4459.5	812.3	353.15	3737.8	799.6	353.15	2975.6	783.6
353.15	5240.7	824.2	353.15	4446.1	812.1	353.15	3725.7	799.4	353.15	2962.2	783.3
353.15	5225.7	824.0	353.15	4433.5	811.9	353.15	3713.4	799.2	353.15	2949.5	783.0
353.15	5211.5	823.8	353.15	4420.2	811.6	353.15	3699.5	798.9	353.15	2937.9	782.8
353.15	5195.8	823.5	353.15	4407.6	811.5	353.15	3687.4	798.7	353.15	2924.9	782.4
353.15	5180.7	823.3	353.15	4395.6	811.2	353.15	3673.9	798.4	353.14	2912.1	782.1
353.15	5164.3	823.1	353.15	4383.2	811.0	353.15	3661.1	798.2	353.15	2899.1	781.8
353.15	5149.1	822.9	353.15	4370.2	810.9	353.15	3648.1	797.9	353.15	2886.6	781.5
353.15	5134.7	822.7	353.15	4358.0	810.6	353.15	3635.8	797.6	353.15	2873.0	781.2
353.15	5118.1	822.4	353.15	4345.2	810.4	353.15	3623.0	797.4	353.15	2859.8	780.9
353.15	5102.9	822.2	353.15	4331.6	810.2	353.15	3612.7	797.2	353.15	2847.5	780.6
353.15	5088.2	822.0	353.15	4320.0	810.0	353.15	3600.5	797.0	353.15	2834.5	780.2
353.15	5073.4	821.8	353.15	4306.6	809.7	353.15	3588.9	796.7	353.15	2821.7	780.0
353.15	5058.7	821.6	353.15	4292.6	809.5	353.15	3574.7	796.5	353.15	2807.6	779.6
353.15	5044.5	821.4	353.14	4280.0	809.3	353.15	3560.8	796.2	353.15	2794.4	779.3
353.15	5029.6	821.2	353.15	4267.0	809.1	353.15	3548.3	796.0	353.15	2782.5	778.9
353.15	5014.7	820.9	353.15	4255.1	808.9	353.15	3534.6	795.7	353.15	2768.8	778.7
353.15	4999.9	820.8	353.15	4242.9	808.7	353.15	3521.1	795.4	353.15	2757.5	778.3
353.15	4985.0	820.5	353.15	4230.5	808.5	353.15	3509.0	795.2	353.15	2744.7	778.0
353.15	4970.5	820.3	353.15	4218.7	808.3	353.15	3494.8	795.0	353.15	2731.5	777.7
353.15	4955.4	820.0	353.15	4205.7	808.1	353.15	3482.9	794.7	353.15	2718.0	777.4
353.15	4940.7	819.8	353.15	4193.5	807.8	353.15	3469.5	794.4	353.15	2706.4	777.1
353.15	4926.5	819.6	353.15	4181.2	807.6	353.15	3455.7	794.1	353.15	2692.5	776.7
353.15	4912.9	819.4	353.15	4167.5	807.4	353.15	3441.3	793.9	353.15	2680.7	776.4
353.15	4898.9	819.2	353.15	4155.9	807.2	353.15	3429.0	793.5	353.15	2669.1	776.1
353.15	4884.9	819.0	353.15	4143.2	807.0	353.15	3416.2	793.3	353.15	2657.5	775.8
353.15	4869.8	818.8	353.15	4130.4	806.8	353.15	3402.1	793.0	353.15	2645.7	775.5
353.15	4855.8	818.6	353.15	4118.5	806.5	353.15	3389.7	792.8	353.15	2634.1	775.2
353.15	4842.3	818.3	353.15	4106.9	806.3	353.15	3376.3	792.5			
353.15	4827.1	818.1	353.15	4093.8	806.1	353.15	3362.6	792.2			
353.15	4813.6	817.9	353.15	4079.4	805.9	353.15	3349.3	791.9			
353.15	4799.9	817.7	353.15	4067.3	805.7	353.15	3335.1	791.6			
353.15	4786.9	817.5	353.15	4053.8	805.4	353.15	3321.0	791.3			
353.15	4774.0	817.3	353.15	4042.2	805.2	353.15	3306.3	791.0			
353.15	4761.7	817.1	353.15	4029.3	805.0	353.15	3292.1	790.6			

Appendice D

Valori della densità del fluido R32

Tabella D1: Valori della densità del fluido R32 per T = 283.15 K (10°C)

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
283.15	35001.0	1120.6	283.15	34565.4	1119.5	283.14	33943.2	1118.2	283.14	33332.1	1116.9
283.15	34999.6	1120.4	283.15	34551.1	1119.6	283.14	33930.5	1118.3	283.15	33319.0	1116.9
283.15	34997.9	1120.3	283.15	34537.0	1119.5	283.15	33917.1	1117.9	283.14	33306.0	1116.9
283.15	34996.4	1120.4	283.15	34523.1	1119.5	283.15	33905.1	1118.2	283.14	33292.7	1116.8
283.15	34995.0	1120.5	283.15	34511.1	1119.4	283.15	33891.4	1118.2	283.14	33279.6	1116.7
283.15	34993.5	1120.3	283.15	34496.8	1119.4	283.15	33878.1	1118.0	283.14	33266.8	1116.9
283.15	34992.1	1120.5	283.15	34484.0	1119.4	283.15	33864.4	1118.1	283.14	33254.2	1116.7
283.15	34988.8	1120.5	283.15	34472.5	1119.4	283.15	33850.9	1117.9	283.14	33241.6	1116.7
283.15	34983.3	1120.4	283.15	34460.3	1119.2	283.14	33836.3	1117.9	283.14	33229.2	1116.6
283.15	34978.4	1120.4	283.15	34446.6	1119.3	283.15	33822.3	1118.1	283.14	33215.3	1116.8
283.15	34973.7	1120.4	283.15	34434.8	1119.2	283.15	33809.0	1118.0	283.14	33203.6	1116.6
283.15	34968.6	1120.4	283.15	34421.0	1119.2	283.15	33795.7	1117.8	283.14	33191.3	1116.5
283.15	34964.3	1120.3	283.15	34409.9	1119.2	283.15	33784.1	1117.9	283.14	33178.8	1116.7
283.15	34959.3	1120.4	283.15	34396.9	1119.2	283.15	33771.7	1117.9	283.14	33165.8	1116.5
283.15	34954.5	1120.4	283.15	34383.8	1119.2	283.15	33758.7	1117.9	283.14	33152.7	1116.5
283.15	34948.8	1120.3	283.15	34371.3	1119.1	283.15	33746.7	1117.9	283.15	33140.8	1116.5
283.15	34942.7	1120.2	283.15	34357.8	1119.1	283.15	33734.2	1117.6	283.14	33129.0	1116.5
283.15	34937.0	1120.4	283.15	34343.7	1119.1	283.14	33722.5	1117.8	283.14	33117.1	1116.4
283.15	34930.9	1120.2	283.15	34330.7	1119.1	283.15	33710.0	1117.7	283.14	33104.5	1116.2
283.15	34925.4	1120.3	283.15	34317.5	1119.0	283.15	33698.0	1117.6	283.14	33091.4	1116.2
283.15	34918.9	1120.4	283.15	34305.6	1119.0	283.15	33686.8	1117.7	283.14	33079.5	1116.2
283.15	34911.7	1120.2	283.15	34291.4	1119.0	283.14	33674.2	1117.7	283.14	33067.4	1116.4
283.15	34902.6	1120.2	283.15	34278.0	1118.8	283.15	33661.4	1117.6	283.14	33055.3	1116.3
283.15	34892.8	1120.3	283.15	34264.8	1118.8	283.15	33649.1	1117.6	283.14	33043.2	1116.2
283.15	34881.6	1120.2	283.15	34250.5	1118.9	283.14	33637.5	1117.5	283.14	33030.9	1116.3
283.15	34869.1	1120.1	283.15	34236.6	1118.8	283.15	33625.4	1117.6	283.14	33020.5	1116.4
283.15	34855.4	1120.2	283.15	34223.6	1118.8	283.15	33613.0	1117.6	283.14	33009.0	1116.2
283.15	34840.6	1120.1	283.15	34209.7	1118.9	283.15	33601.0	1117.6	283.14	32996.3	1116.1
283.15	34826.5	1120.0	283.15	34197.7	1118.9	283.14	33588.3	1117.5	283.14	32983.0	1116.1
283.15	34813.0	1120.0	283.15	34184.8	1118.7	283.15	33575.7	1117.5	283.15	32968.9	1116.1
283.15	34799.5	1120.0	283.15	34172.3	1118.8	283.15	33561.7	1117.4	283.15	32956.0	1116.1
283.15	34786.2	1119.9	283.15	34159.2	1118.6	283.15	33548.4	1117.3	283.14	32943.7	1116.0
283.15	34772.7	1119.9	283.15	34146.1	1118.7	283.14	33534.4	1117.2	283.14	32930.9	1116.1
283.15	34760.0	1120.1	283.15	34135.1	1118.5	283.14	33521.4	1117.3	283.14	32918.3	1116.0
283.15	34747.6	1119.8	283.15	34122.0	1118.6	283.14	33509.5	1117.3	283.14	32905.8	1115.8
283.15	34734.4	1119.8	283.15	34108.8	1118.5	283.14	33496.6	1117.3	283.14	32893.2	1116.0
283.15	34721.6	1119.9	283.14	34095.8	1118.6	283.14	33483.1	1117.2	283.14	32881.3	1115.8
283.15	34708.8	1119.9	283.15	34082.5	1118.5	283.14	33469.7	1117.2	283.14	32868.7	1115.8
283.15	34695.4	1119.9	283.14	34068.8	1118.3	283.15	33456.8	1117.0	283.14	32856.3	1115.9
283.15	34683.0	1119.8	283.15	34056.9	1118.3	283.14	33443.6	1117.2	283.14	32844.8	1115.9
283.15	34671.4	1119.7	283.15	34044.7	1118.4	283.14	33431.9	1117.1	283.14	32832.3	1115.7
283.15	34658.9	1119.8	283.14	34031.7	1118.3	283.14	33419.2	1117.1	283.14	32821.6	1115.8
283.15	34646.3	1119.7	283.14	34018.9	1118.3	283.14	33406.9	1117.0	283.14	32809.3	1115.8
283.15	34633.8	1119.6	283.14	34004.3	1118.2	283.14	33395.3	1117.0	283.14	32798.0	1115.7
283.15	34620.9	1119.5	283.14	33992.6	1118.2	283.14	33382.8	1117.0	283.14	32785.9	1115.7
283.15	34608.0	1119.6	283.14	33980.6	1118.2	283.14	33370.6	1117.1	283.14	32773.3	1115.7
283.15	34594.9	1119.6	283.14	33967.9	1118.3	283.14	33357.6	1117.0	283.15	32759.4	1115.7
283.15	34579.8	1119.6	283.14	33954.8	1118.4	283.14	33344.3	1116.9	283.14	32747.6	1115.7

Valori della densità del fluido R32 _ *T*=10°C

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
283.15	32734.6	1115.5	283.14	31787.1	1113.6	283.15	30868.3	1111.5	283.15	29921.0	1109.2
283.14	32721.2	1115.7	283.14	31774.8	1113.4	283.15	30856.8	1111.5	283.15	29908.6	1109.3
283.14	32709.0	1115.6	283.14	31762.5	1113.4	283.15	30846.2	1111.5	283.15	29896.6	1109.2
283.15	32696.5	1115.5	283.14	31750.0	1113.4	283.15	30834.8	1111.4	283.15	29885.2	1109.2
283.14	32684.5	1115.5	283.14	31737.7	1113.4	283.15	30824.2	1111.4	283.15	29873.1	1109.2
283.14	32672.0	1115.4	283.14	31725.6	1113.3	283.15	30812.2	1111.4	283.15	29862.1	1109.3
283.14	32659.5	1115.4	283.14	31713.7	1113.3	283.15	30800.9	1111.3	283.15	29850.1	1109.1
283.14	32647.0	1115.4	283.14	31702.2	1113.3	283.15	30788.7	1111.2	283.15	29838.5	1109.1
283.14	32633.7	1115.4	283.14	31689.5	1113.2	283.15	30776.5	1111.3	283.15	29826.3	1109.2
283.14	32620.4	1115.4	283.14	31676.9	1113.3	283.15	30765.7	1111.2	283.15	29814.6	1109.1
283.14	32608.0	1115.2	283.14	31665.6	1113.3	283.15	30753.0	1111.3	283.15	29802.4	1109.1
283.14	32595.1	1115.3	283.14	31652.8	1113.2	283.15	30740.7	1111.2	283.15	29791.4	1109.1
283.14	32581.4	1115.2	283.14	31640.1	1113.2	283.15	30727.9	1111.2	283.15	29779.5	1109.1
283.14	32568.9	1115.3	283.14	31627.7	1113.2	283.15	30714.2	1111.1	283.15	29767.2	1108.9
283.14	32556.9	1115.2	283.14	31616.4	1113.2	283.15	30701.2	1111.2	283.15	29754.6	1109.0
283.14	32545.1	1115.2	283.14	31605.1	1113.1	283.15	30687.1	1111.1	283.15	29743.7	1108.9
283.14	32532.3	1115.1	283.15	31593.2	1113.1	283.15	30673.8	1111.1	283.15	29731.9	1108.9
283.14	32519.8	1115.1	283.14	31580.7	1113.1	283.15	30661.8	1111.0	283.15	29720.6	1108.8
283.14	32506.3	1115.1	283.14	31568.2	1113.1	283.15	30648.9	1111.1	283.15	29708.6	1108.8
283.14	32492.8	1115.1	283.14	31557.7	1112.9	283.15	30635.9	1110.8	283.15	29696.2	1108.7
283.14	32481.2	1115.0	283.14	31546.8	1113.0	283.15	30623.8	1111.1	283.15	29684.7	1108.8
283.14	32469.0	1115.0	283.14	31534.9	1113.0	283.15	30611.1	1110.9	283.15	29673.5	1108.9
283.14	32457.4	1115.1	283.14	31523.2	1112.9	283.15	30600.3	1110.8	283.15	29661.2	1108.7
283.14	32444.9	1115.0	283.14	31510.7	1112.8	283.15	30589.2	1110.9	283.15	29647.8	1108.7
283.14	32433.9	1114.9	283.14	31498.7	1112.8	283.15	30576.5	1110.7	283.15	29635.8	1108.7
283.14	32421.9	1114.9	283.14	31488.1	1112.9	283.15	30564.8	1110.8	283.15	29622.1	1108.7
283.14	32410.8	1114.9	283.14	31476.2	1113.0	283.15	30551.9	1110.8	283.15	29607.9	1108.7
283.14	32398.6	1114.8	283.14	31464.3	1112.8	283.15	30539.5	1110.8	283.15	29594.0	1108.5
283.14	32386.2	1114.9	283.14	31451.9	1112.8	283.15	30527.6	1110.7	283.15	29581.1	1108.6
283.14	32373.9	1114.9	283.14	31441.3	1112.8	283.15	30515.5	1110.7	283.15	29569.3	1108.4
283.14	32362.3	1114.8	283.14	31429.2	1112.7	283.15	30503.2	1110.7	283.15	29555.8	1108.5
283.14	32350.1	1114.7	283.14	31418.5	1112.6	283.15	30489.7	1110.7	283.15	29543.6	1108.4
283.14	32338.0	1114.6	283.14	31406.0	1112.7	283.15	30477.1	1110.6	283.15	29530.9	1108.5
283.14	32326.0	1114.7	283.14	31393.8	1112.6	283.15	30465.1	1110.6	283.15	29518.4	1108.5
283.14	32312.9	1114.6	283.14	31381.6	1112.5	283.15	30452.7	1110.5	283.15	29506.9	1108.4
283.14	32301.5	1114.7	283.14	31369.7	1112.6	283.15	30441.2	1110.3	283.15	29494.0	1108.3
283.14	32289.2	1114.6	283.14	31358.3	1112.5	283.15	30428.8	1110.4	283.15	29481.0	1108.4
283.14	32276.9	1114.7	283.14	31346.1	1112.6	283.15	30416.6	1110.5	283.15	29468.2	1108.4
283.14	32264.4	1114.5	283.14	31334.2	1112.5	283.15	30405.5	1110.5	283.15	29455.6	1108.3
283.14	32252.5	1114.4	283.14	31322.5	1112.5	283.15	30393.2	1110.4	283.15	29442.8	1108.3
283.14	32241.2	1114.7	283.14	31311.2	1112.5	283.15	30381.0	1110.3	283.15	29430.8	1108.2
283.14	32229.2	1114.5	283.14	31299.2	1112.3	283.15	30370.3	1110.4	283.15	29417.6	1108.2
283.14	32216.2	1114.5	283.14	31287.0	1112.4	283.15	30357.8	1110.3	283.15	29405.4	1108.3
283.14	32203.9	1114.5	283.14	31275.4	1112.3	283.15	30345.5	1110.3	283.15	29391.0	1108.2
283.14	32192.1	1114.5	283.14	31263.4	1112.3	283.15	30334.5	1110.2	283.15	29377.4	1108.1
283.14	32181.2	1114.3	283.14	31251.5	1112.3	283.15	30322.0	1110.2	283.15	29365.4	1108.1
283.14	32169.2	1114.2	283.14	31239.8	1112.2	283.15	30309.5	1110.2	283.15	29352.0	1107.9
283.14	32157.5	1114.3	283.14	31227.1	1112.3	283.15	30297.3	1110.2	283.15	29338.6	1107.9
283.14	32145.3	1114.4	283.14	31215.1	1112.1	283.15	30285.8	1110.2	283.15	29325.0	1108.1
283.14	32133.5	1114.3	283.14	31204.8	1112.3	283.15	30272.9	1110.2	283.15	29313.0	1108.0
283.14	32121.2	1114.4	283.14	31193.3	1112.1	283.15	30261.2	1110.1	283.15	29299.7	1107.8
283.14	32108.9	1114.1	283.14	31181.4	1112.3	283.15	30248.6	1110.1	283.15	29287.4	1107.9
283.14	32096.3	1114.3	283.14	31169.5	1112.1	283.15	30236.0	1110.1	283.15	29274.4	1107.8
283.14	32084.0	1114.4	283.14	31157.8	1112.2	283.15	30223.5	1110.1	283.15	29261.7	1107.9
283.14	32070.8	1114.1	283.14	31144.7	1112.0	283.15	30211.8	1110.0	283.15	29249.7	1107.9
283.14	32059.0	1114.2	283.14	31131.5	1112.1	283.15	30200.1	1110.0	283.15	29236.5	1107.7
283.14	32047.9	1114.2	283.14	31118.7	1111.9	283.15	30188.3	1109.9	283.15	29223.3	1107.7
283.14	32036.4	1114.1	283.14	31106.7	1112.0	283.15	30175.0	1109.9	283.15	29210.3	1107.6
283.14	32025.1	1114.1	283.14	31095.3	1111.9	283.15	30163.6	1109.9	283.15	29197.5	1107.6
283.14	32014.6	1114.1	283.14	31083.4	1111.9	283.15	30151.0	1109.8	283.15	29183.7	1107.6
283.14	32002.8	1114.0	283.14	31074.1	1111.9	283.15	30138.4	1109.9	283.15	29170.8	1107.7
283.14	31991.6	1113.9	283.14	31062.7	1112.0	283.15	30125.4	1109.7	283.15	29158.2	1107.5
283.14	31979.3	1113.9	283.14	31051.5	1111.9	283.15	30114.0	1109.8	283.15	29146.8	1107.5
283.14	31967.3	1113.9	283.14	31040.3	1111.8	283.15	30102.2	1109.8	283.15	29134.4	1107.6
283.14	31954.6	1113.9	283.14	31029.7	1111.9	283.15	30090.3	1109.8	283.15	29121.8	1107.4
283.14	31942.2	1113.8	283.14	31018.6	1111.7	283.15	30079.2	1109.6	283.15	29109.6	1107.5
283.14	31931.0	1113.8	283.14	31007.3	1111.8	283.15	30067.0	1109.5	283.15	29098.3	1107.4
283.14	31918.5	1113.8	283.14	30995.6	1111.6	283.15	30054.7	1109.6	283.15	29085.9	1107.4
283.14	31906.1	1113.8	283.14	30984.1	1111.7	283.15	30042.2	1109.7	283.15	29073.2	1107.4
283.14	31894.3	1113.8	283.14	30972.3	1111.9	283.15	30030.6	1109.6	283.15	29061.5	1107.4
283.14	31883.1	1113.7	283.14	30960.8	1111.7	283.15	30018.5	1109.5	283.15	29049.0	1107.3
283.14	31871.1	1113.8	283.14	30948.1	1111.6	283.15	30005.2	1109.6	283.15	29037.3	1107.4
283.14	31858.5	1113.7	283.14	30936.5	1111.6	283.15	29992.9	1109.4	283.15	29025.3	1107.4
283.14	31846.6	1113.6	283.14	30924.5	1111.6	283.15	29982.1	1109.5	283.15	29012.9	1107.3
283.14	31834.8	1113.7	283.14	30912.7	1111.6	283.15	29969.7	1109.5	283.15	29000.8	1107.3
283.14	31823.2	1113.6	283.14	30902.2	1111.5	283.15	29956.8	1109.4	283.15	28988.0	1107.1
283.14	31810.5	1113.6	283.14	30890.6	1111.6	283.15	29945.8	1109.5	283.15	28974.9	1107.2
283.14	31798.0	1113.6	283.14	30879.5	1111.5	283.15	29933.2	1109.3	283.15	28963.3	1107.2

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
283.15	28951.2	1107.1	283.15	27990.8	1104.9	283.15	27031.9	1102.6	283.15	26039.3	1100.2
283.15	28939.3	1107.2	283.15	27979.4	1104.8	283.15	27018.8	1102.6	283.15	26027.0	1100.2
283.15	28928.3	1107.0	283.15	27966.2	1104.9	283.15	27004.7	1102.5	283.15	26015.4	1100.2
283.15	28915.9	1107.0	283.15	27953.3	1104.8	283.15	26990.4	1102.4	283.15	26002.2	1100.2
283.15	28903.7	1107.0	283.15	27941.4	1104.7	283.15	26977.8	1102.4	283.15	25989.0	1100.0
283.15	28891.5	1107.0	283.15	27928.9	1104.9	283.15	26964.2	1102.5	283.15	25976.8	1100.0
283.15	28880.0	1106.9	283.15	27916.0	1104.6	283.15	26949.7	1102.5	283.15	25964.0	1100.1
283.15	28867.8	1107.0	283.15	27902.5	1104.7	283.15	26936.2	1102.4	283.15	25951.7	1100.0
283.15	28855.4	1107.0	283.15	27888.7	1104.6	283.15	26922.8	1102.4	283.15	25939.4	1100.0
283.15	28843.9	1106.8	283.15	27875.5	1104.6	283.15	26909.1	1102.5	283.15	25926.8	1099.9
283.15	28831.6	1106.8	283.15	27863.1	1104.5	283.15	26897.2	1102.4	283.15	25914.0	1099.8
283.15	28819.2	1106.9	283.15	27850.5	1104.6	283.15	26884.5	1102.2	283.15	25902.8	1099.9
283.15	28806.2	1106.8	283.15	27838.0	1104.7	283.15	26872.1	1102.4	283.15	25889.9	1099.7
283.15	28793.4	1106.6	283.15	27824.9	1104.4	283.15	26859.3	1102.2	283.15	25878.0	1099.8
283.15	28779.7	1106.7	283.15	27812.2	1104.5	283.15	26847.2	1102.2	283.15	25865.6	1099.8
283.15	28766.7	1106.7	283.15	27800.2	1104.5	283.15	26833.8	1102.1	283.15	25854.1	1099.9
283.15	28755.7	1106.8	283.15	27789.4	1104.5	283.15	26820.5	1102.0	283.15	25841.6	1099.6
283.15	28743.4	1106.7	283.15	27777.3	1104.4	283.15	26807.5	1102.1	283.15	25828.8	1099.8
283.15	28732.3	1106.7	283.15	27765.0	1104.4	283.15	26794.4	1102.0	283.15	25816.7	1099.8
283.15	28719.6	1106.6	283.15	27753.7	1104.3	283.15	26782.1	1102.2	283.15	25804.1	1099.7
283.15	28707.6	1106.7	283.15	27741.2	1104.3	283.15	26769.0	1102.1	283.15	25791.9	1099.6
283.15	28695.1	1106.5	283.15	27728.8	1104.2	283.15	26756.9	1102.0	283.15	25779.8	1099.7
283.15	28683.4	1106.5	283.15	27715.9	1104.2	283.15	26743.5	1101.9	283.15	25767.6	1099.6
283.15	28670.6	1106.4	283.15	27704.3	1104.1	283.15	26730.5	1102.0	283.15	25756.1	1099.6
283.15	28659.9	1106.4	283.15	27691.4	1104.2	283.15	26718.1	1101.9	283.15	25743.1	1099.5
283.15	28648.0	1106.4	283.15	27678.8	1104.2	283.15	26706.4	1101.9	283.15	25728.5	1099.5
283.15	28635.6	1106.4	283.15	27666.3	1104.0	283.15	26692.0	1101.8	283.15	25715.9	1099.4
283.15	28624.5	1106.5	283.15	27654.4	1104.0	283.15	26680.3	1101.8	283.15	25701.5	1099.4
283.15	28611.6	1106.4	283.15	27641.6	1104.0	283.15	26667.3	1101.9	283.15	25688.9	1099.4
283.15	28600.4	1106.4	283.15	27630.4	1104.1	283.15	26654.0	1101.7	283.15	25675.5	1099.5
283.15	28587.5	1106.3	283.15	27618.0	1104.1	283.15	26640.8	1101.9	283.15	25662.8	1099.3
283.15	28574.9	1106.3	283.15	27606.3	1104.0	283.15	26626.7	1101.6	283.15	25650.5	1099.3
283.15	28561.9	1106.1	283.15	27595.1	1103.9	283.15	26614.5	1101.7	283.15	25637.7	1099.2
283.15	28549.4	1106.2	283.15	27583.1	1104.0	283.15	26600.4	1101.7	283.15	25625.4	1099.4
283.15	28537.1	1106.1	283.15	27570.7	1103.8	283.15	26587.1	1101.6	283.15	25612.9	1099.1
283.15	28525.2	1106.2	283.15	27558.1	1103.9	283.15	26575.5	1101.5	283.15	25600.3	1099.2
283.15	28512.7	1106.0	283.15	27546.6	1103.9	283.15	26562.8	1101.6	283.15	25588.6	1099.2
283.15	28501.7	1106.1	283.15	27535.4	1103.9	283.15	26550.2	1101.4	283.15	25577.6	1099.0
283.15	28488.5	1106.1	283.15	27524.2	1103.8	283.15	26536.8	1101.6	283.15	25565.2	1099.1
283.15	28475.5	1106.0	283.15	27511.9	1103.7	283.15	26524.5	1101.4	283.15	25552.1	1099.0
283.15	28462.9	1105.9	283.15	27501.0	1103.7	283.15	26511.1	1101.4	283.15	25539.9	1099.0
283.15	28450.4	1105.9	283.15	27489.1	1103.7	283.15	26497.9	1101.4	283.15	25526.8	1099.0
283.15	28437.7	1105.8	283.15	27477.0	1103.8	283.15	26485.5	1101.3	283.15	25516.1	1099.0
283.15	28426.2	1105.8	283.15	27464.2	1103.7	283.15	26472.5	1101.3	283.15	25504.4	1098.9
283.15	28414.0	1105.8	283.15	27452.9	1103.5	283.15	26460.3	1101.3	283.15	25492.0	1098.9
283.15	28401.8	1105.7	283.15	27441.7	1103.6	283.15	26447.7	1101.3	283.15	25479.6	1098.9
283.15	28389.1	1105.9	283.15	27430.0	1103.5	283.15	26435.0	1101.2	283.15	25467.9	1098.9
283.15	28375.9	1105.7	283.15	27418.4	1103.6	283.15	26423.6	1101.2	283.15	25456.0	1098.9
283.15	28363.9	1105.6	283.15	27407.7	1103.5	283.15	26411.1	1101.1	283.15	25444.0	1098.9
283.15	28351.2	1105.7	283.15	27394.9	1103.5	283.15	26398.5	1101.3	283.15	25432.6	1098.7
283.15	28338.0	1105.7	283.15	27380.6	1103.5	283.15	26387.3	1101.1	283.15	25419.5	1098.7
283.15	28326.6	1105.7	283.15	27367.8	1103.4	283.15	26375.6	1101.0	283.15	25405.9	1098.8
283.15	28313.9	1105.6	283.15	27354.2	1103.4	283.15	26363.8	1101.0	283.15	25394.2	1098.8
283.15	28301.9	1105.6	283.15	27341.5	1103.3	283.15	26350.5	1100.9	283.15	25382.0	1098.7
283.15	28290.0	1105.6	283.15	27327.6	1103.3	283.15	26337.6	1100.9	283.15	25370.1	1098.7
283.15	28277.1	1105.5	283.15	27313.7	1103.3	283.15	26324.2	1100.9	283.15	25358.1	1098.6
283.15	28264.2	1105.5	283.15	27300.8	1103.2	283.15	26310.6	1101.0	283.15	25347.0	1098.6
283.15	28251.8	1105.5	283.15	27288.2	1103.2	283.15	26296.9	1100.8	283.15	25334.8	1098.5
283.15	28238.7	1105.5	283.15	27276.9	1103.0	283.15	26285.3	1100.8	283.15	25323.6	1098.7
283.15	28225.3	1105.4	283.15	27264.6	1103.2	283.15	26272.6	1100.9	283.15	25311.7	1098.5
283.15	28212.8	1105.5	283.15	27251.6	1103.2	283.15	26260.0	1100.8	283.15	25298.6	1098.4
283.15	28201.4	1105.3	283.15	27240.3	1103.1	283.15	26248.8	1100.8	283.15	25287.2	1098.4
283.15	28188.7	1105.3	283.15	27227.9	1103.1	283.15	26236.7	1100.7	283.15	25275.0	1098.4
283.15	28175.8	1105.3	283.15	27215.7	1103.1	283.15	26225.1	1100.7	283.15	25262.4	1098.4
283.15	28164.0	1105.3	283.15	27202.8	1103.1	283.15	26212.2	1100.7	283.15	25250.0	1098.4
283.15	28151.8	1105.3	283.15	27189.7	1103.0	283.15	26201.0	1100.6	283.15	25237.4	1098.4
283.15	28138.8	1105.3	283.15	27176.5	1103.0	283.15	26188.6	1100.5	283.15	25224.7	1098.3
283.15	28126.1	1105.2	283.15	27164.5	1103.0	283.15	26175.7	1100.6	283.15	25213.5	1098.2
283.15	28113.8	1105.1	283.15	27151.3	1102.8	283.15	26162.4	1100.5	283.15	25200.7	1098.3
283.15	28101.3	1105.0	283.15	27139.5	1102.8	283.15	26150.6	1100.6	283.15	25188.9	1098.1
283.15	28088.4	1105.1	283.15	27126.4	1103.0	283.15	26137.7	1100.5	283.15	25178.2	1098.1
283.15	28075.4	1105.0	283.15	27113.4	1102.8	283.15	26124.8	1100.4	283.15	25166.1	1098.1
283.15	28062.2	1105.1	283.15	27100.4	1102.8	283.15	26113.4	1100.4	283.15	25153.7	1098.0
283.15	28051.0	1105.1	283.15	27088.0	1102.6	283.15	26100.9	1100.2	283.15	25141.8	1098.0
283.15	28038.3	1105.0	283.15	27076.0	1102.7	283.15	26088.0	1100.3	283.15	25129.1	1098.0
283.15	28026.8	1105.0	283.15	27063.4	1102.7	283.15	26075.6	1100.3	283.15	25117.6	1097.9
283.15	28014.2	1104.8	283.15	27053.2	1102.7	283.15	26063.4	1100.3	283.15	25104.6	1098.1
283.15	28002.0	1105.0	283.15	27043.1	1102.6	283.15	26052.1	1100.3	283.15	25091.9	1098.0

Valori della densità del fluido R32 _ *T*=10°C

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
283.15	25080.5	1097.8	283.15	24128.4	1095.6	283.15	23171.2	1093.0	283.14	22233.9	1090.7
283.15	25068.3	1097.9	283.15	24115.5	1095.6	283.15	23159.8	1093.1	283.14	22220.9	1090.6
283.15	25056.4	1097.9	283.15	24103.6	1095.4	283.15	23147.9	1093.0	283.15	22208.8	1090.8
283.15	25045.1	1097.8	283.15	24090.8	1095.5	283.15	23135.4	1093.1	283.15	22196.8	1090.5
283.15	25032.5	1097.8	283.15	24078.9	1095.4	283.15	23125.7	1093.0	283.14	22183.4	1090.6
283.15	25020.1	1097.6	283.15	24066.5	1095.3	283.15	23113.8	1093.0	283.15	22170.0	1090.5
283.15	25007.8	1097.8	283.15	24054.2	1095.3	283.15	23101.8	1092.9	283.14	22157.4	1090.5
283.15	24995.2	1097.7	283.15	24042.5	1095.4	283.15	23090.6	1092.9	283.14	22143.9	1090.5
283.15	24982.5	1097.6	283.15	24029.8	1095.3	283.14	23078.2	1092.9	283.15	22132.3	1090.5
283.15	24971.2	1097.8	283.15	24017.0	1095.3	283.15	23067.1	1092.8	283.14	22119.7	1090.4
283.15	24958.9	1097.6	283.15	24004.5	1095.1	283.15	23054.9	1092.9	283.14	22108.3	1090.4
283.15	24947.9	1097.5	283.15	23991.6	1095.1	283.15	23043.0	1092.8	283.14	22096.3	1090.4
283.15	24935.6	1097.6	283.15	23978.8	1095.1	283.15	23031.8	1092.8	283.14	22084.1	1090.4
283.15	24923.6	1097.6	283.15	23966.6	1095.1	283.15	23019.6	1092.7	283.15	22071.6	1090.3
283.15	24912.0	1097.4	283.15	23954.1	1095.0	283.15	23007.5	1092.7	283.14	22059.1	1090.4
283.15	24900.2	1097.4	283.15	23941.9	1095.2	283.15	22994.5	1092.8	283.14	22046.3	1090.3
283.15	24888.4	1097.4	283.15	23930.9	1094.9	283.15	22981.6	1092.7	283.14	22033.3	1090.3
283.15	24876.3	1097.4	283.15	23918.6	1095.0	283.15	22969.8	1092.6	283.14	22021.1	1090.2
283.15	24864.8	1097.3	283.15	23906.5	1094.9	283.14	22958.3	1092.5	283.14	22008.3	1090.1
283.15	24852.7	1097.4	283.15	23896.2	1094.9	283.15	22945.3	1092.6	283.14	21996.1	1090.1
283.15	24840.3	1097.2	283.15	23883.3	1094.9	283.15	22932.0	1092.6	283.14	21982.5	1090.0
283.15	24827.7	1097.4	283.15	23870.6	1094.9	283.15	22919.4	1092.5	283.14	21969.7	1090.0
283.15	24815.5	1097.3	283.15	23857.2	1095.0	283.15	22906.9	1092.4	283.14	21957.9	1090.0
283.15	24802.9	1097.3	283.15	23843.8	1094.8	283.15	22895.2	1092.4	283.14	21945.8	1089.9
283.15	24792.4	1097.2	283.15	23829.9	1094.8	283.15	22883.6	1092.4	283.14	21933.4	1090.0
283.15	24779.8	1097.2	283.15	23818.6	1094.8	283.15	22871.0	1092.5	283.14	21920.6	1089.8
283.15	24767.8	1097.2	283.15	23805.7	1094.6	283.15	22858.5	1092.4	283.14	21908.9	1089.8
283.15	24755.9	1097.0	283.15	23792.9	1094.6	283.15	22846.2	1092.3	283.14	21896.6	1089.9
283.15	24743.8	1097.2	283.15	23780.4	1094.6	283.15	22834.9	1092.3	283.14	21883.8	1089.8
283.15	24732.5	1097.0	283.15	23767.8	1094.8	283.15	22822.6	1092.2	283.14	21870.7	1089.9
283.15	24720.2	1097.0	283.15	23755.2	1094.6	283.15	22811.0	1092.2	283.14	21858.2	1089.7
283.15	24708.3	1097.1	283.15	23743.1	1094.5	283.14	22798.8	1092.1	283.14	21845.3	1089.8
283.15	24697.3	1096.8	283.15	23730.9	1094.6	283.15	22787.0	1092.2	283.14	21833.4	1089.7
283.15	24685.0	1096.9	283.15	23718.5	1094.6	283.15	22775.4	1092.0	283.14	21821.0	1089.6
283.15	24673.1	1096.9	283.15	23706.7	1094.5	283.15	22762.7	1092.0	283.14	21808.7	1089.7
283.15	24661.7	1096.8	283.15	23693.6	1094.5	283.15	22749.6	1092.1	283.14	21796.4	1089.6
283.15	24649.4	1096.9	283.15	23682.1	1094.5	283.15	22738.0	1092.0	283.14	21784.6	1089.6
283.15	24637.1	1096.8	283.15	23669.5	1094.4	283.15	22725.7	1092.0	283.14	21772.7	1089.5
283.15	24625.1	1096.8	283.15	23656.6	1094.5	283.15	22713.3	1092.0	283.14	21760.4	1089.5
283.15	24614.0	1096.7	283.15	23645.1	1094.3	283.15	22702.2	1091.9	283.14	21748.5	1089.4
283.15	24601.1	1096.8	283.15	23632.4	1094.3	283.15	22690.0	1091.8	283.14	21736.4	1089.4
283.15	24588.6	1096.7	283.15	23619.6	1094.2	283.15	22677.5	1092.0	283.14	21724.1	1089.3
283.15	24576.2	1096.6	283.15	23607.1	1094.3	283.15	22665.2	1091.9	283.14	21712.1	1089.3
283.15	24564.9	1096.6	283.15	23594.5	1094.2	283.15	22653.6	1091.7	283.14	21701.3	1089.3
283.15	24552.4	1096.5	283.15	23583.9	1094.2	283.15	22642.1	1091.8	283.15	21689.4	1089.3
283.15	24540.6	1096.6	283.15	23571.2	1094.2	283.14	22629.7	1091.7	283.15	21677.0	1089.2
283.15	24527.7	1096.6	283.15	23559.2	1094.0	283.14	22618.8	1091.7	283.15	21665.2	1089.1
283.15	24514.8	1096.5	283.15	23548.4	1094.2	283.14	22606.9	1091.6	283.15	21652.9	1089.2
283.15	24502.5	1096.6	283.15	23536.2	1094.1	283.15	22594.7	1091.6	283.15	21640.7	1089.1
283.15	24491.5	1096.5	283.15	23524.9	1094.0	283.14	22583.1	1091.6	283.15	21628.2	1089.1
283.15	24479.9	1096.3	283.15	23512.7	1094.1	283.15	22571.3	1091.6	283.15	21616.8	1089.2
283.15	24468.0	1096.4	283.15	23500.4	1093.9	283.14	22558.6	1091.5	283.15	21604.0	1089.2
283.15	24455.9	1096.3	283.15	23487.9	1094.0	283.15	22546.3	1091.6	283.15	21590.9	1089.1
283.15	24444.4	1096.3	283.15	23475.0	1093.8	283.15	22535.1	1091.6	283.15	21578.8	1088.9
283.15	24433.5	1096.4	283.15	23463.5	1093.9	283.15	22523.5	1091.4	283.15	21567.9	1089.0
283.15	24421.5	1096.3	283.15	23452.5	1093.9	283.14	22511.2	1091.4	283.15	21555.8	1089.0
283.15	24409.9	1096.2	283.15	23439.7	1093.9	283.15	22499.3	1091.4	283.15	21544.4	1088.9
283.15	24396.4	1096.3	283.15	23427.3	1093.9	283.14	22487.5	1091.3	283.15	21532.0	1088.7
283.15	24382.2	1096.1	283.15	23415.9	1093.8	283.15	22476.1	1091.3	283.15	21519.7	1088.9
283.15	24367.7	1096.2	283.15	23402.5	1093.7	283.15	22463.0	1091.3	283.15	21507.2	1088.7
283.15	24355.4	1096.2	283.15	23389.1	1093.7	283.15	22451.3	1091.2	283.15	21495.5	1088.8
283.15	24341.6	1096.1	283.15	23376.2	1093.5	283.15	22438.8	1091.4	283.15	21483.2	1088.7
283.15	24328.0	1096.0	283.15	23363.6	1093.6	283.14	22427.9	1091.2	283.15	21470.8	1088.8
283.15	24315.5	1095.9	283.15	23352.0	1093.6	283.14	22416.3	1091.2	283.15	21458.3	1088.6
283.15	24303.0	1096.0	283.15	23341.0	1093.6	283.14	22404.9	1091.2	283.15	21446.1	1088.6
283.15	24290.7	1095.9	283.15	23328.9	1093.6	283.14	22392.2	1091.1	283.15	21433.5	1088.6
283.15	24278.3	1095.9	283.15	23315.9	1093.4	283.14	22379.5	1091.1	283.15	21421.0	1088.5
283.15	24266.6	1095.8	283.15	23304.4	1093.4	283.15	22367.5	1091.1	283.15	21409.4	1088.5
283.15	24254.2	1095.8	283.14	23292.1	1093.4	283.15	22355.4	1091.0	283.15	21396.8	1088.6
283.15	24242.0	1095.7	283.15	23279.9	1093.4	283.15	22343.3	1091.1	283.15	21385.2	1088.6
283.15	24230.1	1095.9	283.15	23268.3	1093.4	283.15	22331.7	1091.0	283.15	21373.3	1088.5
283.15	24217.3	1095.8	283.15	23254.9	1093.4	283.15	22320.7	1091.0	283.15	21359.7	1088.4
283.15	24205.1	1095.8	283.15	23241.9	1093.4	283.14	22308.6	1090.9	283.15	21347.1	1088.4
283.15	24192.3	1095.8	283.15	23228.7	1093.3	283.15	22297.4	1090.8	283.15	21335.8	1088.2
283.15	24180.5	1095.7	283.15	23217.1	1093.3	283.14	22285.9	1090.9	283.15	21323.0	1088.4
283.15	24167.7	1095.6	283.15	23204.7	1093.2	283.14	22273.9	1090.7	283.15	21310.5	1088.4
283.15	24154.4	1095.6	283.15	23194.2	1093.2	283.14	22260.8	1090.8	283.15	21298.8	1088.3
283.15	24141.4	1095.6	283.15	23182.1	1093.1	283.15	22248.0	1090.9	283.15	21286.6	1088.3

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
283.15	21273.9	1088.3	283.15	20336.3	1085.8	283.14	19374.3	1083.0	283.14	18418.9	1080.5
283.15	21261.8	1088.1	283.15	20324.5	1085.8	283.15	19361.1	1083.0	283.14	18405.9	1080.5
283.15	21249.7	1088.2	283.15	20312.7	1085.7	283.15	19348.2	1083.1	283.14	18393.1	1080.3
283.15	21237.6	1088.1	283.15	20300.8	1085.7	283.15	19335.0	1083.0	283.15	18382.3	1080.3
283.15	21225.3	1088.1	283.15	20289.2	1085.5	283.14	19323.6	1082.9	283.14	18369.7	1080.3
283.15	21212.8	1088.1	283.15	20277.1	1085.6	283.14	19311.6	1082.9	283.14	18356.7	1080.3
283.15	21200.0	1088.0	283.15	20264.8	1085.6	283.15	19299.8	1082.8	283.15	18345.1	1080.2
283.15	21186.4	1088.1	283.15	20253.5	1085.3	283.14	19287.7	1082.9	283.14	18332.9	1080.3
283.15	21175.0	1087.9	283.15	20241.8	1085.4	283.15	19276.1	1082.8	283.14	18322.0	1080.1
283.15	21162.7	1088.0	283.15	20229.5	1085.6	283.14	19264.1	1082.9	283.15	18309.8	1080.2
283.15	21150.4	1088.0	283.15	20216.7	1085.4	283.15	19252.7	1082.8	283.15	18297.7	1080.1
283.15	21137.5	1087.9	283.15	20203.9	1085.4	283.15	19241.1	1082.7	283.15	18285.9	1080.1
283.15	21124.7	1087.9	283.15	20191.5	1085.4	283.15	19228.8	1082.8	283.15	18273.1	1080.0
283.15	21111.0	1087.7	283.15	20179.7	1085.4	283.15	19217.7	1082.8	283.15	18261.0	1080.0
283.15	21098.3	1087.7	283.15	20168.4	1085.3	283.15	19204.2	1082.6	283.15	18248.8	1079.9
283.15	21085.1	1087.7	283.15	20156.1	1085.3	283.15	19189.8	1082.6	283.15	18236.0	1080.0
283.15	21072.5	1087.6	283.15	20145.6	1085.2	283.15	19175.8	1082.6	283.15	18222.4	1079.8
283.15	21058.9	1087.7	283.15	20133.6	1085.1	283.15	19162.6	1082.5	283.15	18209.4	1080.1
283.15	21047.0	1087.7	283.15	20120.8	1085.1	283.15	19149.6	1082.6	283.15	18197.2	1079.7
283.15	21035.2	1087.6	283.15	20107.1	1085.0	283.15	19137.9	1082.5	283.15	18184.5	1079.8
283.15	21023.8	1087.5	283.15	20094.0	1085.2	283.15	19125.7	1082.6	283.15	18172.8	1079.8
283.15	21011.6	1087.6	283.15	20079.8	1085.0	283.15	19112.9	1082.4	283.15	18160.1	1079.8
283.15	20999.4	1087.5	283.15	20065.5	1084.9	283.15	19101.6	1082.4	283.15	18148.0	1079.7
283.15	20988.5	1087.5	283.15	20051.8	1084.9	283.15	19089.7	1082.3	283.15	18135.8	1079.7
283.15	20976.7	1087.5	283.15	20038.5	1084.9	283.15	19077.9	1082.2	283.15	18123.0	1079.7
283.15	20964.8	1087.3	283.15	20025.7	1084.9	283.15	19065.4	1082.4	283.15	18111.2	1079.6
283.15	20952.2	1087.4	283.15	20012.9	1084.7	283.15	19052.8	1082.4	283.15	18100.1	1079.6
283.15	20940.7	1087.4	283.15	19999.9	1084.8	283.15	19040.7	1082.1	283.15	18088.8	1079.6
283.15	20928.4	1087.4	283.15	19988.2	1084.9	283.15	19028.4	1082.1	283.15	18076.7	1079.6
283.15	20916.7	1087.2	283.15	19975.2	1084.8	283.15	19016.1	1082.1	283.15	18064.7	1079.4
283.15	20905.1	1087.3	283.15	19963.6	1084.7	283.15	19003.6	1082.2	283.15	18052.6	1079.6
283.15	20893.4	1087.2	283.15	19952.0	1084.6	283.15	18993.2	1082.0	283.15	18040.4	1079.3
283.15	20880.7	1087.2	283.15	19939.7	1084.7	283.15	18981.2	1082.1	283.15	18029.0	1079.4
283.15	20869.1	1087.1	283.15	19927.7	1084.6	283.15	18969.3	1082.0	283.15	18016.0	1079.4
283.15	20856.9	1087.2	283.15	19915.3	1084.6	283.15	18956.8	1082.0	283.15	18004.2	1079.3
283.15	20844.6	1087.2	283.15	19903.7	1084.5	283.15	18945.3	1081.9	283.15	17992.0	1079.3
283.15	20833.0	1087.1	283.15	19890.6	1084.6	283.15	18932.6	1081.8	283.15	17980.6	1079.2
283.15	20820.9	1087.0	283.15	19877.4	1084.5	283.14	18919.4	1081.8	283.15	17969.5	1079.3
283.15	20809.5	1087.0	283.15	19865.7	1084.4	283.14	18906.6	1081.9	283.15	17957.9	1079.1
283.15	20797.7	1086.9	283.15	19852.8	1084.4	283.15	18894.6	1081.8	283.15	17945.3	1079.2
283.15	20785.7	1087.0	283.15	19839.9	1084.4	283.15	18883.2	1081.8	283.15	17932.7	1079.1
283.15	20773.4	1087.0	283.15	19828.1	1084.3	283.15	18871.2	1081.8	283.15	17920.1	1079.2
283.15	20762.3	1086.9	283.15	19814.4	1084.3	283.15	18859.9	1081.6	283.15	17907.5	1079.2
283.15	20750.3	1087.0	283.15	19802.1	1084.2	283.15	18847.3	1081.7	283.15	17893.7	1079.1
283.15	20739.5	1086.8	283.15	19789.5	1084.1	283.15	18835.0	1081.6	283.15	17880.8	1079.0
283.15	20728.1	1086.7	283.15	19777.9	1084.2	283.15	18822.5	1081.7	283.15	17868.8	1078.8
283.15	20716.2	1086.9	283.15	19766.6	1084.3	283.15	18810.7	1081.6	283.15	17856.4	1078.9
283.15	20703.7	1086.8	283.15	19754.7	1084.2	283.14	18798.6	1081.6	283.15	17843.7	1078.8
283.15	20692.5	1086.8	283.14	19742.7	1084.2	283.15	18787.0	1081.4	283.15	17831.2	1078.8
283.15	20680.7	1086.6	283.15	19730.3	1084.1	283.14	18774.8	1081.5	283.15	17818.4	1078.8
283.15	20668.9	1086.8	283.15	19718.5	1084.0	283.14	18762.2	1081.4	283.15	17806.1	1078.7
283.15	20658.5	1086.6	283.15	19706.7	1084.0	283.15	18750.3	1081.4	283.15	17794.3	1078.8
283.15	20646.1	1086.7	283.15	19693.9	1084.0	283.14	18738.1	1081.3	283.15	17781.0	1078.7
283.15	20633.7	1086.5	283.15	19680.6	1083.9	283.14	18725.7	1081.3	283.15	17769.0	1078.7
283.15	20622.3	1086.5	283.15	19668.0	1083.8	283.15	18714.7	1081.3	283.15	17756.5	1078.6
283.15	20610.1	1086.4	283.15	19656.7	1083.9	283.14	18704.0	1081.3	283.15	17744.0	1078.6
283.15	20598.6	1086.4	283.15	19644.4	1083.9	283.15	18690.8	1081.3	283.15	17732.0	1078.6
283.15	20585.7	1086.4	283.15	19631.6	1083.9	283.15	18677.6	1081.2	283.15	17719.9	1078.6
283.15	20574.2	1086.3	283.15	19619.5	1083.8	283.15	18666.0	1081.1	283.15	17707.8	1078.5
283.15	20562.1	1086.4	283.15	19607.7	1083.6	283.15	18652.3	1081.1	283.15	17696.1	1078.3
283.15	20549.7	1086.3	283.15	19595.1	1083.7	283.15	18640.6	1081.1	283.15	17683.7	1078.4
283.15	20537.9	1086.2	283.15	19582.6	1083.7	283.15	18627.2	1081.2	283.15	17671.3	1078.4
283.15	20525.1	1086.2	283.15	19569.5	1083.7	283.15	18614.1	1081.0	283.15	17658.8	1078.3
283.15	20512.0	1086.3	283.15	19557.2	1083.6	283.14	18600.9	1081.0	283.15	17646.0	1078.3
283.15	20501.4	1086.1	283.15	19545.0	1083.5	283.15	18589.0	1081.0	283.15	17634.9	1078.2
283.15	20489.7	1086.1	283.15	19532.6	1083.4	283.14	18576.5	1080.8	283.15	17622.6	1078.2
283.15	20477.4	1086.1	283.15	19520.7	1083.5	283.14	18565.4	1080.9	283.15	17610.1	1078.1
283.15	20465.1	1086.1	283.15	19507.8	1083.4	283.14	18552.7	1080.9	283.15	17596.9	1078.1
283.15	20453.8	1086.0	283.15	19494.9	1083.5	283.15	18540.5	1080.8	283.15	17584.4	1078.2
283.15	20441.3	1086.0	283.15	19483.2	1083.2	283.14	18528.5	1080.7	283.15	17571.1	1078.1
283.15	20430.0	1085.9	283.15	19470.5	1083.3	283.14	18516.0	1080.7	283.15	17558.6	1078.1
283.15	20418.7	1085.9	283.15	19457.6	1083.2	283.15	18504.0	1080.7	283.15	17545.8	1078.0
283.15	20406.6	1085.9	283.15	19445.5	1083.3	283.14	18492.4	1080.7	283.15	17533.1	1078.1
283.15	20395.3	1085.8	283.15	19434.4	1083.3	283.14	18479.9	1080.7	283.15	17520.1	1077.9
283.15	20382.9	1085.8	283.15	19422.1	1083.1	283.15	18468.8	1080.6	283.15	17507.5	1077.8
283.15	20370.9	1085.8	283.15	19409.5	1083.3	283.14	18456.5	1080.5	283.15	17494.8	1077.8
283.15	20358.9	1085.8	283.15	19398.6	1083.2	283.14	18443.9	1080.5	283.15	17482.8	1077.8
283.15	20348.0	1085.8	283.15	19386.6	1083.1	283.14	18430.7	1080.5	283.15	17470.2	1077.8

Valori della densità del fluido R32 _ *T*=10°C

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
283.15	17457.7	1077.9	283.15	16505.3	1075.1	283.14	15560.1	1072.3	283.14	14629.3	1069.4
283.15	17444.7	1077.7	283.14	16492.6	1075.0	283.14	15548.1	1072.3	283.14	14618.0	1069.4
283.15	17432.6	1077.7	283.14	16480.6	1075.0	283.14	15536.5	1072.3	283.14	14605.6	1069.2
283.15	17420.4	1077.6	283.14	16467.6	1075.0	283.14	15524.5	1072.1	283.14	14593.6	1069.4
283.15	17407.9	1077.8	283.14	16454.6	1074.8	283.14	15512.8	1072.1	283.14	14582.4	1069.2
283.15	17394.8	1077.6	283.14	16443.3	1074.8	283.14	15501.2	1072.1	283.14	14570.1	1069.4
283.15	17383.4	1077.5	283.14	16430.8	1074.9	283.14	15489.2	1072.1	283.15	14557.2	1069.2
283.15	17370.6	1077.5	283.14	16418.0	1074.7	283.14	15477.2	1072.0	283.15	14546.2	1069.3
283.15	17358.5	1077.5	283.14	16405.3	1074.7	283.14	15465.0	1071.9	283.15	14533.6	1069.2
283.15	17346.0	1077.4	283.15	16392.8	1074.7	283.14	15453.7	1071.9	283.15	14521.0	1069.1
283.15	17333.5	1077.4	283.15	16380.0	1074.7	283.14	15442.0	1071.8	283.15	14508.9	1069.1
283.15	17321.3	1077.3	283.15	16368.0	1074.6	283.14	15430.0	1072.0	283.15	14497.1	1069.1
283.15	17308.7	1077.3	283.15	16355.3	1074.5	283.14	15417.9	1071.7	283.15	14486.4	1069.0
283.15	17296.7	1077.3	283.15	16343.2	1074.6	283.14	15405.5	1071.7	283.15	14473.9	1069.0
283.15	17284.7	1077.2	283.15	16330.8	1074.6	283.14	15392.9	1071.8	283.15	14461.5	1069.1
283.15	17273.1	1077.3	283.15	16318.4	1074.4	283.14	15381.0	1071.7	283.15	14449.3	1068.7
283.15	17261.4	1077.3	283.15	16306.8	1074.4	283.14	15370.0	1071.8	283.15	14438.4	1068.9
283.15	17249.5	1077.2	283.15	16294.5	1074.4	283.15	15358.4	1071.6	283.15	14426.2	1068.7
283.15	17237.3	1077.1	283.15	16281.8	1074.3	283.14	15347.4	1071.7	283.15	14414.0	1068.8
283.15	17225.2	1077.0	283.15	16269.5	1074.4	283.14	15334.1	1071.6	283.15	14401.7	1068.8
283.15	17212.7	1077.1	283.15	16257.2	1074.2	283.14	15322.7	1071.6	283.15	14388.8	1068.7
283.15	17201.2	1077.0	283.14	16246.2	1074.3	283.14	15311.6	1071.6	283.15	14375.2	1068.7
283.15	17188.1	1076.9	283.15	16233.5	1074.2	283.14	15299.1	1071.6	283.15	14363.2	1068.6
283.15	17175.5	1077.1	283.15	16221.7	1074.2	283.14	15287.3	1071.4	283.15	14350.9	1068.5
283.15	17161.9	1076.9	283.15	16209.7	1074.1	283.14	15275.3	1071.5	283.15	14338.4	1068.6
283.15	17150.6	1076.9	283.15	16198.6	1074.1	283.14	15263.4	1071.4	283.15	14325.6	1068.7
283.15	17138.4	1076.8	283.15	16186.1	1074.2	283.14	15251.4	1071.4	283.15	14314.6	1068.4
283.15	17126.3	1076.7	283.15	16173.6	1074.1	283.14	15239.2	1071.3	283.15	14301.8	1068.6
283.15	17114.3	1076.8	283.15	16161.4	1074.0	283.14	15228.3	1071.3	283.15	14289.1	1068.3
283.15	17102.7	1076.7	283.15	16149.9	1074.0	283.14	15216.4	1071.1	283.15	14276.2	1068.5
283.15	17091.0	1076.6	283.14	16137.4	1073.9	283.14	15204.1	1071.2	283.15	14263.5	1068.3
283.15	17079.4	1076.6	283.15	16125.6	1074.0	283.14	15193.1	1071.1	283.15	14251.9	1068.3
283.15	17067.9	1076.6	283.15	16113.0	1073.7	283.14	15180.1	1071.0	283.15	14240.4	1068.2
283.15	17056.1	1076.7	283.15	16100.8	1073.8	283.14	15167.4	1071.2	283.15	14227.5	1068.3
283.15	17044.6	1076.6	283.14	16088.3	1073.7	283.14	15155.8	1071.0	283.15	14215.8	1068.1
283.15	17032.5	1076.6	283.14	16075.8	1073.8	283.14	15144.6	1071.0	283.15	14202.4	1068.3
283.15	17020.2	1076.4	283.14	16063.6	1073.7	283.15	15133.3	1070.9	283.15	14190.6	1068.1
283.15	17011.0	1076.5	283.15	16052.5	1073.7	283.14	15123.7	1070.8	283.15	14178.6	1068.1
283.15	16997.6	1076.5	283.14	16040.0	1073.6	283.15	15113.2	1070.9	283.15	14166.7	1068.1
283.15	16984.8	1076.4	283.15	16028.0	1073.6	283.15	15102.9	1070.8	283.15	14155.9	1068.1
283.15	16973.3	1076.5	283.15	16016.0	1073.6	283.14	15092.0	1070.9	283.15	14143.8	1067.9
283.15	16960.7	1076.3	283.15	16003.3	1073.6	283.14	15080.3	1070.9	283.15	14131.6	1068.0
283.15	16948.1	1076.2	283.15	15991.1	1073.5	283.14	15069.0	1070.8	283.15	14120.1	1067.9
283.15	16935.5	1076.3	283.15	15979.5	1073.6	283.14	15058.6	1070.7	283.15	14108.2	1067.7
283.15	16923.3	1076.2	283.15	15967.2	1073.5	283.14	15045.7	1070.6	283.15	14097.1	1067.8
283.15	16910.1	1076.2	283.15	15955.9	1073.4	283.15	15032.0	1070.6	283.15	14085.0	1067.8
283.15	16896.3	1076.0	283.15	15943.2	1073.4	283.14	15019.6	1070.6	283.15	14073.9	1067.7
283.15	16884.0	1076.2	283.15	15931.2	1073.4	283.14	15006.8	1070.7	283.15	14062.1	1067.6
283.15	16873.0	1076.1	283.15	15920.4	1073.4	283.14	14993.2	1070.5	283.15	14050.4	1067.8
283.14	16861.2	1076.0	283.15	15908.4	1073.3	283.14	14981.2	1070.5	283.15	14038.4	1067.7
283.15	16849.4	1076.1	283.14	15896.2	1073.1	283.14	14968.9	1070.5	283.15	14026.2	1067.7
283.15	16836.2	1075.9	283.15	15883.8	1073.2	283.14	14957.0	1070.4	283.15	14013.8	1067.6
283.15	16824.8	1075.9	283.14	15872.4	1073.1	283.14	14946.0	1070.4	283.15	14001.3	1067.5
283.15	16812.8	1075.9	283.14	15861.8	1073.1	283.14	14934.0	1070.4	283.15	13989.6	1067.5
283.15	16800.8	1075.8	283.15	15849.9	1073.1	283.14	14921.4	1070.4	283.15	13978.5	1067.5
283.15	16789.0	1075.8	283.14	15837.9	1073.0	283.14	14909.5	1070.2	283.15	13966.5	1067.4
283.15	16777.0	1075.8	283.14	15825.6	1073.0	283.14	14897.0	1070.3	283.15	13954.1	1067.5
283.14	16766.0	1075.8	283.15	15813.3	1073.0	283.14	14885.5	1070.2	283.15	13942.2	1067.4
283.14	16755.3	1075.7	283.14	15801.6	1073.0	283.14	14872.8	1070.2	283.15	13930.7	1067.4
283.15	16742.9	1075.8	283.14	15789.4	1073.0	283.14	14861.0	1070.1	283.15	13918.5	1067.2
283.14	16730.8	1075.7	283.14	15776.8	1072.9	283.14	14848.8	1070.2	283.15	13906.7	1067.3
283.15	16718.8	1075.6	283.14	15764.8	1072.9	283.14	14836.8	1070.1	283.15	13895.7	1067.1
283.15	16707.5	1075.7	283.15	15752.9	1072.7	283.15	14824.4	1070.0	283.15	13884.9	1067.2
283.14	16695.2	1075.7	283.15	15740.1	1072.7	283.14	14812.2	1069.9	283.15	13872.8	1067.1
283.15	16682.7	1075.4	283.14	15727.9	1072.7	283.14	14800.7	1069.9	283.15	13860.9	1067.1
283.15	16671.2	1075.4	283.15	15715.6	1072.7	283.14	14788.1	1069.9	283.15	13848.9	1067.0
283.15	16658.9	1075.4	283.14	15703.2	1072.6	283.14	14774.8	1069.7	283.15	13838.9	1067.0
283.15	16646.6	1075.4	283.14	15691.2	1072.6	283.14	14761.5	1069.8	283.15	13826.2	1067.0
283.14	16633.9	1075.4	283.14	15678.7	1072.6	283.14	14749.6	1069.7	283.15	13814.6	1066.9
283.15	16622.7	1075.3	283.14	15666.7	1072.6	283.14	14736.9	1069.8	283.14	13803.6	1066.9
283.15	16609.2	1075.2	283.15	15654.7	1072.6	283.14	14724.6	1069.7	283.15	13791.9	1067.0
283.15	16594.8	1075.4	283.14	15641.9	1072.6	283.14	14713.4	1069.6	283.15	13780.0	1066.9
283.15	16581.7	1075.1	283.15	15629.7	1072.5	283.14	14701.4	1069.8	283.15	13768.4	1066.8
283.15	16568.5	1075.3	283.15	15617.5	1072.5	283.14	14689.5	1069.7	283.15	13758.8	1066.6
283.15	16556.0	1075.3	283.14	15605.6	1072.5	283.14	14677.5	1069.5	283.15	13747.8	1066.7
283.15	16542.8	1075.2	283.14	15593.2	1072.4	283.14	14666.0	1069.6	283.15	13736.3	1066.7
283.15	16530.8	1075.1	283.14	15581.4	1072.4	283.14	14655.4	1069.5	283.15	13724.7	1066.7
283.15	16517.5	1075.1	283.14	15569.4	1072.0	283.14	14643.2	1069.6	283.15	13712.3	1066.6

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
283.15	13700.3	1066.6	283.14	12750.4	1063.5	283.14	11843.6	1060.7	283.15	10925.8	1057.7
283.15	13686.9	1066.7	283.14	12739.0	1063.6	283.14	11831.5	1060.6	283.15	10914.3	1057.8
283.15	13673.9	1066.6	283.14	12726.2	1063.5	283.15	11820.6	1060.6	283.15	10903.2	1057.6
283.14	13661.6	1066.4	283.14	12715.3	1063.6	283.14	11809.0	1060.6	283.15	10890.5	1057.6
283.15	13648.9	1066.3	283.15	12703.6	1063.5	283.15	11798.2	1060.5	283.15	10878.8	1057.5
283.15	13636.8	1066.3	283.15	12691.9	1063.3	283.15	11786.2	1060.4	283.15	10866.7	1057.5
283.14	13626.4	1066.4	283.14	12680.4	1063.4	283.14	11775.3	1060.6	283.15	10854.9	1057.4
283.14	13612.8	1066.3	283.14	12668.7	1063.3	283.14	11764.1	1060.4	283.15	10843.7	1057.4
283.14	13600.7	1066.4	283.15	12656.6	1063.3	283.14	11752.3	1060.4	283.15	10830.9	1057.4
283.15	13587.6	1066.3	283.15	12645.0	1063.2	283.14	11740.9	1060.3	283.15	10817.8	1057.3
283.14	13575.6	1066.1	283.15	12633.3	1063.2	283.14	11729.4	1060.2	283.15	10805.6	1057.3
283.15	13563.6	1066.2	283.15	12622.3	1063.2	283.14	11716.1	1060.3	283.15	10794.1	1057.2
283.15	13551.4	1066.1	283.15	12610.1	1063.2	283.14	11702.9	1060.2	283.15	10781.0	1057.1
283.15	13539.4	1066.1	283.15	12598.9	1063.1	283.14	11691.2	1060.1	283.15	10768.5	1057.2
283.15	13527.3	1066.1	283.15	12587.1	1063.0	283.14	11679.5	1060.3	283.15	10756.6	1057.1
283.15	13515.1	1066.1	283.14	12574.7	1063.2	283.14	11668.0	1060.0	283.14	10744.3	1057.2
283.15	13501.4	1066.1	283.14	12562.6	1063.1	283.14	11657.3	1060.0	283.15	10731.8	1056.9
283.15	13489.6	1066.0	283.14	12551.1	1062.9	283.14	11643.6	1060.0	283.15	10719.0	1057.0
283.15	13477.2	1065.9	283.14	12539.2	1062.9	283.14	11632.7	1060.0	283.15	10707.3	1057.0
283.15	13465.7	1066.0	283.14	12527.5	1062.9	283.14	11620.5	1060.0	283.15	10696.0	1056.8
283.15	13453.0	1065.7	283.14	12517.0	1062.9	283.14	11608.2	1060.0	283.15	10683.6	1056.8
283.15	13440.8	1065.7	283.14	12505.7	1062.9	283.15	11595.9	1059.8	283.15	10671.0	1056.8
283.15	13428.6	1065.7	283.15	12493.2	1062.8	283.14	11584.6	1059.9	283.15	10659.3	1056.8
283.15	13417.3	1065.7	283.14	12481.1	1062.8	283.14	11572.9	1059.7	283.15	10647.9	1056.7
283.15	13403.7	1065.6	283.14	12469.4	1062.8	283.14	11561.0	1059.7	283.15	10636.9	1056.7
283.15	13391.2	1065.6	283.14	12457.6	1062.8	283.14	11549.3	1059.8	283.15	10624.0	1056.6
283.15	13379.1	1065.6	283.15	12446.7	1062.7	283.14	11537.8	1059.6	283.15	10611.8	1056.6
283.15	13367.8	1065.6	283.15	12434.7	1062.6	283.14	11526.1	1059.7	283.15	10600.1	1056.7
283.15	13355.1	1065.5	283.14	12422.7	1062.6	283.14	11515.2	1059.5	283.15	10588.9	1056.5
283.15	13343.4	1065.6	283.15	12410.5	1062.5	283.14	11504.8	1059.6	283.15	10576.2	1056.6
283.15	13330.9	1065.5	283.14	12399.8	1062.4	283.14	11492.6	1059.6	283.15	10564.3	1056.5
283.15	13318.7	1065.4	283.15	12387.4	1062.5	283.14	11482.0	1059.5	283.15	10552.7	1056.4
283.15	13307.0	1065.4	283.14	12376.9	1062.3	283.14	11469.1	1059.4	283.15	10540.9	1056.5
283.15	13295.0	1065.3	283.14	12365.1	1062.2	283.14	11458.0	1059.3	283.14	10529.8	1056.3
283.15	13282.1	1065.4	283.14	12353.9	1062.4	283.14	11446.7	1059.3	283.15	10519.0	1056.5
283.15	13269.9	1065.3	283.14	12343.1	1062.4	283.14	11434.2	1059.2	283.15	10508.5	1056.2
283.15	13257.4	1065.3	283.14	12331.2	1062.4	283.14	11421.9	1059.3	283.15	10496.8	1056.2
283.15	13245.7	1065.3	283.15	12318.6	1062.2	283.14	11410.2	1059.2	283.15	10485.4	1056.2
283.15	13233.0	1065.2	283.14	12306.5	1062.1	283.14	11398.0	1059.3	283.15	10473.4	1056.2
283.15	13221.4	1065.2	283.15	12294.6	1062.2	283.14	11386.0	1059.2	283.15	10459.8	1056.1
283.15	13209.1	1065.0	283.14	12282.6	1062.1	283.14	11374.9	1059.1	283.15	10447.0	1056.1
283.15	13197.1	1065.0	283.14	12271.2	1062.1	283.14	11362.9	1059.0	283.15	10433.4	1056.1
283.14	13185.2	1065.0	283.14	12258.7	1062.1	283.14	11350.5	1059.1	283.15	10421.4	1056.0
283.15	13172.5	1064.9	283.15	12247.3	1062.1	283.15	11339.2	1059.1	283.14	10408.3	1055.9
283.15	13160.0	1064.9	283.14	12234.9	1061.9	283.14	11326.6	1059.2	283.14	10395.5	1055.9
283.15	13148.3	1064.9	283.14	12222.6	1061.8	283.15	11315.9	1059.0	283.14	10383.5	1055.8
283.15	13137.3	1064.8	283.14	12210.5	1061.8	283.15	11304.4	1059.0	283.15	10372.5	1055.8
283.15	13124.9	1064.9	283.14	12199.0	1061.9	283.15	11292.4	1058.8	283.14	10360.2	1055.9
283.15	13113.8	1064.8	283.14	12186.1	1061.9	283.15	11280.7	1058.8	283.15	10349.4	1055.8
283.15	13101.1	1064.8	283.14	12174.3	1061.7	283.15	11268.8	1058.8	283.15	10337.7	1055.7
283.15	13089.7	1064.7	283.14	12162.7	1061.7	283.15	11257.1	1058.8	283.15	10327.1	1055.7
283.14	13077.5	1064.7	283.14	12150.7	1061.7	283.15	11245.2	1058.8	283.15	10316.5	1055.8
283.15	13064.7	1064.6	283.14	12139.0	1061.7	283.15	11234.0	1058.7	283.14	10306.5	1055.6
283.15	13052.8	1064.6	283.14	12127.3	1061.7	283.15	11221.6	1058.6	283.14	10296.0	1055.6
283.15	13040.1	1064.6	283.14	12115.1	1061.7	283.15	11209.6	1058.7	283.14	10284.6	1055.5
283.15	13027.2	1064.5	283.14	12102.4	1061.6	283.15	11197.0	1058.6	283.14	10274.1	1055.5
283.15	13014.3	1064.5	283.14	12090.2	1061.6	283.15	11186.0	1058.4	283.14	10263.3	1055.4
283.14	13002.1	1064.5	283.14	12078.5	1061.3	283.15	11174.7	1058.4	283.15	10252.2	1055.4
283.15	12990.4	1064.4	283.14	12066.6	1061.5	283.15	11164.0	1058.4	283.15	10239.7	1055.3
283.15	12979.4	1064.4	283.14	12054.9	1061.5	283.15	11153.3	1058.4	283.15	10228.1	1055.3
283.15	12967.7	1064.4	283.14	12043.4	1061.3	283.15	11142.6	1058.5	283.15	10216.6	1055.3
283.15	12955.2	1064.2	283.14	12032.7	1061.3	283.15	11131.5	1058.4	283.15	10204.2	1055.2
283.14	12942.7	1064.1	283.14	12021.4	1061.4	283.15	11120.3	1058.3	283.15	10193.0	1055.2
283.15	12931.1	1064.1	283.14	12009.7	1061.2	283.15	11109.1	1058.3	283.15	10180.6	1055.2
283.14	12918.4	1064.1	283.14	11999.1	1061.1	283.15	11096.7	1058.3	283.15	10169.2	1055.1
283.14	12905.9	1064.1	283.14	11987.0	1061.2	283.15	11082.6	1058.2	283.14	10157.0	1055.0
283.14	12893.9	1064.0	283.14	11975.0	1061.2	283.15	11069.2	1058.0	283.14	10145.9	1055.1
283.15	12881.5	1064.0	283.14	11963.3	1061.0	283.15	11056.4	1058.1	283.15	10137.5	1055.0
283.15	12870.5	1064.0	283.15	11951.8	1061.0	283.15	11042.6	1057.9	283.15	10126.7	1055.1
283.14	12859.3	1063.9	283.15	11940.1	1060.9	283.15	11030.4	1058.0	283.14	10116.0	1054.9
283.15	12846.3	1063.7	283.15	11928.7	1061.0	283.15	11017.5	1058.1	283.15	10104.3	1054.9
283.15	12834.3	1064.0	283.15	11918.1	1061.0	283.15	11005.8	1057.9	283.14	10093.2	1054.9
283.15	12822.4	1063.9	283.14	11907.2	1061.1	283.15	10996.3	1058.0	283.15	10081.2	1054.8
283.15	12809.7	1063.7	283.14	11895.5	1060.9	283.15	10982.9	1058.0	283.15	10070.0	1054.7
283.14	12798.0	1063.6	283.14	11884.0	1060.9	283.15	10971.6	1057.8	283.14	10058.6	1054.7
283.14	12786.6	1063.8	283.14	11876.9	1060.8	283.15	10959.2	1057.8	283.15	10047.9	1054.8
283.15	12774.3	1063.7	283.14	11865.4	1060.8	283.15	10947.5	1057.6	283.15	10036.6	1054.7
283.14	12762.3	1063.7	283.14	11854.4	1060.8	283.15	10936.5	1057.6	283.15	10025.2	1054.7

Valori della densità del fluido R32 _ *T*=10°C

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
283.15	10013.0	1054.6	283.14	9090.8	1051.4	283.14	8153.1	1048.2	283.15	7260.5	1044.9
283.15	10001.8	1054.6	283.14	9079.8	1051.5	283.14	8141.0	1048.1	283.15	7249.3	1044.7
283.15	9990.2	1054.5	283.14	9068.6	1051.2	283.14	8128.8	1048.1	283.15	7236.3	1044.9
283.14	9978.7	1054.3	283.14	9058.4	1051.3	283.14	8116.3	1047.9	283.15	7224.6	1044.7
283.14	9967.5	1054.3	283.15	9047.9	1051.3	283.14	8104.6	1048.0	283.15	7213.5	1044.7
283.14	9955.9	1054.4	283.14	9035.8	1051.1	283.14	8092.7	1047.9	283.15	7202.3	1044.6
283.14	9944.7	1054.4	283.14	9022.7	1051.1	283.14	8081.5	1047.8	283.15	7190.9	1044.5
283.14	9932.0	1054.4	283.14	9010.3	1051.1	283.14	8069.9	1047.9	283.15	7180.2	1044.4
283.14	9921.0	1054.4	283.14	8996.7	1051.0	283.14	8057.5	1047.7	283.15	7168.8	1044.5
283.14	9908.9	1054.1	283.15	8984.4	1051.1	283.14	8047.1	1047.9	283.15	7157.9	1044.4
283.14	9897.5	1054.2	283.14	8971.0	1051.1	283.14	8036.8	1047.7	283.15	7146.7	1044.5
283.14	9887.5	1054.2	283.14	8958.9	1051.0	283.14	8025.4	1047.6	283.15	7134.1	1044.2
283.15	9876.3	1054.3	283.14	8945.8	1051.0	283.14	8013.1	1047.6	283.15	7122.7	1044.2
283.15	9865.5	1054.1	283.14	8933.7	1050.9	283.14	8001.9	1047.6	283.15	7111.1	1044.3
283.15	9855.5	1054.1	283.14	8921.8	1050.9	283.14	7991.1	1047.4	283.15	7099.9	1044.1
283.15	9843.6	1053.9	283.14	8910.1	1050.7	283.14	7979.1	1047.4	283.15	7089.0	1044.1
283.15	9833.1	1053.9	283.14	8896.8	1050.7	283.14	7968.5	1047.4	283.15	7077.4	1044.2
283.15	9821.2	1054.0	283.14	8884.9	1050.6	283.14	7955.5	1047.4	283.15	7066.0	1044.0
283.15	9807.3	1053.9	283.14	8873.2	1050.7	283.14	7945.5	1047.4	283.15	7054.4	1044.0
283.14	9794.5	1054.0	283.14	8860.3	1050.6	283.14	7933.9	1047.2	283.15	7044.2	1044.0
283.14	9781.4	1053.9	283.14	8847.3	1050.6	283.14	7922.0	1047.3	283.15	7032.8	1044.0
283.14	9770.0	1053.7	283.14	8835.3	1050.5	283.14	7911.1	1047.2	283.15	7022.1	1044.0
283.14	9758.1	1053.7	283.14	8823.4	1050.5	283.14	7901.5	1047.2	283.15	7011.4	1043.8
283.14	9746.8	1053.6	283.14	8810.8	1050.4	283.14	7891.1	1047.1	283.15	7000.9	1043.8
283.14	9734.9	1053.4	283.14	8799.7	1050.4	283.14	7879.2	1047.1	283.15	6989.8	1043.8
283.15	9723.5	1053.8	283.14	8788.5	1050.4	283.14	7867.5	1047.0	283.15	6978.1	1043.8
283.15	9710.6	1053.5	283.14	8775.8	1050.3	283.14	7855.9	1046.9	283.15	6967.0	1043.7
283.15	9698.7	1053.5	283.14	8764.0	1050.2	283.14	7844.5	1046.9	283.15	6956.0	1043.6
283.15	9686.6	1053.4	283.14	8751.4	1050.2	283.14	7832.3	1047.0	283.15	6944.7	1043.6
283.15	9673.9	1053.4	283.14	8738.8	1050.2	283.14	7822.1	1046.9	283.15	6933.5	1043.5
283.15	9662.8	1053.3	283.14	8727.1	1050.2	283.14	7810.7	1046.8	283.15	6923.8	1043.5
283.15	9651.5	1053.3	283.14	8714.7	1050.1	283.14	7797.9	1046.9	283.15	6912.4	1043.5
283.15	9640.4	1053.4	283.14	8703.0	1050.1	283.14	7786.5	1046.7	283.15	6900.9	1043.5
283.15	9628.2	1053.2	283.14	8692.3	1050.0	283.14	7775.3	1046.6	283.15	6890.3	1043.4
283.14	9616.1	1053.3	283.14	8680.4	1050.0	283.14	7763.1	1046.7	283.15	6878.9	1043.4
283.15	9602.9	1053.3	283.14	8669.4	1050.0	283.14	7752.0	1046.5	283.15	6868.5	1043.4
283.14	9590.8	1053.2	283.14	8657.6	1049.9	283.14	7741.3	1046.4	283.15	6858.0	1043.3
283.14	9578.2	1053.2	283.14	8644.9	1049.8	283.14	7729.0	1046.6	283.15	6847.6	1043.4
283.14	9566.7	1053.1	283.14	8632.6	1049.7	283.14	7717.3	1046.5	283.15	6836.1	1043.3
283.14	9557.1	1053.0	283.14	8621.2	1049.8	283.14	7705.9	1046.5	283.14	6825.5	1043.2
283.15	9544.2	1052.9	283.14	8608.0	1049.7	283.14	7695.5	1046.5	283.15	6814.6	1043.1
283.14	9532.8	1053.0	283.14	8595.9	1049.8	283.14	7684.3	1046.4	283.14	6804.3	1043.1
283.14	9521.5	1052.9	283.14	8583.6	1049.6	283.14	7673.3	1046.3	283.14	6794.3	1043.2
283.14	9510.1	1052.7	283.14	8571.9	1049.4	283.14	7661.6	1046.1	283.15	6782.9	1043.0
283.14	9497.3	1052.7	283.14	8559.5	1049.7	283.14	7650.3	1046.2	283.15	6770.9	1043.2
283.14	9485.6	1052.7	283.14	8547.6	1049.4	283.14	7640.1	1046.4	283.15	6760.9	1042.9
283.14	9473.7	1052.6	283.14	8536.4	1049.4	283.14	7628.2	1046.1	283.15	6748.6	1042.9
283.14	9460.9	1052.7	283.14	8523.8	1049.4	283.14	7616.6	1046.1	283.15	6737.6	1042.9
283.15	9448.7	1052.6	283.14	8512.0	1049.5	283.14	7605.8	1046.0	283.15	6727.4	1042.9
283.14	9438.4	1052.6	283.14	8499.3	1049.3	283.14	7594.9	1046.0	283.15	6716.3	1042.9
283.15	9426.1	1052.6	283.14	8487.4	1049.3	283.14	7584.7	1045.9	283.15	6705.6	1042.7
283.14	9414.7	1052.5	283.14	8475.3	1049.3	283.14	7572.8	1046.0	283.15	6695.1	1042.8
283.15	9404.2	1052.5	283.14	8462.4	1049.2	283.14	7560.9	1046.0	283.15	6683.8	1042.7
283.14	9392.9	1052.4	283.14	8450.3	1049.1	283.14	7549.7	1046.0	283.15	6673.0	1042.7
283.14	9381.5	1052.5	283.14	8437.9	1049.1	283.14	7537.8	1045.7	283.15	6661.5	1042.7
283.14	9369.4	1052.3	283.14	8424.9	1049.1	283.14	7526.0	1045.8	283.15	6650.5	1042.4
283.15	9356.1	1052.3	283.14	8413.2	1048.9	283.14	7514.4	1045.6	283.15	6639.4	1042.5
283.14	9343.2	1052.3	283.14	8401.6	1049.0	283.14	7503.7	1045.8	283.15	6628.4	1042.4
283.15	9330.6	1052.3	283.14	8390.1	1048.8	283.14	7492.0	1045.7	283.15	6616.8	1042.4
283.14	9317.7	1052.2	283.14	8378.3	1048.9	283.14	7480.4	1045.6	283.15	6605.7	1042.4
283.14	9305.8	1052.1	283.14	8367.0	1048.8	283.14	7467.5	1045.6	283.15	6594.8	1042.4
283.14	9294.2	1052.1	283.14	8355.8	1048.8	283.14	7456.8	1045.7	283.15	6584.8	1042.3
283.14	9282.2	1052.1	283.14	8343.5	1048.7	283.14	7443.4	1045.6	283.15	6573.1	1042.1
283.14	9269.9	1052.0	283.14	8333.4	1048.7	283.14	7431.6	1045.5	283.15	6561.8	1042.2
283.14	9258.1	1052.0	283.14	8320.5	1048.7	283.15	7420.1	1045.4	283.15	6551.6	1042.0
283.14	9245.8	1052.0	283.14	8308.7	1048.5	283.15	7408.7	1045.4	283.15	6540.8	1042.1
283.14	9234.1	1052.0	283.14	8296.2	1048.6	283.15	7398.0	1045.4	283.15	6530.4	1042.2
283.14	9221.5	1051.9	283.14	8284.8	1048.6	283.15	7386.0	1045.2	283.15	6519.5	1042.0
283.14	9208.4	1051.8	283.14	8273.2	1048.5	283.15	7375.0	1045.3	283.15	6509.0	1041.9
283.14	9196.4	1052.0	283.14	8261.7	1048.6	283.15	7363.3	1045.3	283.15	6498.1	1042.0
283.14	9184.3	1051.8	283.14	8248.7	1048.5	283.15	7351.2	1045.2	283.15	6487.9	1042.0
283.14	9171.5	1051.7	283.14	8237.1	1048.4	283.15	7340.1	1045.1	283.15	6477.2	1041.9
283.14	9160.5	1051.7	283.14	8225.4	1048.4	283.15	7328.4	1045.1	283.15	6465.9	1041.8
283.14	9148.2	1051.7	283.14	8213.2	1048.3	283.15	7316.4	1045.0	283.15	6455.0	1041.7
283.14	9136.8	1051.5	283.14	8201.6	1048.2	283.15	7305.4	1045.0	283.15	6443.1	1041.8
283.15	9123.8	1051.6	283.14	8189.9	1048.3	283.15	7294.5	1045.1	283.14	6432.2	1041.8
283.14	9112.5	1051.6	283.14	8177.8	1048.2	283.15	7281.9	1044.9	283.15	6421.8	1041.6
283.14	9101.7	1051.5	283.14	8165.5	1048.2	283.15	7270.8	1044.8	283.15	6411.3	1041.7

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
283.15	6400.2	1041.6	283.15	5575.3	1038.5	283.15	4784.6	1035.3	283.15	3986.1	1031.9
283.15	6390.0	1041.6	283.15	5566.0	1038.4	283.15	4774.2	1035.3	283.15	3974.1	1031.9
283.14	6379.3	1041.5	283.14	5555.8	1038.3	283.15	4764.4	1035.1	283.14	3963.0	1031.9
283.15	6369.6	1041.5	283.15	5544.2	1038.2	283.15	4753.8	1035.2	283.15	3952.1	1032.0
283.14	6358.9	1041.5	283.15	5532.9	1038.3	283.15	4744.1	1035.0	283.15	3940.7	1031.7
283.15	6348.4	1041.3	283.14	5522.2	1038.1	283.15	4734.2	1035.0	283.15	3930.3	1031.8
283.15	6337.0	1041.4	283.14	5512.8	1038.1	283.15	4724.2	1035.1	283.15	3919.4	1031.8
283.15	6326.1	1041.3	283.14	5502.5	1038.1	283.15	4714.8	1034.9	283.15	3908.1	1031.7
283.15	6315.1	1041.3	283.14	5492.5	1037.9	283.15	4705.5	1034.9	283.15	3897.0	1031.7
283.15	6304.2	1041.2	283.15	5481.8	1038.1	283.15	4695.3	1034.8	283.15	3886.5	1031.6
283.15	6293.3	1041.2	283.14	5470.9	1038.0	283.15	4685.9	1034.9	283.15	3874.0	1031.6
283.14	6281.5	1041.1	283.14	5460.9	1037.9	283.15	4676.4	1034.8	283.15	3862.4	1031.6
283.15	6271.5	1041.1	283.14	5450.5	1037.9	283.15	4666.7	1034.8	283.15	3851.3	1031.4
283.15	6261.3	1041.2	283.14	5440.1	1037.8	283.15	4657.2	1034.8	283.15	3838.8	1031.3
283.15	6250.8	1041.1	283.14	5430.4	1037.8	283.15	4647.5	1034.8	283.15	3827.5	1031.5
283.15	6240.0	1040.8	283.14	5420.2	1037.8	283.15	4637.6	1034.6	283.15	3816.6	1031.3
283.15	6229.1	1041.0	283.14	5410.2	1037.8	283.15	4628.1	1034.7	283.15	3806.8	1031.4
283.15	6218.1	1040.8	283.14	5399.8	1037.6	283.15	4617.5	1034.7	283.15	3795.5	1031.2
283.15	6207.2	1040.8	283.14	5389.2	1037.8	283.15	4608.0	1034.5	283.14	3784.2	1031.1
283.15	6195.6	1041.0	283.14	5377.6	1037.6	283.15	4598.2	1034.4	283.15	3772.6	1031.2
283.15	6184.4	1040.8	283.14	5367.1	1037.6	283.15	4587.9	1034.5	283.15	3761.0	1031.1
283.15	6172.8	1040.6	283.14	5356.6	1037.5	283.15	4577.9	1034.6	283.14	3749.7	1031.0
283.15	6161.9	1040.7	283.14	5346.0	1037.5	283.15	4567.9	1034.6	283.15	3738.5	1030.9
283.15	6150.1	1040.7	283.14	5335.5	1037.6	283.15	4557.8	1034.4	283.15	3727.0	1030.9
283.15	6140.3	1040.7	283.14	5325.1	1037.5	283.15	4547.8	1034.3	283.15	3716.0	1030.9
283.15	6130.1	1040.6	283.14	5314.4	1037.6	283.15	4537.9	1034.3	283.15	3705.2	1030.9
283.15	6119.5	1040.6	283.14	5305.0	1037.3	283.15	4528.0	1034.2	283.14	3694.1	1030.9
283.15	6108.8	1040.4	283.14	5294.5	1037.2	283.15	4518.3	1034.2	283.15	3684.1	1030.9
283.15	6096.7	1040.3	283.14	5284.1	1037.3	283.15	4509.0	1034.1	283.15	3673.5	1030.7
283.15	6086.7	1040.4	283.14	5274.2	1037.3	283.15	4500.1	1034.1	283.15	3662.8	1030.7
283.15	6076.8	1040.2	283.14	5263.8	1037.1	283.15	4491.2	1034.0	283.14	3652.4	1030.8
283.15	6066.1	1040.3	283.14	5253.8	1037.0	283.15	4480.6	1034.0	283.15	3640.2	1030.7
283.15	6056.4	1040.3	283.15	5243.6	1037.1	283.15	4470.7	1034.0	283.14	3629.5	1030.6
283.15	6046.4	1040.2	283.15	5232.7	1037.1	283.15	4460.5	1034.0	283.14	3618.6	1030.4
283.15	6036.2	1040.2	283.15	5221.8	1037.1	283.15	4451.0	1034.0	283.14	3606.8	1030.4
283.15	6025.3	1040.2	283.15	5212.3	1036.9	283.15	4440.7	1033.9	283.15	3596.6	1030.3
283.15	6015.1	1040.2	283.15	5202.8	1036.7	283.15	4431.2	1034.0	283.15	3586.2	1030.5
283.15	6004.2	1040.0	283.15	5193.6	1036.9	283.15	4421.7	1033.7	283.15	3575.4	1030.3
283.15	5993.1	1040.1	283.14	5183.4	1036.9	283.15	4411.8	1033.9	283.15	3563.8	1030.2
283.14	5982.4	1039.9	283.15	5173.3	1036.8	283.15	4403.2	1033.8	283.15	3553.1	1030.3
283.15	5972.7	1039.9	283.15	5163.3	1036.9	283.15	4394.0	1033.7	283.15	3542.7	1030.1
283.15	5961.0	1040.0	283.15	5153.1	1036.7	283.15	4384.6	1033.6	283.15	3532.6	1030.1
283.15	5949.9	1039.8	283.15	5143.2	1036.7	283.15	4375.1	1033.7	283.15	3524.1	1029.9
283.15	5939.0	1039.7	283.15	5133.2	1036.8	283.15	4365.8	1033.6	283.14	3512.7	1030.1
283.15	5928.6	1039.8	283.15	5122.8	1036.5	283.15	4356.2	1033.5	283.15	3501.2	1030.0
283.15	5918.4	1039.7	283.15	5113.1	1036.5	283.15	4347.1	1033.5	283.14	3489.4	1029.9
283.15	5908.2	1039.6	283.15	5104.3	1036.5	283.15	4337.9	1033.5	283.15	3478.2	1029.9
283.15	5897.5	1039.5	283.15	5093.6	1036.5	283.15	4328.0	1033.4	283.15	3466.9	1030.0
283.15	5887.0	1039.7	283.15	5083.7	1036.5	283.15	4319.5	1033.5	283.15	3455.6	1029.7
283.15	5877.1	1039.6	283.15	5073.3	1036.5	283.15	4308.9	1033.4	283.15	3443.8	1029.9
283.15	5866.7	1039.4	283.15	5063.1	1036.3	283.15	4297.9	1033.4	283.15	3433.3	1029.8
283.15	5856.0	1039.5	283.15	5052.4	1036.5	283.15	4287.5	1033.2	283.15	3421.3	1029.7
283.15	5845.5	1039.5	283.15	5042.0	1036.3	283.15	4276.0	1033.2	283.15	3411.3	1029.6
283.15	5835.3	1039.5	283.15	5031.6	1036.2	283.15	4264.8	1033.3	283.15	3400.2	1029.6
283.15	5825.2	1039.3	283.15	5022.1	1036.3	283.15	4253.7	1033.0	283.15	3389.6	1029.5
283.15	5814.5	1039.3	283.15	5012.4	1036.1	283.15	4243.0	1033.0	283.14	3378.2	1029.5
283.15	5804.7	1039.3	283.15	5003.2	1036.1	283.15	4232.2	1033.0	283.14	3365.8	1029.3
283.15	5793.2	1039.2	283.15	4992.8	1036.0	283.15	4222.4	1032.9	283.14	3354.4	1029.3
283.15	5783.0	1039.3	283.15	4983.0	1036.0	283.15	4212.1	1033.0	283.15	3344.0	1029.4
283.14	5772.8	1039.0	283.15	4972.8	1036.0	283.15	4201.7	1033.0	283.14	3332.2	1029.2
283.14	5762.3	1039.2	283.15	4963.6	1036.0	283.14	4191.5	1032.9	283.15	3320.4	1029.4
283.14	5752.4	1039.2	283.15	4952.9	1035.8	283.15	4180.6	1032.8	283.14	3308.8	1029.2
283.14	5740.8	1039.1	283.15	4942.7	1035.9	283.15	4169.9	1032.7	283.15	3297.4	1029.0
283.14	5729.9	1039.0	283.15	4932.8	1035.9	283.15	4157.6	1032.8	283.15	3286.8	1028.9
283.14	5720.3	1039.0	283.15	4923.4	1035.8	283.15	4145.4	1032.7	283.15	3275.9	1029.0
283.14	5710.0	1039.0	283.15	4913.6	1035.9	283.15	4133.1	1032.6	283.15	3265.3	1029.1
283.14	5699.7	1039.0	283.15	4902.8	1035.8	283.15	4121.9	1032.5	283.15	3254.0	1029.1
283.14	5689.1	1038.8	283.15	4893.5	1035.6	283.15	4110.5	1032.6	283.15	3243.3	1028.9
283.14	5678.4	1038.8	283.15	4883.8	1035.7	283.15	4098.7	1032.4	283.15	3232.4	1028.9
283.14	5667.1	1038.7	283.15	4874.1	1035.6	283.15	4088.6	1032.4	283.15	3220.4	1028.8
283.14	5656.4	1038.7	283.15	4864.1	1035.5	283.15	4076.0	1032.2	283.15	3209.3	1028.7
283.15	5646.0	1038.7	283.15	4855.2	1035.6	283.15	4065.9	1032.4	283.14	3197.9	1028.7
283.15	5635.5	1038.6	283.15	4844.9	1035.4	283.15	4056.2	1032.2	283.15	3185.6	1028.7
283.14	5625.3	1038.6	283.15	4835.0	1035.6	283.15	4046.4	1032.3	283.15	3174.3	1028.5
283.14	5616.0	1038.6	283.15	4824.8	1035.5	283.15	4034.9	1032.0	283.14	3161.6	1028.5
283.14	5606.1	1038.6	283.15	4815.1	1035.4	283.15	4022.3	1032.2	283.14	3150.4	1028.5
283.14	5596.2	1038.4	283.15	4805.2	1035.4	283.15	4009.8	1032.1	283.14	3139.8	1028.4
283.14	5585.5	1038.5	283.15	4794.7	1035.3	283.15	3997.5	1032.2	283.15	3129.4	1028.4

Valori della densità del fluido R32 _ T=10°C

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
283.14	3119.3	1028.3	283.14	2783.9	1026.8	283.15	2438.2	1025.4	283.15	2108.4	1024.0
283.14	3109.3	1028.3	283.14	2772.0	1026.9	283.15	2427.0	1025.3	283.15	2097.3	1023.9
283.14	3099.0	1028.3	283.14	2759.7	1026.7	283.15	2416.0	1025.4	283.15	2086.3	1023.8
283.14	3088.8	1028.3	283.15	2748.2	1026.9	283.15	2405.3	1025.2	283.15	2076.3	1023.7
283.14	3077.2	1028.2	283.15	2735.7	1026.7	283.15	2395.0	1025.3	283.15	2065.2	1023.7
283.15	3066.4	1028.1	283.15	2723.9	1026.5	283.15	2385.3	1025.1	283.15	2054.1	1023.6
283.14	3054.8	1028.2	283.15	2712.5	1026.5	283.15	2375.6	1025.2	283.15	2043.1	1023.8
283.14	3043.7	1027.9	283.15	2701.2	1026.6	283.15	2365.2	1025.0	283.15	2032.0	1023.8
283.14	3032.1	1028.1	283.15	2691.2	1026.6	283.15	2355.0	1025.1	283.15	2020.9	1023.5
283.14	3022.0	1027.8	283.15	2680.1	1026.6	283.15	2345.6	1025.0	283.15	2010.5	1023.6
283.14	3011.5	1027.9	283.15	2669.0	1026.4	283.15	2335.9	1025.0	283.15	1999.7	1023.4
283.15	3000.5	1027.9	283.15	2658.4	1026.4	283.15	2325.1	1024.9	283.15	1988.8	1023.4
283.14	2989.6	1027.8	283.15	2646.8	1026.5	283.15	2314.5	1024.8	283.15	1978.7	1023.4
283.15	2979.2	1027.6	283.15	2635.9	1026.4	283.15	2303.8	1024.8	283.15	1968.5	1023.4
283.14	2967.6	1027.7	283.15	2625.6	1026.1	283.15	2293.4	1024.7	283.15	1957.7	1023.3
283.14	2956.5	1027.7	283.15	2615.0	1026.2	283.15	2283.1	1024.7	283.15	1946.6	1023.3
283.14	2945.6	1027.7	283.15	2604.1	1026.3	283.15	2272.9	1024.7	283.15	1936.0	1023.2
283.14	2934.5	1027.5	283.15	2593.0	1026.1	283.15	2261.6	1024.7	283.15	1925.3	1023.1
283.15	2923.2	1027.5	283.15	2582.6	1026.0	283.15	2249.8	1024.5	283.15	1914.9	1023.1
283.14	2912.6	1027.4	283.15	2571.5	1025.9	283.15	2238.0	1024.5	283.15	1904.8	1023.0
283.15	2901.5	1027.4	283.15	2559.9	1025.9	283.15	2227.4	1024.4	283.15	1893.5	1022.9
283.14	2890.6	1027.4	283.15	2548.3	1026.0	283.15	2216.5	1024.4	283.15	1882.8	1023.0
283.15	2880.0	1027.3	283.15	2537.8	1025.8	283.15	2205.1	1024.5	283.15	1872.9	1022.9
283.14	2868.2	1027.4	283.15	2527.1	1025.7	283.15	2195.0	1024.4	283.15	1862.8	1023.0
283.14	2857.8	1027.2	283.15	2515.8	1025.7	283.15	2183.4	1024.2	283.15	1851.5	1022.8
283.14	2847.3	1027.3	283.15	2504.2	1025.9	283.15	2172.8	1024.2	283.15	1841.1	1022.8
283.14	2836.5	1027.1	283.15	2493.1	1025.6	283.15	2162.2	1024.3	283.15	1830.5	1022.7
283.14	2825.6	1027.0	283.15	2482.3	1025.5	283.15	2151.3	1024.1	283.15	1819.9	1022.7
283.14	2815.5	1027.0	283.15	2471.6	1025.5	283.15	2139.6	1024.1	283.15	1809.8	1022.6
283.14	2804.8	1026.9	283.15	2460.3	1025.6	283.15	2129.0	1024.1	283.15	1799.1	1022.7
283.14	2794.2	1026.9	283.15	2448.7	1025.6	283.15	2118.6	1024.0			

Tabella D2: Valori della densità del fluido R32 per T = 293.15 K (20°C)

T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]
293.15	35005.6	1096.3	293.15	34035.5	1094.1	293.15	33141.9	1092.2	293.15	32223.9	1089.8
293.15	34998.6	1096.5	293.15	34022.6	1094.1	293.15	33129.7	1092.0	293.15	32212.4	1089.7
293.15	34992.3	1096.3	293.15	34009.4	1094.1	293.15	33117.4	1091.9	293.15	32199.8	1089.7
293.15	34986.6	1096.3	293.15	33997.0	1094.1	293.15	33105.1	1092.0	293.15	32187.5	1089.9
293.15	34981.2	1096.4	293.15	33984.3	1094.1	293.15	33092.7	1091.9	293.15	32175.4	1089.6
293.15	34976.6	1096.3	293.15	33973.5	1094.1	293.15	33080.6	1091.9	293.15	32162.4	1089.7
293.15	34971.7	1096.4	293.15	33961.4	1093.9	293.15	33067.7	1091.8	293.15	32150.6	1089.6
293.15	34966.2	1096.3	293.15	33950.0	1094.0	293.15	33054.8	1091.8	293.15	32139.0	1089.6
293.15	34960.2	1096.3	293.15	33938.3	1093.9	293.15	33043.6	1091.8	293.15	32126.3	1089.4
293.15	34952.5	1096.2	293.15	33926.6	1093.9	293.15	33031.3	1091.9	293.15	32114.4	1089.4
293.15	34944.4	1096.3	293.15	33915.0	1093.9	293.15	33019.5	1091.8	293.15	32101.4	1089.5
293.15	34935.2	1096.2	293.15	33902.9	1093.9	293.15	33007.0	1091.7	293.15	32089.0	1089.5
293.15	34925.1	1096.3	293.15	33891.8	1093.8	293.15	32994.4	1091.7	293.15	32076.8	1089.4
293.15	34912.8	1096.4	293.15	33880.0	1093.8	293.15	32981.9	1091.7	293.15	32064.4	1089.6
293.15	34898.4	1096.1	293.15	33867.9	1093.9	293.15	32970.5	1091.8	293.15	32051.1	1089.5
293.15	34883.9	1096.1	293.15	33857.0	1093.6	293.15	32958.2	1091.7	293.15	32038.5	1089.4
293.15	34869.3	1096.1	293.15	33844.9	1093.7	293.15	32946.4	1091.5	293.15	32026.0	1089.2
293.15	34856.4	1096.1	293.15	33832.8	1093.7	293.15	32934.5	1091.5	293.15	32013.7	1089.3
293.15	34842.1	1096.0	293.15	33821.6	1093.4	293.15	32922.9	1091.6	293.15	32001.7	1089.3
293.15	34827.8	1096.0	293.15	33809.8	1093.7	293.15	32911.0	1091.5	293.15	31989.6	1089.4
293.15	34813.4	1095.9	293.15	33798.0	1093.7	293.15	32899.1	1091.4	293.15	31976.4	1089.2
293.15	34799.4	1095.9	293.15	33785.8	1093.5	293.15	32885.5	1091.5	293.15	31964.4	1089.3
293.15	34786.0	1095.8	293.15	33773.6	1093.5	293.15	32873.7	1091.4	293.15	31952.7	1089.2
293.15	34772.7	1095.8	293.15	33762.0	1093.6	293.15	32860.9	1091.4	293.15	31939.8	1089.1
293.15	34759.9	1096.0	293.15	33749.6	1093.4	293.15	32849.1	1091.2	293.15	31926.8	1089.1
293.15	34748.9	1095.8	293.15	33738.0	1093.3	293.15	32835.6	1091.2	293.15	31915.4	1089.2
293.15	34737.0	1095.8	293.15	33727.4	1093.5	293.15	32823.6	1091.2	293.15	31903.3	1089.0
293.15	34722.7	1095.6	293.15	33715.5	1093.3	293.15	32810.4	1091.4	293.15	31890.3	1089.1
293.15	34709.9	1095.7	293.15	33704.7	1093.4	293.15	32797.3	1091.2	293.15	31878.1	1088.9
293.15	34695.9	1095.6	293.15	33693.0	1093.3	293.15	32785.9	1091.2	293.15	31865.6	1088.9
293.15	34682.7	1095.5	293.15	33682.0	1093.3	293.15	32773.1	1091.0	293.15	31853.1	1089.0
293.15	34669.5	1095.6	293.15	33670.8	1093.3	293.15	32761.2	1091.1	293.15	31841.3	1089.0
293.15	34656.6	1095.6	293.15	33659.4	1093.2	293.15	32749.5	1091.1	293.15	31828.4	1088.9
293.15	34644.1	1095.7	293.15	33648.7	1093.2	293.15	32737.7	1091.0	293.15	31816.3	1088.9
293.15	34631.4	1095.5	293.15	33638.2	1093.2	293.15	32726.4	1091.0	293.15	31803.7	1088.8
293.15	34618.4	1095.4	293.15	33627.0	1093.3	293.15	32715.1	1090.9	293.15	31791.7	1088.8
293.15	34605.7	1095.6	293.15	33615.0	1093.1	293.15	32703.0	1090.8	293.15	31780.4	1088.7
293.15	34594.3	1095.4	293.15	33604.3	1093.2	293.15	32690.8	1091.2	293.15	31767.8	1088.7
293.15	34582.5	1095.5	293.15	33593.2	1093.0	293.15	32678.0	1090.9	293.15	31756.1	1088.7
293.15	34569.5	1095.3	293.15	33583.1	1093.2	293.15	32666.7	1090.9	293.15	31744.7	1088.7
293.15	34556.1	1095.3	293.15	33569.9	1093.1	293.15	32653.5	1091.0	293.15	31732.7	1088.7
293.15	34543.5	1095.3	293.15	33557.2	1092.9	293.15	32641.9	1090.8	293.15	31720.5	1088.5
293.15	34528.7	1095.3	293.15	33545.5	1092.9	293.15	32629.6	1090.7	293.15	31709.1	1088.6
293.15	34514.0	1095.2	293.15	33533.0	1092.9	293.15	32616.2	1090.8	293.15	31697.2	1088.5
293.15	34500.4	1095.1	293.15	33521.8	1092.9	293.15	32604.8	1090.8	293.15	31685.3	1088.6
293.15	34485.0	1095.2	293.15	33509.6	1092.9	293.15	32591.8	1090.7	293.15	31672.8	1088.5
293.15	34467.8	1095.0	293.15	33497.7	1092.9	293.15	32580.5	1090.8	293.15	31660.1	1088.4
293.15	34454.0	1095.1	293.15	33487.1	1092.8	293.15	32568.4	1090.7	293.15	31648.3	1088.4
293.15	34438.0	1095.0	293.15	33475.5	1092.7	293.15	32557.3	1090.6	293.15	31636.3	1088.4
293.15	34422.7	1095.0	293.15	33463.8	1092.9	293.15	32545.9	1090.5	293.15	31624.2	1088.4
293.15	34407.1	1095.0	293.15	33451.7	1092.8	293.15	32533.4	1090.5	293.15	31611.3	1088.4
293.15	34390.6	1094.9	293.15	33438.7	1092.8	293.15	32522.5	1090.5	293.15	31600.3	1088.2
293.15	34375.4	1095.0	293.15	33426.3	1092.6	293.15	32509.8	1090.5	293.15	31588.2	1088.3
293.15	34359.4	1094.9	293.15	33414.7	1092.6	293.15	32497.6	1090.5	293.15	31575.7	1088.1
293.15	34343.3	1095.0	293.15	33403.3	1092.6	293.15	32486.0	1090.4	293.15	31564.1	1088.2
293.15	34327.5	1094.7	293.15	33390.8	1092.6	293.15	32472.8	1090.3	293.15	31551.3	1088.2
293.15	34312.5	1094.7	293.15	33378.1	1092.6	293.15	32460.9	1090.4	293.15	31538.2	1088.2
293.15	34298.9	1094.7	293.15	33366.0	1092.5	293.15	32447.8	1090.3	293.15	31526.8	1088.1
293.15	34284.9	1094.8	293.15	33353.9	1092.5	293.15	32434.9	1090.3	293.15	31515.3	1088.1
293.15	34269.8	1094.6	293.15	33341.5	1092.5	293.15	32422.2	1090.3	293.15	31502.5	1088.1
293.15	34254.9	1094.7	293.15	33329.7	1092.5	293.15	32409.8	1090.3	293.15	31491.2	1088.0
293.15	34240.4	1094.8	293.15	33316.9	1092.4	293.15	32396.9	1090.3	293.15	31479.3	1087.9
293.15	34225.3	1094.5	293.15	33304.1	1092.4	293.15	32385.1	1090.1	293.15	31468.0	1087.9
293.15	34210.4	1094.5	293.15	33292.2	1092.3	293.15	32372.3	1090.2	293.15	31455.7	1088.0
293.15	34196.3	1094.5	293.15	33279.1	1092.4	293.15	32360.2	1090.1	293.15	31443.9	1087.8
293.14	34180.4	1094.5	293.15	33265.7	1092.3	293.15	32348.4	1090.2	293.15	31430.8	1088.0
293.15	34166.0	1094.4	293.15	33253.9	1092.1	293.15	32335.9	1090.0	293.15	31418.9	1087.9
293.15	34151.8	1094.4	293.15	33241.2	1092.3	293.15	32323.8	1090.1	293.15	31406.4	1087.8
293.15	34136.2	1094.5	293.15	33228.3	1092.2	293.15	32312.3	1090.0	293.15	31396.4	1087.8
293.15	34120.2	1094.4	293.15	33216.4	1092.2	293.15	32299.5	1090.1	293.15	31383.7	1087.8
293.15	34105.4	1094.2	293.15	33203.4	1092.2	293.15	32286.5	1090.0	293.15	31371.2	1087.6
293.15	34090.8	1094.2	293.15	33190.3	1091.9	293.15	32274.4	1090.0	293.15	31359.6	1087.7
293.15	34076.6	1094.3	293.15	33177.0	1092.0	293.15	32262.5	1090.0	293.15	31347.4	1087.6
293.15	34062.4	1094.2	293.15	33165.7	1092.2	293.15	32249.8	1089.9	293.15	31335.6	1087.7
293.15	34048.6	1094.1	293.15	33153.9	1092.1	293.15	32237.4	1089.8	293.15	31323.8	1087.7

Valori della densità del fluido R32 _ *T*=20°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
293.15	31311.2	1087.6	293.15	30375.4	1085.3	293.15	29368.7	1082.8	293.15	28386.9	1080.3
293.15	31299.0	1087.6	293.15	30363.3	1085.3	293.15	29354.2	1082.6	293.15	28374.6	1080.2
293.15	31287.1	1087.5	293.15	30350.4	1085.3	293.15	29340.8	1082.7	293.15	28363.7	1080.1
293.15	31276.0	1087.5	293.15	30338.2	1085.3	293.15	29327.9	1082.7	293.15	28352.7	1080.3
293.15	31264.1	1087.5	293.15	30325.6	1085.1	293.15	29313.0	1082.6	293.15	28340.1	1080.1
293.15	31252.7	1087.6	293.15	30313.6	1085.0	293.14	29299.5	1082.6	293.15	28329.4	1080.2
293.15	31240.7	1087.4	293.15	30300.4	1085.0	293.15	29286.9	1082.5	293.15	28317.3	1080.1
293.15	31227.9	1087.4	293.15	30288.0	1085.2	293.15	29274.3	1082.4	293.15	28305.6	1080.0
293.15	31215.9	1087.3	293.15	30275.5	1085.0	293.15	29261.1	1082.5	293.15	28294.4	1080.0
293.15	31204.1	1087.4	293.15	30262.1	1085.0	293.15	29248.6	1082.6	293.15	28281.9	1080.0
293.15	31191.6	1087.2	293.15	30249.9	1085.0	293.15	29234.6	1082.5	293.15	28270.9	1080.0
293.15	31179.2	1087.3	293.15	30236.2	1084.9	293.15	29220.3	1082.4	293.15	28260.0	1079.9
293.15	31166.9	1087.3	293.15	30223.8	1085.0	293.15	29207.3	1082.5	293.15	28248.0	1080.0
293.15	31153.8	1087.3	293.15	30212.1	1084.8	293.15	29193.6	1082.4	293.15	28235.1	1079.9
293.15	31142.6	1087.2	293.15	30199.8	1084.8	293.15	29179.6	1082.2	293.15	28223.1	1079.8
293.15	31130.2	1087.1	293.15	30187.2	1084.9	293.15	29165.4	1082.2	293.15	28210.0	1079.8
293.15	31118.4	1087.2	293.15	30175.2	1084.8	293.15	29151.6	1082.2	293.15	28198.1	1079.8
293.15	31106.5	1087.1	293.15	30162.6	1084.8	293.15	29136.5	1082.0	293.15	28185.0	1079.7
293.15	31094.6	1087.0	293.15	30151.4	1084.8	293.15	29121.5	1082.0	293.15	28173.5	1079.6
293.15	31082.1	1087.0	293.15	30138.2	1084.7	293.15	29106.6	1082.1	293.15	28161.2	1079.7
293.15	31070.5	1087.0	293.15	30126.5	1084.7	293.15	29090.9	1082.0	293.15	28148.9	1079.7
293.15	31058.6	1087.0	293.15	30113.8	1084.6	293.15	29075.8	1082.0	293.15	28136.2	1079.6
293.15	31046.5	1087.0	293.15	30101.8	1084.5	293.15	29061.6	1082.1	293.15	28124.3	1079.6
293.15	31033.7	1086.9	293.15	30090.8	1084.6	293.15	29047.7	1081.9	293.15	28111.4	1079.5
293.15	31021.9	1086.9	293.15	30077.8	1084.5	293.15	29035.3	1082.0	293.15	28099.3	1079.5
293.15	31010.6	1086.8	293.15	30065.0	1084.4	293.15	29022.3	1081.9	293.15	28087.9	1079.6
293.15	30997.9	1086.9	293.15	30052.6	1084.5	293.15	29009.3	1081.8	293.15	28075.4	1079.4
293.15	30986.1	1086.7	293.15	30040.6	1084.5	293.15	28995.9	1081.8	293.15	28062.8	1079.4
293.15	30974.7	1086.8	293.15	30028.3	1084.6	293.15	28983.0	1081.7	293.15	28051.6	1079.4
293.15	30962.3	1086.8	293.15	30015.6	1084.4	293.15	28969.6	1081.7	293.15	28039.9	1079.3
293.15	30949.6	1086.6	293.15	30002.5	1084.3	293.15	28957.1	1081.7	293.15	28028.1	1079.3
293.15	30937.8	1086.6	293.15	29990.3	1084.4	293.15	28945.2	1081.6	293.15	28015.6	1079.2
293.15	30925.6	1086.6	293.15	29977.1	1084.3	293.15	28931.4	1081.6	293.15	28004.2	1079.2
293.15	30913.8	1086.6	293.15	29964.8	1084.3	293.15	28919.9	1081.6	293.15	27992.1	1079.2
293.15	30901.3	1086.6	293.15	29951.7	1084.2	293.15	28908.5	1081.6	293.15	27981.0	1079.1
293.15	30890.0	1086.5	293.15	29939.7	1084.2	293.15	28897.1	1081.5	293.15	27968.4	1079.2
293.15	30878.0	1086.5	293.15	29926.4	1084.2	293.15	28885.2	1081.6	293.15	27956.0	1079.2
293.15	30866.2	1086.4	293.15	29913.2	1084.1	293.15	28873.2	1081.3	293.15	27943.2	1079.1
293.15	30854.9	1086.6	293.15	29901.3	1084.2	293.15	28860.9	1081.6	293.15	27930.7	1079.1
293.15	30843.1	1086.5	293.15	29888.4	1084.0	293.15	28850.0	1081.5	293.15	27918.9	1079.0
293.15	30832.2	1086.5	293.15	29875.7	1083.9	293.15	28838.0	1081.4	293.15	27908.3	1079.0
293.15	30820.0	1086.4	293.15	29862.9	1084.1	293.15	28825.5	1081.3	293.15	27895.2	1079.0
293.15	30808.2	1086.4	293.15	29851.0	1083.9	293.15	28814.2	1081.4	293.15	27882.8	1078.9
293.15	30796.1	1086.4	293.15	29839.1	1083.8	293.15	28802.2	1081.3	293.15	27870.2	1078.9
293.15	30784.7	1086.3	293.15	29826.6	1083.9	293.15	28790.2	1081.2	293.15	27857.3	1078.9
293.15	30773.0	1086.3	293.15	29813.6	1083.8	293.15	28778.9	1081.2	293.15	27846.3	1078.8
293.15	30760.6	1086.3	293.15	29802.0	1083.9	293.15	28766.8	1081.3	293.15	27834.5	1078.8
293.15	30748.8	1086.1	293.15	29789.0	1083.8	293.15	28754.3	1080.9	293.15	27822.1	1078.8
293.15	30736.9	1086.1	293.15	29778.1	1083.9	293.15	28741.6	1081.1	293.15	27810.5	1078.8
293.15	30724.6	1086.1	293.15	29766.3	1083.8	293.15	28730.2	1081.2	293.15	27798.1	1078.7
293.15	30713.3	1086.2	293.15	29754.2	1083.8	293.15	28717.9	1081.0	293.15	27786.7	1078.7
293.15	30700.9	1086.1	293.15	29741.7	1083.7	293.15	28705.3	1081.1	293.15	27774.8	1078.5
293.15	30687.9	1086.1	293.15	29729.3	1083.6	293.15	28693.3	1081.0	293.15	27763.7	1078.7
293.15	30676.3	1086.0	293.15	29717.6	1083.6	293.15	28682.0	1080.9	293.15	27751.3	1078.5
293.15	30665.2	1086.0	293.15	29704.8	1083.7	293.15	28670.7	1080.8	293.15	27739.8	1078.6
293.15	30652.3	1086.0	293.15	29692.0	1083.6	293.15	28658.2	1080.8	293.15	27727.4	1078.6
293.15	30640.3	1086.0	293.15	29676.8	1083.6	293.14	28646.2	1080.9	293.15	27716.2	1078.6
293.15	30628.8	1086.0	293.15	29662.3	1083.5	293.14	28635.3	1080.9	293.15	27703.2	1078.6
293.15	30616.3	1085.8	293.15	29647.5	1083.4	293.15	28622.9	1080.8	293.15	27691.8	1078.5
293.15	30605.0	1085.8	293.15	29634.6	1083.4	293.14	28611.3	1080.9	293.15	27679.5	1078.3
293.15	30593.0	1086.0	293.15	29620.4	1083.5	293.15	28600.4	1080.8	293.15	27668.0	1078.4
293.15	30582.1	1085.7	293.15	29607.0	1083.5	293.15	28588.5	1080.9	293.15	27657.1	1078.3
293.15	30570.2	1085.9	293.15	29593.4	1083.3	293.15	28576.7	1080.6	293.15	27644.9	1078.3
293.15	30559.1	1085.7	293.15	29579.9	1083.3	293.15	28565.9	1080.8	293.15	27633.5	1078.2
293.15	30547.7	1085.8	293.15	29567.6	1083.2	293.15	28554.2	1080.8	293.15	27620.9	1078.2
293.15	30535.9	1085.7	293.15	29554.4	1083.2	293.15	28541.7	1080.7	293.15	27610.3	1078.2
293.15	30524.0	1085.7	293.15	29540.9	1083.4	293.14	28530.4	1080.6	293.15	27599.0	1078.2
293.15	30512.8	1085.6	293.15	29528.4	1083.0	293.15	28518.8	1080.6	293.15	27586.8	1078.2
293.15	30500.5	1085.7	293.15	29514.0	1083.1	293.15	28505.5	1080.5	293.15	27575.6	1078.1
293.15	30488.9	1085.4	293.15	29500.9	1083.1	293.15	28493.5	1080.6	293.15	27563.2	1078.0
293.15	30476.9	1085.5	293.15	29487.5	1083.0	293.15	28482.1	1080.6	293.15	27551.5	1078.0
293.15	30464.1	1085.6	293.15	29473.8	1083.0	293.15	28469.7	1080.5	293.15	27539.8	1078.1
293.15	30451.4	1085.5	293.15	29457.9	1083.0	293.15	28457.7	1080.5	293.15	27528.9	1078.0
293.15	30439.2	1085.5	293.15	29441.8	1082.9	293.15	28445.3	1080.4	293.15	27517.6	1078.0
293.15	30426.1	1085.5	293.15	29427.2	1083.0	293.15	28432.9	1080.5	293.15	27505.6	1078.0
293.15	30413.6	1085.5	293.15	29411.4	1082.8	293.15	28420.8	1080.4	293.15	27494.4	1077.9
293.15	30399.9	1085.4	293.15	29396.6	1082.8	293.15	28408.9	1080.3	293.15	27482.7	1077.8
293.15	30387.4	1085.4	293.15	29382.6	1082.9	293.15	28397.7	1080.1	293.15	27470.4	1077.7

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
293.15	27459.1	1077.8	293.15	26486.9	1075.3	293.15	25452.6	1072.4	293.14	24412.4	1069.6
293.15	27446.7	1077.8	293.15	26475.1	1075.2	293.15	25437.4	1072.4	293.14	24399.0	1069.6
293.15	27434.5	1077.8	293.15	26463.0	1075.2	293.15	25422.0	1072.4	293.14	24384.4	1069.5
293.15	27424.2	1077.7	293.14	26451.4	1075.1	293.15	25406.2	1072.4	293.14	24371.0	1069.4
293.15	27412.9	1077.8	293.15	26439.0	1075.2	293.15	25391.1	1072.2	293.14	24356.7	1069.5
293.15	27401.3	1077.6	293.15	26427.3	1075.0	293.15	25374.5	1072.4	293.14	24343.1	1069.6
293.15	27389.7	1077.7	293.15	26414.9	1075.1	293.15	25358.5	1072.3	293.15	24328.8	1069.3
293.15	27376.0	1077.7	293.15	26403.3	1075.0	293.15	25342.7	1072.2	293.15	24315.2	1069.4
293.15	27363.5	1077.5	293.15	26390.5	1075.0	293.15	25326.9	1072.2	293.15	24301.8	1069.3
293.15	27350.1	1077.6	293.15	26378.8	1075.0	293.15	25312.0	1072.2	293.15	24289.1	1069.4
293.15	27337.4	1077.5	293.15	26367.4	1074.8	293.15	25294.8	1072.0	293.14	24275.3	1069.3
293.15	27324.0	1077.5	293.15	26354.8	1074.9	293.15	25278.5	1072.0	293.15	24263.1	1069.2
293.15	27311.7	1077.5	293.15	26343.3	1074.9	293.15	25263.1	1072.0	293.15	24251.2	1069.2
293.15	27299.7	1077.4	293.15	26331.3	1074.8	293.15	25248.1	1071.9	293.15	24239.1	1069.2
293.15	27287.0	1077.2	293.15	26317.6	1074.8	293.15	25233.2	1071.9	293.14	24227.1	1069.1
293.15	27274.5	1077.3	293.15	26305.0	1074.8	293.15	25219.2	1071.8	293.14	24215.9	1069.2
293.15	27262.8	1077.4	293.15	26292.1	1074.8	293.15	25203.8	1071.9	293.14	24204.2	1069.0
293.15	27249.9	1077.2	293.15	26279.7	1074.7	293.15	25189.7	1071.8	293.15	24193.7	1069.1
293.15	27238.0	1077.4	293.15	26267.0	1074.7	293.15	25176.5	1071.7	293.14	24183.1	1068.9
293.15	27225.3	1077.3	293.15	26254.2	1074.7	293.15	25161.9	1071.6	293.15	24171.3	1068.9
293.15	27213.3	1077.2	293.15	26241.9	1074.6	293.15	25146.3	1071.6	293.15	24160.4	1068.9
293.15	27200.0	1077.1	293.15	26229.3	1074.6	293.15	25132.0	1071.6	293.15	24149.0	1068.9
293.15	27187.2	1077.0	293.15	26216.5	1074.6	293.15	25117.7	1071.5	293.15	24137.9	1068.9
293.15	27174.9	1077.2	293.15	26204.7	1074.4	293.15	25104.4	1071.6	293.15	24126.9	1068.9
293.15	27162.8	1077.1	293.15	26190.5	1074.6	293.15	25091.0	1071.5	293.15	24115.8	1068.9
293.15	27151.1	1076.9	293.15	26177.6	1074.4	293.15	25078.1	1071.5	293.14	24105.2	1068.7
293.15	27138.7	1077.0	293.15	26165.0	1074.4	293.15	25065.2	1071.5	293.14	24094.6	1068.8
293.15	27126.0	1077.0	293.15	26152.1	1074.5	293.15	25051.3	1071.4	293.15	24083.4	1068.7
293.15	27113.9	1076.8	293.15	26140.0	1074.4	293.15	25038.1	1071.3	293.14	24073.2	1068.7
293.15	27101.3	1076.9	293.15	26126.3	1074.2	293.14	25025.5	1071.3	293.14	24062.7	1068.7
293.15	27088.9	1076.9	293.15	26113.7	1074.3	293.14	25012.4	1071.3	293.14	24052.0	1068.6
293.15	27076.1	1076.8	293.15	26101.3	1074.2	293.15	25000.0	1071.4	293.15	24041.6	1068.6
293.15	27063.7	1076.8	293.15	26088.1	1074.1	293.15	24987.7	1071.2	293.15	24031.1	1068.5
293.15	27051.5	1076.7	293.15	26076.3	1074.1	293.15	24976.2	1071.1	293.15	24021.2	1068.7
293.15	27039.3	1076.7	293.15	26063.0	1074.1	293.14	24963.3	1071.2	293.15	24009.9	1068.5
293.15	27027.6	1076.8	293.15	26051.3	1074.0	293.15	24951.4	1071.2	293.15	23997.6	1068.4
293.15	27014.9	1076.6	293.15	26040.0	1074.1	293.15	24939.1	1071.2	293.15	23988.1	1068.6
293.15	27002.4	1076.8	293.15	26029.7	1074.1	293.14	24925.8	1071.0	293.15	23976.3	1068.4
293.15	26989.9	1076.6	293.15	26015.3	1074.1	293.15	24913.2	1071.0	293.15	23965.5	1068.3
293.15	26978.0	1076.5	293.15	26001.8	1073.9	293.14	24900.6	1071.0	293.15	23953.7	1068.3
293.15	26964.8	1076.5	293.15	25988.7	1073.9	293.14	24888.9	1070.9	293.15	23943.7	1068.4
293.15	26953.1	1076.6	293.15	25974.1	1073.8	293.15	24876.7	1070.9	293.15	23932.3	1068.3
293.15	26939.8	1076.4	293.15	25961.4	1073.9	293.15	24865.3	1070.9	293.15	23922.1	1068.3
293.15	26927.8	1076.6	293.15	25947.3	1073.7	293.15	24853.7	1070.8	293.15	23910.4	1068.3
293.15	26916.6	1076.4	293.15	25934.2	1073.7	293.15	24841.9	1070.7	293.15	23899.2	1068.2
293.15	26903.5	1076.2	293.15	25920.9	1073.7	293.15	24829.7	1070.9	293.15	23887.3	1068.2
293.15	26891.6	1076.4	293.15	25907.1	1073.6	293.15	24818.1	1070.9	293.15	23875.6	1068.1
293.15	26879.6	1076.3	293.15	25895.0	1073.6	293.15	24806.4	1070.7	293.15	23864.5	1068.1
293.15	26866.7	1076.3	293.15	25882.8	1073.6	293.15	24794.1	1070.7	293.15	23852.9	1068.1
293.15	26854.6	1076.3	293.15	25869.8	1073.6	293.15	24781.5	1070.6	293.15	23841.2	1068.1
293.15	26842.6	1076.1	293.15	25857.5	1073.6	293.15	24769.3	1070.5	293.15	23829.8	1068.0
293.15	26829.1	1076.2	293.15	25842.9	1073.6	293.15	24755.7	1070.5	293.15	23817.7	1068.0
293.15	26816.3	1076.2	293.15	25830.7	1073.6	293.15	24743.3	1070.5	293.15	23806.0	1068.0
293.15	26802.1	1076.1	293.15	25818.0	1073.6	293.15	24732.9	1070.5	293.15	23795.3	1067.9
293.15	26788.0	1076.1	293.15	25806.0	1073.4	293.15	24721.7	1070.5	293.15	23783.9	1067.9
293.15	26774.2	1076.0	293.15	25791.6	1073.4	293.15	24712.7	1070.5	293.15	23772.3	1067.8
293.15	26761.9	1075.9	293.15	25777.2	1073.2	293.15	24703.7	1070.4	293.15	23759.9	1067.8
293.15	26749.1	1076.0	293.15	25764.2	1073.3	293.14	24691.5	1070.4	293.15	23747.9	1067.8
293.15	26736.1	1076.0	293.15	25751.0	1073.3	293.15	24679.9	1070.4	293.15	23736.8	1067.8
293.15	26723.7	1075.8	293.15	25738.0	1073.2	293.15	24667.8	1070.3	293.15	23725.9	1067.7
293.15	26710.3	1075.9	293.15	25724.1	1073.3	293.15	24656.8	1070.1	293.15	23715.4	1067.6
293.15	26697.9	1075.7	293.15	25709.6	1073.2	293.15	24645.1	1070.2	293.15	23703.5	1067.7
293.15	26684.5	1075.9	293.15	25695.3	1073.1	293.15	24634.6	1070.1	293.15	23691.9	1067.7
293.15	26673.2	1075.8	293.15	25681.2	1073.1	293.15	24621.9	1070.2	293.15	23680.8	1067.6
293.15	26661.5	1075.7	293.15	25666.5	1073.0	293.15	24608.2	1070.1	293.15	23669.1	1067.6
293.15	26649.4	1075.7	293.15	25650.7	1073.0	293.15	24593.9	1070.2	293.15	23657.2	1067.4
293.15	26636.5	1075.6	293.15	25635.2	1072.9	293.15	24580.3	1070.1	293.15	23646.4	1067.5
293.15	26623.6	1075.6	293.15	25620.0	1073.0	293.15	24566.7	1069.9	293.15	23635.4	1067.5
293.15	26610.6	1075.5	293.15	25605.1	1072.9	293.15	24551.9	1070.0	293.15	23623.6	1067.4
293.15	26597.3	1075.7	293.15	25588.6	1072.8	293.15	24538.4	1070.1	293.15	23612.3	1067.4
293.15	26584.4	1075.5	293.15	25574.0	1072.9	293.15	24523.9	1070.0	293.15	23600.0	1067.3
293.15	26572.0	1075.6	293.15	25559.5	1072.8	293.15	24510.0	1069.9	293.15	23588.5	1067.3
293.15	26560.0	1075.5	293.14	25544.1	1072.7	293.15	24494.7	1069.9	293.15	23576.6	1067.2
293.15	26547.1	1075.4	293.15	25529.7	1072.6	293.15	24480.7	1069.8	293.15	23564.8	1067.2
293.15	26534.2	1075.3	293.15	25514.6	1072.7	293.15	24467.2	1069.8	293.15	23552.1	1067.2
293.15	26523.4	1075.5	293.15	25498.8	1072.6	293.15	24452.7	1069.8	293.15	23540.0	1067.1
293.15	26510.1	1075.3	293.15	25482.1	1072.6	293.15	24438.7	1069.8	293.15	23528.2	1067.2
293.15	26498.6	1075.2	293.15	25467.3	1072.4	293.14	24425.9	1069.7	293.15	23516.0	1067.2

Valori della densità del fluido R32 _ *T*=20°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
293.15	23504.3	1066.9	293.15	22574.6	1064.5	293.14	21621.5	1061.7	293.15	20676.9	1058.9
293.15	23491.6	1067.0	293.15	22564.2	1064.4	293.15	21609.9	1061.5	293.15	20664.0	1058.7
293.15	23479.4	1066.9	293.15	22551.2	1064.4	293.15	21597.5	1061.7	293.15	20651.6	1058.8
293.15	23467.7	1066.9	293.15	22539.7	1064.2	293.15	21585.7	1061.5	293.15	20639.6	1058.7
293.15	23455.3	1066.8	293.15	22527.6	1064.3	293.15	21574.1	1061.6	293.15	20626.6	1058.7
293.15	23444.4	1067.0	293.15	22516.2	1064.2	293.15	21561.9	1061.5	293.15	20614.8	1058.7
293.15	23432.6	1066.9	293.14	22504.8	1064.2	293.15	21549.5	1061.4	293.15	20603.1	1058.7
293.15	23420.8	1066.9	293.14	22493.5	1064.3	293.15	21537.1	1061.3	293.15	20590.2	1058.5
293.15	23408.7	1066.7	293.14	22481.5	1064.1	293.15	21525.5	1061.4	293.15	20578.1	1058.5
293.15	23397.0	1066.7	293.14	22469.9	1064.0	293.15	21512.9	1061.3	293.15	20566.2	1058.5
293.15	23385.6	1066.7	293.15	22458.6	1064.1	293.15	21500.2	1061.3	293.15	20553.6	1058.5
293.15	23374.2	1066.7	293.14	22446.2	1064.1	293.15	21488.6	1061.2	293.15	20540.4	1058.3
293.15	23362.4	1066.6	293.15	22432.6	1064.0	293.15	21476.8	1061.3	293.15	20528.5	1058.4
293.15	23350.5	1066.6	293.15	22419.8	1064.0	293.15	21464.7	1061.1	293.15	20517.0	1058.3
293.15	23339.4	1066.6	293.15	22407.4	1063.9	293.15	21451.7	1061.0	293.15	20505.4	1058.3
293.14	23327.8	1066.6	293.15	22394.5	1063.8	293.15	21440.4	1061.1	293.15	20492.1	1058.3
293.15	23315.8	1066.6	293.15	22382.4	1063.8	293.14	21427.7	1060.9	293.15	20479.0	1058.3
293.15	23304.6	1066.6	293.15	22369.1	1063.8	293.15	21415.6	1061.0	293.15	20466.8	1058.1
293.15	23291.7	1066.4	293.15	22356.9	1063.8	293.15	21404.3	1061.0	293.15	20454.2	1058.1
293.15	23278.9	1066.4	293.15	22345.0	1063.7	293.15	21391.3	1060.9	293.15	20441.5	1058.1
293.15	23265.7	1066.5	293.15	22332.8	1063.8	293.15	21378.9	1061.0	293.14	20429.5	1058.0
293.15	23253.8	1066.4	293.15	22320.4	1063.7	293.15	21368.2	1060.8	293.15	20417.8	1058.1
293.15	23240.8	1066.3	293.15	22308.3	1063.6	293.15	21355.5	1060.9	293.15	20405.7	1057.9
293.15	23228.7	1066.3	293.15	22296.9	1063.5	293.15	21344.0	1060.9	293.15	20394.7	1058.0
293.15	23215.8	1066.3	293.15	22283.9	1063.5	293.15	21331.5	1060.8	293.15	20382.5	1057.8
293.15	23204.9	1066.2	293.15	22270.5	1063.4	293.15	21320.0	1060.7	293.15	20370.7	1058.0
293.15	23192.8	1066.2	293.15	22259.3	1063.5	293.15	21308.2	1060.7	293.15	20357.4	1058.0
293.15	23180.9	1066.2	293.15	22247.3	1063.6	293.15	21295.2	1060.7	293.15	20345.7	1057.8
293.15	23169.0	1066.1	293.15	22234.4	1063.4	293.15	21284.0	1060.6	293.15	20333.3	1057.7
293.15	23157.6	1066.1	293.15	22222.1	1063.2	293.15	21271.7	1060.6	293.15	20322.1	1057.7
293.15	23145.7	1066.1	293.15	22209.7	1063.4	293.15	21260.1	1060.6	293.15	20311.0	1057.6
293.15	23134.8	1066.0	293.15	22196.8	1063.5	293.15	21247.5	1060.5	293.15	20298.8	1057.6
293.15	23123.1	1066.0	293.15	22185.3	1063.4	293.15	21236.0	1060.5	293.15	20287.7	1057.8
293.15	23111.6	1066.0	293.15	22171.9	1063.3	293.15	21225.0	1060.4	293.15	20275.9	1057.6
293.15	23098.7	1065.9	293.15	22160.3	1063.3	293.15	21212.5	1060.3	293.15	20263.1	1057.6
293.15	23087.0	1065.8	293.15	22147.7	1063.3	293.15	21200.6	1060.4	293.15	20251.0	1057.7
293.15	23075.3	1065.8	293.15	22135.9	1063.2	293.15	21188.5	1060.3	293.15	20239.6	1057.4
293.15	23063.0	1065.9	293.15	22124.6	1063.0	293.15	21175.7	1060.4	293.15	20228.1	1057.4
293.15	23051.0	1065.8	293.15	22112.3	1062.9	293.15	21163.8	1060.3	293.15	20216.0	1057.5
293.15	23039.1	1065.7	293.15	22100.6	1063.2	293.15	21151.6	1060.3	293.15	20204.9	1057.3
293.15	23028.5	1065.7	293.15	22088.3	1063.0	293.15	21139.1	1060.3	293.15	20193.7	1057.4
293.15	23017.1	1065.7	293.15	22075.5	1063.0	293.15	21125.9	1060.2	293.15	20181.3	1057.3
293.15	23005.5	1065.6	293.15	22062.9	1062.8	293.15	21113.1	1060.2	293.15	20169.4	1057.2
293.15	22993.3	1065.6	293.15	22050.8	1062.9	293.15	21102.3	1060.0	293.15	20157.5	1057.2
293.14	22981.7	1065.5	293.15	22038.7	1062.9	293.15	21089.9	1060.2	293.15	20144.0	1057.2
293.15	22969.8	1065.5	293.15	22026.9	1062.9	293.15	21077.7	1060.0	293.15	20131.1	1057.1
293.15	22958.7	1065.5	293.15	22014.1	1062.8	293.15	21065.6	1059.9	293.15	20118.8	1057.2
293.15	22946.8	1065.6	293.15	22001.2	1062.8	293.15	21052.9	1059.9	293.15	20106.7	1057.1
293.15	22935.6	1065.4	293.15	21989.7	1062.8	293.15	21041.3	1059.8	293.15	20094.9	1057.1
293.15	22922.6	1065.4	293.15	21977.5	1062.7	293.15	21029.1	1060.0	293.15	20082.4	1057.0
293.15	22910.9	1065.3	293.15	21965.9	1062.6	293.15	21017.4	1059.8	293.15	20071.0	1057.0
293.15	22899.2	1065.4	293.15	21953.9	1062.7	293.15	21005.4	1059.9	293.15	20058.4	1057.0
293.15	22887.4	1065.2	293.15	21942.3	1062.5	293.15	20993.3	1059.8	293.15	20046.4	1056.8
293.15	22875.8	1065.4	293.15	21930.7	1062.5	293.15	20980.7	1059.7	293.15	20034.8	1056.9
293.15	22864.1	1065.2	293.15	21919.0	1062.5	293.15	20969.6	1059.7	293.15	20022.7	1057.0
293.15	22852.7	1065.2	293.15	21906.6	1062.5	293.15	20957.0	1059.6	293.15	20010.9	1056.8
293.15	22841.4	1065.2	293.15	21894.5	1062.5	293.15	20945.6	1059.7	293.15	19999.1	1056.8
293.15	22829.9	1065.2	293.15	21883.7	1062.4	293.15	20933.8	1059.5	293.15	19988.1	1056.6
293.15	22818.1	1065.1	293.15	21872.3	1062.3	293.15	20922.1	1059.5	293.15	19976.5	1056.7
293.15	22807.4	1065.1	293.15	21860.6	1062.3	293.15	20909.6	1059.5	293.15	19964.3	1056.6
293.15	22795.5	1065.0	293.15	21848.2	1062.2	293.15	20897.3	1059.5	293.15	19952.6	1056.6
293.15	22783.6	1065.2	293.15	21835.7	1062.2	293.15	20885.7	1059.4	293.15	19940.3	1056.6
293.15	22772.0	1064.9	293.15	21822.2	1062.3	293.15	20872.8	1059.4	293.15	19929.1	1056.4
293.15	22760.4	1064.9	293.15	21809.0	1062.2	293.15	20860.8	1059.5	293.15	19917.9	1056.6
293.14	22747.0	1064.9	293.15	21796.5	1062.3	293.15	20848.7	1059.3	293.15	19906.4	1056.5
293.14	22734.1	1064.8	293.15	21784.1	1062.0	293.15	20836.3	1059.2	293.15	19894.2	1056.4
293.14	22722.1	1064.9	293.15	21770.9	1062.2	293.15	20824.5	1059.3	293.15	19882.1	1056.4
293.14	22709.0	1064.8	293.15	21759.0	1062.1	293.15	20811.6	1059.2	293.15	19872.5	1056.4
293.15	22696.4	1064.8	293.15	21747.2	1062.0	293.15	20800.1	1059.1	293.15	19860.2	1056.5
293.14	22683.7	1064.7	293.15	21734.5	1062.0	293.15	20788.0	1059.1	293.15	19849.8	1056.4
293.15	22670.9	1064.7	293.15	21722.5	1061.9	293.15	20775.4	1059.0	293.15	19838.8	1056.2
293.14	22657.8	1064.7	293.15	21709.1	1061.9	293.15	20763.1	1059.0	293.15	19826.5	1056.3
293.14	22645.7	1064.5	293.15	21697.0	1061.9	293.15	20750.0	1059.0	293.15	19815.5	1056.3
293.14	22633.9	1064.6	293.15	21683.2	1061.9	293.15	20737.1	1059.0	293.15	19803.5	1056.2
293.14	22621.4	1064.6	293.15	21671.1	1061.8	293.15	20725.6	1058.9	293.15	19793.1	1056.1
293.14	22610.2	1064.6	293.14	21658.1	1061.6	293.15	20712.7	1059.0	293.15	19781.0	1056.1
293.14	22597.8	1064.6	293.14	21645.7	1061.6	293.15	20701.4	1058.9	293.15	19768.6	1056.2
293.15	22586.9	1064.5	293.14	21633.3	1061.6	293.15	20689.7	1058.8	293.15	19757.5	1056.0

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
293.15	19745.9	1056.0	293.15	18810.0	1053.1	293.15	17846.1	1050.0	293.15	16905.9	1047.0
293.15	19733.6	1056.0	293.15	18798.0	1053.1	293.15	17833.4	1050.1	293.15	16893.4	1046.9
293.14	19722.2	1055.9	293.15	18785.1	1053.0	293.14	17820.6	1050.0	293.15	16881.7	1047.0
293.15	19710.7	1055.9	293.15	18772.0	1053.0	293.15	17808.5	1050.0	293.15	16870.2	1046.9
293.15	19698.4	1055.8	293.15	18759.5	1052.9	293.15	17795.8	1049.9	293.15	16857.9	1046.7
293.15	19687.0	1055.9	293.15	18747.8	1052.9	293.15	17783.5	1050.0	293.15	16845.2	1046.8
293.15	19675.4	1055.7	293.15	18735.1	1052.8	293.15	17771.5	1049.7	293.15	16832.9	1046.7
293.14	19662.9	1055.7	293.15	18722.5	1052.8	293.15	17759.4	1049.8	293.15	16820.9	1046.7
293.15	19650.4	1055.8	293.15	18709.5	1052.8	293.15	17747.5	1049.7	293.15	16809.4	1046.5
293.15	19638.5	1055.7	293.15	18696.5	1052.7	293.15	17735.3	1049.6	293.15	16797.3	1046.6
293.15	19627.6	1055.7	293.15	18684.7	1052.7	293.15	17724.9	1049.7	293.15	16784.6	1046.5
293.15	19615.1	1055.6	293.15	18672.8	1052.7	293.15	17712.7	1049.6	293.15	16773.0	1046.4
293.15	19603.5	1055.6	293.15	18660.8	1052.7	293.15	17700.8	1049.6	293.15	16760.6	1046.6
293.15	19592.3	1055.4	293.15	18649.2	1052.5	293.15	17688.9	1049.6	293.15	16748.8	1046.4
293.15	19579.9	1055.5	293.15	18636.9	1052.5	293.15	17677.0	1049.5	293.15	16736.5	1046.4
293.15	19568.8	1055.4	293.15	18626.1	1052.4	293.14	17664.5	1049.3	293.15	16724.7	1046.4
293.15	19556.2	1055.4	293.15	18613.5	1052.5	293.15	17651.1	1049.3	293.15	16712.2	1046.4
293.15	19544.4	1055.5	293.15	18601.7	1052.5	293.15	17638.7	1049.3	293.15	16699.2	1046.4
293.15	19532.6	1055.3	293.15	18588.5	1052.4	293.15	17626.4	1049.3	293.15	16686.9	1046.3
293.15	19520.7	1055.3	293.15	18576.4	1052.3	293.15	17614.7	1049.3	293.15	16675.6	1046.2
293.15	19508.4	1055.2	293.15	18563.4	1052.2	293.15	17603.1	1049.3	293.15	16663.2	1046.2
293.15	19496.8	1055.2	293.15	18550.9	1052.4	293.15	17590.1	1049.2	293.15	16652.0	1046.1
293.15	19484.8	1055.3	293.15	18538.8	1052.3	293.15	17577.3	1049.2	293.15	16638.3	1046.0
293.15	19473.0	1055.1	293.15	18525.3	1052.1	293.15	17564.5	1049.1	293.15	16626.8	1046.0
293.15	19461.8	1055.0	293.15	18512.7	1052.1	293.15	17552.8	1049.1	293.15	16614.6	1046.1
293.15	19449.2	1055.1	293.15	18500.4	1052.3	293.14	17540.2	1049.0	293.15	16603.0	1046.0
293.15	19438.1	1055.1	293.15	18486.7	1052.0	293.15	17528.2	1049.0	293.15	16591.0	1045.9
293.15	19426.8	1055.0	293.15	18474.4	1052.0	293.15	17517.3	1048.9	293.15	16578.5	1046.0
293.15	19414.9	1055.0	293.15	18462.3	1052.0	293.15	17505.4	1049.0	293.15	16566.6	1045.9
293.15	19402.2	1054.9	293.15	18450.6	1052.0	293.15	17494.0	1048.9	293.14	16554.7	1045.8
293.15	19391.1	1054.9	293.15	18438.0	1051.9	293.15	17483.2	1049.0	293.14	16543.3	1045.8
293.14	19381.1	1055.0	293.14	18424.7	1051.9	293.15	17471.0	1048.8	293.14	16532.0	1045.8
293.15	19369.0	1054.8	293.15	18412.5	1051.8	293.15	17459.1	1048.7	293.14	16520.3	1045.6
293.14	19358.0	1054.8	293.15	18400.4	1051.9	293.15	17447.4	1048.7	293.14	16508.0	1045.7
293.15	19347.1	1054.8	293.15	18387.1	1051.8	293.15	17435.5	1048.9	293.15	16496.0	1045.7
293.14	19333.6	1054.8	293.15	18375.3	1051.8	293.15	17424.2	1048.7	293.15	16485.0	1045.6
293.15	19321.2	1054.7	293.15	18361.6	1051.8	293.15	17413.9	1048.6	293.15	16472.9	1045.5
293.15	19306.9	1054.7	293.15	18349.3	1051.6	293.15	17401.6	1048.7	293.15	16461.5	1045.5
293.15	19294.7	1054.6	293.15	18337.2	1051.6	293.15	17390.1	1048.5	293.15	16449.8	1045.5
293.15	19282.0	1054.5	293.15	18325.2	1051.5	293.15	17377.5	1048.5	293.15	16437.8	1045.5
293.15	19270.4	1054.5	293.15	18313.1	1051.5	293.15	17365.8	1048.4	293.15	16426.8	1045.4
293.15	19258.0	1054.5	293.15	18300.3	1051.5	293.15	17353.2	1048.4	293.15	16415.2	1045.4
293.15	19245.3	1054.3	293.15	18288.4	1051.4	293.15	17343.3	1048.5	293.15	16403.4	1045.3
293.15	19234.1	1054.5	293.15	18275.6	1051.5	293.15	17330.4	1048.3	293.15	16390.5	1045.3
293.15	19221.6	1054.4	293.15	18263.4	1051.5	293.15	17318.3	1048.3	293.15	16379.4	1045.2
293.15	19209.8	1054.3	293.15	18249.9	1051.2	293.15	17306.5	1048.3	293.15	16366.7	1045.0
293.15	19198.7	1054.4	293.15	18237.8	1051.2	293.15	17294.2	1048.3	293.15	16355.6	1045.1
293.15	19186.9	1054.3	293.15	18224.2	1051.2	293.15	17282.1	1048.1	293.15	16341.9	1045.2
293.15	19175.7	1054.4	293.15	18212.0	1051.0	293.15	17271.1	1048.4	293.15	16328.6	1045.0
293.15	19163.7	1054.0	293.15	18199.6	1051.2	293.15	17257.8	1048.1	293.15	16316.6	1045.0
293.15	19151.7	1054.3	293.15	18187.8	1051.2	293.15	17246.6	1048.1	293.15	16303.6	1045.0
293.15	19139.6	1054.2	293.15	18175.7	1051.1	293.15	17234.8	1048.0	293.15	16290.9	1045.0
293.15	19126.5	1054.2	293.15	18164.4	1051.0	293.15	17222.7	1048.0	293.15	16279.0	1044.9
293.15	19115.4	1054.2	293.15	18151.5	1050.9	293.15	17211.7	1048.0	293.15	16265.7	1044.7
293.15	19103.7	1053.9	293.15	18140.9	1050.9	293.15	17198.4	1048.0	293.15	16253.7	1044.7
293.14	19091.4	1054.0	293.15	18127.5	1050.9	293.15	17186.0	1047.9	293.15	16241.6	1044.7
293.15	19079.5	1054.0	293.15	18115.7	1050.9	293.15	17174.2	1047.8	293.15	16229.7	1044.9
293.15	19067.2	1053.8	293.15	18105.0	1050.8	293.15	17163.1	1047.9	293.15	16216.9	1044.7
293.15	19055.6	1053.8	293.15	18092.1	1050.8	293.15	17150.6	1047.7	293.15	16204.4	1044.5
293.15	19043.6	1053.9	293.15	18079.8	1050.7	293.15	17138.1	1047.7	293.15	16193.1	1044.6
293.14	19031.9	1053.8	293.15	18068.3	1050.7	293.15	17125.0	1047.7	293.15	16181.0	1044.5
293.15	19020.6	1053.8	293.15	18056.1	1050.8	293.15	17113.2	1047.6	293.15	16168.5	1044.5
293.15	19010.5	1053.8	293.15	18043.4	1050.6	293.15	17101.5	1047.6	293.15	16156.4	1044.4
293.15	18998.9	1053.7	293.15	18030.1	1050.8	293.15	17089.0	1047.5	293.15	16143.1	1044.5
293.14	18986.4	1053.7	293.15	18017.4	1050.6	293.15	17077.2	1047.5	293.15	16131.6	1044.4
293.14	18973.9	1053.6	293.15	18005.1	1050.5	293.15	17064.9	1047.5	293.15	16118.9	1044.3
293.15	18961.7	1053.5	293.15	17992.3	1050.5	293.15	17053.8	1047.4	293.15	16106.4	1044.3
293.15	18949.7	1053.6	293.15	17981.0	1050.4	293.15	17041.6	1047.4	293.15	16093.4	1044.3
293.15	18936.4	1053.4	293.15	17968.9	1050.5	293.15	17029.5	1047.3	293.15	16081.9	1044.2
293.15	18923.2	1053.4	293.15	17956.9	1050.4	293.15	17016.9	1047.4	293.15	16070.3	1044.3
293.15	18910.7	1053.4	293.15	17944.4	1050.3	293.15	17004.3	1047.4	293.15	16057.6	1044.2
293.15	18898.6	1053.3	293.15	17931.9	1050.3	293.15	16992.7	1047.3	293.15	16045.1	1044.1
293.15	18885.6	1053.4	293.15	17919.9	1050.2	293.15	16980.7	1047.2	293.15	16032.6	1044.0
293.15	18873.3	1053.2	293.15	17907.7	1050.3	293.15	16968.1	1047.3	293.15	16019.9	1044.0
293.15	18860.7	1053.3	293.15	17895.0	1050.2	293.15	16955.4	1047.1	293.15	16008.6	1044.0
293.15	18848.4	1053.2	293.15	17882.9	1050.1	293.15	16943.1	1047.0	293.15	15996.9	1043.9
293.14	18836.1	1053.2	293.15	17870.2	1050.1	293.15	16931.4	1046.9	293.15	15984.1	1044.0
293.14	18822.8	1053.1	293.15	17857.9	1050.0	293.15	16918.6	1047.1	293.15	15971.9	1043.8

Valori della densità del fluido R32 _ *T*=20°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
293.15	15959.9	1043.8	293.15	15005.2	1040.6	293.14	14058.4	1037.3	293.15	13132.2	1034.0
293.15	15948.4	1043.7	293.15	14993.2	1040.6	293.15	14046.4	1037.1	293.14	13120.1	1033.8
293.15	15935.7	1043.7	293.15	14981.0	1040.5	293.15	14033.7	1037.1	293.15	13107.1	1033.9
293.15	15923.6	1043.7	293.15	14968.0	1040.4	293.15	14021.0	1037.2	293.15	13094.7	1033.8
293.15	15911.4	1043.7	293.15	14956.3	1040.4	293.15	14009.4	1037.1	293.15	13082.9	1033.7
293.15	15899.1	1043.7	293.15	14943.5	1040.4	293.15	13996.2	1037.0	293.15	13070.0	1033.6
293.15	15887.6	1043.6	293.15	14930.6	1040.2	293.15	13983.8	1036.9	293.15	13057.6	1033.6
293.15	15876.5	1043.4	293.15	14918.3	1040.4	293.15	13972.0	1037.1	293.15	13044.9	1033.6
293.15	15864.2	1043.4	293.15	14906.6	1040.3	293.15	13958.4	1036.9	293.15	13033.0	1033.5
293.15	15852.3	1043.5	293.15	14893.5	1040.3	293.15	13947.2	1036.9	293.15	13020.3	1033.4
293.14	15840.4	1043.4	293.15	14881.6	1040.2	293.15	13935.7	1036.8	293.15	13008.3	1033.7
293.15	15827.7	1043.4	293.15	14870.1	1040.1	293.15	13923.2	1036.9	293.15	12996.3	1033.4
293.14	15815.5	1043.3	293.15	14857.6	1040.1	293.15	13910.5	1036.7	293.15	12984.4	1033.3
293.15	15802.8	1043.3	293.15	14846.0	1040.0	293.15	13898.3	1036.8	293.15	12972.3	1033.4
293.15	15789.6	1043.2	293.15	14834.4	1039.9	293.15	13886.8	1036.6	293.15	12959.9	1033.2
293.15	15776.3	1043.2	293.14	14822.3	1040.0	293.15	13874.5	1036.6	293.15	12948.3	1033.3
293.15	15764.6	1043.2	293.15	14809.9	1039.9	293.15	13862.1	1036.7	293.15	12935.5	1033.4
293.15	15752.1	1043.1	293.15	14798.7	1039.8	293.15	13850.9	1036.6	293.15	12924.2	1033.2
293.15	15740.0	1043.2	293.15	14785.5	1039.8	293.15	13839.6	1036.5	293.15	12912.9	1033.1
293.15	15727.8	1043.1	293.14	14774.1	1039.8	293.15	13827.1	1036.4	293.15	12900.7	1033.1
293.15	15714.9	1043.0	293.15	14761.3	1039.7	293.15	13814.9	1036.4	293.15	12889.2	1033.2
293.14	15702.9	1043.0	293.15	14749.9	1039.8	293.15	13802.9	1036.3	293.15	12876.8	1032.8
293.15	15691.1	1042.9	293.15	14738.1	1039.6	293.15	13790.8	1036.2	293.15	12865.5	1033.0
293.15	15678.8	1042.8	293.15	14726.6	1039.6	293.15	13779.2	1036.3	293.15	12854.5	1033.0
293.15	15665.9	1042.9	293.15	14714.3	1039.5	293.15	13768.3	1036.3	293.15	12841.3	1032.9
293.15	15653.8	1042.8	293.15	14702.4	1039.6	293.15	13756.6	1036.0	293.15	12828.9	1032.7
293.15	15642.0	1042.7	293.15	14690.1	1039.5	293.15	13744.2	1036.0	293.15	12817.0	1032.7
293.15	15630.6	1042.8	293.15	14678.6	1039.5	293.15	13731.5	1036.1	293.15	12804.7	1032.7
293.15	15618.5	1042.6	293.15	14667.6	1039.4	293.15	13719.5	1036.1	293.15	12793.2	1032.6
293.15	15605.8	1042.6	293.14	14656.1	1039.4	293.15	13707.5	1036.0	293.15	12782.0	1032.7
293.14	15594.4	1042.6	293.14	14644.6	1039.3	293.15	13695.0	1036.0	293.15	12769.4	1032.7
293.15	15582.5	1042.5	293.14	14633.2	1039.4	293.15	13683.5	1035.9	293.15	12759.0	1032.5
293.15	15569.4	1042.4	293.14	14621.1	1039.3	293.15	13672.5	1035.9	293.15	12745.5	1032.4
293.15	15558.2	1042.5	293.14	14609.0	1039.2	293.15	13661.1	1035.9	293.15	12733.5	1032.5
293.15	15546.0	1042.5	293.15	14597.8	1039.2	293.15	13649.3	1035.8	293.15	12720.9	1032.4
293.15	15533.1	1042.3	293.15	14585.3	1039.0	293.15	13638.8	1035.8	293.15	12708.9	1032.3
293.15	15521.1	1042.3	293.15	14573.2	1039.2	293.15	13628.0	1035.7	293.15	12696.1	1032.3
293.15	15509.2	1042.3	293.15	14561.8	1039.0	293.15	13616.7	1035.7	293.15	12684.8	1032.2
293.15	15496.5	1042.2	293.15	14549.8	1039.1	293.15	13605.9	1035.7	293.15	12672.3	1032.2
293.15	15484.0	1042.2	293.15	14537.3	1038.9	293.15	13594.0	1035.5	293.15	12660.6	1032.2
293.15	15471.6	1042.3	293.15	14525.8	1038.9	293.15	13582.7	1035.6	293.15	12648.9	1032.1
293.15	15458.6	1042.2	293.15	14512.9	1038.9	293.15	13570.7	1035.5	293.15	12636.4	1032.1
293.15	15445.9	1042.1	293.14	14500.4	1038.7	293.15	13559.0	1035.5	293.15	12624.9	1032.1
293.15	15434.6	1042.1	293.15	14488.7	1038.8	293.15	13546.6	1035.5	293.15	12612.1	1031.9
293.15	15422.1	1042.0	293.15	14475.7	1038.7	293.15	13533.8	1035.3	293.15	12600.1	1031.9
293.15	15409.7	1042.0	293.14	14463.1	1038.7	293.15	13523.1	1035.3	293.15	12588.1	1031.9
293.15	15398.1	1041.9	293.14	14451.7	1038.6	293.15	13511.5	1035.3	293.15	12576.2	1031.9
293.15	15385.0	1042.0	293.14	14439.0	1038.6	293.15	13498.9	1035.2	293.15	12563.7	1031.8
293.15	15372.6	1041.8	293.15	14426.8	1038.5	293.15	13487.4	1035.1	293.14	12551.1	1031.8
293.15	15360.8	1041.8	293.15	14414.3	1038.5	293.15	13476.1	1035.2	293.15	12539.0	1031.7
293.15	15348.6	1041.7	293.15	14401.7	1038.4	293.15	13464.1	1035.1	293.15	12527.4	1031.8
293.15	15336.4	1041.8	293.15	14390.3	1038.4	293.15	13452.2	1035.1	293.15	12514.7	1031.7
293.15	15325.1	1041.7	293.15	14378.1	1038.4	293.15	13440.2	1035.1	293.15	12503.2	1031.6
293.15	15313.1	1041.7	293.15	14365.9	1038.2	293.15	13428.4	1035.1	293.15	12491.9	1031.6
293.15	15301.5	1041.6	293.15	14353.9	1038.3	293.15	13416.7	1035.0	293.15	12479.1	1031.5
293.15	15289.6	1041.5	293.15	14342.4	1038.3	293.15	13405.4	1034.9	293.15	12467.8	1031.4
293.15	15276.7	1041.5	293.15	14330.2	1038.2	293.15	13393.5	1034.8	293.15	12455.8	1031.4
293.15	15265.5	1041.5	293.15	14317.5	1038.2	293.15	13382.5	1034.9	293.15	12444.4	1031.3
293.15	15254.0	1041.5	293.15	14306.0	1038.1	293.15	13371.7	1034.8	293.15	12432.4	1031.3
293.15	15242.8	1041.4	293.15	14293.7	1038.2	293.15	13360.4	1034.8	293.15	12419.9	1031.3
293.15	15230.5	1041.4	293.15	14280.6	1038.1	293.15	13349.5	1034.7	293.15	12410.7	1031.1
293.15	15218.3	1041.3	293.15	14268.8	1038.0	293.15	13337.1	1034.7	293.15	12397.4	1031.2
293.15	15207.1	1041.3	293.15	14256.4	1038.0	293.15	13324.6	1034.7	293.15	12386.0	1031.3
293.15	15195.3	1041.2	293.15	14244.1	1037.8	293.15	13312.9	1034.7	293.15	12375.0	1031.1
293.15	15182.4	1041.3	293.15	14232.4	1038.0	293.15	13300.8	1034.6	293.15	12363.2	1031.1
293.15	15170.1	1041.2	293.15	14219.9	1037.9	293.15	13289.3	1034.6	293.15	12350.4	1031.1
293.15	15157.6	1041.1	293.15	14207.2	1037.8	293.15	13278.5	1034.4	293.15	12339.3	1031.1
293.15	15144.7	1041.0	293.15	14194.8	1037.7	293.15	13265.7	1034.4	293.15	12326.9	1031.0
293.15	15132.1	1041.2	293.15	14182.2	1037.7	293.15	13254.4	1034.4	293.15	12314.9	1030.9
293.15	15118.9	1040.9	293.15	14169.4	1037.5	293.15	13241.4	1034.3	293.15	12304.2	1030.9
293.15	15106.0	1040.9	293.15	14157.8	1037.7	293.15	13230.0	1034.3	293.15	12291.8	1030.8
293.15	15094.0	1041.0	293.15	14144.1	1037.5	293.14	13218.2	1034.2	293.15	12281.7	1030.7
293.15	15081.7	1040.9	293.15	14132.8	1037.5	293.15	13205.5	1034.1	293.15	12269.8	1030.6
293.15	15069.0	1040.7	293.14	14119.5	1037.5	293.15	13194.1	1034.2	293.15	12258.8	1030.7
293.15	15056.3	1040.8	293.14	14107.7	1037.4	293.15	13181.6	1034.2	293.15	12247.3	1030.5
293.15	15042.9	1040.7	293.15	14095.0	1037.5	293.15	13169.1	1034.0	293.14	12235.5	1030.7
293.15	15029.7	1040.7	293.14	14082.5	1037.3	293.15	13157.2	1034.0	293.15	12224.3	1030.5
293.15	15016.7	1040.8	293.15	14069.9	1037.4	293.15	13144.3	1034.0	293.15	12212.4	1030.5

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
293.15	12200.4	1030.4	293.15	11307.3	1027.1	293.15	10451.8	1023.8	293.15	9629.1	1020.4
293.15	12188.3	1030.3	293.15	11296.3	1027.3	293.14	10441.3	1023.7	293.15	9618.6	1020.4
293.15	12176.3	1030.4	293.15	11284.6	1027.0	293.14	10430.0	1023.7	293.15	9608.4	1020.5
293.15	12165.5	1030.3	293.15	11273.7	1027.0	293.14	10420.3	1023.7	293.15	9598.7	1020.3
293.15	12154.2	1030.3	293.15	11262.4	1026.9	293.15	10409.2	1023.5	293.15	9588.1	1020.2
293.15	12141.8	1030.3	293.15	11250.7	1026.7	293.15	10398.0	1023.4	293.15	9577.9	1020.1
293.15	12131.1	1030.2	293.15	11239.5	1026.7	293.15	10387.7	1023.5	293.15	9567.0	1020.2
293.15	12119.6	1030.2	293.15	11229.0	1026.8	293.15	10376.4	1023.6	293.15	9556.4	1020.1
293.15	12107.9	1030.2	293.15	11218.0	1026.7	293.15	10365.1	1023.5	293.15	9545.8	1020.1
293.15	12098.6	1030.0	293.15	11206.8	1026.8	293.15	10354.3	1023.3	293.15	9536.2	1020.1
293.15	12086.6	1030.1	293.15	11196.0	1026.6	293.15	10343.8	1023.3	293.15	9525.5	1020.0
293.15	12075.2	1029.9	293.15	11184.3	1026.7	293.15	10333.3	1023.3	293.15	9515.3	1020.0
293.15	12062.5	1029.9	293.15	11172.7	1026.6	293.15	10322.3	1023.2	293.15	9505.0	1020.1
293.15	12052.0	1029.9	293.15	11161.7	1026.5	293.15	10312.3	1023.3	293.15	9494.5	1019.8
293.15	12040.0	1029.9	293.15	11150.6	1026.5	293.15	10301.8	1023.2	293.15	9483.5	1019.8
293.15	12028.0	1029.8	293.15	11139.0	1026.5	293.15	10290.6	1023.2	293.15	9474.0	1019.8
293.15	12016.4	1029.9	293.15	11128.4	1026.3	293.15	10280.1	1023.1	293.15	9463.1	1019.9
293.15	12004.4	1029.8	293.15	11116.7	1026.3	293.15	10270.3	1023.1	293.15	9452.8	1019.6
293.15	11992.6	1029.7	293.15	11105.1	1026.4	293.15	10259.4	1023.0	293.15	9442.1	1019.6
293.15	11981.0	1029.7	293.15	11094.1	1026.2	293.15	10248.2	1023.0	293.15	9432.3	1019.7
293.15	11969.7	1029.6	293.15	11082.6	1026.1	293.15	10238.2	1023.0	293.15	9422.3	1019.5
293.15	11958.4	1029.6	293.15	11071.4	1026.2	293.15	10227.0	1022.9	293.15	9412.1	1019.6
293.15	11946.7	1029.6	293.15	11060.1	1026.1	293.15	10216.2	1022.7	293.15	9401.9	1019.6
293.15	11935.5	1029.5	293.15	11048.4	1026.1	293.15	10205.4	1022.8	293.14	9391.6	1019.4
293.15	11924.0	1029.4	293.15	11037.9	1026.0	293.15	10194.7	1022.6	293.14	9380.6	1019.3
293.15	11913.5	1029.4	293.15	11026.7	1025.9	293.15	10184.3	1022.6	293.14	9370.4	1019.4
293.15	11902.6	1029.3	293.15	11015.3	1025.9	293.15	10173.5	1022.5	293.15	9360.6	1019.3
293.15	11891.3	1029.4	293.15	11004.3	1025.9	293.15	10163.0	1022.5	293.14	9349.9	1019.3
293.15	11879.6	1029.2	293.15	10993.3	1025.9	293.15	10152.5	1022.6	293.15	9340.1	1019.2
293.15	11868.9	1029.3	293.15	10982.8	1025.8	293.15	10142.3	1022.5	293.15	9329.2	1019.4
293.15	11856.8	1029.1	293.15	10972.3	1025.8	293.15	10131.3	1022.4	293.15	9319.6	1019.2
293.15	11845.1	1029.0	293.15	10961.8	1025.7	293.15	10119.8	1022.3	293.15	9308.5	1019.1
293.15	11833.3	1029.0	293.14	10951.1	1025.8	293.15	10108.6	1022.3	293.15	9297.5	1019.1
293.15	11822.0	1029.0	293.15	10940.3	1025.6	293.15	10097.5	1022.3	293.15	9287.3	1019.0
293.15	11809.8	1029.0	293.15	10930.1	1025.7	293.15	10087.0	1022.3	293.15	9276.5	1019.0
293.15	11798.3	1029.1	293.15	10919.0	1025.6	293.15	10077.0	1022.3	293.15	9265.6	1018.9
293.15	11787.4	1028.9	293.15	10907.9	1025.6	293.15	10066.7	1022.1	293.15	9254.6	1019.0
293.15	11775.4	1028.9	293.15	10897.3	1025.5	293.15	10056.7	1022.1	293.15	9243.4	1018.7
293.15	11763.9	1028.9	293.15	10886.8	1025.4	293.15	10046.2	1022.0	293.15	9232.4	1018.8
293.15	11752.5	1028.8	293.15	10876.6	1025.5	293.15	10035.5	1022.2	293.15	9223.1	1018.8
293.15	11740.5	1028.9	293.15	10866.3	1025.4	293.15	10025.0	1022.1	293.15	9212.7	1018.8
293.15	11729.0	1028.7	293.15	10856.0	1025.4	293.15	10014.7	1022.0	293.15	9201.7	1018.7
293.15	11716.6	1028.7	293.15	10845.2	1025.3	293.15	10004.0	1021.9	293.15	9191.5	1018.6
293.15	11706.3	1028.6	293.15	10834.0	1025.3	293.15	9993.2	1022.0	293.15	9180.3	1018.5
293.15	11695.1	1028.4	293.15	10823.2	1025.1	293.15	9982.2	1021.8	293.15	9170.3	1018.5
293.15	11683.9	1028.5	293.15	10813.5	1025.3	293.15	9971.8	1021.8	293.15	9159.4	1018.6
293.15	11673.1	1028.5	293.15	10802.4	1025.2	293.15	9960.6	1021.8	293.15	9148.9	1018.5
293.15	11661.4	1028.4	293.15	10791.2	1024.9	293.15	9949.8	1021.7	293.15	9138.6	1018.5
293.15	11649.4	1028.5	293.15	10780.1	1025.0	293.15	9938.9	1021.7	293.15	9128.9	1018.4
293.15	11638.4	1028.3	293.15	10770.0	1025.1	293.15	9928.1	1021.6	293.15	9118.2	1018.3
293.15	11626.2	1028.4	293.15	10759.5	1024.9	293.15	9916.9	1021.5	293.15	9107.7	1018.3
293.15	11615.2	1028.2	293.15	10749.0	1024.8	293.15	9905.7	1021.6	293.15	9097.6	1018.2
293.15	11604.2	1028.3	293.15	10737.5	1024.7	293.15	9895.0	1021.6	293.14	9087.0	1018.1
293.15	11591.1	1028.2	293.15	10726.4	1024.8	293.15	9884.0	1021.5	293.15	9076.7	1018.2
293.15	11579.7	1028.1	293.15	10714.3	1024.9	293.15	9873.9	1021.5	293.15	9066.7	1018.1
293.15	11568.9	1028.0	293.15	10702.4	1024.8	293.15	9862.7	1021.3	293.15	9056.2	1018.0
293.15	11556.9	1028.1	293.15	10691.2	1024.7	293.15	9853.5	1021.4	293.15	9045.3	1018.1
293.15	11545.3	1027.9	293.15	10680.9	1024.7	293.15	9842.3	1021.2	293.15	9035.2	1018.0
293.15	11534.5	1027.9	293.15	10669.3	1024.6	293.15	9832.5	1021.3	293.15	9024.0	1017.8
293.15	11523.1	1027.8	293.15	10658.2	1024.6	293.15	9822.0	1021.3	293.15	9014.3	1017.9
293.15	11511.3	1027.8	293.15	10647.7	1024.5	293.15	9811.8	1021.2	293.15	9004.6	1017.8
293.15	11500.5	1027.9	293.15	10636.7	1024.6	293.15	9801.8	1021.2	293.15	8994.1	1017.9
293.15	11489.1	1027.9	293.15	10625.1	1024.5	293.15	9791.0	1021.1	293.15	8984.7	1017.8
293.15	11477.6	1027.7	293.15	10614.5	1024.4	293.15	9780.5	1021.1	293.15	8973.6	1017.7
293.15	11465.6	1027.7	293.15	10603.1	1024.2	293.15	9770.3	1021.1	293.15	8964.0	1017.6
293.15	11454.4	1027.6	293.15	10592.1	1024.2	293.15	9760.2	1021.0	293.15	8952.8	1017.5
293.15	11443.0	1027.5	293.15	10581.9	1024.2	293.15	9750.2	1020.9	293.15	8942.5	1017.5
293.15	11432.5	1027.4	293.15	10570.7	1024.2	293.15	9742.4	1020.9	293.15	8932.3	1017.5
293.15	11420.5	1027.5	293.15	10559.7	1024.2	293.15	9732.8	1020.9	293.15	8922.6	1017.5
293.15	11409.0	1027.3	293.15	10549.2	1024.2	293.15	9722.4	1020.8	293.15	8912.4	1017.4
293.15	11398.4	1027.4	293.15	10538.2	1024.1	293.15	9711.6	1020.8	293.15	8903.1	1017.4
293.15	11386.4	1027.3	293.15	10528.4	1024.0	293.15	9701.4	1020.8	293.15	8892.4	1017.5
293.15	11374.9	1027.3	293.15	10516.8	1024.1	293.15	9690.9	1020.7	293.15	8882.6	1017.3
293.15	11363.0	1027.4	293.15	10506.1	1024.1	293.15	9680.2	1020.7	293.15	8872.3	1017.3
293.15	11351.9	1027.3	293.15	10495.1	1023.9	293.15	9669.2	1020.5	293.15	8861.9	1017.2
293.15	11341.2	1027.1	293.15	10484.1	1023.9	293.15	9658.6	1020.5	293.15	8852.1	1017.3
293.15	11330.7	1027.2	293.15	10473.1	1023.8	293.15	9648.5	1020.5	293.15	8841.6	1017.1
293.15	11318.8	1027.0	293.15	10461.8	1023.9	293.15	9639.2	1020.5	293.15	8832.1	1017.1

Valori della densità del fluido R32 _ *T*=20°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
293.15	8821.6	1017.1	293.15	8049.1	1013.9	293.15	7251.6	1010.3	293.15	6398.0	1006.5
293.15	8811.1	1017.0	293.15	8039.1	1013.8	293.15	7240.8	1010.1	293.15	6390.6	1006.3
293.15	8801.8	1016.9	293.15	8029.4	1013.8	293.15	7230.0	1010.3	293.15	6376.8	1006.3
293.15	8791.8	1016.9	293.15	8020.1	1013.6	293.15	7219.3	1010.2	293.15	6362.4	1006.2
293.15	8782.1	1016.9	293.15	8010.6	1013.7	293.15	7208.3	1010.2	293.15	6348.7	1006.2
293.15	8771.8	1016.9	293.15	8001.1	1013.6	293.15	7197.1	1010.0	293.15	6335.6	1006.3
293.15	8762.0	1016.7	293.15	7992.3	1013.6	293.15	7185.8	1010.0	293.15	6322.5	1006.1
293.15	8751.4	1016.9	293.15	7982.8	1013.5	293.14	7173.7	1010.0	293.15	6310.4	1006.0
293.15	8741.6	1016.8	293.15	7972.0	1013.5	293.15	7162.7	1009.8	293.15	6298.1	1006.0
293.15	8730.9	1016.8	293.15	7961.9	1013.3	293.14	7151.0	1009.9	293.15	6286.9	1006.0
293.15	8720.4	1016.8	293.15	7953.1	1013.3	293.15	7139.9	1009.9	293.14	6273.4	1005.9
293.15	8710.0	1016.6	293.15	7942.9	1013.4	293.15	7128.9	1009.8	293.14	6261.8	1006.0
293.15	8699.9	1016.5	293.15	7931.9	1013.3	293.15	7118.3	1009.8	293.15	6250.0	1005.8
293.15	8689.9	1016.5	293.15	7921.9	1013.2	293.14	7107.8	1009.7	293.14	6237.4	1005.6
293.15	8679.5	1016.5	293.15	7912.0	1013.2	293.15	7096.1	1009.6	293.15	6225.8	1005.6
293.15	8669.8	1016.5	293.15	7902.7	1013.0	293.15	7085.9	1009.5	293.15	6214.1	1005.7
293.15	8660.2	1016.4	293.15	7893.4	1013.1	293.15	7075.0	1009.5	293.15	6201.5	1005.5
293.15	8649.9	1016.4	293.15	7883.9	1013.0	293.15	7064.3	1009.5	293.15	6189.6	1005.6
293.15	8639.7	1016.3	293.15	7873.9	1013.0	293.15	7053.8	1009.4	293.15	6176.8	1005.4
293.15	8629.7	1016.4	293.15	7864.4	1013.0	293.15	7043.0	1009.4	293.15	6166.2	1005.3
293.15	8619.3	1016.2	293.15	7854.2	1013.0	293.15	7032.2	1009.3	293.15	6153.6	1005.3
293.15	8609.0	1016.2	293.15	7844.2	1013.0	293.15	7020.6	1009.2	293.15	6141.5	1005.4
293.15	8598.3	1016.2	293.15	7834.7	1012.8	293.15	7008.3	1009.3	293.15	6130.1	1005.3
293.15	8588.5	1016.2	293.15	7824.9	1012.9	293.15	6997.1	1009.3	293.14	6117.0	1005.3
293.15	8577.6	1016.1	293.15	7815.4	1012.9	293.15	6986.1	1009.2	293.14	6105.2	1005.1
293.15	8567.6	1016.0	293.15	7805.2	1012.6	293.15	6975.4	1009.2	293.15	6093.3	1005.0
293.15	8556.9	1015.9	293.15	7795.7	1012.8	293.15	6965.0	1009.0	293.15	6081.7	1004.9
293.15	8546.9	1016.0	293.15	7786.4	1012.7	293.15	6954.0	1008.9	293.15	6069.4	1004.9
293.15	8537.1	1015.7	293.15	7776.6	1012.6	293.15	6943.4	1009.0	293.15	6056.3	1004.8
293.15	8526.4	1015.8	293.15	7766.7	1012.7	293.15	6933.1	1009.0	293.15	6045.4	1004.8
293.15	8515.7	1015.8	293.15	7756.9	1012.5	293.15	6923.0	1008.9	293.15	6034.0	1004.7
293.15	8506.2	1015.8	293.15	7747.9	1012.6	293.15	6913.0	1008.9	293.15	6022.1	1004.7
293.15	8495.3	1015.8	293.15	7737.6	1012.4	293.15	6902.3	1008.8	293.15	6010.5	1004.7
293.15	8486.0	1015.7	293.15	7727.9	1012.5	293.15	6891.8	1008.7	293.15	5999.1	1004.6
293.15	8476.5	1015.6	293.15	7717.9	1012.3	293.15	6881.1	1008.7	293.15	5987.0	1004.6
293.15	8467.1	1015.7	293.15	7708.4	1012.4	293.15	6870.2	1008.6	293.15	5975.2	1004.6
293.15	8456.9	1015.6	293.15	7698.4	1012.3	293.15	6859.5	1008.4	293.15	5963.5	1004.5
293.15	8446.7	1015.4	293.15	7688.9	1012.2	293.15	6849.1	1008.5	293.15	5951.7	1004.3
293.15	8437.4	1015.5	293.15	7678.0	1012.2	293.15	6838.6	1008.4	293.15	5939.3	1004.4
293.15	8427.4	1015.4	293.15	7668.2	1012.1	293.15	6827.5	1008.5	293.15	5929.4	1004.2
293.15	8417.4	1015.3	293.15	7658.2	1012.2	293.15	6816.6	1008.3	293.15	5917.3	1004.3
293.15	8406.9	1015.4	293.15	7648.7	1012.1	293.15	6805.9	1008.2	293.15	5906.6	1004.1
293.15	8396.3	1015.3	293.15	7638.7	1012.1	293.14	6794.7	1008.3	293.15	5894.7	1004.1
293.15	8386.7	1015.3	293.15	7628.7	1012.0	293.15	6783.8	1008.2	293.15	5883.6	1004.0
293.15	8377.4	1015.2	293.15	7618.5	1011.9	293.14	6771.9	1008.2	293.14	5872.4	1004.0
293.15	8367.5	1015.0	293.15	7607.6	1011.9	293.14	6761.2	1008.2	293.14	5861.5	1003.9
293.15	8357.9	1015.1	293.15	7597.4	1011.9	293.14	6750.1	1008.1	293.15	5849.7	1003.9
293.15	8348.9	1015.2	293.15	7587.4	1011.7	293.15	6739.1	1008.0	293.15	5838.6	1004.0
293.15	8339.0	1015.1	293.15	7577.1	1011.7	293.15	6727.8	1008.0	293.15	5827.1	1003.8
293.15	8330.1	1015.0	293.15	7567.6	1011.7	293.15	6717.1	1008.0	293.15	5817.4	1003.8
293.15	8321.3	1015.1	293.14	7556.8	1011.6	293.15	6707.1	1007.8	293.15	5807.0	1003.7
293.15	8311.5	1014.9	293.15	7546.0	1011.6	293.15	6695.7	1007.8	293.15	5795.6	1003.7
293.15	8302.2	1014.9	293.15	7536.0	1011.6	293.15	6684.7	1007.8	293.15	5784.5	1003.6
293.15	8292.8	1014.9	293.15	7525.4	1011.6	293.15	6674.0	1007.7	293.15	5774.2	1003.6
293.15	8284.0	1014.9	293.15	7514.9	1011.6	293.15	6663.1	1007.6	293.14	5764.0	1003.5
293.15	8273.5	1014.6	293.15	7504.4	1011.5	293.15	6652.2	1007.7	293.14	5753.6	1003.5
293.15	8262.7	1014.8	293.15	7493.2	1011.3	293.15	6641.1	1007.6	293.15	5743.4	1003.5
293.15	8254.5	1014.7	293.15	7483.5	1011.3	293.15	6629.9	1007.4	293.15	5732.5	1003.4
293.15	8245.1	1014.6	293.15	7472.1	1011.2	293.15	6619.2	1007.5	293.15	5722.3	1003.3
293.15	8235.2	1014.7	293.14	7461.4	1011.3	293.15	6608.6	1007.4	293.15	5711.7	1003.2
293.15	8225.0	1014.6	293.14	7450.2	1011.2	293.15	6598.3	1007.4	293.15	5701.2	1003.2
293.15	8215.6	1014.5	293.15	7440.3	1011.1	293.15	6587.7	1007.3	293.15	5689.9	1003.2
293.15	8205.9	1014.5	293.15	7428.6	1011.2	293.15	6577.2	1007.2	293.15	5679.4	1003.2
293.15	8195.5	1014.5	293.14	7417.7	1011.1	293.15	6565.8	1007.2	293.15	5667.5	1003.1
293.15	8187.3	1014.4	293.14	7406.5	1011.0	293.15	6555.8	1007.1	293.14	5656.1	1002.9
293.15	8177.3	1014.4	293.14	7393.9	1010.9	293.15	6545.4	1007.2	293.14	5644.8	1002.9
293.15	8167.2	1014.3	293.14	7382.8	1010.9	293.15	6533.7	1007.1	293.14	5634.1	1002.8
293.15	8157.8	1014.2	293.15	7372.1	1010.7	293.15	6523.8	1007.0	293.14	5622.9	1002.9
293.15	8147.9	1014.4	293.15	7361.4	1010.8	293.15	6513.3	1007.0	293.14	5611.3	1002.9
293.15	8138.3	1014.2	293.15	7350.2	1010.8	293.15	6500.3	1007.0	293.14	5600.0	1002.8
293.15	8127.9	1014.2	293.15	7338.8	1010.7	293.15	6488.1	1006.8	293.14	5590.2	1002.7
293.15	8117.4	1014.1	293.15	7327.6	1010.6	293.15	6476.3	1006.9	293.14	5578.8	1002.6
293.15	8107.0	1014.0	293.15	7317.4	1010.5	293.14	6464.6	1006.8	293.15	5568.6	1002.5
293.15	8096.3	1014.1	293.15	7306.7	1010.5	293.15	6452.3	1006.7	293.14	5557.5	1002.5
293.15	8088.4	1013.9	293.15	7295.7	1010.4	293.15	6440.9	1006.7	293.14	5546.6	1002.4
293.15	8077.7	1014.0	293.15	7283.7	1010.6	293.15	6429.1	1006.7	293.14	5536.0	1002.4
293.15	8068.6	1013.8	293.15	7274.2	1010.4	293.14	6418.2	1006.6	293.14	5524.6	1002.4
293.15	8058.2	1013.9	293.15	7263.5	1010.4	293.15	6407.4	1006.5	293.15	5513.9	1002.3

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
293.14	5502.7	1002.3	293.14	4554.0	997.6	293.14	3703.9	993.3	293.14	2779.0	988.5
293.14	5490.6	1002.1	293.14	4543.2	997.6	293.14	3692.6	993.4	293.14	2768.1	988.4
293.14	5479.5	1002.2	293.14	4532.1	997.6	293.14	3682.4	993.3	293.14	2754.6	988.3
293.14	5468.8	1002.1	293.15	4520.7	997.5	293.14	3670.4	993.1	293.14	2741.9	988.2
293.14	5456.7	1002.0	293.15	4509.1	997.4	293.14	3660.0	993.2	293.14	2730.0	988.1
293.15	5445.9	1002.0	293.14	4498.0	997.4	293.14	3648.9	992.9	293.14	2716.9	987.9
293.15	5435.2	1002.0	293.14	4488.0	997.3	293.14	3636.6	993.0	293.14	2704.3	987.9
293.14	5424.8	1001.9	293.14	4476.4	997.3	293.14	3625.2	992.9	293.14	2693.2	988.0
293.15	5413.4	1001.8	293.14	4464.8	997.2	293.14	3613.3	992.8	293.14	2681.4	987.9
293.15	5401.3	1001.7	293.14	4453.0	997.1	293.14	3601.5	992.8	293.14	2669.6	987.8
293.15	5389.2	1001.8	293.15	4440.2	997.2	293.15	3590.4	992.7	293.14	2658.7	987.8
293.15	5377.1	1001.6	293.14	4428.1	997.0	293.14	3578.9	992.7	293.14	2646.7	987.7
293.15	5365.0	1001.6	293.15	4416.5	997.0	293.15	3567.3	992.7	293.14	2634.1	987.6
293.15	5352.0	1001.7	293.14	4404.9	996.9	293.15	3554.5	992.5	293.14	2622.6	987.5
293.15	5340.2	1001.6	293.14	4393.5	996.8	293.15	3541.9	992.6	293.14	2610.8	987.5
293.15	5327.4	1001.4	293.15	4383.1	996.8	293.15	3530.6	992.4	293.15	2598.5	987.6
293.15	5316.2	1001.5	293.15	4373.1	996.8	293.14	3519.5	992.4	293.14	2585.5	987.6
293.15	5304.9	1001.3	293.14	4360.6	996.7	293.14	3507.9	992.4	293.14	2573.9	987.3
293.15	5294.0	1001.4	293.14	4350.7	996.7	293.14	3495.4	992.3	293.14	2561.6	987.3
293.14	5283.2	1001.1	293.14	4336.7	996.6	293.14	3482.6	992.2	293.14	2549.4	987.3
293.15	5271.9	1001.2	293.14	4325.1	996.5	293.14	3470.8	992.1	293.14	2538.1	987.2
293.15	5260.7	1001.1	293.14	4313.7	996.4	293.14	3459.4	992.1	293.14	2525.1	987.1
293.15	5249.6	1001.1	293.15	4302.6	996.6	293.14	3447.4	992.0	293.14	2512.5	987.0
293.15	5238.7	1000.9	293.14	4290.8	996.3	293.14	3434.8	992.0	293.14	2499.8	987.0
293.15	5227.1	1001.0	293.14	4281.0	996.4	293.14	3422.1	991.9	293.14	2488.7	986.9
293.15	5215.9	1000.9	293.14	4269.7	996.3	293.14	3410.3	991.9	293.15	2476.6	986.8
293.15	5204.8	1000.8	293.14	4259.1	996.2	293.14	3397.5	991.8	293.15	2464.8	986.7
293.15	5193.7	1000.9	293.14	4247.4	996.3	293.14	3384.7	991.6	293.14	2452.5	986.7
293.15	5182.1	1000.9	293.14	4236.5	996.0	293.14	3372.9	991.7	293.14	2440.8	986.5
293.14	5170.2	1000.7	293.15	4224.5	996.1	293.14	3359.9	991.7	293.14	2429.9	986.6
293.15	5158.3	1000.6	293.14	4213.6	996.0	293.14	3347.6	991.3	293.14	2418.5	986.5
293.15	5144.4	1000.7	293.15	4203.4	995.9	293.15	3336.1	991.5	293.14	2406.3	986.4
293.15	5132.3	1000.4	293.15	4191.1	995.9	293.14	3323.0	991.3	293.14	2394.0	986.3
293.15	5117.8	1000.4	293.15	4180.0	995.8	293.14	3310.2	991.4	293.14	2382.2	986.2
293.15	5104.5	1000.4	293.15	4167.4	995.6	293.14	3297.7	991.2	293.14	2370.4	986.3
293.15	5089.8	1000.4	293.14	4156.5	995.6	293.14	3284.8	991.2	293.15	2359.1	986.1
293.14	5075.4	1000.3	293.14	4145.7	995.8	293.14	3272.2	991.2	293.14	2348.0	986.1
293.15	5061.6	1000.3	293.15	4133.8	995.5	293.14	3259.7	991.0	293.14	2336.4	986.0
293.15	5047.5	1000.1	293.15	4123.0	995.4	293.14	3247.4	990.9	293.14	2325.8	985.8
293.15	5034.4	999.9	293.14	4112.3	995.4	293.14	3236.0	990.9	293.14	2315.4	985.8
293.14	5020.0	999.9	293.14	4101.7	995.2	293.15	3224.0	990.8	293.14	2303.8	985.8
293.15	5005.1	999.9	293.14	4090.7	995.4	293.15	3214.0	990.9	293.14	2292.1	985.8
293.15	4992.5	999.8	293.15	4079.4	995.2	293.14	3202.9	990.7	293.14	2280.0	985.7
293.15	4978.7	999.8	293.15	4069.3	995.2	293.14	3189.9	990.7	293.14	2269.2	985.6
293.14	4965.5	999.7	293.14	4059.5	995.1	293.14	3178.3	990.7	293.14	2256.8	985.6
293.14	4953.6	999.7	293.14	4047.7	995.1	293.14	3166.3	990.6	293.14	2245.8	985.5
293.14	4940.6	999.6	293.14	4037.0	995.1	293.14	3154.5	990.6	293.15	2234.9	985.4
293.14	4928.1	999.5	293.14	4026.7	994.9	293.14	3142.8	990.4	293.14	2223.3	985.5
293.15	4915.5	999.5	293.14	4016.7	995.1	293.15	3130.6	990.4	293.14	2211.5	985.5
293.15	4902.5	999.4	293.14	4005.8	994.9	293.14	3118.7	990.4	293.14	2200.2	985.3
293.15	4889.9	999.2	293.14	3996.6	994.9	293.14	3106.5	990.3	293.14	2189.1	985.3
293.15	4877.3	999.2	293.14	3987.3	994.8	293.15	3094.7	990.2	293.14	2177.3	985.2
293.15	4864.8	999.2	293.14	3976.5	994.8	293.14	3082.3	990.1	293.15	2165.0	985.2
293.15	4852.9	999.1	293.14	3966.3	994.6	293.15	3071.0	989.9	293.14	2152.1	985.2
293.14	4840.8	999.2	293.14	3956.3	994.8	293.15	3059.5	989.9	293.15	2139.1	985.0
293.14	4828.3	999.1	293.15	3946.2	994.6	293.15	3048.5	989.8	293.15	2127.3	984.9
293.14	4815.5	998.9	293.15	3936.0	994.7	293.15	3035.8	989.9	293.15	2115.5	984.8
293.14	4803.4	998.9	293.15	3926.6	994.5	293.15	3023.5	989.8	293.14	2103.6	984.6
293.14	4792.1	998.8	293.15	3916.9	994.5	293.15	3010.8	989.8	293.14	2093.0	984.6
293.14	4781.0	998.7	293.15	3906.4	994.3	293.15	2998.7	989.6	293.14	2081.4	984.5
293.14	4767.5	998.7	293.15	3895.3	994.4	293.15	2987.4	989.7	293.14	2070.6	984.6
293.14	4755.3	998.6	293.15	3885.6	994.2	293.14	2975.6	989.6	293.14	2058.8	984.5
293.14	4742.1	998.6	293.15	3875.0	994.2	293.14	2962.8	989.5	293.14	2048.1	984.3
293.14	4730.3	998.5	293.15	3863.8	994.3	293.14	2950.7	989.4	293.14	2037.8	984.3
293.14	4718.4	998.4	293.14	3853.0	994.2	293.14	2938.4	989.4	293.14	2026.4	984.3
293.14	4705.2	998.4	293.14	3841.6	994.0	293.14	2926.8	989.3	293.14	2014.7	984.0
293.14	4693.5	998.5	293.14	3830.5	994.1	293.14	2915.7	989.2	293.14	2003.1	984.2
293.14	4681.7	998.3	293.14	3820.6	993.9	293.14	2904.2	989.2	293.15	1990.3	984.1
293.14	4670.3	998.2	293.14	3810.6	993.8	293.14	2892.4	989.2	293.15	1979.0	984.0
293.14	4659.6	998.3	293.14	3800.0	993.8	293.14	2881.3	989.1	293.15	1966.8	984.0
293.15	4646.2	998.3	293.14	3789.4	993.8	293.14	2870.1	988.9	293.15	1955.9	983.9
293.15	4633.6	998.1	293.14	3778.7	993.7	293.14	2859.3	988.8	293.15	1945.1	983.8
293.15	4622.9	997.9	293.14	3768.0	993.8	293.14	2848.2	988.8	293.15	1933.3	983.7
293.15	4611.1	998.0	293.14	3756.9	993.6	293.14	2836.4	988.8	293.15	1921.9	983.7
293.14	4599.1	997.9	293.14	3745.3	993.5	293.14	2824.6	988.7			
293.14	4588.1	997.9	293.14	3734.5	993.4	293.14	2813.4	988.6			
293.14	4576.6	997.8	293.14	3724.0	993.4	293.14	2801.6	988.8			
293.14	4564.7	997.7	293.14	3714.3	993.3	293.14	2791.0	988.4			

Tabella D3: Valori della densità del fluido R32 per T = 303.15 K (30°C)

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
303.15	35008.3	1072.0	303.15	34107.0	1069.7	303.15	33237.0	1067.4	303.16	32374.3	1065.1
303.15	34994.9	1071.9	303.15	34095.7	1069.6	303.15	33225.9	1067.3	303.16	32363.0	1065.2
303.15	34982.2	1071.9	303.15	34083.6	1069.6	303.15	33216.0	1067.4	303.15	32350.7	1065.1
303.15	34969.8	1071.8	303.15	34072.3	1069.6	303.15	33205.0	1067.3	303.15	32338.4	1065.1
303.15	34956.9	1071.7	303.15	34060.2	1069.6	303.15	33194.3	1067.1	303.15	32326.4	1065.0
303.15	34944.4	1071.6	303.15	34049.3	1069.4	303.15	33183.3	1067.2	303.15	32314.3	1064.9
303.15	34931.8	1071.8	303.15	34036.8	1069.4	303.15	33172.2	1067.4	303.15	32302.8	1064.9
303.15	34919.3	1071.7	303.15	34024.9	1069.5	303.15	33161.2	1067.3	303.16	32291.0	1064.9
303.15	34907.8	1071.7	303.15	34013.9	1069.4	303.15	33150.3	1067.2	303.16	32278.4	1064.9
303.15	34894.8	1071.6	303.15	34002.3	1069.4	303.15	33139.6	1067.1	303.16	32266.1	1064.9
303.15	34882.0	1071.6	303.15	33990.2	1069.3	303.15	33128.2	1067.2	303.16	32254.6	1064.8
303.15	34869.6	1071.5	303.15	33978.0	1069.3	303.15	33117.8	1067.1	303.16	32241.9	1064.7
303.15	34857.1	1071.6	303.15	33966.5	1069.3	303.15	33107.0	1067.2	303.16	32230.3	1064.7
303.15	34845.0	1071.5	303.15	33954.7	1069.3	303.15	33097.1	1066.9	303.16	32218.4	1064.7
303.15	34833.6	1071.4	303.15	33942.8	1069.1	303.15	33086.0	1066.9	303.16	32207.3	1064.7
303.15	34821.8	1071.4	303.15	33930.9	1069.3	303.15	33074.3	1066.9	303.16	32195.2	1064.7
303.15	34810.1	1071.3	303.15	33917.2	1069.1	303.15	33063.0	1066.8	303.16	32183.8	1064.7
303.15	34797.6	1071.3	303.15	33905.4	1069.2	303.15	33052.3	1066.9	303.16	32172.0	1064.4
303.15	34786.0	1071.4	303.15	33893.1	1069.2	303.15	33041.6	1066.9	303.16	32160.1	1064.7
303.15	34774.3	1071.2	303.15	33880.8	1069.2	303.15	33031.1	1066.9	303.16	32149.7	1064.6
303.15	34762.6	1071.2	303.15	33868.5	1069.1	303.15	33020.0	1066.7	303.16	32137.9	1064.5
303.15	34751.7	1071.2	303.15	33857.9	1069.0	303.15	33008.6	1066.7	303.16	32126.2	1064.6
303.15	34740.4	1071.3	303.15	33846.1	1068.9	303.15	32997.1	1066.8	303.16	32115.1	1064.5
303.15	34727.8	1071.2	303.15	33834.0	1068.8	303.15	32987.1	1066.6	303.16	32103.1	1064.4
303.15	34715.0	1071.3	303.15	33822.2	1068.9	303.15	32975.5	1066.8	303.16	32092.3	1064.4
303.15	34702.6	1071.2	303.15	33810.4	1068.8	303.15	32964.6	1066.8	303.16	32080.5	1064.3
303.15	34689.8	1071.1	303.15	33799.8	1068.8	303.15	32953.8	1066.7	303.16	32069.2	1064.3
303.15	34678.8	1071.1	303.15	33788.4	1068.7	303.15	32943.2	1066.6	303.16	32058.9	1064.3
303.15	34665.9	1071.1	303.15	33777.1	1068.8	303.15	32932.5	1066.6	303.16	32047.3	1064.3
303.15	34653.5	1071.1	303.15	33764.4	1068.8	303.15	32921.4	1066.6	303.16	32036.7	1064.3
303.15	34641.0	1070.9	303.15	33752.5	1068.8	303.15	32908.3	1066.5	303.16	32025.3	1064.1
303.15	34627.5	1071.1	303.15	33740.6	1068.8	303.15	32896.1	1066.4	303.16	32013.2	1064.1
303.15	34615.1	1070.9	303.15	33729.5	1068.5	303.15	32882.9	1066.5	303.16	32002.6	1064.2
303.15	34603.7	1070.9	303.15	33718.0	1068.6	303.15	32869.7	1066.4	303.16	31990.7	1064.1
303.15	34590.9	1070.8	303.15	33705.7	1068.5	303.15	32856.4	1066.4	303.16	31979.9	1064.0
303.15	34578.8	1070.9	303.15	33695.4	1068.6	303.15	32844.9	1066.4	303.16	31968.4	1064.1
303.15	34566.8	1070.7	303.15	33684.0	1068.5	303.15	32832.1	1066.3	303.16	31956.3	1063.9
303.15	34554.8	1070.8	303.15	33671.9	1068.5	303.15	32819.4	1066.3	303.16	31945.0	1063.9
303.15	34542.8	1070.8	303.15	33659.6	1068.5	303.15	32806.7	1066.3	303.16	31932.9	1064.1
303.15	34532.0	1070.8	303.15	33649.0	1068.4	303.15	32795.2	1066.2	303.16	31922.1	1064.0
303.15	34519.9	1070.7	303.15	33637.0	1068.5	303.15	32783.6	1066.2	303.16	31911.7	1063.8
303.15	34507.7	1070.7	303.15	33626.0	1068.4	303.15	32771.1	1066.1	303.16	31900.4	1063.9
303.15	34495.6	1070.7	303.15	33613.6	1068.5	303.15	32758.8	1066.2	303.16	31888.8	1063.9
303.15	34482.2	1070.6	303.15	33602.1	1068.4	303.15	32747.3	1066.1	303.16	31878.2	1063.7
303.15	34471.0	1070.6	303.15	33590.2	1068.3	303.15	32735.2	1066.0	303.16	31866.1	1063.7
303.15	34458.6	1070.5	303.15	33578.8	1068.3	303.15	32722.4	1065.9	303.16	31855.3	1063.8
303.15	34446.6	1070.4	303.15	33567.6	1068.2	303.15	32710.4	1065.9	303.16	31843.8	1063.8
303.15	34434.5	1070.4	303.15	33555.6	1068.2	303.15	32699.7	1066.0	303.16	31832.5	1063.8
303.15	34422.4	1070.4	303.15	33544.8	1068.1	303.15	32688.4	1066.0	303.16	31821.2	1063.7
303.15	34410.3	1070.4	303.15	33533.5	1068.1	303.15	32677.3	1066.0	303.16	31810.7	1063.5
303.15	34397.8	1070.3	303.15	33521.1	1068.0	303.15	32666.4	1065.8	303.16	31799.7	1063.6
303.15	34385.7	1070.4	303.15	33508.5	1068.0	303.15	32655.0	1065.8	303.16	31788.1	1063.5
303.15	34373.8	1070.2	303.15	33496.6	1068.0	303.15	32643.1	1065.8	303.16	31776.2	1063.5
303.15	34361.7	1070.3	303.15	33485.3	1067.9	303.15	32631.4	1065.8	303.16	31765.3	1063.6
303.15	34349.5	1070.2	303.15	33474.2	1068.0	303.15	32619.7	1065.7	303.16	31759.7	1063.4
303.15	34339.0	1070.1	303.15	33462.6	1068.0	303.15	32608.6	1065.7	303.16	31756.4	1063.4
303.15	34326.9	1070.1	303.15	33450.7	1067.9	303.15	32596.6	1065.7	303.16	31748.9	1063.4
303.15	34314.6	1070.1	303.15	33440.2	1067.8	303.15	32584.0	1065.6	303.16	31741.2	1063.4
303.15	34302.5	1070.2	303.15	33429.1	1067.8	303.16	32572.8	1065.6	303.16	31732.9	1063.4
303.15	34290.6	1070.1	303.15	33417.6	1067.9	303.15	32561.9	1065.6	303.16	31722.6	1063.3
303.15	34279.2	1070.2	303.15	33406.3	1067.8	303.15	32550.5	1065.5	303.16	31716.5	1063.3
303.15	34268.8	1070.2	303.15	33395.1	1067.8	303.15	32539.0	1065.6	303.16	31709.3	1063.2
303.15	34257.3	1070.0	303.15	33383.1	1067.8	303.16	32528.0	1065.5	303.16	31699.5	1063.2
303.15	34245.6	1069.9	303.15	33371.6	1067.8	303.16	32516.0	1065.5	303.16	31686.2	1063.3
303.15	34233.1	1069.9	303.15	33359.7	1067.7	303.16	32505.0	1065.4	303.16	31671.7	1063.2
303.15	34222.4	1069.9	303.15	33348.2	1067.6	303.15	32492.9	1065.5	303.16	31657.5	1063.2
303.15	34210.8	1070.0	303.15	33336.2	1067.8	303.15	32480.7	1065.3	303.16	31645.5	1063.2
303.15	34199.7	1069.8	303.15	33324.3	1067.7	303.15	32469.4	1065.4	303.16	31632.5	1063.1
303.15	34188.3	1069.8	303.15	33313.6	1067.5	303.15	32457.1	1065.3	303.16	31619.5	1063.0
303.15	34177.0	1069.8	303.15	33302.0	1067.6	303.15	32444.6	1065.3	303.16	31606.2	1063.0
303.15	34165.9	1069.7	303.15	33291.6	1067.5	303.15	32433.4	1065.2	303.16	31592.7	1063.0
303.15	34153.9	1069.8	303.15	33280.5	1067.4	303.15	32421.0	1065.2	303.16	31579.0	1063.0
303.15	34142.7	1069.7	303.15	33269.6	1067.4	303.16	32409.3	1065.3	303.16	31566.2	1063.0
303.15	34130.7	1069.7	303.15	33258.0	1067.4	303.16	32398.0	1065.2	303.16	31554.7	1062.9
303.15	34119.6	1069.7	303.15	33248.2	1067.4	303.16	32386.3	1065.1	303.16	31540.8	1062.9

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
303.16	31527.9	1062.9	303.16	30575.0	1060.3	303.16	29637.3	1057.6	303.16	28690.1	1055.0
303.16	31515.4	1062.8	303.16	30562.8	1060.3	303.16	29625.6	1057.6	303.16	28677.5	1055.0
303.16	31503.1	1062.8	303.16	30550.5	1060.2	303.16	29614.1	1057.7	303.16	28664.9	1054.9
303.16	31490.3	1062.7	303.16	30537.8	1060.2	303.16	29602.1	1057.6	303.16	28653.2	1054.9
303.16	31477.7	1062.7	303.16	30525.8	1060.1	303.16	29590.5	1057.5	303.16	28641.1	1054.9
303.16	31466.6	1062.7	303.16	30513.6	1060.1	303.16	29578.8	1057.5	303.16	28628.8	1054.8
303.16	31454.2	1062.6	303.16	30502.2	1060.1	303.16	29566.5	1057.5	303.16	28616.5	1054.8
303.16	31442.2	1062.5	303.16	30490.5	1060.1	303.16	29554.6	1057.5	303.16	28603.9	1054.8
303.16	31430.0	1062.6	303.16	30478.7	1060.0	303.16	29543.6	1057.4	303.16	28591.9	1054.8
303.16	31417.2	1062.5	303.16	30466.2	1059.9	303.16	29530.6	1057.3	303.16	28579.5	1054.7
303.16	31405.4	1062.5	303.16	30453.6	1059.9	303.16	29519.7	1057.3	303.15	28567.6	1054.7
303.16	31393.1	1062.5	303.16	30441.4	1059.9	303.16	29508.0	1057.3	303.15	28555.6	1054.6
303.16	31381.7	1062.4	303.16	30429.9	1059.8	303.16	29496.5	1057.3	303.15	28542.4	1054.5
303.16	31370.1	1062.5	303.16	30417.7	1059.8	303.16	29485.5	1057.2	303.15	28531.3	1054.6
303.16	31358.2	1062.4	303.16	30405.5	1059.8	303.16	29473.7	1057.2	303.15	28519.0	1054.5
303.16	31345.8	1062.3	303.16	30393.9	1059.8	303.16	29461.3	1057.1	303.15	28507.0	1054.4
303.16	31333.6	1062.3	303.16	30383.1	1059.7	303.16	29449.1	1057.1	303.15	28494.2	1054.4
303.16	31321.3	1062.3	303.16	30370.8	1059.7	303.16	29436.9	1057.1	303.15	28481.3	1054.4
303.16	31308.9	1062.3	303.16	30358.9	1059.7	303.16	29424.8	1057.1	303.15	28468.4	1054.4
303.16	31296.3	1062.2	303.16	30347.6	1059.6	303.16	29412.7	1057.1	303.15	28456.1	1054.3
303.16	31283.4	1062.2	303.16	30335.6	1059.6	303.16	29401.8	1057.0	303.15	28444.1	1054.3
303.16	31270.1	1062.2	303.16	30323.1	1059.6	303.16	29390.1	1057.0	303.15	28431.1	1054.3
303.16	31258.5	1062.0	303.16	30311.6	1059.6	303.16	29377.0	1056.9	303.15	28418.0	1054.2
303.16	31246.1	1062.0	303.16	30300.3	1059.6	303.16	29364.6	1056.8	303.15	28405.5	1054.2
303.16	31235.0	1062.1	303.16	30287.7	1059.5	303.16	29353.4	1056.9	303.15	28394.2	1054.2
303.16	31223.2	1062.0	303.16	30274.7	1059.5	303.16	29341.2	1056.8	303.15	28381.8	1054.1
303.16	31210.7	1061.9	303.16	30261.9	1059.4	303.16	29329.4	1056.8	303.15	28370.5	1054.1
303.16	31198.2	1062.0	303.16	30250.5	1059.4	303.16	29316.6	1056.8	303.15	28358.3	1054.1
303.16	31185.1	1061.9	303.16	30238.4	1059.3	303.16	29304.5	1056.7	303.15	28345.9	1054.0
303.16	31172.7	1061.9	303.16	30225.7	1059.3	303.16	29292.7	1056.7	303.15	28333.8	1053.9
303.16	31159.9	1061.8	303.16	30213.6	1059.3	303.16	29280.1	1056.7	303.15	28321.8	1054.0
303.16	31146.3	1061.8	303.16	30200.7	1059.2	303.16	29268.1	1056.6	303.15	28310.0	1053.9
303.16	31134.2	1061.8	303.16	30187.5	1059.2	303.16	29256.0	1056.5	303.15	28298.1	1053.9
303.16	31123.1	1061.7	303.16	30175.5	1059.1	303.16	29244.5	1056.7	303.15	28285.6	1053.8
303.16	31110.7	1061.7	303.16	30163.0	1059.1	303.16	29232.9	1056.5	303.15	28274.2	1053.8
303.16	31097.9	1061.7	303.16	30150.7	1059.1	303.16	29221.7	1056.5	303.15	28262.0	1053.8
303.16	31085.8	1061.6	303.16	30137.5	1059.0	303.16	29210.2	1056.5	303.15	28249.8	1053.7
303.16	31072.4	1061.7	303.16	30126.6	1059.0	303.16	29198.2	1056.5	303.15	28237.4	1053.7
303.15	31060.4	1061.6	303.16	30114.8	1059.0	303.16	29186.2	1056.5	303.15	28224.6	1053.7
303.16	31048.1	1061.6	303.16	30103.7	1059.0	303.16	29174.0	1056.4	303.15	28212.9	1053.7
303.16	31036.1	1061.5	303.16	30091.6	1059.0	303.16	29163.8	1056.3	303.15	28200.2	1053.6
303.16	31024.1	1061.5	303.16	30080.3	1058.9	303.16	29152.4	1056.3	303.15	28187.9	1053.5
303.16	31011.6	1061.5	303.16	30068.9	1058.8	303.16	29141.0	1056.3	303.15	28174.1	1053.5
303.16	30998.6	1061.5	303.16	30057.3	1058.8	303.16	29129.7	1056.3	303.15	28161.1	1053.5
303.16	30987.1	1061.4	303.16	30045.2	1058.8	303.16	29118.5	1056.2	303.15	28148.5	1053.4
303.16	30975.1	1061.3	303.16	30032.6	1058.7	303.16	29106.3	1056.2	303.15	28137.0	1053.4
303.16	30963.1	1061.4	303.16	30019.1	1058.8	303.16	29093.5	1056.1	303.15	28124.1	1053.3
303.16	30951.3	1061.4	303.16	30007.0	1058.7	303.16	29081.1	1056.1	303.15	28111.8	1053.4
303.15	30939.8	1061.2	303.16	29994.1	1058.7	303.16	29067.6	1056.1	303.15	28097.4	1053.3
303.16	30927.7	1061.3	303.16	29981.2	1058.6	303.16	29053.2	1056.1	303.15	28084.3	1053.3
303.16	30915.2	1061.3	303.16	29967.8	1058.6	303.16	29040.7	1056.0	303.15	28071.7	1053.1
303.16	30902.8	1061.2	303.16	29955.3	1058.6	303.16	29029.3	1056.0	303.15	28059.0	1053.2
303.16	30890.5	1061.1	303.16	29942.2	1058.5	303.16	29017.3	1056.0	303.15	28046.7	1053.1
303.16	30878.2	1061.0	303.16	29929.6	1058.5	303.16	29005.6	1055.9	303.15	28034.7	1053.2
303.16	30866.2	1061.0	303.16	29916.5	1058.5	303.16	28993.9	1055.9	303.15	28023.0	1053.1
303.16	30854.0	1061.1	303.16	29903.5	1058.4	303.16	28982.4	1055.9	303.15	28011.2	1053.1
303.16	30841.7	1061.0	303.16	29891.8	1058.3	303.16	28970.4	1055.8	303.15	27998.9	1053.0
303.16	30829.4	1061.0	303.16	29880.0	1058.3	303.16	28958.6	1055.8	303.15	27986.9	1053.0
303.16	30817.7	1061.0	303.16	29868.0	1058.3	303.16	28946.0	1055.7	303.15	27975.0	1052.9
303.16	30805.6	1060.9	303.16	29855.8	1058.3	303.16	28932.0	1055.7	303.15	27961.6	1052.9
303.16	30793.4	1060.9	303.16	29844.6	1058.2	303.16	28918.6	1055.6	303.15	27948.8	1052.8
303.16	30782.4	1060.8	303.16	29834.5	1058.2	303.16	28907.3	1055.6	303.15	27936.6	1052.8
303.16	30768.9	1060.8	303.16	29823.1	1058.2	303.16	28894.7	1055.6	303.15	27924.1	1052.8
303.16	30756.4	1060.8	303.16	29811.8	1058.2	303.16	28882.2	1055.6	303.15	27912.0	1052.8
303.16	30745.4	1060.8	303.16	29800.2	1058.1	303.16	28870.4	1055.6	303.15	27899.9	1052.7
303.16	30732.2	1060.8	303.16	29789.8	1058.2	303.16	28857.4	1055.5	303.15	27888.0	1052.7
303.16	30719.9	1060.7	303.16	29779.3	1057.9	303.16	28843.5	1055.4	303.15	27875.4	1052.7
303.16	30707.7	1060.7	303.16	29769.5	1058.1	303.16	28830.1	1055.4	303.15	27863.0	1052.6
303.16	30696.7	1060.6	303.16	29757.7	1058.0	303.16	28816.9	1055.3	303.15	27851.6	1052.6
303.16	30683.6	1060.6	303.16	29744.5	1058.0	303.17	28803.5	1055.4	303.15	27840.2	1052.6
303.16	30671.4	1060.5	303.16	29732.5	1057.9	303.16	28789.9	1055.3	303.15	27827.8	1052.5
303.16	30659.5	1060.5	303.16	29720.5	1058.0	303.16	28776.9	1055.3	303.15	27815.0	1052.5
303.16	30646.7	1060.5	303.16	29709.0	1057.9	303.16	28764.3	1055.3	303.15	27802.1	1052.4
303.16	30634.5	1060.4	303.16	29697.1	1057.8	303.16	28752.0	1055.2	303.15	27789.7	1052.5
303.16	30623.1	1060.4	303.16	29685.8	1057.7	303.16	28739.5	1055.1	303.15	27776.6	1052.4
303.16	30611.3	1060.3	303.16	29673.0	1057.7	303.16	28727.4	1055.1	303.15	27765.7	1052.3
303.16	30598.4	1060.3	303.16	29660.9	1057.7	303.16	28715.0	1055.0	303.15	27752.6	1052.3
303.16	30587.2	1060.3	303.16	29649.7	1057.8	303.16	28702.4	1055.0	303.15	27739.9	1052.2

Valori della densità del fluido R32 _ *T*=30°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
303.15	27726.5	1052.2	303.15	26796.8	1049.6	303.15	25872.7	1046.8	303.15	24927.2	1043.9
303.15	27714.0	1052.2	303.15	26786.2	1049.5	303.15	25861.2	1046.7	303.15	24914.6	1043.8
303.15	27701.1	1052.2	303.15	26775.3	1049.4	303.15	25849.1	1046.7	303.15	24902.6	1043.8
303.15	27688.5	1052.1	303.15	26763.1	1049.5	303.15	25836.9	1046.7	303.15	24891.0	1043.8
303.15	27676.2	1052.1	303.15	26751.6	1049.3	303.15	25823.8	1046.6	303.15	24879.0	1043.8
303.15	27663.9	1052.1	303.15	26738.8	1049.3	303.15	25811.5	1046.6	303.15	24866.7	1043.7
303.15	27652.0	1052.1	303.15	26727.3	1049.3	303.15	25798.7	1046.5	303.15	24855.2	1043.7
303.15	27640.4	1052.0	303.15	26715.5	1049.3	303.15	25785.6	1046.5	303.15	24843.4	1043.6
303.15	27629.2	1051.9	303.15	26703.4	1049.3	303.15	25774.1	1046.4	303.15	24831.0	1043.6
303.15	27617.3	1051.9	303.15	26692.4	1049.2	303.15	25760.2	1046.4	303.15	24818.8	1043.5
303.15	27605.0	1051.8	303.15	26680.4	1049.1	303.15	25748.0	1046.4	303.15	24807.4	1043.5
303.15	27592.2	1051.8	303.15	26669.2	1049.1	303.15	25735.8	1046.4	303.15	24795.5	1043.5
303.15	27580.4	1051.8	303.15	26657.7	1049.1	303.15	25722.8	1046.3	303.15	24784.3	1043.4
303.15	27568.3	1051.8	303.15	26645.1	1049.1	303.15	25710.1	1046.3	303.15	24771.9	1043.5
303.15	27556.2	1051.7	303.15	26633.7	1049.0	303.15	25696.3	1046.2	303.15	24759.3	1043.4
303.15	27544.1	1051.7	303.15	26621.8	1049.0	303.15	25684.3	1046.1	303.15	24747.6	1043.4
303.15	27531.4	1051.7	303.15	26610.0	1049.0	303.15	25672.2	1046.1	303.15	24736.3	1043.2
303.15	27519.2	1051.6	303.15	26597.6	1049.0	303.15	25659.5	1046.1	303.15	24724.1	1043.3
303.15	27507.4	1051.5	303.15	26586.0	1048.9	303.15	25646.8	1046.1	303.15	24712.4	1043.3
303.15	27495.1	1051.6	303.15	26574.5	1048.8	303.15	25635.0	1046.1	303.15	24700.7	1043.2
303.15	27482.2	1051.6	303.15	26562.5	1048.8	303.15	25622.9	1046.0	303.15	24689.7	1043.2
303.15	27469.3	1051.5	303.15	26550.8	1048.8	303.15	25610.8	1046.0	303.15	24678.3	1043.2
303.15	27457.8	1051.4	303.15	26539.3	1048.8	303.15	25599.0	1045.9	303.15	24666.1	1043.1
303.15	27446.1	1051.4	303.15	26527.9	1048.8	303.15	25587.0	1045.8	303.15	24654.2	1043.1
303.15	27433.9	1051.4	303.15	26516.8	1048.7	303.15	25575.4	1045.8	303.15	24642.3	1043.0
303.15	27421.9	1051.3	303.15	26504.9	1048.7	303.15	25563.2	1045.8	303.15	24629.8	1043.0
303.15	27409.4	1051.3	303.15	26493.3	1048.6	303.15	25552.2	1045.7	303.15	24617.4	1043.0
303.15	27397.0	1051.3	303.15	26481.7	1048.6	303.15	25540.3	1045.7	303.15	24605.6	1042.8
303.15	27384.9	1051.2	303.15	26470.3	1048.6	303.15	25529.6	1045.7	303.15	24592.8	1042.8
303.15	27372.2	1051.3	303.15	26457.9	1048.5	303.15	25518.2	1045.7	303.15	24580.6	1042.8
303.15	27360.2	1051.1	303.15	26445.8	1048.5	303.15	25506.5	1045.6	303.15	24569.0	1042.8
303.15	27349.0	1051.1	303.15	26433.1	1048.4	303.15	25494.8	1045.5	303.15	24556.6	1042.7
303.15	27337.5	1051.1	303.15	26421.4	1048.4	303.15	25482.0	1045.6	303.15	24545.0	1042.7
303.15	27325.1	1051.0	303.15	26409.2	1048.4	303.15	25469.8	1045.5	303.15	24533.0	1042.7
303.15	27313.6	1051.0	303.15	26397.4	1048.3	303.15	25456.7	1045.5	303.15	24521.5	1042.6
303.15	27301.9	1051.0	303.15	26385.1	1048.3	303.15	25443.5	1045.4	303.15	24509.9	1042.6
303.15	27290.2	1050.9	303.15	26372.8	1048.3	303.15	25431.6	1045.4	303.15	24497.3	1042.6
303.15	27277.7	1050.9	303.15	26360.3	1048.2	303.15	25419.6	1045.4	303.15	24484.4	1042.5
303.15	27265.8	1050.9	303.15	26348.9	1048.2	303.15	25407.4	1045.3	303.15	24472.5	1042.5
303.15	27254.4	1050.9	303.15	26337.0	1048.2	303.15	25394.9	1045.3	303.15	24460.3	1042.5
303.15	27243.0	1050.8	303.15	26325.5	1048.1	303.15	25383.6	1045.2	303.15	24447.1	1042.4
303.15	27231.6	1050.9	303.15	26313.4	1048.1	303.15	25371.4	1045.2	303.15	24434.9	1042.4
303.15	27219.2	1050.8	303.15	26302.0	1048.1	303.15	25359.2	1045.2	303.15	24423.5	1042.3
303.15	27207.8	1050.7	303.15	26289.8	1048.0	303.15	25347.9	1045.1	303.15	24411.0	1042.3
303.15	27196.7	1050.6	303.15	26278.0	1048.0	303.15	25336.0	1045.1	303.15	24398.4	1042.2
303.15	27184.2	1050.6	303.15	26266.1	1048.0	303.15	25323.8	1045.1	303.15	24386.1	1042.2
303.15	27171.7	1050.6	303.15	26253.5	1047.9	303.15	25312.3	1045.0	303.15	24375.6	1042.1
303.15	27159.9	1050.6	303.15	26242.0	1047.9	303.15	25300.0	1045.0	303.15	24363.2	1042.1
303.15	27148.8	1050.6	303.15	26230.6	1047.8	303.15	25288.8	1045.0	303.15	24351.8	1042.1
303.15	27137.7	1050.5	303.15	26218.0	1047.8	303.15	25276.1	1044.9	303.16	24338.2	1042.0
303.15	27125.6	1050.5	303.15	26205.3	1047.8	303.15	25264.9	1044.9	303.15	24327.0	1042.0
303.15	27113.9	1050.4	303.15	26192.9	1047.8	303.15	25252.4	1044.9	303.15	24316.7	1042.0
303.15	27102.9	1050.4	303.15	26180.5	1047.7	303.15	25239.9	1044.8	303.15	24304.9	1042.0
303.15	27091.7	1050.4	303.15	26168.9	1047.7	303.15	25228.4	1044.8	303.15	24293.0	1041.9
303.15	27079.6	1050.4	303.15	26156.9	1047.5	303.15	25216.4	1044.8	303.15	24282.1	1041.8
303.15	27067.3	1050.3	303.15	26145.3	1047.5	303.15	25203.5	1044.7	303.15	24270.2	1041.8
303.15	27056.1	1050.3	303.15	26131.9	1047.6	303.15	25191.3	1044.7	303.15	24258.5	1041.8
303.15	27044.9	1050.2	303.15	26119.3	1047.5	303.15	25178.7	1044.6	303.15	24247.5	1041.8
303.15	27032.8	1050.2	303.15	26106.9	1047.4	303.16	25167.0	1044.6	303.15	24235.2	1041.7
303.15	27020.9	1050.2	303.15	26094.6	1047.4	303.15	25154.4	1044.6	303.15	24223.4	1041.8
303.15	27009.4	1050.1	303.15	26081.8	1047.4	303.15	25142.5	1044.5	303.15	24211.3	1041.7
303.15	26997.5	1050.1	303.15	26070.9	1047.3	303.15	25130.6	1044.5	303.15	24200.2	1041.7
303.15	26984.6	1050.1	303.15	26058.4	1047.3	303.15	25118.2	1044.5	303.15	24188.5	1041.6
303.15	26973.1	1050.0	303.15	26045.8	1047.3	303.15	25107.2	1044.4	303.15	24177.2	1041.5
303.15	26960.9	1050.0	303.15	26035.0	1047.2	303.15	25094.6	1044.3	303.15	24164.7	1041.5
303.15	26949.6	1050.0	303.15	26024.0	1047.2	303.15	25082.2	1044.3	303.15	24152.6	1041.5
303.15	26938.1	1050.0	303.15	26011.9	1047.1	303.15	25069.8	1044.4	303.15	24140.9	1041.5
303.15	26925.5	1049.9	303.15	26000.3	1047.1	303.15	25058.5	1044.3	303.15	24129.8	1041.4
303.15	26913.2	1049.8	303.15	25989.0	1047.1	303.15	25046.5	1044.3	303.15	24118.0	1041.3
303.15	26901.6	1049.8	303.15	25976.8	1047.1	303.15	25034.8	1044.2	303.15	24107.0	1041.3
303.15	26889.3	1049.8	303.15	25964.6	1047.1	303.15	25023.5	1044.2	303.15	24095.8	1041.3
303.15	26877.6	1049.8	303.15	25953.0	1047.0	303.15	25011.8	1044.1	303.15	24084.1	1041.3
303.15	26865.0	1049.7	303.15	25940.8	1047.0	303.15	24999.8	1044.1	303.15	24073.4	1041.3
303.15	26853.5	1049.6	303.15	25928.6	1046.9	303.15	24987.4	1044.1	303.15	24061.3	1041.2
303.15	26842.7	1049.6	303.15	25918.8	1046.9	303.16	24975.8	1044.0	303.15	24049.1	1041.1
303.15	26831.9	1049.6	303.15	25908.4	1046.9	303.15	24963.0	1044.0	303.15	24038.3	1041.1
303.15	26821.1	1049.6	303.15	25897.5	1046.8	303.15	24950.8	1044.0	303.15	24026.1	1041.0
303.15	26808.9	1049.6	303.15	25884.9	1046.8	303.15	24938.8	1043.9	303.15	24013.0	1041.0

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
303.15	24001.3	1041.0	303.15	23086.2	1038.1	303.16	22158.3	1035.1	303.16	21224.1	1032.0
303.15	23990.0	1040.9	303.15	23074.4	1038.1	303.16	22145.6	1035.1	303.16	21211.9	1032.0
303.15	23977.9	1040.9	303.15	23063.3	1038.0	303.16	22132.7	1035.0	303.15	21199.2	1031.9
303.15	23966.5	1040.9	303.15	23050.6	1038.0	303.16	22120.2	1034.9	303.15	21187.6	1031.8
303.15	23954.0	1040.8	303.15	23038.3	1037.9	303.16	22105.9	1035.0	303.16	21175.1	1031.8
303.15	23942.8	1040.8	303.15	23026.7	1037.8	303.15	22094.6	1034.9	303.15	21164.2	1031.6
303.15	23931.7	1040.8	303.15	23014.2	1037.9	303.15	22083.4	1034.9	303.15	21152.1	1031.8
303.16	23919.1	1040.7	303.15	23001.6	1037.8	303.15	22071.0	1034.8	303.15	21139.2	1031.8
303.15	23907.4	1040.7	303.15	22989.5	1037.8	303.15	22058.7	1034.8	303.15	21126.5	1031.6
303.15	23895.7	1040.6	303.15	22977.4	1037.7	303.16	22047.4	1034.7	303.15	21114.1	1031.6
303.15	23883.4	1040.6	303.15	22966.3	1037.7	303.15	22036.0	1034.7	303.16	21101.8	1031.6
303.15	23871.5	1040.6	303.15	22955.5	1037.6	303.15	22024.6	1034.6	303.15	21090.2	1031.6
303.15	23860.7	1040.6	303.15	22944.7	1037.6	303.15	22013.6	1034.6	303.16	21078.2	1031.4
303.15	23848.3	1040.5	303.15	22932.7	1037.6	303.16	22002.1	1034.6	303.15	21065.8	1031.5
303.15	23836.6	1040.5	303.15	22922.9	1037.6	303.15	21990.7	1034.6	303.15	21054.2	1031.4
303.15	23824.3	1040.4	303.15	22910.7	1037.5	303.16	21979.3	1034.5	303.15	21042.4	1031.4
303.15	23813.2	1040.4	303.15	22899.8	1037.4	303.16	21968.4	1034.5	303.15	21030.9	1031.4
303.15	23801.0	1040.3	303.15	22888.9	1037.5	303.15	21957.0	1034.4	303.15	21019.8	1031.3
303.15	23789.0	1040.3	303.15	22876.9	1037.4	303.15	21944.5	1034.4	303.15	21007.5	1031.3
303.15	23777.2	1040.3	303.15	22864.9	1037.3	303.15	21932.1	1034.3	303.15	20995.3	1031.2
303.15	23766.0	1040.3	303.15	22853.3	1037.3	303.16	21919.8	1034.3	303.16	20984.3	1031.1
303.15	23755.3	1040.2	303.15	22841.7	1037.3	303.15	21907.3	1034.2	303.16	20972.4	1031.2
303.15	23744.6	1040.2	303.15	22829.1	1037.2	303.16	21895.1	1034.2	303.15	20960.3	1031.1
303.15	23732.1	1040.1	303.15	22816.6	1037.2	303.16	21881.7	1034.1	303.15	20947.7	1031.0
303.15	23721.2	1040.1	303.15	22805.8	1037.1	303.16	21868.8	1034.1	303.15	20936.6	1031.0
303.15	23709.4	1040.1	303.15	22792.2	1037.2	303.16	21855.0	1034.1	303.15	20924.7	1031.0
303.15	23698.3	1040.1	303.15	22780.2	1037.1	303.16	21843.1	1034.1	303.15	20912.9	1030.9
303.15	23686.6	1040.0	303.15	22769.4	1037.1	303.16	21831.1	1034.0	303.15	20901.9	1030.9
303.15	23674.2	1040.0	303.16	22757.3	1037.0	303.16	21819.4	1033.9	303.16	20888.6	1030.8
303.15	23662.7	1039.9	303.15	22745.4	1037.0	303.15	21808.7	1033.9	303.15	20876.6	1030.8
303.15	23650.3	1039.9	303.15	22732.6	1037.0	303.16	21796.2	1033.9	303.15	20864.9	1030.7
303.15	23639.1	1039.8	303.15	22720.1	1037.0	303.16	21784.3	1033.9	303.15	20853.9	1030.7
303.15	23626.7	1039.8	303.15	22708.5	1036.9	303.16	21772.6	1033.8	303.16	20841.1	1030.7
303.15	23615.0	1039.8	303.15	22696.6	1036.9	303.15	21761.4	1033.8	303.15	20830.1	1030.6
303.15	23602.9	1039.8	303.15	22685.0	1036.8	303.16	21749.7	1033.7	303.16	20818.0	1030.5
303.15	23591.0	1039.7	303.15	22673.3	1036.7	303.16	21737.7	1033.7	303.16	20804.8	1030.5
303.16	23579.6	1039.6	303.15	22661.0	1036.7	303.16	21725.9	1033.7	303.15	20793.0	1030.5
303.15	23568.6	1039.6	303.15	22649.1	1036.7	303.16	21715.1	1033.7	303.16	20781.9	1030.5
303.15	23556.3	1039.6	303.15	22636.5	1036.6	303.16	21702.3	1033.6	303.15	20769.2	1030.5
303.15	23544.2	1039.5	303.15	22625.6	1036.6	303.15	21689.1	1033.5	303.15	20758.2	1030.4
303.15	23531.8	1039.6	303.15	22614.2	1036.6	303.16	21676.8	1033.5	303.16	20746.6	1030.4
303.15	23520.3	1039.6	303.15	22601.0	1036.6	303.16	21664.7	1033.5	303.15	20734.8	1030.3
303.15	23509.6	1039.4	303.15	22588.8	1036.5	303.16	21653.1	1033.4	303.16	20722.7	1030.3
303.15	23498.1	1039.4	303.15	22578.1	1036.4	303.16	21641.3	1033.4	303.15	20711.2	1030.3
303.15	23486.9	1039.4	303.15	22566.5	1036.4	303.16	21629.1	1033.3	303.16	20698.7	1030.2
303.15	23475.8	1039.3	303.15	22554.4	1036.4	303.16	21616.5	1033.2	303.16	20686.4	1030.1
303.16	23463.8	1039.3	303.15	22542.3	1036.3	303.16	21604.5	1033.3	303.15	20674.5	1030.1
303.15	23452.1	1039.3	303.15	22529.5	1036.3	303.16	21592.8	1033.2	303.16	20663.8	1030.0
303.15	23441.0	1039.2	303.16	22516.3	1036.2	303.15	21580.5	1033.1	303.16	20651.8	1030.0
303.15	23429.1	1039.2	303.16	22503.8	1036.2	303.15	21568.9	1033.2	303.15	20639.4	1029.9
303.15	23417.1	1039.1	303.16	22491.6	1036.2	303.16	21556.3	1033.1	303.16	20628.0	1030.0
303.15	23405.8	1039.1	303.15	22480.2	1036.1	303.15	21543.7	1033.0	303.16	20616.2	1029.9
303.15	23393.4	1039.1	303.16	22467.8	1036.1	303.15	21531.6	1033.0	303.15	20604.8	1029.9
303.15	23381.6	1039.1	303.15	22455.9	1036.1	303.15	21518.8	1032.9	303.16	20592.5	1029.9
303.15	23369.3	1039.0	303.16	22443.1	1036.0	303.15	21506.2	1033.0	303.16	20580.5	1029.8
303.15	23356.5	1039.0	303.16	22430.9	1035.9	303.15	21494.1	1032.9	303.16	20568.9	1029.8
303.15	23344.6	1038.9	303.16	22419.3	1036.0	303.15	21482.9	1032.9	303.16	20558.4	1029.7
303.15	23333.2	1038.9	303.16	22407.5	1035.9	303.16	21471.5	1032.8	303.16	20546.4	1029.7
303.15	23321.2	1038.8	303.16	22395.9	1035.8	303.15	21460.4	1032.8	303.16	20534.0	1029.7
303.15	23309.5	1038.8	303.16	22384.0	1035.8	303.16	21448.3	1032.8	303.16	20522.4	1029.6
303.15	23298.8	1038.8	303.15	22372.8	1035.8	303.16	21436.1	1032.7	303.16	20511.1	1029.6
303.15	23287.2	1038.7	303.15	22360.3	1035.8	303.15	21424.8	1032.7	303.16	20499.7	1029.5
303.15	23275.8	1038.7	303.15	22348.9	1035.7	303.16	21412.5	1032.7	303.16	20487.4	1029.5
303.15	23264.9	1038.6	303.15	22335.8	1035.7	303.15	21400.9	1032.6	303.16	20475.6	1029.4
303.15	23253.3	1038.6	303.15	22325.3	1035.6	303.16	21389.8	1032.5	303.16	20464.0	1029.4
303.15	23241.8	1038.6	303.15	22312.6	1035.6	303.15	21377.4	1032.5	303.16	20452.4	1029.3
303.15	23230.4	1038.5	303.15	22300.4	1035.5	303.15	21364.9	1032.5	303.16	20440.5	1029.3
303.15	23219.8	1038.5	303.16	22288.3	1035.6	303.15	21353.5	1032.4	303.16	20428.4	1029.3
303.15	23208.3	1038.5	303.16	22275.6	1035.5	303.16	21340.9	1032.4	303.16	20417.0	1029.3
303.15	23195.9	1038.4	303.15	22263.2	1035.4	303.16	21329.7	1032.3	303.16	20406.2	1029.2
303.15	23184.6	1038.4	303.16	22252.0	1035.4	303.15	21317.6	1032.3	303.16	20394.6	1029.2
303.15	23171.9	1038.4	303.15	22240.3	1035.3	303.16	21305.9	1032.3	303.16	20382.7	1029.1
303.15	23158.7	1038.3	303.15	22227.6	1035.3	303.16	21293.4	1032.2	303.16	20370.6	1029.1
303.15	23145.1	1038.3	303.15	22217.3	1035.2	303.15	21281.8	1032.2	303.15	20358.4	1029.1
303.15	23132.3	1038.3	303.15	22206.0	1035.2	303.16	21270.7	1032.1	303.16	20347.7	1029.0
303.15	23121.0	1038.2	303.15	22193.8	1035.2	303.15	21258.6	1032.1	303.16	20336.1	1029.0
303.15	23109.2	1038.1	303.15	22181.9	1035.2	303.15	21246.8	1032.1	303.16	20323.9	1028.9
303.15	23098.2	1038.1	303.16	22170.4	1035.1	303.15	21234.9	1032.0	303.16	20313.2	1028.9

Valori della densità del fluido R32 _ *T*=30°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
303.16	20299.9	1028.8	303.15	19299.4	1025.4	303.15	18382.2	1022.1	303.16	17391.4	1018.4
303.16	20288.3	1028.8	303.15	19286.9	1025.3	303.15	18369.6	1022.0	303.16	17380.5	1018.4
303.16	20276.7	1028.8	303.16	19273.7	1025.3	303.15	18356.6	1021.9	303.15	17369.7	1018.3
303.16	20265.3	1028.8	303.16	19263.3	1025.2	303.15	18344.0	1021.9	303.15	17359.1	1018.3
303.16	20254.2	1028.7	303.16	19251.3	1025.2	303.15	18329.6	1021.8	303.15	17347.1	1018.2
303.16	20242.9	1028.6	303.15	19239.1	1025.1	303.15	18316.6	1021.8	303.15	17336.5	1018.3
303.15	20231.2	1028.6	303.15	19229.1	1025.1	303.15	18304.3	1021.8	303.15	17324.9	1018.2
303.15	20220.0	1028.6	303.15	19217.8	1025.1	303.15	18291.8	1021.7	303.15	17313.2	1018.1
303.15	20207.8	1028.5	303.15	19207.0	1025.0	303.15	18278.0	1021.6	303.15	17302.5	1018.1
303.16	20196.9	1028.5	303.15	19196.0	1025.0	303.15	18266.0	1021.6	303.15	17291.5	1018.1
303.16	20184.7	1028.4	303.15	19183.5	1025.0	303.16	18252.5	1021.6	303.15	17279.5	1018.0
303.16	20173.1	1028.5	303.15	19171.2	1024.9	303.15	18240.7	1021.6	303.15	17269.1	1018.0
303.16	20160.7	1028.4	303.15	19159.6	1024.9	303.16	18228.7	1021.5	303.15	17257.1	1018.0
303.16	20148.4	1028.3	303.15	19148.3	1024.9	303.16	18215.4	1021.5	303.15	17246.5	1017.9
303.16	20136.1	1028.2	303.15	19137.2	1024.8	303.15	18204.0	1021.4	303.15	17235.6	1017.8
303.16	20122.1	1028.3	303.15	19125.8	1024.7	303.15	18192.7	1021.4	303.15	17224.0	1017.8
303.16	20108.7	1028.2	303.16	19114.7	1024.7	303.15	18180.2	1021.3	303.15	17211.8	1017.8
303.16	20095.0	1028.1	303.15	19103.6	1024.6	303.15	18167.4	1021.3	303.15	17201.5	1017.8
303.16	20081.0	1028.1	303.15	19093.2	1024.6	303.16	18153.7	1021.2	303.15	17190.2	1017.7
303.16	20067.9	1028.0	303.15	19081.0	1024.6	303.15	18139.8	1021.2	303.15	17179.8	1017.6
303.16	20055.2	1028.0	303.15	19068.6	1024.5	303.16	18126.5	1021.1	303.15	17169.0	1017.6
303.16	20039.7	1027.9	303.15	19057.5	1024.5	303.16	18113.0	1021.1	303.15	17158.3	1017.5
303.16	20024.8	1027.9	303.15	19046.5	1024.5	303.15	18100.9	1021.1	303.16	17148.8	1017.6
303.16	20010.9	1027.8	303.15	19034.5	1024.4	303.16	18087.7	1021.0	303.15	17137.2	1017.5
303.16	19997.9	1027.8	303.15	19024.3	1024.3	303.16	18074.1	1020.9	303.15	17126.7	1017.4
303.16	19983.9	1027.8	303.16	19013.0	1024.4	303.16	18060.6	1020.9	303.15	17114.6	1017.3
303.15	19970.4	1027.7	303.16	19001.6	1024.3	303.15	18046.9	1020.9	303.15	17104.0	1017.3
303.16	19956.1	1027.6	303.15	18990.2	1024.3	303.15	18032.5	1020.8	303.15	17093.1	1017.3
303.15	19941.8	1027.6	303.16	18979.9	1024.2	303.16	18018.3	1020.7	303.15	17081.7	1017.3
303.15	19927.9	1027.6	303.16	18968.8	1024.2	303.16	18004.8	1020.7	303.15	17070.1	1017.2
303.15	19912.7	1027.5	303.16	18958.1	1024.1	303.15	17991.6	1020.6	303.15	17058.0	1017.2
303.15	19898.3	1027.4	303.16	18947.5	1024.1	303.16	17978.3	1020.6	303.15	17047.4	1017.1
303.15	19884.9	1027.5	303.15	18935.3	1024.0	303.16	17964.4	1020.6	303.15	17035.0	1017.1
303.16	19873.3	1027.4	303.16	18923.8	1024.1	303.16	17951.1	1020.5	303.15	17023.0	1017.1
303.16	19858.8	1027.3	303.16	18912.0	1023.9	303.16	17937.9	1020.5	303.15	17011.6	1017.0
303.16	19845.2	1027.3	303.15	18900.1	1023.9	303.16	17922.6	1020.5	303.15	16998.8	1017.0
303.15	19833.0	1027.2	303.15	18888.7	1023.9	303.15	17908.7	1020.4	303.15	16987.4	1016.9
303.15	19820.4	1027.2	303.15	18876.5	1023.9	303.15	17893.8	1020.3	303.15	16974.9	1016.9
303.15	19805.9	1027.1	303.16	18865.6	1023.8	303.15	17880.5	1020.2	303.15	16962.3	1016.9
303.15	19791.6	1027.1	303.16	18854.8	1023.8	303.15	17865.8	1020.2	303.15	16951.1	1016.8
303.15	19777.9	1027.1	303.15	18842.9	1023.7	303.15	17852.6	1020.2	303.15	16939.9	1016.7
303.15	19764.0	1027.0	303.16	18830.8	1023.7	303.15	17838.4	1020.1	303.15	16928.9	1016.7
303.15	19750.4	1027.0	303.15	18818.8	1023.7	303.15	17824.7	1020.0	303.15	16917.5	1016.7
303.15	19735.2	1026.9	303.16	18806.7	1023.6	303.15	17813.0	1020.0	303.15	16904.8	1016.6
303.15	19721.9	1026.9	303.15	18795.4	1023.6	303.16	17799.1	1019.9	303.15	16893.3	1016.5
303.15	19708.4	1026.8	303.15	18784.8	1023.5	303.15	17785.6	1019.9	303.15	16880.5	1016.5
303.15	19694.0	1026.7	303.15	18773.0	1023.5	303.15	17772.3	1019.9	303.15	16868.5	1016.4
303.15	19680.5	1026.7	303.15	18761.6	1023.4	303.15	17758.2	1019.8	303.15	16855.7	1016.4
303.15	19667.5	1026.6	303.15	18750.5	1023.4	303.15	17745.9	1019.7	303.16	16843.4	1016.3
303.16	19653.4	1026.6	303.15	18738.4	1023.4	303.15	17732.1	1019.8	303.15	16832.7	1016.3
303.15	19638.9	1026.6	303.15	18726.9	1023.3	303.15	17719.2	1019.6	303.15	16822.8	1016.3
303.15	19623.6	1026.5	303.16	18714.9	1023.3	303.15	17706.7	1019.6	303.15	16812.5	1016.3
303.15	19610.0	1026.4	303.15	18703.3	1023.3	303.15	17693.9	1019.6	303.15	16802.5	1016.2
303.15	19597.2	1026.4	303.16	18691.0	1023.2	303.15	17680.2	1019.5	303.15	16791.5	1016.2
303.15	19584.4	1026.3	303.16	18678.4	1023.2	303.15	17667.6	1019.5	303.15	16780.2	1016.1
303.16	19572.6	1026.3	303.16	18666.7	1023.0	303.15	17654.9	1019.4	303.15	16769.6	1016.1
303.15	19559.5	1026.3	303.16	18654.5	1023.0	303.15	17642.5	1019.4	303.15	16758.3	1016.0
303.15	19547.3	1026.3	303.16	18643.9	1023.0	303.15	17628.9	1019.3	303.15	16746.5	1016.0
303.15	19534.9	1026.2	303.16	18631.4	1023.0	303.15	17616.4	1019.2	303.15	16734.7	1016.0
303.15	19522.3	1026.1	303.16	18617.9	1023.0	303.15	17604.8	1019.2	303.15	16722.5	1015.9
303.15	19510.3	1026.1	303.15	18604.3	1022.8	303.15	17592.2	1019.2	303.15	16711.2	1015.9
303.15	19498.7	1026.1	303.15	18591.6	1022.8	303.15	17580.7	1019.1	303.15	16698.7	1015.8
303.15	19487.6	1026.0	303.15	18578.7	1022.8	303.15	17569.3	1019.1	303.15	16687.7	1015.8
303.15	19475.7	1026.0	303.16	18565.1	1022.7	303.15	17557.2	1019.1	303.15	16676.8	1015.7
303.15	19463.9	1025.9	303.15	18552.3	1022.7	303.15	17546.9	1019.0	303.15	16664.6	1015.7
303.15	19452.1	1025.9	303.15	18538.9	1022.6	303.15	17536.2	1019.0	303.15	16653.8	1015.7
303.15	19440.8	1025.9	303.15	18527.7	1022.6	303.15	17525.5	1018.9	303.15	16642.0	1015.6
303.15	19429.4	1025.9	303.15	18515.4	1022.5	303.15	17514.0	1018.9	303.15	16632.2	1015.6
303.15	19418.6	1025.8	303.15	18505.3	1022.5	303.15	17502.5	1018.8	303.15	16619.5	1015.6
303.15	19406.1	1025.8	303.15	18494.7	1022.5	303.15	17490.2	1018.8	303.15	16608.0	1015.5
303.15	19394.2	1025.7	303.15	18482.5	1022.4	303.15	17479.7	1018.7	303.15	16596.7	1015.4
303.15	19383.3	1025.7	303.15	18471.8	1022.3	303.15	17469.4	1018.7	303.15	16584.2	1015.4
303.15	19370.8	1025.6	303.15	18459.6	1022.4	303.15	17458.0	1018.6	303.15	16573.2	1015.3
303.15	19358.4	1025.6	303.15	18448.1	1022.3	303.15	17447.4	1018.6	303.15	16560.6	1015.3
303.15	19345.7	1025.6	303.15	18434.5	1022.2	303.15	17436.8	1018.6	303.15	16549.3	1015.2
303.15	19333.9	1025.4	303.15	18421.9	1022.2	303.15	17426.0	1018.6	303.15	16537.7	1015.2
303.16	19322.5	1025.4	303.15	18408.6	1022.2	303.15	17414.2	1018.5	303.15	16526.2	1015.1
303.15	19310.4	1025.4	303.16	18396.1	1022.1	303.16	17403.4	1018.5	303.15	16513.8	1015.2

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
303.15	16502.5	1015.1	303.15	15588.5	1011.5	303.15	14672.2	1007.9	303.15	13782.2	1004.2
303.15	16490.7	1015.0	303.16	15576.6	1011.4	303.15	14661.2	1007.8	303.15	13771.0	1004.1
303.15	16480.3	1015.0	303.15	15563.6	1011.4	303.15	14649.1	1007.8	303.15	13759.4	1004.2
303.15	16469.1	1014.9	303.15	15551.8	1011.3	303.15	14637.5	1007.7	303.15	13748.2	1004.0
303.15	16457.0	1014.9	303.15	15539.3	1011.3	303.15	14626.0	1007.7	303.15	13736.5	1004.0
303.15	16445.4	1014.8	303.15	15527.5	1011.2	303.15	14615.2	1007.6	303.15	13725.0	1004.0
303.16	16432.5	1014.8	303.15	15513.9	1011.2	303.15	14603.9	1007.7	303.15	13713.7	1003.9
303.15	16421.4	1014.8	303.15	15500.7	1011.2	303.15	14593.1	1007.5	303.15	13701.8	1003.9
303.15	16409.6	1014.7	303.15	15489.2	1011.1	303.15	14580.9	1007.5	303.15	13691.2	1003.8
303.15	16397.4	1014.7	303.15	15478.1	1011.1	303.15	14570.1	1007.4	303.15	13679.7	1003.8
303.15	16385.9	1014.6	303.15	15466.3	1011.0	303.15	14558.4	1007.4	303.15	13668.7	1003.7
303.15	16373.6	1014.6	303.15	15455.9	1011.0	303.15	14547.1	1007.4	303.15	13656.9	1003.6
303.15	16361.8	1014.5	303.15	15445.6	1011.0	303.15	14535.4	1007.2	303.15	13646.4	1003.6
303.15	16349.6	1014.5	303.15	15434.4	1010.9	303.15	14523.1	1007.3	303.15	13634.7	1003.6
303.15	16337.8	1014.4	303.15	15423.6	1010.9	303.15	14511.8	1007.2	303.15	13623.4	1003.5
303.15	16327.0	1014.4	303.15	15412.2	1010.8	303.15	14500.8	1007.2	303.15	13612.7	1003.5
303.15	16314.9	1014.4	303.15	15401.4	1010.8	303.15	14488.8	1007.1	303.15	13602.4	1003.4
303.15	16303.2	1014.3	303.15	15388.7	1010.7	303.15	14477.8	1007.0	303.15	13590.7	1003.5
303.15	16292.3	1014.3	303.15	15377.4	1010.7	303.15	14466.5	1007.0	303.15	13579.6	1003.4
303.15	16281.1	1014.2	303.15	15366.2	1010.6	303.15	14456.0	1006.9	303.15	13568.5	1003.3
303.15	16269.2	1014.2	303.15	15353.9	1010.6	303.15	14445.2	1006.9	303.15	13558.0	1003.3
303.15	16257.0	1014.1	303.15	15342.3	1010.5	303.15	14432.0	1006.9	303.15	13547.0	1003.2
303.15	16246.3	1014.1	303.15	15330.9	1010.5	303.15	14418.8	1006.8	303.15	13536.0	1003.2
303.15	16234.7	1014.0	303.15	15319.8	1010.5	303.15	14406.3	1006.8	303.15	13524.3	1003.1
303.15	16223.9	1013.9	303.15	15307.1	1010.4	303.15	14395.0	1006.7	303.15	13513.2	1003.1
303.15	16213.6	1014.0	303.15	15295.9	1010.3	303.15	14383.0	1006.6	303.15	13502.1	1003.0
303.15	16202.5	1013.9	303.15	15283.9	1010.3	303.15	14371.3	1006.6	303.15	13491.8	1003.0
303.15	16190.7	1013.9	303.15	15271.6	1010.3	303.15	14360.5	1006.6	303.15	13480.5	1002.9
303.15	16179.6	1013.8	303.15	15260.3	1010.2	303.15	14349.7	1006.6	303.15	13468.6	1002.8
303.15	16169.0	1013.8	303.15	15248.1	1010.2	303.15	14337.7	1006.5	303.15	13457.1	1002.8
303.15	16157.2	1013.7	303.15	15236.5	1010.1	303.15	14326.6	1006.5	303.15	13447.0	1002.8
303.15	16144.5	1013.7	303.15	15225.0	1010.1	303.15	14314.9	1006.4	303.15	13436.0	1002.7
303.15	16133.4	1013.7	303.15	15212.8	1010.0	303.15	14304.1	1006.3	303.15	13425.3	1002.7
303.15	16122.2	1013.6	303.15	15201.3	1010.0	303.15	14292.4	1006.3	303.15	13414.4	1002.7
303.15	16110.1	1013.6	303.15	15188.8	1009.9	303.15	14281.0	1006.3	303.15	13403.0	1002.6
303.15	16098.1	1013.4	303.15	15178.0	1009.9	303.15	14270.1	1006.2	303.15	13392.0	1002.5
303.15	16086.6	1013.4	303.15	15165.3	1009.9	303.15	14259.3	1006.2	303.15	13382.9	1002.5
303.15	16075.9	1013.5	303.15	15153.9	1009.8	303.15	14247.3	1006.1	303.15	13370.4	1002.4
303.15	16065.0	1013.3	303.15	15142.4	1009.8	303.15	14235.6	1006.1	303.15	13359.6	1002.4
303.15	16053.4	1013.3	303.15	15129.8	1009.7	303.15	14224.6	1006.1	303.15	13348.8	1002.3
303.15	16042.2	1013.3	303.15	15118.8	1009.6	303.15	14212.5	1006.0	303.15	13339.0	1002.3
303.15	16029.2	1013.3	303.15	15108.2	1009.6	303.15	14200.8	1005.9	303.15	13328.3	1002.3
303.15	16017.5	1013.2	303.15	15096.2	1009.6	303.15	14190.3	1005.9	303.15	13317.2	1002.2
303.15	16004.5	1013.2	303.15	15084.2	1009.6	303.15	14178.5	1005.8	303.15	13306.9	1002.2
303.15	15992.9	1013.1	303.15	15072.2	1009.5	303.15	14167.3	1005.8	303.15	13295.4	1002.1
303.15	15980.7	1013.1	303.15	15059.5	1009.4	303.15	14156.5	1005.8	303.15	13284.2	1002.1
303.15	15969.2	1013.0	303.15	15047.6	1009.4	303.15	14145.0	1005.7	303.15	13273.4	1002.0
303.15	15957.6	1013.0	303.15	15035.4	1009.3	303.15	14133.3	1005.6	303.15	13263.1	1002.0
303.15	15944.9	1012.9	303.15	15023.7	1009.3	303.15	14122.4	1005.6	303.15	13252.3	1002.0
303.15	15933.6	1012.9	303.15	15011.5	1009.3	303.15	14111.0	1005.6	303.15	13240.6	1001.9
303.15	15921.3	1012.8	303.15	14999.7	1009.2	303.15	14099.2	1005.5	303.15	13229.9	1001.9
303.15	15909.5	1012.8	303.15	14988.9	1009.1	303.15	14088.6	1005.4	303.15	13219.3	1001.8
303.15	15896.9	1012.8	303.15	14976.6	1009.1	303.15	14076.5	1005.4	303.15	13207.6	1001.8
303.15	15886.0	1012.7	303.15	14964.6	1009.0	303.15	14065.2	1005.4	303.15	13196.6	1001.8
303.15	15874.5	1012.6	303.15	14953.4	1009.0	303.15	14053.7	1005.3	303.15	13186.0	1001.7
303.15	15863.5	1012.6	303.15	14940.3	1009.0	303.15	14042.9	1005.3	303.15	13175.2	1001.7
303.15	15851.4	1012.5	303.15	14929.2	1008.9	303.15	14031.4	1005.2	303.15	13164.3	1001.6
303.15	15840.4	1012.5	303.15	14916.9	1008.9	303.15	14019.2	1005.2	303.15	13154.3	1001.6
303.15	15827.9	1012.4	303.15	14905.0	1008.8	303.15	14007.7	1005.1	303.15	13143.2	1001.5
303.15	15816.1	1012.4	303.15	14892.9	1008.8	303.15	13996.7	1005.1	303.15	13131.7	1001.4
303.15	15803.2	1012.4	303.15	14881.6	1008.7	303.15	13985.1	1005.1	303.15	13120.5	1001.4
303.15	15791.2	1012.3	303.15	14869.6	1008.7	303.15	13973.4	1005.0	303.15	13109.0	1001.3
303.15	15778.2	1012.3	303.15	14858.1	1008.6	303.15	13962.6	1004.9	303.15	13098.7	1001.3
303.15	15765.5	1012.2	303.15	14846.6	1008.5	303.15	13951.9	1004.9	303.15	13087.9	1001.2
303.15	15754.0	1012.2	303.15	14835.3	1008.5	303.15	13939.1	1004.9	303.15	13076.7	1001.2
303.15	15742.4	1012.2	303.15	14822.2	1008.5	303.15	13928.1	1004.8	303.15	13065.4	1001.2
303.15	15730.2	1012.1	303.15	14811.3	1008.4	303.16	13916.9	1004.8	303.15	13054.7	1001.1
303.15	15718.8	1012.0	303.15	14798.9	1008.4	303.15	13904.9	1004.7	303.15	13043.8	1001.1
303.15	15706.6	1012.0	303.15	14787.6	1008.3	303.15	13893.1	1004.7	303.15	13032.4	1001.0
303.15	15694.7	1011.9	303.15	14775.4	1008.3	303.15	13881.4	1004.6	303.15	13022.1	1000.9
303.15	15682.1	1011.9	303.15	14763.8	1008.2	303.15	13869.7	1004.5	303.15	13011.4	1001.0
303.15	15670.8	1011.9	303.15	14751.7	1008.2	303.15	13858.1	1004.5	303.15	13001.3	1000.9
303.15	15659.0	1011.7	303.15	14740.2	1008.1	303.15	13847.2	1004.5	303.15	12991.2	1000.8
303.15	15647.3	1011.8	303.15	14729.1	1008.1	303.15	13835.9	1004.4	303.15	12981.2	1000.8
303.15	15635.1	1011.7	303.15	14717.8	1008.1	303.15	13824.2	1004.4	303.15	12969.7	1000.8
303.16	15624.2	1011.7	303.15	14705.9	1008.0	303.15	13813.2	1004.4	303.15	12958.2	1000.7
303.16	15612.6	1011.6	303.15	14695.1	1007.9	303.15	13802.6	1004.3	303.15	12947.7	1000.7
303.15	15600.7	1011.5	303.15	14684.0	1007.9	303.15	13793.2	1004.3	303.15	12937.1	1000.7

Valori della densità del fluido R32 _ *T*=30°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
303.15	12926.2	1000.5	303.15	12092.8	996.9	303.15	11280.1	993.3	303.15	10508.4	989.7
303.15	12915.9	1000.5	303.15	12081.8	996.9	303.15	11269.5	993.2	303.15	10499.0	989.7
303.15	12904.0	1000.5	303.15	12070.6	996.8	303.15	11259.1	993.2	303.15	10488.6	989.6
303.15	12893.4	1000.5	303.15	12060.1	996.8	303.15	11248.8	993.1	303.15	10479.4	989.6
303.15	12883.1	1000.4	303.15	12049.3	996.7	303.15	11238.8	993.1	303.15	10469.2	989.5
303.15	12871.4	1000.4	303.15	12038.6	996.7	303.15	11228.3	993.1	303.15	10459.0	989.5
303.15	12860.3	1000.3	303.15	12027.6	996.6	303.15	11218.5	993.0	303.15	10448.5	989.5
303.15	12849.8	1000.2	303.15	12017.6	996.6	303.15	11208.9	993.0	303.15	10439.1	989.3
303.15	12839.1	1000.2	303.15	12006.6	996.6	303.15	11198.2	992.9	303.15	10430.1	989.4
303.15	12828.8	1000.2	303.15	11995.3	996.4	303.15	11188.4	992.9	303.15	10421.7	989.3
303.15	12817.0	1000.2	303.15	11984.9	996.5	303.15	11178.1	992.8	303.15	10411.8	989.2
303.15	12806.8	1000.1	303.15	11973.4	996.4	303.15	11167.4	992.8	303.15	10402.7	989.2
303.15	12794.3	1000.0	303.15	11962.6	996.3	303.15	11157.1	992.7	303.15	10392.4	989.2
303.15	12783.8	1000.0	303.15	11951.4	996.3	303.15	11147.1	992.6	303.15	10382.6	989.1
303.15	12772.5	999.9	303.15	11940.6	996.2	303.15	11138.0	992.7	303.15	10373.1	989.1
303.15	12762.2	999.8	303.15	11929.8	996.2	303.15	11128.5	992.6	303.15	10363.6	989.1
303.15	12751.3	999.9	303.15	11918.7	996.1	303.15	11119.4	992.5	303.15	10354.7	988.9
303.15	12740.7	999.8	303.15	11909.1	996.1	303.15	11108.9	992.5	303.15	10344.3	989.0
303.15	12729.7	999.7	303.15	11898.1	996.0	303.15	11098.6	992.4	303.15	10334.5	988.8
303.15	12718.5	999.7	303.15	11887.3	996.0	303.15	11089.5	992.3	303.15	10324.7	988.8
303.15	12707.7	999.6	303.15	11876.6	996.0	303.15	11079.1	992.4	303.15	10315.2	988.8
303.15	12696.5	999.5	303.15	11865.9	995.9	303.15	11068.3	992.3	303.15	10305.8	988.7
303.15	12685.1	999.5	303.15	11855.5	995.9	303.15	11057.5	992.3	303.15	10296.1	988.7
303.15	12674.5	999.5	303.15	11845.3	995.8	303.15	11047.0	992.2	303.15	10286.6	988.7
303.15	12663.8	999.4	303.15	11834.2	995.8	303.15	11038.0	992.2	303.15	10276.5	988.6
303.15	12653.6	999.4	303.15	11823.7	995.7	303.15	11028.7	992.1	303.15	10266.3	988.6
303.15	12642.6	999.3	303.15	11812.8	995.6	303.15	11019.3	992.0	303.15	10256.4	988.6
303.15	12632.6	999.3	303.15	11802.7	995.6	303.15	11008.9	992.1	303.15	10246.3	988.5
303.15	12622.0	999.2	303.15	11792.0	995.6	303.15	10998.9	991.9	303.16	10237.6	988.4
303.15	12610.8	999.2	303.15	11781.0	995.5	303.15	10988.4	992.0	303.15	10227.9	988.4
303.15	12599.2	999.1	303.15	11771.5	995.5	303.15	10978.7	991.9	303.15	10219.5	988.3
303.15	12588.1	999.1	303.15	11761.0	995.4	303.15	10969.3	991.9	303.15	10209.3	988.3
303.15	12577.9	999.1	303.15	11751.4	995.4	303.15	10958.8	991.8	303.15	10199.9	988.2
303.15	12567.3	999.0	303.15	11741.1	995.4	303.15	10948.7	991.8	303.15	10190.7	988.1
303.15	12555.8	999.0	303.15	11730.8	995.3	303.15	10939.4	991.7	303.15	10181.1	988.2
303.15	12545.7	998.9	303.15	11721.0	995.3	303.15	10929.4	991.7	303.15	10171.8	988.1
303.15	12535.2	998.9	303.15	11711.2	995.2	303.15	10918.9	991.6	303.15	10161.6	988.1
303.15	12526.1	998.8	303.15	11701.0	995.2	303.15	10908.6	991.5	303.15	10151.6	988.0
303.15	12515.6	998.8	303.15	11690.4	995.1	303.15	10898.6	991.5	303.15	10142.3	987.9
303.15	12505.3	998.7	303.15	11679.9	995.1	303.15	10888.4	991.5	303.15	10133.2	987.9
303.15	12493.8	998.7	303.15	11670.1	995.1	303.15	10878.6	991.4	303.15	10124.2	987.9
303.15	12483.8	998.7	303.15	11660.8	995.0	303.15	10869.2	991.4	303.15	10114.9	987.9
303.15	12473.2	998.6	303.15	11649.9	995.0	303.15	10858.3	991.3	303.15	10105.6	987.8
303.15	12462.2	998.6	303.15	11639.8	995.0	303.15	10849.2	991.3	303.15	10095.6	987.7
303.15	12451.0	998.5	303.15	11629.3	994.8	303.15	10840.1	991.2	303.15	10085.8	987.7
303.15	12444.6	998.5	303.15	11619.5	994.8	303.15	10830.8	991.2	303.15	10075.3	987.6
303.15	12435.2	998.5	303.15	11609.0	994.8	303.15	10820.8	991.1	303.15	10065.1	987.6
303.15	12424.5	998.4	303.15	11597.4	994.7	303.15	10810.6	991.1	303.15	10055.5	987.5
303.15	12413.9	998.3	303.15	11587.3	994.6	303.15	10800.8	991.1	303.15	10046.4	987.5
303.15	12403.1	998.3	303.15	11577.0	994.6	303.15	10792.0	991.0	303.15	10036.0	987.4
303.15	12392.9	998.3	303.15	11566.3	994.6	303.15	10782.0	991.0	303.15	10025.9	987.4
303.15	12381.9	998.2	303.15	11557.2	994.6	303.15	10771.7	990.9	303.15	10016.8	987.3
303.15	12371.4	998.1	303.15	11546.3	994.5	303.15	10761.9	990.9	303.15	10007.4	987.3
303.15	12359.7	998.1	303.15	11536.2	994.4	303.15	10753.0	990.8	303.15	9998.1	987.2
303.15	12348.7	998.0	303.15	11526.4	994.4	303.15	10744.0	990.8	303.15	9989.2	987.2
303.15	12337.5	998.0	303.15	11516.7	994.4	303.15	10733.7	990.8	303.15	9979.4	987.2
303.15	12326.1	998.0	303.15	11506.4	994.3	303.15	10723.5	990.7	303.15	9969.0	987.1
303.15	12315.7	997.9	303.15	11496.4	994.3	303.15	10714.1	990.7	303.15	9959.1	987.0
303.15	12305.3	997.9	303.15	11486.0	994.2	303.15	10705.3	990.6	303.15	9949.7	987.0
303.15	12294.6	997.8	303.15	11476.1	994.2	303.15	10695.3	990.5	303.15	9939.0	986.9
303.15	12284.4	997.8	303.15	11464.9	994.1	303.15	10685.2	990.5	303.15	9930.3	987.0
303.15	12272.9	997.8	303.15	11455.6	994.1	303.15	10677.3	990.5	303.15	9920.1	986.9
303.15	12262.8	997.6	303.15	11445.1	994.0	303.15	10667.3	990.4	303.15	9910.1	986.9
303.15	12252.1	997.6	303.15	11434.5	994.0	303.15	10657.5	990.4	303.15	9900.8	986.8
303.15	12241.7	997.6	303.15	11424.5	993.9	303.15	10648.2	990.4	303.15	9891.5	986.8
303.15	12230.7	997.5	303.15	11414.0	993.8	303.15	10638.3	990.3	303.15	9881.5	986.7
303.15	12220.2	997.5	303.15	11403.5	993.8	303.15	10627.5	990.3	303.15	9872.4	986.7
303.15	12209.3	997.4	303.15	11393.7	993.8	303.15	10618.0	990.2	303.15	9862.2	986.6
303.15	12198.8	997.4	303.15	11383.0	993.8	303.15	10608.4	990.2	303.15	9853.3	986.5
303.15	12188.2	997.3	303.15	11372.7	993.7	303.15	10597.9	990.1	303.15	9844.4	986.5
303.15	12177.0	997.3	303.15	11361.7	993.6	303.15	10587.4	990.0	303.15	9833.8	986.5
303.15	12165.7	997.3	303.15	11350.7	993.6	303.15	10578.0	990.0	303.15	9824.2	986.4
303.15	12155.3	997.2	303.15	11340.2	993.6	303.15	10567.5	989.9	303.15	9815.1	986.4
303.15	12143.8	997.2	303.15	11329.9	993.5	303.15	10557.7	989.9	303.15	9805.4	986.4
303.15	12133.9	997.2	303.15	11319.2	993.4	303.15	10547.4	989.9	303.15	9796.0	986.4
303.15	12123.0	997.1	303.15	11309.2	993.3	303.15	10537.9	989.9	303.15	9787.7	986.2
303.15	12112.7	997.0	303.15	11299.8	993.4	303.15	10528.3	989.8	303.15	9778.0	986.2
303.15	12102.1	997.0	303.15	11289.9	993.3	303.15	10518.6	989.8	303.15	9768.9	986.1

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
303.15	9759.6	986.1	303.15	9029.0	982.5	303.15	8318.7	978.9	303.15	7529.9	974.7
303.15	9749.9	986.0	303.15	9019.2	982.5	303.15	8310.1	978.9	303.15	7519.5	974.7
303.15	9741.0	986.0	303.15	9010.4	982.4	303.15	8300.6	978.8	303.15	7509.6	974.6
303.15	9731.0	986.0	303.15	8999.6	982.4	303.15	8293.0	978.8	303.15	7498.9	974.6
303.15	9722.2	986.0	303.15	8990.6	982.3	303.15	8284.4	978.7	303.15	7489.1	974.5
303.15	9712.9	985.8	303.15	8981.7	982.2	303.15	8273.2	978.7	303.15	7478.4	974.5
303.15	9704.0	985.8	303.15	8971.7	982.2	303.15	8262.8	978.6	303.15	7468.2	974.4
303.15	9694.1	985.8	303.15	8961.8	982.2	303.15	8253.3	978.5	303.15	7458.2	974.4
303.15	9684.8	985.8	303.15	8952.5	982.1	303.15	8243.3	978.6	303.15	7448.2	974.3
303.15	9675.4	985.7	303.15	8943.2	982.1	303.15	8233.3	978.4	303.15	7437.8	974.2
303.15	9665.0	985.7	303.15	8934.1	982.1	303.15	8223.0	978.4	303.16	7427.6	974.2
303.15	9655.6	985.6	303.15	8924.3	982.0	303.15	8213.1	978.3	303.15	7418.3	974.2
303.15	9646.1	985.5	303.15	8915.8	982.0	303.15	8203.3	978.3	303.15	7408.5	974.1
303.15	9637.3	985.5	303.15	8905.8	981.9	303.15	8192.8	978.3	303.15	7398.1	974.0
303.15	9627.1	985.4	303.15	8896.3	981.8	303.15	8183.2	978.3	303.15	7386.4	974.0
303.15	9617.3	985.5	303.15	8889.3	981.8	303.15	8172.0	978.1	303.15	7376.2	973.9
303.15	9607.8	985.4	303.15	8879.3	981.8	303.15	8160.2	978.1	303.15	7366.0	973.9
303.15	9598.9	985.3	303.15	8870.7	981.7	303.15	8149.5	978.1	303.15	7355.6	973.8
303.15	9589.9	985.3	303.15	8860.5	981.6	303.15	8139.0	977.9	303.15	7345.9	973.7
303.15	9580.6	985.2	303.15	8851.6	981.6	303.15	8128.7	977.9	303.15	7335.9	973.7
303.15	9571.6	985.2	303.15	8842.4	981.6	303.15	8118.5	977.9	303.15	7325.9	973.6
303.15	9562.0	985.2	303.15	8833.8	981.5	303.15	8108.5	977.8	303.15	7316.2	973.6
303.15	9552.8	985.1	303.15	8824.6	981.5	303.15	8098.4	977.7	303.15	7305.5	973.5
303.15	9543.2	985.1	303.15	8815.2	981.4	303.15	8088.8	977.7	303.15	7296.7	973.5
303.15	9533.4	985.1	303.15	8806.5	981.4	303.15	8079.3	977.6	303.15	7286.5	973.5
303.15	9523.5	984.9	303.15	8797.4	981.3	303.15	8070.2	977.6	303.15	7278.0	973.4
303.15	9514.9	984.9	303.15	8788.4	981.3	303.15	8060.5	977.5	303.15	7268.0	973.3
303.15	9505.8	984.9	303.15	8778.9	981.3	303.15	8049.8	977.5	303.15	7258.7	973.3
303.15	9495.8	984.8	303.15	8770.0	981.2	303.15	8040.4	977.4	303.15	7247.6	973.2
303.15	9486.1	984.8	303.15	8760.7	981.2	303.15	8029.9	977.4	303.15	7237.8	973.2
303.15	9477.0	984.7	303.15	8750.8	981.1	303.15	8019.4	977.3	303.15	7227.8	973.1
303.15	9466.5	984.7	303.15	8742.2	981.1	303.15	8008.5	977.3	303.15	7218.6	973.1
303.15	9457.7	984.7	303.15	8733.6	981.1	303.15	7998.3	977.2	303.15	7208.1	973.0
303.15	9449.1	984.6	303.15	8724.1	980.9	303.15	7987.1	977.2	303.15	7198.4	972.9
303.15	9440.1	984.5	303.15	8714.8	981.0	303.15	7976.4	977.1	303.15	7187.9	972.8
303.15	9431.0	984.5	303.15	8705.7	980.9	303.15	7966.1	977.0	303.15	7178.2	972.9
303.15	9421.7	984.5	303.15	8696.9	980.8	303.15	7955.9	977.0	303.15	7168.0	972.8
303.15	9412.4	984.4	303.16	8687.9	980.8	303.15	7945.5	976.9	303.15	7158.2	972.7
303.15	9402.5	984.4	303.16	8678.7	980.8	303.15	7935.0	976.9	303.15	7149.7	972.7
303.15	9392.9	984.3	303.15	8669.3	980.7	303.15	7924.1	976.8	303.15	7139.4	972.6
303.15	9383.1	984.3	303.15	8660.5	980.7	303.15	7913.9	976.8	303.15	7128.8	972.5
303.15	9373.4	984.2	303.15	8651.7	980.6	303.15	7902.7	976.7	303.15	7119.7	972.5
303.15	9363.8	984.2	303.15	8643.2	980.5	303.15	7892.5	976.7	303.15	7108.8	972.5
303.15	9355.8	984.1	303.15	8633.9	980.5	303.15	7882.0	976.6	303.15	7098.8	972.4
303.15	9345.0	984.1	303.15	8624.8	980.5	303.15	7871.5	976.5	303.15	7089.3	972.3
303.15	9335.7	984.0	303.15	8616.3	980.4	303.15	7861.6	976.5	303.15	7080.1	972.3
303.15	9326.2	984.0	303.15	8607.7	980.4	303.15	7851.1	976.5	303.15	7070.6	972.3
303.15	9315.7	984.0	303.15	8597.3	980.3	303.15	7840.2	976.4	303.15	7061.5	972.2
303.15	9305.7	983.9	303.15	8588.5	980.2	303.15	7830.4	976.4	303.15	7051.8	972.1
303.15	9297.1	983.9	303.15	8578.5	980.2	303.15	7820.4	976.3	303.15	7042.0	972.1
303.15	9287.4	983.8	303.15	8569.6	980.2	303.15	7810.7	976.2	303.15	7029.4	972.0
303.15	9277.6	983.8	303.15	8559.9	980.1	303.15	7800.5	976.2	303.15	7018.8	972.0
303.15	9267.9	983.7	303.15	8551.3	980.1	303.15	7791.7	976.1	303.15	7007.1	971.9
303.15	9259.1	983.6	303.15	8542.7	980.0	303.15	7780.5	976.1	303.15	6994.8	971.9
303.15	9249.8	983.6	303.15	8532.3	980.0	303.15	7770.5	976.1	303.15	6983.4	971.8
303.15	9240.2	983.5	303.15	8523.7	979.9	303.15	7760.7	976.0	303.15	6974.6	971.7
303.15	9230.8	983.5	303.16	8515.9	979.9	303.15	7751.5	975.9	303.15	6965.1	971.7
303.15	9220.7	983.5	303.16	8505.9	979.9	303.15	7741.9	975.9	303.15	6953.7	971.6
303.15	9211.4	983.4	303.16	8497.1	979.8	303.15	7731.8	975.7	303.15	6944.5	971.5
303.15	9202.9	983.3	303.15	8488.1	979.8	303.15	7722.2	975.8	303.15	6933.7	971.5
303.15	9193.3	983.4	303.15	8478.8	979.7	303.15	7713.2	975.7	303.15	6923.6	971.5
303.15	9183.5	983.3	303.15	8470.4	979.8	303.15	7702.8	975.6	303.15	6914.0	971.3
303.15	9174.0	983.3	303.15	8461.1	979.6	303.15	7693.9	975.7	303.15	6904.8	971.3
303.15	9165.5	983.2	303.15	8451.9	979.6	303.15	7683.0	975.6	303.15	6894.4	971.2
303.15	9156.0	983.1	303.15	8442.1	979.5	303.15	7673.1	975.5	303.15	6883.7	971.2
303.15	9147.3	983.1	303.15	8433.1	979.4	303.15	7663.1	975.5	303.15	6873.5	971.2
303.15	9139.0	983.0	303.15	8424.3	979.4	303.15	7653.5	975.4	303.15	6863.0	971.1
303.15	9129.2	983.0	303.15	8415.4	979.4	303.15	7643.1	975.3	303.15	6851.2	971.0
303.15	9120.4	983.0	303.15	8406.2	979.4	303.15	7632.4	975.3	303.15	6840.4	971.0
303.15	9110.7	982.9	303.15	8397.4	979.3	303.15	7623.6	975.2	303.15	6829.0	970.9
303.15	9102.1	982.9	303.15	8388.8	979.3	303.15	7613.1	975.2	303.15	6817.4	970.8
303.15	9092.6	982.8	303.15	8380.3	979.2	303.15	7603.0	975.1	303.15	6805.6	970.8
303.15	9083.6	982.7	303.15	8371.2	979.2	303.15	7592.9	975.1	303.15	6794.2	970.7
303.15	9075.0	982.8	303.15	8362.2	979.2	303.15	7582.5	975.0	303.15	6783.7	970.7
303.15	9065.0	982.7	303.15	8353.1	979.1	303.15	7572.2	975.0	303.15	6772.6	970.6
303.15	9056.2	982.6	303.15	8344.8	979.0	303.15	7561.3	974.9	303.15	6761.4	970.5
303.15	9047.4	982.7	303.15	8336.5	979.0	303.15	7550.6	974.9	303.15	6749.7	970.5
303.15	9037.4	982.5	303.15	8327.4	978.9	303.15	7539.9	974.9	303.15	6739.1	970.4

Valori della densità del fluido R32 _ *T*=30°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
303.15	6727.2	970.4	303.15	5815.4	965.1	303.15	4906.2	959.7	303.15	4008.1	954.0
303.15	6716.8	970.3	303.15	5802.6	965.1	303.15	4894.6	959.7	303.15	3996.5	953.9
303.15	6704.9	970.2	303.15	5791.2	965.0	303.15	4882.0	959.5	303.15	3984.0	953.8
303.15	6693.7	970.1	303.15	5778.7	964.9	303.15	4870.6	959.5	303.15	3972.0	953.7
303.15	6683.5	970.1	303.15	5768.3	964.9	303.15	4858.6	959.4	303.15	3961.3	953.6
303.15	6672.6	970.1	303.16	5755.9	964.8	303.15	4847.2	959.3	303.15	3950.4	953.6
303.15	6660.5	970.0	303.15	5745.8	964.8	303.15	4835.4	959.3	303.15	3939.5	953.5
303.15	6649.8	970.0	303.15	5733.4	964.7	303.15	4823.3	959.2	303.15	3928.2	953.5
303.15	6638.6	969.9	303.15	5721.6	964.6	303.15	4812.4	959.1	303.15	3916.4	953.4
303.15	6628.9	969.8	303.15	5710.2	964.5	303.15	4801.3	959.0	303.15	3905.0	953.4
303.15	6618.0	969.8	303.15	5699.0	964.4	303.15	4788.7	959.0	303.15	3893.2	953.2
303.15	6606.9	969.7	303.15	5687.4	964.4	303.15	4777.6	958.9	303.15	3881.3	953.2
303.15	6596.1	969.7	303.15	5676.3	964.3	303.15	4766.0	958.8	303.15	3869.0	953.1
303.15	6585.5	969.5	303.15	5665.1	964.3	303.15	4754.4	958.7	303.15	3856.8	953.0
303.15	6574.3	969.5	303.15	5652.1	964.2	303.15	4742.8	958.7	303.15	3844.9	952.9
303.15	6563.7	969.5	303.15	5641.0	964.1	303.15	4731.6	958.6	303.15	3833.1	952.9
303.15	6552.7	969.4	303.15	5629.3	964.1	303.15	4720.3	958.5	303.15	3821.3	952.8
303.15	6541.3	969.3	303.15	5617.3	964.0	303.15	4707.9	958.5	303.15	3809.9	952.7
303.15	6529.9	969.2	303.15	5605.9	963.9	303.15	4696.6	958.4	303.15	3798.4	952.6
303.15	6517.1	969.2	303.15	5593.8	963.8	303.15	4685.0	958.3	303.15	3787.0	952.5
303.15	6505.8	969.1	303.15	5582.4	963.8	303.15	4673.9	958.2	303.15	3775.7	952.5
303.15	6494.4	969.1	303.15	5571.3	963.7	303.15	4662.9	958.2	303.15	3764.8	952.4
303.15	6483.7	969.1	303.15	5559.4	963.6	303.15	4651.3	958.1	303.16	3753.2	952.3
303.15	6472.7	969.0	303.15	5548.0	963.6	303.15	4640.0	958.0	303.16	3740.9	952.2
303.15	6460.4	968.9	303.15	5536.6	963.5	303.15	4628.6	958.0	303.16	3729.3	952.2
303.15	6449.7	968.8	303.15	5524.1	963.4	303.15	4616.1	957.9	303.15	3717.0	952.1
303.16	6437.7	968.7	303.15	5511.8	963.3	303.15	4604.2	957.8	303.15	3705.7	952.0
303.16	6425.3	968.7	303.16	5499.7	963.3	303.15	4592.4	957.7	303.15	3692.9	951.9
303.15	6413.9	968.6	303.16	5488.0	963.2	303.16	4579.6	957.6	303.15	3679.9	951.8
303.16	6400.6	968.6	303.16	5475.2	963.1	303.15	4568.0	957.6	303.15	3668.8	951.8
303.15	6389.0	968.4	303.16	5463.9	963.0	303.15	4556.2	957.5	303.15	3655.7	951.7
303.15	6377.1	968.4	303.16	5452.8	963.0	303.15	4545.1	957.4	303.15	3644.1	951.6
303.15	6367.1	968.3	303.15	5440.4	962.9	303.15	4534.2	957.4	303.16	3631.9	951.6
303.15	6355.5	968.3	303.15	5429.0	962.9	303.15	4523.7	957.3	303.15	3620.3	951.4
303.15	6344.1	968.2	303.15	5417.4	962.8	303.15	4512.7	957.3	303.15	3607.5	951.4
303.15	6333.0	968.1	303.15	5407.0	962.7	303.15	4502.0	957.2	303.15	3595.9	951.3
303.15	6321.4	968.1	303.15	5395.2	962.6	303.15	4490.4	957.1	303.15	3582.9	951.2
303.16	6311.2	968.0	303.15	5383.3	962.6	303.15	4479.5	957.0	303.15	3570.2	951.1
303.15	6299.4	968.0	303.15	5372.2	962.5	303.15	4467.9	956.9	303.15	3557.8	951.0
303.15	6288.2	967.9	303.15	5360.8	962.4	303.15	4456.3	956.9	303.15	3546.5	950.9
303.15	6277.3	967.8	303.15	5349.7	962.4	303.15	4444.5	956.9	303.15	3534.4	950.8
303.15	6265.2	967.7	303.15	5338.0	962.4	303.15	4432.6	956.7	303.15	3522.6	950.8
303.15	6253.1	967.7	303.15	5326.2	962.3	303.15	4420.6	956.7	303.15	3511.0	950.7
303.15	6241.2	967.6	303.15	5314.3	962.2	303.15	4408.9	956.5	303.15	3499.2	950.6
303.15	6228.1	967.5	303.15	5303.2	962.1	303.15	4396.2	956.5	303.15	3486.5	950.5
303.15	6215.6	967.5	303.15	5292.5	962.1	303.15	4384.6	956.4	303.15	3474.4	950.5
303.15	6204.4	967.4	303.15	5280.7	962.0	303.15	4373.5	956.3	303.15	3462.6	950.4
303.15	6192.1	967.3	303.15	5270.0	961.9	303.15	4362.1	956.3	303.15	3451.5	950.3
303.15	6178.4	967.3	303.15	5259.9	961.8	303.15	4350.3	956.3	303.15	3439.7	950.2
303.15	6166.5	967.2	303.15	5247.6	961.8	303.15	4339.2	956.1	303.15	3429.0	950.2
303.15	6154.3	967.2	303.15	5235.9	961.7	303.16	4327.8	956.1	303.15	3417.9	950.1
303.15	6140.8	967.0	303.15	5225.5	961.7	303.15	4316.6	956.0	303.15	3407.3	950.0
303.15	6129.5	966.9	303.15	5212.8	961.6	303.15	4305.1	955.9	303.15	3396.2	949.9
303.15	6117.4	966.9	303.15	5201.2	961.5	303.16	4292.7	955.8	303.15	3384.8	949.9
303.15	6104.6	966.9	303.15	5189.5	961.4	303.15	4281.2	955.7	303.15	3373.0	949.8
303.15	6092.2	966.8	303.15	5177.5	961.3	303.15	4269.1	955.7	303.15	3361.7	949.7
303.15	6079.4	966.7	303.15	5166.1	961.3	303.15	4258.7	955.7	303.15	3349.4	949.6
303.15	6069.0	966.7	303.15	5155.0	961.2	303.15	4246.6	955.6	303.16	3338.0	949.5
303.15	6057.4	966.6	303.15	5142.9	961.1	303.15	4235.7	955.5	303.16	3325.9	949.4
303.15	6046.2	966.5	303.15	5131.7	961.1	303.15	4224.6	955.4	303.16	3314.1	949.4
303.15	6035.0	966.5	303.15	5119.1	961.0	303.15	4213.5	955.3	303.15	3302.8	949.3
303.15	6023.4	966.4	303.15	5109.1	960.9	303.15	4201.4	955.2	303.16	3290.5	949.2
303.15	6011.4	966.3	303.15	5100.1	960.8	303.15	4190.1	955.1	303.15	3278.7	949.1
303.15	5998.3	966.2	303.15	5086.6	960.8	303.15	4178.3	955.1	303.15	3267.3	949.0
303.15	5986.2	966.2	303.15	5074.6	960.7	303.15	4167.1	955.0	303.15	3255.0	949.0
303.15	5974.1	966.1	303.15	5061.5	960.6	303.15	4155.1	954.9	303.16	3243.0	948.8
303.15	5961.8	966.0	303.15	5048.3	960.5	303.15	4145.1	954.9	303.16	3231.6	948.8
303.15	5950.4	965.9	303.15	5035.9	960.4	303.15	4133.1	954.8	303.15	3219.4	948.7
303.15	5938.3	965.9	303.15	5023.9	960.4	303.15	4121.9	954.8	303.15	3207.1	948.6
303.15	5925.2	965.8	303.15	5011.3	960.3	303.15	4110.1	954.7	303.15	3195.9	948.5
303.15	5913.6	965.7	303.15	4999.5	960.3	303.15	4098.5	954.6	303.15	3184.6	948.5
303.15	5901.1	965.6	303.15	4988.3	960.2	303.15	4087.2	954.5	303.15	3174.0	948.5
303.15	5888.0	965.6	303.15	4975.5	960.1	303.15	4076.8	954.4	303.15	3162.1	948.3
303.15	5876.2	965.5	303.15	4964.4	960.0	303.15	4065.2	954.3	303.15	3150.3	948.2
303.15	5863.6	965.4	303.15	4952.6	960.0	303.15	4052.8	954.3	303.15	3139.0	948.2
303.15	5851.5	965.4	303.15	4941.4	959.9	303.15	4041.5	954.2	303.15	3127.9	948.1
303.15	5838.4	965.3	303.15	4929.1	959.8	303.15	4030.8	954.1	303.15	3115.9	948.0
303.15	5827.1	965.3	303.15	4917.5	959.7	303.16	4019.1	954.1	303.15	3105.0	947.9

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
303.15	3093.4	947.9	303.15	2779.2	945.6	303.15	2465.6	943.4	303.15	2160.3	941.1
303.15	3081.1	947.8	303.15	2767.9	945.5	303.15	2454.7	943.3	303.16	2149.8	941.1
303.15	3069.3	947.7	303.15	2756.7	945.5	303.15	2442.9	943.2	303.15	2138.7	941.0
303.15	3057.5	947.6	303.15	2745.0	945.4	303.16	2432.1	943.2	303.15	2127.1	940.9
303.15	3047.1	947.6	303.15	2734.3	945.3	303.15	2420.2	943.0	303.15	2115.1	940.8
303.15	3035.2	947.4	303.15	2722.5	945.2	303.15	2409.1	943.0	303.15	2104.9	940.7
303.15	3024.4	947.4	303.15	2711.4	945.1	303.15	2398.1	942.9	303.15	2093.6	940.7
303.15	3012.4	947.3	303.15	2701.5	945.1	303.15	2386.7	942.8	303.15	2083.5	940.6
303.15	2999.4	947.2	303.15	2689.9	945.0	303.15	2375.4	942.7	303.15	2072.1	940.5
303.15	2987.3	947.1	303.15	2677.6	945.0	303.15	2363.8	942.7	303.15	2059.9	940.4
303.15	2974.6	947.0	303.15	2664.7	944.8	303.15	2353.0	942.5	303.15	2048.0	940.3
303.15	2962.3	946.9	303.15	2652.9	944.7	303.15	2342.8	942.5	303.15	2037.0	940.2
303.15	2949.3	946.8	303.15	2640.8	944.6	303.15	2331.7	942.4	303.15	2025.2	940.2
303.15	2938.6	946.7	303.15	2628.3	944.5	303.15	2321.4	942.3	303.15	2014.0	940.1
303.15	2926.3	946.7	303.15	2616.9	944.5	303.16	2312.1	942.3	303.15	2002.2	940.0
303.15	2914.6	946.6	303.15	2605.2	944.4	303.16	2301.8	942.2	303.15	1991.0	939.9
303.15	2902.7	946.6	303.15	2592.9	944.4	303.15	2290.7	942.1	303.15	1979.4	939.8
303.15	2890.9	946.4	303.15	2582.0	944.3	303.16	2280.0	942.0	303.15	1968.5	939.7
303.15	2879.8	946.3	303.15	2570.4	944.2	303.15	2269.0	941.9	303.15	1957.2	939.6
303.15	2868.9	946.2	303.15	2558.9	944.1	303.15	2256.9	941.8	303.15	1946.4	939.6
303.15	2857.4	946.2	303.15	2547.8	944.0	303.16	2244.6	941.8	303.15	1936.5	939.5
303.15	2845.8	946.1	303.15	2536.0	943.9	303.15	2232.6	941.7			
303.15	2834.0	946.1	303.15	2523.9	943.8	303.16	2221.2	941.6			
303.15	2822.4	946.0	303.15	2512.4	943.8	303.15	2208.5	941.5			
303.15	2812.0	945.9	303.15	2500.8	943.7	303.16	2197.0	941.4			
303.15	2800.7	945.8	303.15	2488.7	943.5	303.16	2184.7	941.3			
303.15	2789.8	945.7	303.15	2477.1	943.6	303.15	2172.2	941.3			

Tabella D4: Valori della densità del fluido R32 per T = 313.15 K (40°C)

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
313.15	35007.6	1047.0	313.15	34146.9	1044.6	313.15	33256.6	1042.1	313.15	32354.6	1039.4
313.15	34995.0	1047.0	313.15	34135.2	1044.5	313.15	33245.1	1042.0	313.15	32343.4	1039.5
313.15	34981.6	1047.0	313.15	34122.7	1044.5	313.15	33232.6	1042.0	313.15	32332.6	1039.4
313.15	34969.7	1047.0	313.15	34109.9	1044.5	313.15	33219.9	1042.0	313.15	32320.8	1039.4
313.15	34956.7	1046.9	313.15	34096.9	1044.5	313.15	33206.5	1041.9	313.15	32308.6	1039.4
313.15	34944.6	1046.9	313.15	34084.6	1044.5	313.15	33195.6	1041.9	313.15	32297.7	1039.4
313.15	34932.6	1046.8	313.15	34072.9	1044.5	313.15	33184.0	1041.9	313.15	32285.7	1039.3
313.15	34921.1	1046.8	313.15	34061.0	1044.4	313.15	33172.2	1041.8	313.15	32274.2	1039.2
313.15	34910.7	1046.8	313.15	34049.5	1044.4	313.15	33159.7	1041.8	313.15	32261.9	1039.2
313.15	34899.0	1046.7	313.15	34037.3	1044.3	313.15	33146.6	1041.8	313.15	32249.7	1039.2
313.15	34887.3	1046.6	313.15	34025.7	1044.3	313.15	33134.5	1041.8	313.15	32237.8	1039.2
313.15	34875.5	1046.7	313.15	34014.4	1044.2	313.15	33123.1	1041.8	313.15	32226.3	1039.1
313.15	34863.5	1046.7	313.15	34003.5	1044.3	313.15	33110.8	1041.6	313.15	32213.0	1039.0
313.15	34851.6	1046.6	313.15	33992.1	1044.2	313.15	33098.4	1041.7	313.15	32200.2	1039.0
313.15	34840.1	1046.5	313.15	33980.7	1044.1	313.15	33085.7	1041.6	313.15	32187.2	1039.0
313.15	34828.4	1046.5	313.15	33969.6	1044.1	313.15	33073.6	1041.6	313.15	32175.8	1038.9
313.15	34817.3	1046.5	313.15	33957.4	1044.1	313.15	33062.0	1041.6	313.15	32165.3	1038.9
313.15	34805.9	1046.5	313.15	33946.5	1044.1	313.15	33049.4	1041.5	313.15	32153.5	1038.9
313.15	34793.9	1046.4	313.15	33935.0	1044.0	313.15	33035.8	1041.5	313.15	32141.8	1038.9
313.15	34782.1	1046.4	313.15	33924.4	1044.1	313.15	33023.7	1041.5	313.15	32130.9	1038.8
313.15	34769.9	1046.4	313.15	33913.2	1044.0	313.15	33013.3	1041.4	313.15	32119.3	1038.8
313.15	34758.9	1046.3	313.15	33901.2	1043.9	313.15	33001.3	1041.4	313.15	32108.3	1038.8
313.15	34746.7	1046.3	313.15	33889.1	1043.9	313.15	32989.0	1041.3	313.15	32097.0	1038.7
313.15	34735.5	1046.3	313.15	33878.0	1043.9	313.15	32978.2	1041.2	313.15	32085.2	1038.7
313.15	34723.2	1046.3	313.15	33866.2	1043.9	313.15	32967.1	1041.2	313.15	32073.3	1038.6
313.15	34711.5	1046.2	313.15	33855.6	1043.8	313.15	32955.0	1041.2	313.15	32061.0	1038.6
313.15	34699.1	1046.2	313.15	33844.5	1043.8	313.15	32943.7	1041.2	313.15	32049.0	1038.6
313.15	34688.1	1046.1	313.15	33833.4	1043.7	313.15	32932.6	1041.1	313.15	32037.2	1038.5
313.15	34676.2	1046.1	313.15	33822.1	1043.7	313.15	32920.7	1041.1	313.15	32025.4	1038.5
313.15	34665.4	1046.1	313.15	33810.2	1043.7	313.15	32908.1	1041.1	313.15	32012.6	1038.5
313.15	34653.3	1046.1	313.15	33798.0	1043.7	313.15	32897.2	1041.1	313.15	32000.0	1038.4
313.15	34641.1	1046.0	313.15	33784.6	1043.6	313.15	32884.4	1041.0	313.15	31988.2	1038.4
313.15	34629.9	1046.0	313.15	33772.1	1043.6	313.15	32873.4	1041.0	313.15	31975.3	1038.4
313.15	34618.3	1045.9	313.15	33760.3	1043.5	313.15	32861.2	1040.9	313.15	31962.0	1038.3
313.15	34606.9	1045.9	313.15	33749.0	1043.5	313.15	32848.8	1040.9	313.15	31949.0	1038.3
313.15	34595.8	1045.9	313.15	33736.9	1043.5	313.15	32836.3	1040.9	313.15	31936.1	1038.2
313.15	34584.5	1045.9	313.15	33725.6	1043.4	313.15	32823.8	1040.9	313.15	31923.6	1038.2
313.15	34572.4	1045.8	313.15	33713.9	1043.4	313.15	32811.9	1040.8	313.15	31910.9	1038.2
313.15	34562.3	1045.8	313.15	33701.6	1043.4	313.15	32799.6	1040.7	313.15	31899.8	1038.1
313.15	34551.0	1045.8	313.15	33689.9	1043.3	313.15	32787.3	1040.7	313.15	31888.8	1038.1
313.15	34539.7	1045.7	313.15	33678.5	1043.3	313.15	32774.8	1040.7	313.15	31876.8	1038.1
313.15	34529.5	1045.7	313.15	33666.3	1043.3	313.15	32763.2	1040.7	313.15	31864.5	1038.0
313.15	34518.7	1045.7	313.15	33654.8	1043.2	313.15	32750.4	1040.6	313.15	31853.0	1038.0
313.15	34507.8	1045.6	313.15	33643.2	1043.2	313.15	32737.4	1040.6	313.15	31841.0	1038.0
313.15	34497.4	1045.6	313.15	33631.4	1043.2	313.15	32725.3	1040.6	313.15	31829.4	1037.9
313.15	34486.1	1045.5	313.15	33619.4	1043.2	313.15	32713.1	1040.5	313.15	31817.0	1037.9
313.15	34474.7	1045.6	313.15	33607.1	1043.1	313.15	32699.7	1040.5	313.15	31805.1	1037.9
313.15	34462.8	1045.5	313.15	33595.3	1043.1	313.15	32687.1	1040.4	313.15	31792.5	1037.8
313.15	34452.0	1045.5	313.15	33582.7	1043.0	313.15	32675.4	1040.4	313.15	31780.8	1037.8
313.15	34440.2	1045.4	313.15	33570.7	1043.0	313.15	32662.9	1040.4	313.15	31768.4	1037.7
313.15	34430.0	1045.4	313.15	33558.6	1043.0	313.15	32650.3	1040.4	313.15	31757.5	1037.7
313.15	34418.3	1045.4	313.15	33546.4	1042.9	313.15	32639.3	1040.3	313.15	31745.2	1037.7
313.15	34407.0	1045.4	313.15	33534.5	1042.9	313.15	32627.0	1040.3	313.15	31733.2	1037.7
313.15	34395.4	1045.3	313.15	33523.5	1042.9	313.15	32615.0	1040.2	313.15	31721.9	1037.6
313.15	34383.9	1045.3	313.15	33511.6	1042.8	313.15	32602.9	1040.2	313.15	31709.3	1037.6
313.15	34372.0	1045.3	313.15	33500.1	1042.8	313.15	32591.1	1040.1	313.15	31696.6	1037.5
313.15	34361.1	1045.3	313.15	33486.7	1042.8	313.15	32578.7	1040.2	313.15	31684.1	1037.5
313.15	34349.4	1045.2	313.15	33474.6	1042.7	313.15	32566.9	1040.2	313.15	31672.8	1037.5
313.15	34338.9	1045.2	313.15	33463.6	1042.7	313.15	32555.1	1040.1	313.15	31660.1	1037.4
313.15	34327.8	1045.1	313.15	33452.4	1042.6	313.15	32543.0	1040.1	313.15	31647.8	1037.4
313.15	34317.0	1045.2	313.15	33441.3	1042.6	313.15	32531.0	1040.0	313.15	31636.1	1037.3
313.15	34305.2	1045.1	313.15	33428.4	1042.6	313.15	32520.1	1040.0	313.15	31623.6	1037.3
313.15	34294.4	1045.0	313.15	33416.6	1042.5	313.15	32508.6	1039.9	313.15	31612.3	1037.3
313.15	34283.2	1045.0	313.15	33406.4	1042.5	313.15	32496.5	1039.9	313.15	31599.7	1037.2
313.15	34271.7	1045.0	313.15	33394.9	1042.5	313.15	32484.0	1039.9	313.15	31587.4	1037.2
313.15	34261.1	1044.9	313.15	33382.1	1042.5	313.15	32472.4	1039.8	313.15	31576.0	1037.2
313.15	34248.8	1044.9	313.15	33368.8	1042.4	313.15	32460.2	1039.8	313.15	31563.6	1037.1
313.15	34237.3	1044.9	313.15	33354.7	1042.3	313.15	32449.4	1039.8	313.15	31551.9	1037.1
313.15	34225.4	1044.9	313.15	33341.4	1042.4	313.15	32437.8	1039.7	313.15	31539.4	1037.1
313.15	34213.3	1044.8	313.15	33328.4	1042.3	313.15	32425.6	1039.7	313.15	31527.1	1037.0
313.15	34202.9	1044.8	313.15	33316.3	1042.3	313.15	32413.2	1039.6	313.15	31515.7	1037.0
313.15	34191.5	1044.7	313.15	33304.0	1042.2	313.15	32400.7	1039.6	313.15	31503.3	1036.9
313.15	34179.9	1044.7	313.15	33291.9	1042.2	313.15	32388.9	1039.6	313.15	31491.2	1036.9
313.15	34168.8	1044.7	313.15	33280.0	1042.1	313.15	32376.7	1039.5	313.15	31479.7	1036.9
313.15	34158.8	1044.7	313.15	33268.7	1042.1	313.15	32365.8	1039.5	313.15	31467.1	1036.9

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
313.15	31454.6	1036.9	313.15	30544.9	1034.1	313.15	29620.0	1031.3	313.15	28698.2	1028.3
313.15	31442.9	1036.8	313.15	30532.1	1034.0	313.15	29607.6	1031.2	313.15	28687.5	1028.3
313.15	31430.7	1036.7	313.15	30522.1	1034.0	313.15	29595.2	1031.2	313.15	28676.3	1028.2
313.15	31419.4	1036.7	313.15	30509.9	1034.0	313.15	29583.1	1031.1	313.15	28663.4	1028.2
313.15	31407.1	1036.6	313.15	30498.1	1034.0	313.15	29571.5	1031.1	313.15	28651.5	1028.2
313.15	31394.6	1036.6	313.15	30485.6	1033.9	313.15	29560.0	1031.1	313.15	28638.3	1028.2
313.15	31382.6	1036.6	313.15	30474.4	1033.9	313.15	29549.2	1031.0	313.15	28625.9	1028.1
313.15	31372.3	1036.6	313.15	30462.7	1033.8	313.15	29537.1	1031.0	313.15	28613.8	1028.1
313.15	31359.6	1036.5	313.15	30450.9	1033.8	313.15	29525.8	1030.9	313.15	28601.8	1028.0
313.15	31347.5	1036.5	313.15	30438.0	1033.7	313.15	29515.3	1030.9	313.15	28590.3	1028.0
313.15	31336.0	1036.4	313.15	30426.3	1033.7	313.15	29503.8	1030.9	313.15	28579.0	1027.9
313.15	31323.8	1036.4	313.15	30415.1	1033.7	313.15	29492.7	1030.9	313.15	28566.3	1027.9
313.15	31312.4	1036.4	313.15	30403.1	1033.6	313.15	29481.3	1030.8	313.15	28553.9	1027.9
313.15	31300.2	1036.3	313.15	30391.7	1033.6	313.15	29469.7	1030.8	313.15	28542.2	1027.8
313.15	31287.2	1036.3	313.15	30380.5	1033.6	313.15	29459.5	1030.7	313.15	28530.4	1027.8
313.15	31274.7	1036.3	313.15	30369.3	1033.5	313.15	29447.7	1030.7	313.15	28519.0	1027.7
313.15	31262.9	1036.3	313.15	30358.6	1033.5	313.15	29435.9	1030.6	313.15	28507.5	1027.7
313.15	31252.0	1036.2	313.15	30347.1	1033.5	313.15	29422.5	1030.6	313.15	28495.8	1027.7
313.15	31239.7	1036.2	313.15	30336.2	1033.4	313.15	29409.8	1030.6	313.15	28484.1	1027.6
313.15	31227.1	1036.1	313.15	30325.1	1033.4	313.15	29397.6	1030.5	313.15	28472.4	1027.6
313.15	31215.8	1036.1	313.15	30313.5	1033.4	313.15	29385.3	1030.5	313.15	28460.4	1027.6
313.15	31204.0	1036.1	313.15	30301.7	1033.3	313.15	29372.5	1030.4	313.15	28450.7	1027.6
313.15	31192.8	1036.0	313.15	30290.2	1033.3	313.15	29359.7	1030.4	313.15	28440.7	1027.5
313.15	31180.8	1036.0	313.15	30278.5	1033.3	313.15	29347.1	1030.4	313.15	28429.7	1027.5
313.15	31169.0	1035.9	313.15	30266.5	1033.3	313.15	29334.4	1030.3	313.15	28418.2	1027.4
313.15	31156.9	1035.9	313.15	30255.0	1033.2	313.15	29322.1	1030.3	313.15	28407.1	1027.4
313.15	31146.0	1035.9	313.15	30244.0	1033.1	313.15	29310.0	1030.2	313.15	28396.2	1027.4
313.15	31134.7	1035.9	313.15	30232.5	1033.1	313.15	29298.1	1030.2	313.15	28385.0	1027.3
313.15	31123.6	1035.8	313.15	30221.0	1033.1	313.15	29286.2	1030.2	313.15	28373.5	1027.3
313.15	31111.6	1035.8	313.15	30209.6	1033.0	313.15	29274.1	1030.1	313.15	28361.1	1027.3
313.15	31099.4	1035.8	313.15	30198.4	1033.0	313.15	29262.0	1030.1	313.14	28349.6	1027.2
313.15	31088.5	1035.7	313.15	30186.9	1033.0	313.15	29249.6	1030.1	313.15	28338.0	1027.1
313.15	31078.4	1035.7	313.15	30174.3	1033.0	313.15	29237.5	1030.0	313.15	28326.2	1027.2
313.15	31066.4	1035.7	313.15	30164.1	1032.9	313.15	29225.5	1030.0	313.15	28313.9	1027.1
313.15	31054.8	1035.6	313.15	30153.1	1032.9	313.15	29213.5	1030.0	313.15	28301.6	1027.1
313.15	31043.7	1035.5	313.15	30142.4	1032.9	313.15	29200.9	1029.9	313.15	28289.3	1027.1
313.15	31032.0	1035.5	313.15	30130.6	1032.8	313.15	29188.1	1029.9	313.15	28277.5	1026.9
313.15	31020.5	1035.6	313.15	30119.2	1032.8	313.15	29176.4	1029.8	313.15	28266.8	1027.0
313.15	31008.3	1035.5	313.15	30107.1	1032.7	313.15	29164.7	1029.8	313.15	28255.3	1026.9
313.15	30996.5	1035.4	313.15	30095.2	1032.7	313.15	29152.7	1029.8	313.15	28244.1	1026.9
313.15	30984.6	1035.4	313.15	30083.8	1032.7	313.15	29140.9	1029.7	313.15	28231.1	1026.8
313.15	30973.2	1035.3	313.15	30072.1	1032.6	313.15	29129.3	1029.7	313.15	28219.0	1026.8
313.15	30961.3	1035.3	313.15	30059.4	1032.6	313.15	29117.6	1029.6	313.15	28206.6	1026.8
313.15	30949.7	1035.3	313.15	30045.9	1032.5	313.15	29106.5	1029.6	313.15	28194.6	1026.7
313.15	30937.9	1035.2	313.15	30032.4	1032.5	313.15	29095.2	1029.6	313.15	28182.5	1026.7
313.15	30925.7	1035.2	313.15	30018.8	1032.5	313.15	29082.6	1029.5	313.14	28170.1	1026.6
313.15	30913.7	1035.2	313.15	30005.0	1032.4	313.15	29071.3	1029.5	313.14	28156.5	1026.6
313.15	30902.0	1035.1	313.15	29991.4	1032.4	313.15	29059.5	1029.4	313.15	28144.0	1026.6
313.15	30890.6	1035.1	313.15	29978.4	1032.4	313.15	29048.1	1029.5	313.15	28130.4	1026.5
313.15	30879.8	1035.1	313.15	29966.2	1032.3	313.15	29036.5	1029.4	313.15	28117.2	1026.5
313.15	30868.4	1035.1	313.15	29953.5	1032.2	313.15	29025.4	1029.4	313.15	28102.8	1026.4
313.15	30856.6	1035.0	313.15	29942.0	1032.2	313.15	29014.6	1029.3	313.15	28089.4	1026.3
313.15	30844.5	1035.0	313.15	29930.2	1032.2	313.15	29003.0	1029.3	313.15	28074.0	1026.3
313.15	30831.8	1034.9	313.15	29917.2	1032.2	313.15	28991.9	1029.3	313.15	28060.1	1026.3
313.15	30819.9	1034.9	313.15	29906.1	1032.1	313.15	28980.0	1029.2	313.15	28045.2	1026.2
313.15	30810.6	1034.9	313.15	29893.9	1032.1	313.15	28968.2	1029.2	313.15	28030.8	1026.2
313.15	30796.8	1034.9	313.15	29881.7	1032.0	313.15	28956.6	1029.1	313.15	28016.1	1026.1
313.15	30785.7	1034.9	313.15	29869.0	1032.0	313.15	28944.2	1029.1	313.15	28000.6	1026.1
313.15	30774.2	1034.7	313.15	29857.5	1031.9	313.15	28931.0	1029.1	313.15	27985.9	1026.0
313.15	30762.2	1034.8	313.15	29845.7	1032.0	313.15	28918.9	1029.0	313.15	27970.3	1026.0
313.15	30750.5	1034.7	313.15	29833.7	1031.9	313.15	28906.9	1029.0	313.15	27954.9	1026.0
313.15	30738.4	1034.7	313.15	29821.5	1031.9	313.15	28895.0	1029.0	313.15	27939.5	1025.9
313.15	30727.9	1034.6	313.15	29809.9	1031.8	313.15	28884.1	1028.9	313.15	27924.4	1025.9
313.15	30716.5	1034.6	313.15	29797.7	1031.8	313.15	28871.5	1028.9	313.15	27909.3	1025.8
313.15	30705.0	1034.6	313.15	29785.8	1031.7	313.15	28859.5	1028.8	313.14	27894.7	1025.8
313.15	30692.9	1034.5	313.15	29774.3	1031.7	313.15	28848.7	1028.8	313.14	27881.0	1025.7
313.15	30681.1	1034.5	313.15	29763.3	1031.7	313.15	28836.6	1028.7	313.14	27864.9	1025.6
313.15	30669.4	1034.4	313.15	29751.6	1031.6	313.15	28824.0	1028.7	313.14	27850.9	1025.6
313.15	30658.4	1034.4	313.15	29740.3	1031.6	313.15	28811.3	1028.7	313.15	27836.3	1025.6
313.15	30646.6	1034.4	313.15	29729.2	1031.6	313.15	28799.3	1028.6	313.15	27823.2	1025.5
313.15	30636.3	1034.4	313.15	29717.2	1031.5	313.15	28786.7	1028.6	313.15	27809.0	1025.5
313.15	30624.6	1034.3	313.15	29705.5	1031.5	313.15	28774.7	1028.6	313.15	27795.2	1025.5
313.15	30613.3	1034.3	313.15	29693.4	1031.4	313.15	28764.1	1028.5	313.15	27780.3	1025.4
313.15	30601.6	1034.2	313.15	29680.6	1031.5	313.15	28752.4	1028.5	313.15	27765.4	1025.4
313.15	30590.8	1034.2	313.15	29668.3	1031.4	313.15	28741.3	1028.5	313.15	27750.5	1025.3
313.15	30579.9	1034.2	313.15	29656.9	1031.3	313.15	28730.8	1028.5	313.15	27734.2	1025.2
313.15	30568.2	1034.2	313.15	29644.9	1031.3	313.15	28720.2	1028.4	313.15	27718.5	1025.2
313.15	30556.8	1034.1	313.15	29632.6	1031.3	313.15	28709.3	1028.4	313.15	27703.0	1025.2

Valori della densità del fluido R32 _ *T*=40°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
313.15	27688.1	1025.1	313.15	26786.9	1022.1	313.15	25901.9	1019.2	313.15	24982.4	1016.1
313.15	27675.5	1025.0	313.15	26775.8	1022.1	313.15	25890.4	1019.1	313.15	24970.5	1016.0
313.15	27662.5	1025.0	313.15	26765.0	1022.1	313.15	25879.2	1019.1	313.15	24959.3	1016.0
313.15	27650.3	1025.0	313.15	26754.7	1022.0	313.15	25866.5	1019.1	313.15	24947.0	1015.9
313.15	27637.2	1025.0	313.15	26743.1	1022.0	313.15	25855.6	1019.0	313.15	24935.2	1015.9
313.15	27624.9	1024.9	313.15	26732.5	1022.0	313.15	25843.3	1019.0	313.15	24924.6	1015.9
313.15	27613.0	1024.8	313.15	26721.1	1021.9	313.15	25831.7	1019.0	313.15	24912.9	1015.8
313.15	27599.6	1024.8	313.15	26709.7	1021.9	313.15	25819.1	1018.9	313.14	24902.0	1015.8
313.15	27586.8	1024.7	313.15	26698.4	1021.8	313.15	25808.1	1018.8	313.14	24889.6	1015.7
313.15	27573.9	1024.8	313.15	26687.7	1021.8	313.15	25796.0	1018.8	313.15	24877.7	1015.7
313.15	27560.9	1024.7	313.15	26677.2	1021.8	313.15	25783.2	1018.8	313.15	24866.5	1015.7
313.15	27549.0	1024.6	313.15	26666.9	1021.7	313.15	25771.9	1018.8	313.15	24854.5	1015.6
313.15	27537.4	1024.6	313.15	26656.0	1021.7	313.15	25760.4	1018.7	313.15	24843.9	1015.6
313.15	27525.5	1024.5	313.15	26646.1	1021.7	313.15	25747.3	1018.7	313.15	24831.2	1015.5
313.15	27512.7	1024.5	313.15	26634.8	1021.6	313.15	25735.7	1018.6	313.15	24819.2	1015.5
313.15	27501.5	1024.5	313.15	26624.8	1021.6	313.15	25723.7	1018.6	313.15	24807.2	1015.5
313.15	27489.1	1024.5	313.15	26614.1	1021.6	313.15	25711.6	1018.5	313.15	24795.9	1015.4
313.15	27476.6	1024.5	313.15	26602.9	1021.5	313.15	25700.4	1018.5	313.15	24783.1	1015.4
313.15	27465.0	1024.4	313.15	26591.2	1021.5	313.15	25688.4	1018.5	313.15	24770.5	1015.3
313.14	27452.7	1024.3	313.15	26580.8	1021.5	313.15	25675.6	1018.4	313.15	24758.2	1015.3
313.15	27440.1	1024.3	313.15	26569.2	1021.4	313.15	25664.1	1018.4	313.15	24746.4	1015.3
313.14	27428.6	1024.3	313.15	26556.9	1021.4	313.15	25652.2	1018.4	313.15	24734.5	1015.2
313.14	27416.1	1024.2	313.15	26545.5	1021.3	313.15	25640.1	1018.3	313.15	24722.6	1015.2
313.14	27403.0	1024.2	313.14	26534.3	1021.3	313.15	25627.9	1018.3	313.15	24709.9	1015.1
313.15	27391.2	1024.2	313.15	26522.6	1021.3	313.15	25616.9	1018.2	313.15	24697.2	1015.0
313.15	27377.9	1024.2	313.15	26511.7	1021.2	313.14	25605.7	1018.2	313.15	24685.6	1015.0
313.15	27365.3	1024.1	313.15	26500.5	1021.2	313.15	25594.5	1018.2	313.15	24673.5	1015.0
313.15	27353.2	1024.0	313.15	26488.5	1021.1	313.15	25583.6	1018.1	313.15	24662.1	1014.9
313.15	27340.1	1024.0	313.15	26477.0	1021.1	313.15	25571.6	1018.1	313.15	24650.0	1014.9
313.15	27327.8	1023.9	313.15	26465.4	1021.1	313.15	25560.9	1018.0	313.15	24637.3	1014.9
313.15	27316.1	1023.8	313.15	26453.4	1021.0	313.15	25549.6	1018.0	313.15	24625.9	1014.8
313.15	27305.5	1023.9	313.15	26442.2	1021.0	313.15	25537.5	1018.0	313.14	24613.9	1014.7
313.15	27294.3	1023.8	313.15	26430.3	1021.0	313.15	25527.2	1018.0	313.14	24601.5	1014.8
313.15	27283.5	1023.8	313.15	26418.9	1020.9	313.15	25515.0	1017.8	313.15	24589.9	1014.7
313.15	27271.1	1023.8	313.15	26406.2	1020.9	313.14	25504.3	1017.8	313.15	24577.4	1014.7
313.15	27259.5	1023.7	313.15	26395.6	1020.8	313.14	25491.3	1017.8	313.14	24565.1	1014.6
313.15	27248.9	1023.7	313.15	26384.1	1020.9	313.15	25479.6	1017.8	313.14	24554.2	1014.5
313.15	27238.2	1023.7	313.15	26373.5	1020.8	313.15	25467.3	1017.7	313.15	24542.1	1014.5
313.15	27226.9	1023.6	313.15	26362.1	1020.8	313.15	25455.7	1017.7	313.14	24529.4	1014.5
313.15	27215.5	1023.6	313.15	26351.4	1020.7	313.15	25442.8	1017.6	313.14	24517.9	1014.4
313.15	27204.5	1023.5	313.15	26340.3	1020.7	313.15	25430.5	1017.6	313.15	24505.4	1014.4
313.15	27194.4	1023.5	313.15	26328.5	1020.6	313.15	25419.4	1017.5	313.15	24494.1	1014.4
313.15	27184.5	1023.5	313.15	26316.7	1020.6	313.14	25407.4	1017.5	313.15	24482.0	1014.3
313.15	27173.1	1023.4	313.15	26305.2	1020.6	313.14	25395.5	1017.5	313.15	24469.8	1014.3
313.15	27161.9	1023.4	313.15	26293.3	1020.5	313.15	25383.8	1017.4	313.15	24457.5	1014.2
313.15	27150.3	1023.4	313.15	26281.5	1020.5	313.14	25371.7	1017.4	313.15	24445.0	1014.2
313.15	27139.5	1023.3	313.15	26271.0	1020.4	313.14	25359.2	1017.3	313.15	24433.0	1014.2
313.15	27127.2	1023.3	313.15	26259.7	1020.4	313.14	25348.3	1017.3	313.15	24420.2	1014.1
313.15	27115.1	1023.2	313.15	26249.6	1020.4	313.15	25336.5	1017.3	313.15	24408.1	1014.1
313.15	27103.7	1023.2	313.15	26239.7	1020.4	313.14	25324.7	1017.2	313.15	24395.4	1014.0
313.15	27090.9	1023.1	313.15	26229.7	1020.3	313.15	25312.6	1017.2	313.15	24384.0	1014.0
313.15	27080.0	1023.1	313.15	26218.3	1020.3	313.15	25301.9	1017.2	313.15	24373.8	1014.0
313.15	27068.1	1023.1	313.15	26207.4	1020.3	313.15	25291.4	1017.0	313.15	24362.4	1013.9
313.15	27056.7	1023.0	313.14	26196.5	1020.2	313.14	25279.2	1017.1	313.15	24351.0	1013.8
313.15	27046.1	1023.0	313.15	26184.6	1020.1	313.14	25267.3	1017.1	313.15	24339.7	1013.8
313.15	27035.1	1023.0	313.15	26173.0	1020.1	313.15	25255.3	1017.0	313.15	24328.2	1013.8
313.15	27023.4	1022.9	313.15	26161.1	1020.0	313.15	25243.6	1016.9	313.15	24316.6	1013.7
313.15	27012.5	1022.9	313.15	26149.6	1020.0	313.15	25231.4	1016.9	313.15	24305.6	1013.7
313.15	27001.9	1022.9	313.15	26138.0	1020.0	313.15	25219.7	1016.9	313.15	24293.7	1013.7
313.15	26991.0	1022.9	313.15	26126.0	1020.0	313.15	25207.5	1016.8	313.14	24281.1	1013.6
313.15	26981.2	1022.8	313.15	26114.3	1019.9	313.15	25195.9	1016.8	313.14	24269.2	1013.6
313.15	26969.6	1022.8	313.15	26101.4	1019.9	313.15	25184.6	1016.7	313.14	24256.8	1013.5
313.15	26959.4	1022.7	313.15	26089.9	1019.8	313.15	25173.2	1016.7	313.14	24244.6	1013.4
313.15	26948.8	1022.7	313.15	26078.5	1019.8	313.15	25161.1	1016.7	313.15	24232.9	1013.4
313.15	26937.7	1022.6	313.15	26066.5	1019.7	313.14	25149.7	1016.6	313.15	24220.4	1013.4
313.15	26927.0	1022.6	313.15	26055.2	1019.7	313.15	25137.7	1016.6	313.15	24208.1	1013.4
313.15	26916.9	1022.6	313.15	26043.0	1019.7	313.15	25126.3	1016.6	313.15	24195.4	1013.3
313.15	26905.7	1022.5	313.14	26031.5	1019.7	313.15	25114.2	1016.5	313.15	24183.9	1013.3
313.15	26895.1	1022.5	313.14	26018.7	1019.6	313.15	25101.7	1016.5	313.15	24171.1	1013.2
313.15	26884.6	1022.5	313.15	26007.5	1019.5	313.15	25089.1	1016.4	313.14	24159.6	1013.2
313.15	26873.6	1022.4	313.15	25995.8	1019.5	313.15	25077.7	1016.4	313.14	24147.2	1013.2
313.15	26862.0	1022.4	313.15	25983.2	1019.5	313.15	25066.3	1016.3	313.14	24134.5	1013.1
313.15	26850.4	1022.4	313.15	25971.7	1019.4	313.15	25056.0	1016.3	313.15	24122.2	1013.0
313.15	26839.5	1022.3	313.15	25959.0	1019.4	313.15	25043.9	1016.3	313.15	24109.8	1013.0
313.15	26828.7	1022.3	313.15	25946.9	1019.3	313.15	25032.7	1016.2	313.15	24097.4	1013.0
313.15	26819.1	1022.3	313.15	25935.6	1019.3	313.15	25020.1	1016.2	313.15	24083.6	1012.9
313.15	26807.8	1022.2	313.15	25923.5	1019.3	313.15	25007.1	1016.1	313.15	24070.3	1012.9
313.15	26797.4	1022.2	313.15	25912.1	1019.2	313.15	24995.0	1016.1	313.15	24058.9	1012.9

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
313.15	24048.3	1012.8	313.15	23127.0	1009.5	313.15	22152.1	1005.9	313.15	21243.0	1002.4
313.15	24036.2	1012.8	313.15	23115.4	1009.4	313.15	22140.3	1005.9	313.15	21231.4	1002.4
313.15	24024.6	1012.7	313.15	23103.4	1009.4	313.15	22127.0	1005.8	313.15	21219.4	1002.4
313.15	24010.8	1012.7	313.14	23092.0	1009.3	313.15	22115.0	1005.8	313.15	21208.3	1002.3
313.15	23998.1	1012.6	313.14	23078.7	1009.3	313.15	22102.2	1005.7	313.15	21196.2	1002.3
313.15	23985.7	1012.6	313.14	23067.5	1009.3	313.15	22088.4	1005.6	313.15	21184.2	1002.2
313.14	23973.4	1012.5	313.14	23055.0	1009.2	313.15	22076.3	1005.7	313.15	21173.4	1002.2
313.15	23960.6	1012.5	313.14	23043.0	1009.2	313.15	22063.0	1005.6	313.15	21162.7	1002.2
313.14	23947.3	1012.4	313.15	23029.9	1009.1	313.15	22051.4	1005.5	313.15	21152.2	1002.1
313.15	23935.8	1012.3	313.15	23018.0	1009.1	313.15	22039.0	1005.5	313.15	21139.2	1002.1
313.15	23923.9	1012.4	313.15	23006.2	1009.1	313.15	22026.9	1005.4	313.15	21128.8	1002.0
313.15	23911.5	1012.3	313.15	22993.8	1009.0	313.15	22015.6	1005.4	313.15	21117.3	1002.0
313.15	23899.9	1012.3	313.15	22982.4	1009.0	313.15	22004.4	1005.3	313.15	21105.8	1002.0
313.15	23887.9	1012.3	313.15	22970.1	1008.9	313.15	21993.3	1005.3	313.15	21094.9	1001.9
313.15	23877.5	1012.1	313.15	22957.5	1008.9	313.15	21981.6	1005.3	313.15	21082.3	1001.9
313.15	23867.4	1012.2	313.15	22946.5	1008.8	313.15	21968.9	1005.2	313.15	21071.0	1001.8
313.15	23856.1	1012.1	313.14	22935.9	1008.8	313.15	21957.4	1005.2	313.15	21059.4	1001.8
313.15	23845.2	1012.1	313.15	22925.1	1008.8	313.15	21945.5	1005.1	313.15	21048.2	1001.7
313.15	23832.9	1012.0	313.14	22914.1	1008.7	313.15	21933.2	1005.1	313.15	21036.3	1001.7
313.15	23821.5	1012.0	313.15	22902.1	1008.6	313.15	21921.1	1005.1	313.15	21025.4	1001.6
313.15	23810.7	1011.9	313.15	22891.5	1008.6	313.15	21908.7	1005.0	313.15	21014.8	1001.6
313.15	23799.2	1011.9	313.15	22879.1	1008.6	313.15	21897.6	1004.9	313.15	21003.5	1001.6
313.15	23787.4	1011.9	313.15	22867.5	1008.6	313.15	21885.3	1004.9	313.15	20991.7	1001.5
313.15	23776.5	1011.8	313.15	22855.4	1008.5	313.15	21873.0	1004.8	313.15	20980.5	1001.4
313.14	23765.3	1011.8	313.15	22844.0	1008.5	313.15	21861.5	1004.8	313.15	20967.9	1001.4
313.15	23752.7	1011.7	313.15	22831.8	1008.4	313.15	21850.6	1004.8	313.15	20956.3	1001.4
313.15	23740.9	1011.7	313.15	22820.0	1008.4	313.15	21838.0	1004.7	313.15	20944.8	1001.3
313.15	23729.0	1011.6	313.15	22808.8	1008.3	313.15	21825.7	1004.7	313.15	20935.0	1001.3
313.15	23718.2	1011.5	313.15	22797.1	1008.3	313.15	21813.8	1004.6	313.15	20923.9	1001.2
313.15	23705.4	1011.6	313.15	22783.9	1008.2	313.15	21801.5	1004.6	313.15	20913.2	1001.2
313.15	23694.2	1011.5	313.15	22772.4	1008.2	313.15	21789.5	1004.6	313.15	20902.9	1001.2
313.15	23683.3	1011.5	313.15	22759.3	1008.1	313.15	21777.0	1004.5	313.15	20890.8	1001.1
313.15	23672.3	1011.5	313.15	22746.3	1008.1	313.15	21765.3	1004.5	313.15	20879.7	1001.1
313.15	23660.2	1011.4	313.15	22733.7	1008.0	313.15	21753.8	1004.4	313.15	20867.9	1001.1
313.15	23648.1	1011.3	313.15	22720.4	1008.0	313.15	21741.9	1004.4	313.15	20856.9	1001.0
313.15	23636.4	1011.3	313.15	22705.6	1008.0	313.15	21731.0	1004.3	313.15	20844.5	1001.0
313.15	23624.4	1011.3	313.15	22691.9	1007.9	313.15	21719.4	1004.3	313.15	20832.7	1000.9
313.15	23612.6	1011.2	313.15	22678.0	1007.9	313.15	21708.1	1004.2	313.15	20821.9	1000.8
313.15	23599.1	1011.2	313.15	22663.6	1007.8	313.15	21696.2	1004.2	313.15	20810.7	1000.9
313.15	23587.4	1011.1	313.15	22648.8	1007.7	313.15	21685.1	1004.1	313.15	20799.8	1000.7
313.15	23575.1	1011.1	313.15	22633.1	1007.7	313.15	21673.4	1004.0	313.15	20787.9	1000.7
313.15	23564.7	1011.1	313.15	22619.4	1007.6	313.15	21662.2	1004.1	313.15	20776.8	1000.7
313.15	23555.0	1011.1	313.15	22603.8	1007.5	313.15	21652.1	1004.0	313.15	20766.7	1000.7
313.15	23544.2	1011.0	313.15	22590.4	1007.5	313.15	21641.4	1004.0	313.15	20756.7	1000.6
313.15	23534.0	1010.9	313.15	22579.2	1007.5	313.15	21629.4	1004.0	313.15	20745.7	1000.5
313.15	23520.2	1010.9	313.15	22563.9	1007.4	313.15	21618.0	1003.9	313.15	20735.0	1000.5
313.15	23508.1	1010.9	313.15	22550.2	1007.4	313.15	21607.5	1003.8	313.15	20724.4	1000.4
313.15	23496.6	1010.8	313.15	22539.1	1007.4	313.15	21595.7	1003.8	313.15	20714.1	1000.4
313.15	23485.0	1010.8	313.15	22526.2	1007.3	313.15	21584.5	1003.8	313.15	20703.3	1000.3
313.15	23472.9	1010.7	313.15	22515.3	1007.3	313.15	21572.9	1003.8	313.15	20691.3	1000.4
313.15	23460.5	1010.6	313.15	22502.2	1007.2	313.15	21561.2	1003.6	313.15	20680.9	1000.3
313.15	23448.9	1010.6	313.15	22489.8	1007.1	313.15	21549.4	1003.6	313.15	20670.9	1000.2
313.15	23437.0	1010.6	313.15	22476.1	1007.1	313.15	21539.1	1003.6	313.15	20659.8	1000.2
313.15	23425.4	1010.5	313.15	22463.9	1007.0	313.15	21527.4	1003.5	313.15	20648.5	1000.2
313.14	23413.4	1010.5	313.15	22450.6	1007.0	313.15	21516.0	1003.5	313.15	20636.9	1000.1
313.15	23400.4	1010.5	313.15	22437.5	1007.0	313.15	21504.9	1003.5	313.15	20625.0	1000.1
313.14	23388.9	1010.4	313.15	22424.3	1006.9	313.15	21492.8	1003.4	313.15	20613.1	1000.0
313.14	23376.1	1010.4	313.15	22411.6	1006.9	313.15	21481.2	1003.4	313.15	20601.6	1000.0
313.14	23364.1	1010.3	313.15	22398.7	1006.8	313.15	21468.6	1003.3	313.15	20591.0	1000.0
313.14	23351.5	1010.3	313.15	22387.0	1006.8	313.15	21456.6	1003.3	313.15	20581.3	999.9
313.14	23339.5	1010.3	313.15	22375.1	1006.8	313.15	21445.6	1003.3	313.15	20571.1	999.9
313.14	23327.1	1010.2	313.15	22362.4	1006.7	313.15	21433.8	1003.2	313.15	20560.2	999.8
313.14	23315.9	1010.2	313.15	22349.9	1006.6	313.15	21423.4	1003.2	313.15	20549.3	999.8
313.14	23304.2	1010.1	313.15	22337.1	1006.6	313.15	21413.2	1003.1	313.15	20538.2	999.7
313.14	23291.6	1010.1	313.15	22325.3	1006.6	313.15	21402.3	1003.1	313.15	20525.9	999.7
313.14	23280.5	1010.0	313.15	22312.8	1006.5	313.15	21391.5	1003.0	313.15	20514.1	999.7
313.14	23268.2	1010.0	313.15	22300.3	1006.5	313.15	21379.8	1003.0	313.15	20503.6	999.6
313.15	23256.9	1010.0	313.15	22287.6	1006.4	313.15	21369.3	1002.9	313.15	20492.3	999.5
313.15	23245.3	1009.9	313.15	22275.6	1006.4	313.15	21357.1	1002.9	313.15	20480.5	999.5
313.15	23233.9	1009.9	313.15	22263.5	1006.3	313.15	21346.9	1002.9	313.15	20469.8	999.5
313.15	23222.2	1009.8	313.15	22250.4	1006.3	313.15	21334.8	1002.8	313.15	20457.9	999.4
313.14	23209.9	1009.8	313.15	22238.6	1006.2	313.15	21324.1	1002.7	313.15	20445.5	999.4
313.14	23198.5	1009.8	313.15	22226.3	1006.2	313.15	21312.0	1002.7	313.15	20433.7	999.3
313.15	23187.4	1009.7	313.15	22213.9	1006.1	313.15	21300.7	1002.7	313.15	20421.7	999.3
313.14	23175.0	1009.7	313.15	22202.2	1006.1	313.15	21290.2	1002.7	313.15	20410.2	999.1
313.14	23163.6	1009.6	313.15	22189.0	1006.0	313.15	21280.1	1002.6	313.15	20399.5	999.2
313.15	23150.5	1009.6	313.15	22176.7	1006.0	313.15	21267.5	1002.6	313.15	20387.4	999.1
313.15	23139.5	1009.5	313.15	22163.8	1005.9	313.15	21255.3	1002.6	313.15	20375.9	999.1

Valori della densità del fluido R32 _ *T*=40°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
313.15	20364.0	999.1	313.15	19466.2	995.5	313.15	18562.8	991.8	313.15	17616.1	987.8
313.15	20353.3	999.0	313.15	19455.4	995.5	313.15	18551.3	991.8	313.15	17604.6	987.8
313.15	20341.5	999.0	313.15	19443.2	995.4	313.15	18539.2	991.7	313.15	17591.5	987.7
313.15	20329.4	998.9	313.15	19430.7	995.4	313.15	18527.9	991.6	313.15	17578.6	987.7
313.15	20318.0	998.9	313.15	19417.9	995.3	313.15	18516.0	991.6	313.15	17567.1	987.6
313.15	20306.4	998.9	313.15	19406.8	995.3	313.15	18504.4	991.5	313.15	17553.9	987.5
313.15	20295.3	998.8	313.15	19394.0	995.2	313.15	18491.5	991.5	313.15	17541.6	987.5
313.15	20285.6	998.8	313.15	19382.9	995.2	313.15	18480.3	991.5	313.15	17529.5	987.4
313.15	20275.4	998.7	313.15	19373.3	995.1	313.15	18467.9	991.4	313.15	17517.7	987.4
313.15	20265.3	998.7	313.15	19362.4	995.1	313.15	18455.9	991.4	313.15	17505.0	987.3
313.15	20254.7	998.6	313.15	19350.9	995.1	313.15	18443.4	991.3	313.15	17491.0	987.2
313.15	20243.6	998.6	313.15	19340.2	995.0	313.15	18431.4	991.2	313.15	17478.7	987.2
313.15	20231.3	998.5	313.15	19329.5	995.0	313.15	18418.7	991.2	313.15	17466.7	987.2
313.15	20219.1	998.5	313.15	19317.5	994.9	313.15	18406.8	991.2	313.15	17454.8	987.2
313.15	20206.7	998.4	313.15	19306.4	994.9	313.15	18396.4	991.1	313.15	17442.8	987.1
313.15	20195.3	998.4	313.15	19295.3	994.9	313.15	18384.4	991.1	313.15	17431.3	987.0
313.15	20183.0	998.3	313.15	19283.6	994.8	313.15	18371.9	991.1	313.15	17418.1	987.0
313.15	20170.4	998.3	313.15	19272.6	994.7	313.15	18361.5	991.0	313.15	17405.5	986.9
313.15	20158.3	998.3	313.15	19260.7	994.7	313.15	18349.0	990.9	313.15	17394.0	986.9
313.15	20145.5	998.2	313.15	19249.2	994.6	313.15	18336.5	990.9	313.15	17381.4	986.8
313.15	20134.0	998.1	313.15	19237.6	994.6	313.15	18323.7	990.9	313.15	17369.6	986.7
313.15	20122.8	998.1	313.15	19225.5	994.5	313.15	18312.2	990.8	313.15	17358.8	986.7
313.15	20112.2	998.1	313.15	19213.4	994.4	313.15	18300.3	990.7	313.15	17346.5	986.7
313.15	20101.5	998.0	313.15	19201.8	994.4	313.15	18289.9	990.7	313.15	17334.9	986.6
313.15	20091.8	998.0	313.15	19190.5	994.4	313.15	18277.5	990.6	313.15	17324.0	986.6
313.15	20080.8	997.9	313.15	19179.5	994.3	313.15	18264.9	990.6	313.15	17312.4	986.5
313.15	20069.1	997.9	313.15	19167.3	994.3	313.15	18251.9	990.5	313.15	17300.6	986.5
313.15	20057.8	997.8	313.15	19155.7	994.2	313.15	18239.0	990.5	313.15	17288.9	986.4
313.15	20046.0	997.8	313.15	19144.5	994.2	313.15	18227.8	990.4	313.15	17277.0	986.4
313.15	20034.6	997.8	313.15	19131.8	994.1	313.15	18215.6	990.3	313.15	17265.2	986.3
313.15	20023.3	997.8	313.15	19120.0	994.1	313.15	18204.7	990.3	313.15	17252.7	986.2
313.15	20011.2	997.7	313.15	19107.9	994.0	313.15	18191.7	990.3	313.15	17240.4	986.2
313.15	19999.4	997.6	313.15	19096.3	994.0	313.15	18180.4	990.2	313.15	17228.9	986.2
313.15	19988.4	997.6	313.15	19083.7	994.0	313.15	18167.9	990.2	313.15	17217.4	986.1
313.15	19976.6	997.6	313.15	19072.6	993.9	313.15	18156.3	990.1	313.15	17205.8	986.1
313.15	19965.1	997.6	313.15	19061.5	993.9	313.15	18144.7	990.1	313.15	17193.9	986.0
313.15	19954.4	997.4	313.15	19050.4	993.8	313.15	18134.0	990.0	313.15	17181.4	986.0
313.15	19942.3	997.4	313.15	19038.6	993.7	313.15	18123.0	990.0	313.15	17169.4	985.9
313.15	19930.3	997.4	313.15	19027.0	993.7	313.15	18110.9	990.0	313.15	17158.5	985.8
313.15	19919.2	997.3	313.15	19015.3	993.7	313.15	18099.8	989.9	313.15	17146.8	985.8
313.15	19907.3	997.3	313.15	19002.9	993.6	313.15	18087.0	989.8	313.15	17134.5	985.7
313.15	19895.7	997.2	313.15	18991.3	993.6	313.15	18076.3	989.8	313.15	17122.7	985.7
313.15	19885.1	997.2	313.15	18980.1	993.5	313.15	18065.6	989.7	313.15	17111.4	985.6
313.15	19872.3	997.1	313.15	18969.0	993.5	313.15	18054.1	989.7	313.15	17098.6	985.6
313.15	19860.0	997.1	313.15	18956.7	993.4	313.15	18042.3	989.6	313.15	17086.9	985.5
313.15	19848.4	997.1	313.15	18946.2	993.4	313.15	18030.0	989.6	313.15	17073.8	985.5
313.15	19836.1	997.0	313.15	18935.1	993.3	313.15	18016.9	989.5	313.15	17061.2	985.5
313.15	19823.8	996.9	313.15	18924.1	993.3	313.15	18002.5	989.5	313.15	17049.5	985.3
313.15	19812.7	996.9	313.15	18913.5	993.2	313.15	17990.4	989.4	313.15	17036.6	985.3
313.15	19800.9	996.9	313.15	18903.0	993.2	313.15	17978.0	989.4	313.15	17023.8	985.3
313.15	19790.2	996.8	313.15	18891.4	993.2	313.15	17965.8	989.3	313.15	17011.2	985.2
313.15	19778.6	996.7	313.15	18880.4	993.1	313.15	17953.9	989.2	313.15	16998.4	985.2
313.15	19766.7	996.7	313.15	18869.8	993.1	313.15	17940.6	989.2	313.15	16985.5	985.1
313.15	19756.2	996.7	313.15	18858.4	993.0	313.15	17927.8	989.1	313.15	16974.6	985.0
313.15	19743.6	996.6	313.15	18846.8	993.0	313.15	17916.2	989.1	313.15	16961.7	985.0
313.15	19731.7	996.6	313.15	18835.5	992.9	313.15	17903.3	989.0	313.15	16949.1	984.9
313.15	19719.7	996.5	313.15	18823.8	992.9	313.15	17890.9	989.0	313.15	16937.9	984.9
313.15	19708.6	996.5	313.15	18811.9	992.8	313.15	17877.7	989.0	313.15	16926.3	984.8
313.15	19697.8	996.5	313.15	18799.9	992.8	313.15	17864.8	988.9	313.15	16914.8	984.8
313.15	19686.5	996.4	313.15	18788.3	992.7	313.15	17853.4	988.7	313.15	16904.4	984.8
313.15	19674.6	996.3	313.15	18776.7	992.7	313.15	17841.6	988.8	313.15	16894.0	984.7
313.15	19662.5	996.3	313.15	18766.3	992.7	313.15	17829.1	988.7	313.15	16883.6	984.7
313.15	19652.8	996.3	313.15	18753.8	992.6	313.15	17816.3	988.7	313.15	16871.9	984.6
313.15	19640.7	996.2	313.15	18743.0	992.6	313.15	17804.3	988.6	313.15	16862.6	984.5
313.15	19629.2	996.2	313.15	18731.2	992.5	313.15	17792.0	988.6	313.14	16851.1	984.5
313.15	19619.2	996.1	313.15	18721.0	992.5	313.15	17779.4	988.5	313.15	16839.7	984.4
313.15	19606.5	996.0	313.15	18709.9	992.4	313.15	17767.0	988.5	313.15	16828.0	984.4
313.15	19594.1	996.0	313.15	18697.9	992.3	313.15	17754.9	988.4	313.15	16815.7	984.4
313.15	19581.2	996.0	313.15	18686.7	992.4	313.15	17743.6	988.3	313.15	16804.6	984.3
313.15	19570.0	995.9	313.15	18675.1	992.3	313.15	17731.1	988.3	313.15	16792.5	984.3
313.15	19557.3	995.9	313.15	18661.9	992.2	313.15	17718.5	988.3	313.15	16780.8	984.2
313.15	19545.4	995.8	313.15	18648.7	992.2	313.15	17706.5	988.2	313.15	16769.0	984.2
313.15	19534.8	995.8	313.15	18636.6	992.1	313.15	17693.4	988.1	313.15	16758.2	984.1
313.15	19522.9	995.7	313.15	18623.8	992.1	313.15	17679.3	988.1	313.15	16747.8	984.0
313.15	19511.5	995.7	313.15	18610.8	992.0	313.15	17667.0	988.0	313.15	16736.3	984.0
313.15	19500.4	995.7	313.15	18599.5	992.0	313.15	17653.9	987.9	313.14	16725.0	983.9
313.15	19489.2	995.6	313.15	18586.9	991.9	313.15	17641.4	987.9	313.15	16712.8	983.9
313.15	19478.5	995.5	313.15	18574.6	991.8	313.15	17629.9	987.9	313.15	16699.8	983.9

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
313.15	16688.4	983.8	313.15	15743.6	979.5	313.15	14808.7	975.2	313.15	13886.7	970.8
313.15	16675.8	983.7	313.15	15732.1	979.5	313.15	14795.7	975.2	313.15	13874.8	970.7
313.15	16664.0	983.6	313.15	15720.1	979.5	313.15	14783.5	975.1	313.15	13862.7	970.7
313.15	16652.1	983.7	313.15	15709.2	979.4	313.15	14771.5	975.0	313.15	13851.0	970.6
313.15	16640.8	983.6	313.15	15697.5	979.3	313.15	14758.7	975.0	313.15	13838.5	970.5
313.15	16629.3	983.5	313.15	15685.5	979.3	313.15	14747.0	974.9	313.15	13826.1	970.4
313.15	16617.0	983.4	313.15	15674.0	979.3	313.15	14736.0	974.9	313.15	13814.5	970.4
313.15	16605.2	983.4	313.15	15663.1	979.2	313.15	14723.5	974.8	313.15	13803.7	970.4
313.15	16593.0	983.4	313.15	15651.3	979.1	313.15	14711.9	974.8	313.15	13792.0	970.3
313.15	16579.4	983.3	313.15	15641.4	979.1	313.15	14700.2	974.7	313.15	13781.4	970.2
313.15	16566.5	983.2	313.15	15629.2	979.0	313.15	14688.3	974.6	313.15	13770.2	970.2
313.15	16553.3	983.2	313.15	15617.5	979.0	313.15	14676.0	974.6	313.15	13758.5	970.2
313.15	16540.3	983.1	313.15	15605.0	978.9	313.15	14663.6	974.6	313.15	13746.5	970.1
313.15	16526.4	983.0	313.15	15593.7	978.9	313.15	14652.5	974.5	313.15	13735.5	970.0
313.15	16513.8	983.0	313.15	15581.5	978.8	313.15	14641.2	974.4	313.15	13723.8	970.0
313.15	16502.1	983.0	313.15	15569.9	978.8	313.15	14629.1	974.4	313.15	13711.0	969.9
313.15	16489.8	982.9	313.15	15558.9	978.7	313.15	14616.5	974.3	313.15	13698.8	969.9
313.15	16477.4	982.8	313.15	15546.9	978.6	313.15	14605.0	974.3	313.15	13686.9	969.8
313.15	16466.3	982.9	313.15	15534.7	978.6	313.15	14593.0	974.2	313.15	13675.1	969.7
313.15	16453.8	982.7	313.15	15522.7	978.6	313.14	14580.8	974.1	313.15	13663.4	969.6
313.15	16442.1	982.7	313.15	15511.1	978.5	313.15	14569.2	974.1	313.15	13650.0	969.6
313.15	16430.0	982.6	313.15	15498.8	978.4	313.15	14556.9	974.0	313.15	13636.8	969.5
313.15	16418.0	982.6	313.15	15486.6	978.4	313.15	14544.9	974.0	313.15	13623.9	969.4
313.15	16407.1	982.6	313.15	15474.0	978.3	313.15	14534.0	974.0	313.15	13611.6	969.4
313.15	16394.6	982.5	313.15	15461.5	978.2	313.15	14521.4	973.8	313.15	13600.6	969.4
313.15	16382.8	982.4	313.15	15447.8	978.2	313.15	14509.4	973.8	313.15	13589.1	969.3
313.15	16371.0	982.4	313.15	15436.2	978.2	313.15	14497.8	973.7	313.15	13577.3	969.2
313.15	16359.1	982.3	313.15	15423.7	978.1	313.15	14485.6	973.7	313.15	13565.1	969.2
313.15	16347.5	982.2	313.15	15412.2	978.0	313.15	14474.1	973.6	313.15	13553.6	969.1
313.15	16334.6	982.2	313.15	15401.2	977.9	313.15	14462.1	973.6	313.15	13541.9	969.1
313.15	16323.3	982.2	313.15	15389.4	977.9	313.15	14450.7	973.5	313.15	13530.4	969.1
313.15	16311.0	982.1	313.15	15376.9	977.9	313.15	14440.0	973.5	313.15	13519.0	969.0
313.15	16298.5	982.1	313.15	15366.1	977.8	313.15	14428.3	973.4	313.15	13507.6	968.9
313.15	16286.2	982.0	313.15	15355.3	977.8	313.15	14417.7	973.3	313.15	13496.9	968.9
313.15	16275.3	981.9	313.15	15343.8	977.7	313.15	14407.6	973.3	313.15	13485.7	968.8
313.15	16263.1	981.9	313.15	15332.8	977.7	313.15	14396.9	973.3	313.15	13474.4	968.8
313.15	16251.1	981.8	313.15	15320.7	977.6	313.15	14386.5	973.2	313.15	13462.4	968.7
313.15	16236.9	981.8	313.15	15308.8	977.5	313.15	14374.4	973.2	313.15	13450.2	968.6
313.15	16224.0	981.7	313.15	15295.8	977.5	313.15	14363.1	973.1	313.15	13439.4	968.5
313.15	16211.0	981.7	313.15	15283.1	977.5	313.15	14350.4	973.0	313.15	13428.6	968.5
313.15	16199.2	981.6	313.15	15271.1	977.4	313.15	14338.2	973.0	313.15	13416.4	968.4
313.15	16186.9	981.6	313.15	15257.3	977.3	313.15	14325.2	972.9	313.15	13404.9	968.4
313.15	16175.4	981.5	313.15	15244.2	977.3	313.15	14311.7	972.8	313.15	13393.9	968.3
313.15	16162.0	981.4	313.15	15231.9	977.2	313.15	14298.6	972.8	313.15	13382.4	968.3
313.15	16150.3	981.4	313.15	15219.0	977.1	313.15	14287.5	972.7	313.15	13370.2	968.3
313.15	16137.4	981.3	313.15	15206.5	977.1	313.15	14275.1	972.6	313.15	13359.0	968.1
313.15	16124.3	981.3	313.15	15194.2	977.0	313.15	14263.1	972.6	313.15	13347.3	968.1
313.15	16111.5	981.2	313.15	15180.8	977.0	313.15	14251.4	972.6	313.15	13334.8	968.0
313.15	16099.2	981.2	313.15	15168.6	976.9	313.15	14240.1	972.5	313.15	13323.0	968.0
313.15	16087.9	981.2	313.15	15155.9	976.9	313.15	14229.6	972.4	313.15	13312.5	967.9
313.15	16075.8	981.1	313.15	15142.8	976.8	313.15	14218.3	972.4	313.15	13301.0	967.9
313.15	16064.0	981.0	313.15	15130.2	976.7	313.15	14206.5	972.3	313.15	13288.3	967.8
313.15	16052.8	981.0	313.15	15118.2	976.7	313.15	14195.5	972.3	313.15	13276.8	967.8
313.15	16040.5	980.9	313.15	15105.7	976.6	313.15	14183.7	972.2	313.15	13264.9	967.7
313.15	16029.4	980.8	313.15	15092.5	976.5	313.15	14172.9	972.1	313.15	13253.9	967.6
313.15	16017.2	980.8	313.15	15080.3	976.5	313.15	14160.7	972.1	313.15	13241.5	967.6
313.15	16005.9	980.7	313.15	15069.1	976.4	313.15	14150.9	972.0	313.15	13229.2	967.5
313.15	15995.6	980.7	313.15	15058.0	976.4	313.15	14138.9	972.0	313.15	13217.5	967.5
313.15	15983.9	980.6	313.15	15048.5	976.4	313.15	14127.2	972.0	313.15	13205.2	967.4
313.15	15973.0	980.6	313.15	15035.3	976.3	313.15	14115.7	971.9	313.15	13194.0	967.3
313.15	15961.2	980.5	313.15	15022.8	976.2	313.15	14103.0	971.9	313.15	13182.3	967.3
313.15	15948.7	980.4	313.15	15010.1	976.2	313.15	14090.2	971.8	313.15	13170.3	967.2
313.15	15936.0	980.4	313.15	14997.2	976.1	313.15	14078.3	971.7	313.15	13158.6	967.1
313.15	15924.2	980.4	313.15	14985.2	976.0	313.15	14067.3	971.6	313.15	13148.0	967.1
313.15	15911.5	980.3	313.15	14973.1	976.0	313.15	14055.5	971.6	313.15	13137.5	967.0
313.15	15899.1	980.3	313.15	14960.0	975.9	313.15	14045.0	971.5	313.15	13125.6	967.0
313.15	15887.4	980.2	313.15	14948.0	975.9	313.15	14033.7	971.5	313.15	13113.3	966.9
313.15	15875.0	980.2	313.15	14936.9	975.8	313.15	14020.8	971.4	313.15	13101.1	966.8
313.15	15862.8	980.1	313.15	14926.1	975.8	313.15	14009.3	971.4	313.15	13088.9	966.8
313.15	15850.0	980.1	313.15	14914.8	975.7	313.15	13997.9	971.3	313.15	13077.7	966.7
313.15	15838.3	980.0	313.15	14902.3	975.6	313.15	13985.7	971.2	313.15	13066.2	966.7
313.15	15827.2	979.9	313.15	14891.3	975.6	313.15	13973.5	971.2	313.15	13054.0	966.6
313.15	15814.7	979.9	313.15	14879.9	975.5	313.15	13960.0	971.1	313.15	13042.5	966.6
313.15	15801.9	979.8	313.15	14868.4	975.5	313.15	13947.8	971.1	313.15	13031.1	966.5
313.15	15790.4	979.7	313.15	14856.9	975.5	313.15	13934.8	971.0	313.15	13019.7	966.5
313.15	15778.2	979.7	313.15	14844.4	975.4	313.15	13923.2	970.9	313.15	13007.8	966.4
313.15	15766.9	979.7	313.15	14833.2	975.3	313.15	13910.9	970.9	313.15	12996.0	966.3
313.15	15754.5	979.6	313.15	14821.2	975.3	313.15	13898.5	970.8	313.15	12983.9	966.3

Valori della densità del fluido R32 _ *T*=40°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
313.15	12972.8	966.2	313.15	12062.9	961.5	313.15	11178.3	956.7	313.15	10261.7	951.5
313.15	12960.9	966.1	313.15	12051.2	961.4	313.15	11167.5	956.6	313.15	10250.4	951.4
313.15	12950.1	966.1	313.15	12039.5	961.4	313.15	11156.1	956.5	313.15	10238.8	951.4
313.15	12937.8	966.0	313.15	12027.0	961.3	313.15	11144.3	956.5	313.15	10227.8	951.3
313.15	12925.8	965.9	313.15	12015.1	961.2	313.15	11134.1	956.4	313.15	10215.9	951.2
313.15	12915.1	965.9	313.15	12003.9	961.2	313.15	11124.7	956.4	313.15	10205.1	951.2
313.15	12904.7	965.8	313.15	11992.9	961.1	313.15	11112.6	956.3	313.15	10193.7	951.1
313.15	12893.3	965.8	313.15	11981.7	961.0	313.15	11101.7	956.2	313.15	10181.5	951.0
313.15	12881.4	965.7	313.15	11970.6	961.0	313.15	11090.8	956.2	313.15	10169.6	951.0
313.15	12869.2	965.6	313.15	11958.5	960.9	313.15	11079.4	956.2	313.15	10158.6	950.9
313.15	12857.4	965.6	313.15	11946.7	960.8	313.15	11069.1	956.1	313.15	10147.2	950.8
313.15	12846.6	965.6	313.15	11935.5	960.8	313.15	11058.6	956.0	313.15	10135.5	950.8
313.15	12833.7	965.5	313.15	11924.5	960.7	313.15	11047.4	955.9	313.15	10123.1	950.7
313.15	12821.5	965.4	313.15	11913.8	960.6	313.15	11037.1	955.9	313.15	10110.7	950.6
313.15	12810.1	965.3	313.15	11904.0	960.6	313.15	11025.5	955.8	313.15	10098.5	950.5
313.15	12797.8	965.3	313.15	11893.8	960.6	313.15	11012.6	955.8	313.15	10087.0	950.5
313.15	12785.9	965.3	313.15	11881.2	960.5	313.15	11000.9	955.7	313.15	10074.9	950.4
313.15	12774.1	965.2	313.15	11871.2	960.4	313.15	10989.1	955.6	313.15	10063.7	950.4
313.15	12763.7	965.1	313.15	11859.5	960.3	313.15	10977.0	955.5	313.15	10050.7	950.3
313.15	12752.9	965.1	313.15	11848.5	960.3	313.15	10965.5	955.5	313.15	10037.6	950.2
313.15	12740.4	965.0	313.15	11837.9	960.3	313.15	10953.1	955.4	313.15	10025.9	950.1
313.15	12729.2	965.0	313.15	11827.5	960.2	313.15	10941.6	955.4	313.15	10012.9	950.0
313.15	12718.4	964.9	313.15	11818.1	960.2	313.15	10929.7	955.3	313.15	10000.1	950.0
313.15	12707.1	964.8	313.15	11808.3	960.0	313.15	10917.8	955.3	313.15	9987.7	949.9
313.15	12695.2	964.8	313.15	11797.1	960.0	313.15	10906.4	955.1	313.15	9975.1	949.9
313.15	12684.2	964.7	313.15	11785.4	960.0	313.15	10895.0	955.1	313.15	9963.8	949.7
313.15	12671.9	964.6	313.15	11774.4	959.9	313.15	10882.8	955.0	313.15	9952.9	949.7
313.15	12660.7	964.6	313.15	11764.1	959.8	313.15	10870.9	954.9	313.15	9940.9	949.7
313.15	12648.8	964.6	313.15	11752.4	959.8	313.15	10860.1	954.9	313.15	9928.6	949.5
313.15	12636.6	964.5	313.15	11741.0	959.7	313.15	10848.2	954.8	313.15	9917.2	949.5
313.15	12624.2	964.4	313.15	11730.5	959.7	313.15	10837.0	954.8	313.15	9905.2	949.4
313.15	12612.0	964.3	313.15	11719.4	959.6	313.15	10825.3	954.7	313.15	9893.6	949.4
313.15	12602.1	964.3	313.15	11708.9	959.6	313.15	10814.3	954.6	313.15	9882.6	949.3
313.15	12590.1	964.2	313.15	11697.5	959.5	313.15	10804.0	954.6	313.15	9871.6	949.2
313.15	12578.0	964.2	313.15	11686.3	959.4	313.15	10793.1	954.5	313.15	9860.4	949.2
313.15	12565.6	964.1	313.15	11674.8	959.4	313.15	10780.4	954.5	313.15	9848.4	949.1
313.15	12552.9	964.0	313.15	11662.9	959.3	313.15	10767.8	954.4	313.15	9836.8	949.0
313.15	12541.2	964.0	313.15	11652.1	959.3	313.15	10755.4	954.3	313.15	9825.4	949.0
313.15	12528.5	963.9	313.15	11639.6	959.2	313.15	10745.6	954.3	313.15	9813.5	948.9
313.15	12517.5	963.9	313.15	11626.7	959.1	313.15	10733.5	954.2	313.15	9802.1	948.8
313.15	12504.8	963.8	313.15	11614.4	959.1	313.15	10721.3	954.1	313.15	9790.8	948.7
313.15	12493.6	963.7	313.15	11603.4	959.0	313.15	10709.2	954.1	313.15	9778.9	948.6
313.15	12481.9	963.7	313.15	11592.1	958.9	313.15	10698.0	954.0	313.15	9768.3	948.6
313.15	12469.6	963.6	313.15	11581.1	958.9	313.15	10686.3	953.9	313.15	9755.9	948.6
313.15	12458.4	963.5	313.15	11569.2	958.8	313.15	10675.0	953.9	313.15	9744.6	948.5
313.15	12447.2	963.5	313.15	11557.8	958.8	313.15	10663.1	953.8	313.15	9732.2	948.4
313.15	12435.2	963.4	313.15	11546.3	958.7	313.15	10650.9	953.7	313.15	9721.1	948.3
313.15	12422.7	963.3	313.15	11535.1	958.6	313.15	10638.7	953.7	313.15	9710.6	948.3
313.15	12411.0	963.3	313.15	11524.5	958.5	313.15	10626.8	953.6	313.15	9699.4	948.2
313.15	12399.1	963.2	313.15	11512.8	958.5	313.15	10615.8	953.5	313.15	9689.2	948.1
313.15	12386.7	963.2	313.15	11501.6	958.4	313.15	10602.3	953.5	313.15	9678.5	948.1
313.15	12376.6	963.1	313.15	11489.9	958.4	313.15	10589.6	953.4	313.15	9667.8	948.0
313.15	12365.7	963.1	313.15	11477.4	958.3	313.15	10577.7	953.3	313.15	9657.1	947.9
313.15	12352.9	963.0	313.15	11464.8	958.2	313.15	10566.0	953.2	313.15	9646.9	947.9
313.15	12341.2	963.0	313.15	11453.6	958.2	313.15	10554.0	953.2	313.15	9635.5	947.8
313.15	12328.3	962.9	313.15	11442.8	958.1	313.15	10541.7	953.1	313.15	9623.7	947.7
313.15	12316.1	962.8	313.15	11431.9	958.1	313.15	10530.7	953.0	313.15	9613.3	947.7
313.15	12304.2	962.8	313.15	11421.8	958.0	313.15	10518.8	952.9	313.15	9602.6	947.6
313.15	12293.4	962.7	313.15	11410.8	958.0	313.15	10506.6	952.9	313.15	9590.1	947.6
313.15	12281.9	962.6	313.15	11399.8	957.9	313.15	10494.2	952.9	313.15	9578.8	947.5
313.15	12271.1	962.6	313.15	11389.3	957.9	313.15	10483.5	952.8	313.15	9567.5	947.4
313.15	12259.5	962.5	313.15	11376.9	957.8	313.15	10471.0	952.7	313.15	9554.7	947.3
313.15	12248.0	962.5	313.15	11364.9	957.7	313.15	10458.2	952.7	313.15	9543.2	947.3
313.15	12237.2	962.4	313.15	11354.2	957.7	313.15	10446.2	952.6	313.15	9532.0	947.2
313.15	12225.0	962.3	313.15	11342.5	957.6	313.15	10433.4	952.5	313.15	9519.2	947.1
313.15	12213.3	962.3	313.15	11331.7	957.6	313.15	10421.4	952.4	313.15	9508.4	947.1
313.15	12201.6	962.2	313.15	11320.5	957.5	313.15	10407.9	952.3	313.15	9496.8	947.0
313.15	12188.7	962.1	313.15	11308.8	957.4	313.15	10395.2	952.3	313.15	9486.1	946.9
313.15	12176.5	962.1	313.15	11296.0	957.3	313.15	10382.8	952.3	313.15	9474.1	946.8
313.15	12163.6	962.0	313.15	11284.2	957.2	313.15	10370.2	952.1	313.15	9462.7	946.8
313.15	12151.6	962.0	313.15	11273.2	957.2	313.15	10357.8	952.1	313.15	9451.1	946.7
313.15	12140.3	961.9	313.15	11261.5	957.1	313.15	10345.3	952.0	313.15	9440.5	946.7
313.15	12128.4	961.8	313.15	11249.4	957.1	313.15	10332.5	951.9	313.15	9429.1	946.6
313.15	12118.1	961.8	313.15	11237.7	957.0	313.15	10321.0	951.8	313.15	9416.7	946.5
313.15	12108.3	961.7	313.15	11226.0	957.0	313.15	10309.8	951.8	313.15	9405.8	946.4
313.15	12096.9	961.6	313.15	11213.8	956.9	313.15	10298.2	951.7	313.15	9394.8	946.4
313.15	12085.9	961.6	313.15	11201.9	956.8	313.15	10285.7	951.6	313.15	9382.6	946.3
313.15	12074.4	961.5	313.15	11189.0	956.7	313.15	10273.8	951.6	313.15	9371.0	946.3

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
313.15	9359.1	946.2	313.15	8444.1	940.5	313.15	7516.3	934.4	313.15	6613.4	928.0
313.15	9347.7	946.1	313.15	8431.5	940.4	313.15	7504.5	934.3	313.15	6603.5	928.0
313.15	9335.7	946.0	313.15	8420.3	940.3	313.15	7492.2	934.2	313.15	6592.8	927.9
313.15	9324.1	946.0	313.15	8409.8	940.2	313.15	7479.6	934.1	313.15	6581.2	927.8
313.15	9312.4	945.9	313.15	8398.4	940.1	313.15	7470.3	934.1	313.15	6570.7	927.8
313.15	9301.5	945.8	313.15	8386.8	940.1	313.15	7460.5	934.0	313.15	6558.4	927.7
313.15	9290.0	945.7	313.15	8376.3	940.0	313.15	7449.6	933.9	313.15	6547.1	927.6
313.15	9280.8	945.7	313.15	8365.1	940.0	313.15	7439.8	933.8	313.15	6535.2	927.5
313.15	9268.8	945.6	313.15	8354.2	939.9	313.15	7428.0	933.8	313.15	6522.6	927.4
313.15	9257.8	945.5	313.15	8342.0	939.8	313.15	7417.1	933.7	313.15	6510.8	927.3
313.15	9246.2	945.5	313.15	8329.9	939.7	313.15	7404.4	933.6	313.15	6498.6	927.3
313.15	9233.8	945.4	313.15	8317.0	939.7	313.15	7392.1	933.5	313.15	6486.0	927.2
313.15	9222.1	945.3	313.15	8305.7	939.6	313.15	7380.2	933.4	313.15	6473.9	927.1
313.15	9210.3	945.3	313.15	8294.7	939.5	313.15	7367.7	933.3	313.15	6462.8	927.0
313.15	9197.6	945.2	313.15	8283.2	939.4	313.15	7355.1	933.3	313.15	6452.4	926.9
313.15	9186.2	945.1	313.15	8270.2	939.3	313.15	7343.9	933.2	313.15	6442.4	926.8
313.15	9174.0	945.1	313.15	8259.0	939.3	313.15	7332.0	933.1	313.15	6430.7	926.8
313.15	9162.4	945.0	313.15	8245.5	939.2	313.15	7319.4	933.0	313.15	6419.2	926.7
313.15	9150.0	944.9	313.15	8233.3	939.1	313.15	7307.3	933.0	313.15	6408.4	926.6
313.15	9138.3	944.8	313.15	8221.4	939.0	313.15	7295.6	932.8	313.15	6397.6	926.5
313.15	9126.7	944.7	313.15	8209.7	938.9	313.15	7283.7	932.8	313.15	6386.9	926.4
313.15	9115.5	944.7	313.15	8197.6	938.9	313.15	7272.6	932.7	313.15	6375.7	926.4
313.15	9104.0	944.6	313.15	8185.1	938.8	313.15	7260.8	932.7	313.15	6365.1	926.3
313.15	9092.4	944.6	313.15	8173.2	938.7	313.15	7249.3	932.6	313.15	6353.1	926.2
313.15	9080.2	944.4	313.15	8160.5	938.6	313.15	7237.9	932.5	313.15	6341.8	926.1
313.15	9068.0	944.4	313.15	8147.5	938.6	313.15	7225.3	932.3	313.15	6330.2	926.0
313.15	9056.7	944.3	313.15	8134.8	938.5	313.15	7215.4	932.3	313.15	6318.8	925.9
313.15	9045.4	944.2	313.15	8121.8	938.4	313.15	7202.5	932.3	313.15	6307.4	925.8
313.15	9033.1	944.1	313.15	8109.6	938.3	313.15	7191.1	932.1	313.15	6296.3	925.8
313.15	9022.4	944.1	313.15	8096.5	938.2	313.15	7178.6	932.1	313.15	6285.3	925.7
313.15	9011.4	944.0	313.15	8084.0	938.1	313.15	7166.4	932.0	313.15	6273.5	925.6
313.15	8998.7	943.9	313.15	8071.3	938.1	313.15	7154.5	931.9	313.15	6262.3	925.5
313.15	8986.9	943.9	313.15	8057.8	938.0	313.15	7142.4	931.8	313.15	6250.5	925.5
313.15	8974.0	943.8	313.15	8046.8	937.9	313.15	7130.6	931.7	313.15	6239.8	925.4
313.15	8962.6	943.7	313.15	8033.5	937.8	313.15	7117.7	931.6	313.15	6228.4	925.3
313.15	8949.2	943.6	313.15	8021.6	937.7	313.15	7105.2	931.6	313.15	6217.5	925.2
313.15	8936.4	943.6	313.15	8009.3	937.6	313.15	7093.2	931.5	313.15	6206.6	925.1
313.15	8924.2	943.5	313.15	7997.2	937.6	313.15	7080.9	931.4	313.15	6194.2	925.1
313.15	8911.9	943.4	313.15	7985.1	937.5	313.15	7068.3	931.3	313.15	6182.6	924.9
313.15	8900.5	943.4	313.15	7972.9	937.4	313.15	7055.3	931.2	313.15	6170.5	924.8
313.15	8888.3	943.2	313.15	7960.0	937.3	313.15	7043.9	931.2	313.15	6158.9	924.8
313.15	8877.1	943.2	313.15	7946.7	937.2	313.15	7031.5	931.0	313.15	6145.8	924.7
313.15	8865.0	943.1	313.15	7933.6	937.1	313.15	7019.9	931.0	313.15	6134.2	924.6
313.15	8852.8	943.1	313.15	7922.7	937.1	313.15	7009.2	930.9	313.15	6123.0	924.5
313.15	8841.9	943.0	313.15	7911.4	937.0	313.15	6997.5	930.8	313.15	6111.7	924.4
313.15	8830.0	942.9	313.15	7898.0	936.9	313.15	6986.8	930.7	313.15	6099.5	924.3
313.15	8819.0	942.8	313.15	7885.7	936.8	313.15	6974.0	930.6	313.15	6087.9	924.2
313.15	8807.4	942.8	313.15	7874.5	936.8	313.15	6962.7	930.5	313.15	6076.8	924.2
313.15	8795.7	942.7	313.15	7862.1	936.7	313.15	6951.7	930.5	313.15	6065.4	924.0
313.15	8782.4	942.6	313.15	7850.5	936.6	313.15	6940.3	930.4	313.15	6053.8	924.0
313.15	8770.5	942.5	313.15	7838.4	936.5	313.15	6929.6	930.3	313.15	6042.6	923.9
313.15	8757.1	942.5	313.15	7827.4	936.4	313.15	6918.4	930.2	313.15	6031.7	923.8
313.15	8745.3	942.4	313.15	7815.3	936.4	313.15	6907.5	930.2	313.15	6020.1	923.7
313.15	8733.8	942.3	313.15	7804.1	936.3	313.15	6895.5	930.0	313.15	6009.0	923.7
313.15	8722.2	942.2	313.15	7791.5	936.2	313.15	6883.4	930.0	313.15	5997.4	923.6
313.15	8709.3	942.2	313.15	7780.1	936.1	313.15	6871.7	929.9	313.15	5986.6	923.5
313.15	8696.7	942.0	313.15	7767.7	936.0	313.15	6861.0	929.8	313.15	5975.7	923.4
313.15	8684.8	942.0	313.15	7755.4	936.0	313.15	6850.8	929.7	313.15	5964.4	923.3
313.15	8672.6	941.9	313.15	7743.2	935.9	313.15	6839.9	929.7	313.15	5952.5	923.2
313.15	8661.8	941.9	313.15	7731.3	935.8	313.15	6828.3	929.6	313.15	5941.1	923.1
313.15	8651.3	941.8	313.15	7720.3	935.8	313.15	6816.9	929.6	313.15	5930.0	923.0
313.15	8640.8	941.7	313.15	7707.4	935.6	313.15	6804.9	929.4	313.15	5917.7	923.0
313.15	8631.1	941.6	313.15	7695.8	935.6	313.15	6793.1	929.4	313.15	5906.5	922.9
313.15	8620.9	941.6	313.15	7683.9	935.5	313.15	6781.4	929.3	313.15	5894.9	922.8
313.15	8609.5	941.5	313.15	7672.9	935.4	313.15	6770.3	929.2	313.15	5884.2	922.7
313.15	8598.8	941.4	313.15	7661.6	935.3	313.15	6758.4	929.1	313.15	5873.3	922.6
313.15	8586.6	941.4	313.15	7651.5	935.2	313.15	6746.8	929.0	313.15	5861.7	922.5
313.15	8575.2	941.3	313.15	7639.4	935.2	313.15	6735.9	929.0	313.15	5850.3	922.5
313.15	8562.8	941.2	313.15	7628.5	935.1	313.15	6724.2	928.8	313.15	5839.2	922.4
313.15	8550.4	941.2	313.15	7616.6	935.0	313.15	6710.9	928.8	313.15	5828.9	922.3
313.15	8539.3	941.1	313.15	7606.4	935.0	313.15	6698.6	928.7	313.15	5818.7	922.2
313.15	8527.6	941.0	313.15	7595.2	934.9	313.15	6686.3	928.6	313.15	5807.4	922.1
313.15	8514.5	940.9	313.15	7585.3	934.8	313.15	6675.6	928.5	313.15	5797.2	922.1
313.15	8502.8	940.8	313.15	7572.4	934.7	313.15	6665.2	928.5	313.15	5785.3	922.0
313.15	8491.2	940.7	313.15	7561.5	934.7	313.15	6654.1	928.4	313.15	5774.0	921.9
313.15	8480.3	940.7	313.15	7550.8	934.6	313.15	6643.3	928.3	313.15	5763.0	921.8
313.14	8468.8	940.6	313.15	7539.0	934.5	313.15	6632.4	928.2	313.15	5751.4	921.7
313.15	8456.0	940.6	313.15	7527.6	934.4	313.15	6622.7	928.1	313.15	5740.8	921.6

Valori della densità del fluido R32 _ *T*=40°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
313.15	5729.8	921.5	313.15	4906.0	915.0	313.15	4129.2	908.4	313.15	3380.6	901.6
313.15	5718.7	921.5	313.15	4896.0	914.9	313.15	4119.1	908.4	313.15	3371.2	901.5
313.15	5707.5	921.4	313.15	4885.9	914.8	313.15	4109.8	908.3	313.15	3361.5	901.4
313.15	5696.4	921.3	313.15	4876.3	914.8	313.15	4100.6	908.2	313.15	3352.0	901.4
313.15	5686.4	921.1	313.15	4865.0	914.6	313.15	4089.7	908.1	313.15	3343.0	901.3
313.15	5673.5	921.1	313.15	4855.0	914.6	313.15	4079.4	908.0	313.15	3333.8	901.2
313.15	5663.3	921.0	313.15	4845.3	914.5	313.15	4069.6	907.9	313.15	3324.6	901.1
313.15	5651.5	920.9	313.15	4834.9	914.4	313.15	4059.5	907.8	313.15	3315.9	901.0
313.15	5640.6	920.8	313.15	4824.8	914.3	313.15	4049.6	907.7	313.15	3306.2	900.9
313.15	5630.1	920.7	313.15	4814.1	914.2	313.15	4040.1	907.7	313.15	3296.9	900.8
313.15	5618.7	920.7	313.15	4804.4	914.2	313.15	4030.6	907.5	313.15	3288.2	900.7
313.15	5607.8	920.6	313.15	4794.4	914.1	313.15	4021.1	907.5	313.15	3278.7	900.7
313.15	5596.7	920.5	313.15	4784.5	914.0	313.15	4011.7	907.4	313.15	3268.8	900.5
313.15	5587.0	920.4	313.15	4774.1	913.9	313.15	4001.5	907.3	313.15	3258.4	900.4
313.15	5576.3	920.4	313.15	4763.6	913.8	313.15	3992.1	907.3	313.15	3248.2	900.4
313.15	5565.6	920.3	313.15	4752.1	913.7	313.15	3981.0	907.1	313.15	3239.1	900.2
313.15	5555.0	920.2	313.15	4742.3	913.6	313.15	3971.7	907.1	313.15	3230.1	900.2
313.15	5545.2	920.1	313.15	4732.6	913.6	313.15	3962.3	906.9	313.15	3221.3	900.1
313.15	5534.3	920.0	313.15	4722.2	913.5	313.15	3952.6	906.9	313.15	3211.2	900.0
313.15	5523.4	919.9	313.15	4712.5	913.4	313.15	3943.8	906.8	313.15	3202.2	899.9
313.15	5512.7	919.8	313.14	4703.2	913.3	313.15	3934.1	906.7	313.15	3193.7	899.8
313.15	5501.8	919.8	313.15	4693.1	913.2	313.15	3925.1	906.6	313.15	3183.8	899.8
313.15	5490.9	919.7	313.15	4683.2	913.2	313.15	3914.5	906.5	313.15	3175.0	899.7
313.15	5479.8	919.6	313.15	4673.2	913.1	313.15	3904.5	906.4	313.15	3166.2	899.5
313.15	5469.3	919.5	313.15	4663.5	913.0	313.15	3895.8	906.4	313.15	3157.3	899.5
313.15	5457.8	919.4	313.15	4653.5	912.9	313.15	3885.2	906.3	313.15	3147.8	899.4
313.15	5448.5	919.4	313.15	4642.9	912.8	313.15	3875.2	906.2	313.15	3138.9	899.3
313.15	5437.6	919.2	313.15	4633.6	912.7	313.15	3867.2	906.1	313.15	3129.1	899.2
313.15	5427.1	919.2	313.15	4622.6	912.7	313.15	3856.8	906.0	313.15	3119.2	899.1
313.15	5416.8	919.1	313.15	4612.3	912.6	313.15	3847.2	906.0	313.15	3110.3	899.1
313.15	5405.8	919.0	313.15	4601.6	912.4	313.15	3837.2	905.8	313.15	3101.8	899.0
313.15	5395.6	918.9	313.15	4591.5	912.4	313.15	3827.7	905.7	313.15	3093.0	898.8
313.15	5384.3	918.8	313.15	4581.0	912.3	313.15	3819.3	905.7	313.15	3084.7	898.8
313.15	5375.3	918.7	313.15	4570.9	912.2	313.15	3809.8	905.6	313.15	3076.2	898.7
313.15	5364.3	918.7	313.15	4560.2	912.1	313.15	3800.6	905.5	313.15	3067.0	898.6
313.15	5353.2	918.6	313.15	4550.3	912.0	313.15	3790.9	905.4	313.15	3057.4	898.5
313.15	5342.3	918.5	313.15	4540.6	912.0	313.15	3781.6	905.3	313.15	3048.3	898.4
313.15	5332.2	918.4	313.15	4531.1	911.8	313.15	3771.0	905.2	313.15	3039.1	898.3
313.15	5321.9	918.4	313.15	4521.9	911.8	313.15	3761.0	905.1	313.15	3029.5	898.2
313.15	5310.8	918.2	313.15	4511.4	911.7	313.15	3751.6	905.1	313.15	3021.0	898.2
313.15	5299.5	918.2	313.15	4501.7	911.6	313.15	3741.6	905.0	313.15	3012.0	898.0
313.15	5289.3	918.1	313.15	4492.3	911.5	313.15	3731.9	904.9	313.15	3002.1	898.0
313.15	5279.1	918.0	313.15	4481.7	911.5	313.15	3722.3	904.8	313.15	2992.6	897.9
313.15	5269.6	917.9	313.15	4472.2	911.4	313.15	3713.0	904.7	313.15	2983.2	897.8
313.15	5257.7	917.8	313.15	4462.2	911.3	313.15	3703.1	904.6	313.15	2973.5	897.7
313.15	5248.2	917.8	313.15	4453.0	911.3	313.15	3692.4	904.5	313.15	2963.5	897.6
313.15	5237.4	917.7	313.15	4443.1	911.1	313.15	3683.0	904.4	313.15	2954.1	897.5
313.15	5227.4	917.6	313.15	4434.0	911.0	313.15	3673.5	904.3	313.15	2945.1	897.4
313.15	5217.2	917.5	313.15	4424.3	910.9	313.15	3664.6	904.2	313.15	2936.1	897.3
313.15	5207.0	917.4	313.15	4414.2	910.9	313.15	3654.6	904.2	313.15	2927.4	897.2
313.15	5196.6	917.3	313.15	4403.8	910.8	313.15	3645.1	904.1	313.15	2918.7	897.2
313.15	5186.0	917.3	313.15	4393.6	910.7	313.15	3634.5	904.0	313.15	2910.4	897.1
313.15	5175.1	917.2	313.15	4383.6	910.7	313.15	3625.5	903.9	313.15	2900.7	897.0
313.15	5164.8	917.1	313.15	4373.2	910.6	313.15	3615.8	903.8	313.15	2892.2	896.9
313.15	5154.4	917.0	313.15	4363.0	910.4	313.15	3606.1	903.7	313.15	2883.2	896.8
313.15	5144.3	916.9	313.15	4352.9	910.4	313.15	3595.2	903.6	313.15	2874.9	896.7
313.15	5133.8	916.9	313.15	4343.4	910.3	313.15	3585.6	903.5	313.15	2865.3	896.6
313.15	5122.9	916.7	313.15	4334.4	910.2	313.15	3576.8	903.5	313.15	2856.5	896.5
313.15	5112.3	916.6	313.15	4324.7	910.1	313.15	3567.2	903.3	313.15	2847.1	896.5
313.15	5102.1	916.6	313.15	4315.2	910.0	313.15	3558.4	903.3	313.15	2838.8	896.4
313.15	5091.4	916.5	313.15	4304.9	910.0	313.15	3549.1	903.2	313.15	2830.3	896.2
313.15	5081.7	916.4	313.15	4294.9	909.9	313.15	3539.5	903.1	313.15	2822.3	896.2
313.15	5071.5	916.3	313.15	4285.2	909.8	313.15	3531.0	903.0	313.15	2814.3	896.1
313.15	5061.4	916.3	313.15	4275.7	909.7	313.15	3522.0	902.9	313.15	2805.5	896.0
313.15	5051.7	916.2	313.15	4265.1	909.6	313.15	3512.7	902.8	313.15	2797.2	895.9
313.15	5041.5	916.1	313.15	4255.8	909.5	313.15	3503.3	902.7	313.15	2787.6	895.8
313.15	5031.3	916.0	313.15	4245.9	909.5	313.15	3494.3	902.7	313.15	2779.3	895.8
313.15	5019.6	915.9	313.15	4236.2	909.4	313.15	3484.8	902.6	313.15	2770.0	895.6
313.15	5009.5	915.9	313.15	4226.8	909.3	313.15	3475.2	902.5	313.15	2761.5	895.6
313.15	5000.0	915.8	313.15	4217.5	909.2	313.15	3465.0	902.4	313.15	2753.8	895.5
313.15	4989.1	915.7	313.15	4207.4	909.1	313.15	3456.0	902.3	313.15	2745.0	895.4
313.15	4978.9	915.6	313.15	4197.2	909.0	313.15	3445.6	902.2	313.15	2737.2	895.3
313.15	4968.5	915.6	313.15	4187.3	908.9	313.15	3435.4	902.1	313.15	2728.5	895.3
313.15	4957.3	915.4	313.15	4177.1	908.8	313.15	3426.3	902.1	313.15	2720.0	895.2
313.15	4946.7	915.4	313.15	4167.3	908.7	313.15	3417.5	902.0	313.15	2710.5	895.1
313.15	4937.5	915.3	313.15	4157.6	908.7	313.15	3407.8	901.9	313.15	2702.1	895.0
313.15	4926.6	915.2	313.15	4147.7	908.6	313.15	3398.4	901.8	313.15	2693.3	894.9
313.15	4916.4	915.1	313.15	4138.2	908.5	313.15	3389.8	901.7	313.15	2684.4	894.8

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
313.15	2675.1	894.7	313.15	2621.0	894.1	313.15	2569.1	893.6	313.15	2515.7	893.1
313.15	2665.9	894.6	313.15	2612.5	894.1	313.15	2560.9	893.5	313.15	2507.3	893.0
313.15	2656.9	894.5	313.15	2603.8	893.9	313.15	2552.3	893.4	313.15	2499.5	892.9
313.15	2647.7	894.4	313.15	2594.6	893.9	313.15	2543.8	893.4	313.15	2491.2	892.8
313.15	2638.0	894.3	313.15	2586.6	893.7	313.15	2534.6	893.3	313.15	2481.7	892.7
313.15	2629.3	894.2	313.15	2577.6	893.7	313.15	2525.0	893.2			

Tabella D5: Valori della densità del fluido R32 per T = 323.15 K (50°C)

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
323.15	35000.9	1021.6	323.15	34184.7	1019.2	323.15	33295.8	1016.4	323.15	32385.1	1013.4
323.15	34999.6	1021.6	323.15	34170.9	1019.1	323.15	33283.0	1016.3	323.14	32371.6	1013.4
323.15	34998.4	1021.6	323.15	34156.9	1019.0	323.15	33268.1	1016.2	323.15	32359.0	1013.3
323.15	34995.0	1021.6	323.15	34144.5	1019.0	323.15	33257.7	1016.2	323.15	32346.4	1013.3
323.15	34991.0	1021.6	323.15	34130.8	1019.0	323.15	33245.4	1016.1	323.15	32334.0	1013.3
323.15	34986.9	1021.6	323.15	34116.8	1018.9	323.15	33234.2	1016.1	323.15	32320.9	1013.2
323.15	34982.0	1021.6	323.15	34104.5	1018.8	323.15	33221.7	1016.1	323.15	32308.3	1013.2
323.15	34978.4	1021.6	323.15	34092.2	1018.8	323.15	33207.7	1016.1	323.15	32295.8	1013.1
323.15	34974.4	1021.5	323.15	34079.5	1018.8	323.15	33195.0	1016.0	323.15	32282.7	1013.1
323.15	34969.2	1021.6	323.15	34067.3	1018.7	323.15	33182.9	1016.0	323.15	32271.3	1013.0
323.15	34964.3	1021.5	323.15	34053.8	1018.7	323.15	33170.2	1016.0	323.15	32260.9	1013.0
323.15	34959.5	1021.5	323.14	34041.2	1018.7	323.15	33157.9	1015.9	323.15	32249.8	1012.9
323.15	34954.6	1021.5	323.14	34028.1	1018.6	323.15	33146.6	1015.9	323.15	32238.1	1012.9
323.15	34950.1	1021.5	323.15	34016.0	1018.6	323.15	33133.7	1015.8	323.15	32226.7	1012.9
323.15	34945.0	1021.5	323.15	34002.8	1018.5	323.15	33122.8	1015.8	323.15	32215.4	1012.9
323.15	34939.5	1021.4	323.15	33989.6	1018.5	323.15	33110.2	1015.7	323.15	32202.9	1012.8
323.15	34933.5	1021.4	323.15	33978.0	1018.5	323.15	33099.2	1015.7	323.15	32191.5	1012.8
323.15	34925.0	1021.4	323.15	33967.0	1018.4	323.15	33087.7	1015.6	323.15	32180.0	1012.7
323.15	34916.4	1021.3	323.14	33955.9	1018.4	323.15	33076.9	1015.6	323.15	32169.1	1012.7
323.15	34906.7	1021.3	323.14	33945.3	1018.4	323.15	33065.5	1015.6	323.15	32156.5	1012.7
323.15	34895.4	1021.3	323.15	33934.0	1018.3	323.15	33053.6	1015.6	323.15	32144.2	1012.6
323.15	34883.3	1021.3	323.15	33922.9	1018.3	323.15	33040.9	1015.5	323.15	32132.3	1012.6
323.15	34869.0	1021.2	323.15	33911.9	1018.3	323.15	33028.2	1015.5	323.15	32120.4	1012.5
323.15	34855.2	1021.2	323.15	33900.1	1018.2	323.15	33015.1	1015.4	323.15	32108.3	1012.5
323.15	34842.4	1021.2	323.15	33887.5	1018.2	323.15	33004.0	1015.4	323.15	32097.1	1012.5
323.15	34828.8	1021.0	323.15	33876.0	1018.2	323.15	32992.2	1015.3	323.15	32083.7	1012.5
323.15	34815.6	1021.1	323.15	33865.2	1018.1	323.15	32980.9	1015.4	323.15	32070.9	1012.4
323.15	34803.0	1021.0	323.15	33853.6	1018.1	323.15	32968.8	1015.3	323.15	32058.9	1012.3
323.15	34789.4	1021.0	323.15	33842.3	1018.0	323.15	32956.9	1015.2	323.15	32045.9	1012.3
323.15	34776.9	1021.0	323.15	33831.4	1018.0	323.15	32944.9	1015.2	323.15	32033.7	1012.3
323.15	34763.8	1020.9	323.15	33820.8	1018.0	323.15	32932.9	1015.2	323.15	32020.7	1012.2
323.15	34750.0	1020.9	323.15	33809.5	1017.9	323.15	32922.4	1015.1	323.15	32008.2	1012.2
323.15	34737.7	1020.8	323.15	33797.8	1017.9	323.15	32911.4	1015.1	323.15	31996.3	1012.1
323.15	34725.3	1020.8	323.15	33785.3	1017.9	323.15	32900.1	1015.1	323.15	31983.0	1012.1
323.15	34713.1	1020.8	323.15	33774.2	1017.8	323.15	32888.6	1015.1	323.15	31970.4	1012.1
323.15	34701.6	1020.7	323.15	33762.9	1017.8	323.15	32876.3	1015.0	323.15	31958.0	1012.0
323.15	34688.9	1020.7	323.15	33752.3	1017.8	323.15	32861.3	1015.0	323.15	31944.3	1012.0
323.15	34676.7	1020.6	323.15	33741.4	1017.8	323.15	32847.3	1014.9	323.15	31933.4	1011.9
323.15	34663.1	1020.6	323.15	33730.1	1017.7	323.15	32835.2	1014.9	323.15	31921.0	1011.8
323.15	34651.1	1020.5	323.15	33718.1	1017.7	323.15	32822.4	1014.8	323.15	31909.2	1011.9
323.15	34638.9	1020.6	323.15	33707.3	1017.6	323.15	32810.8	1014.8	323.15	31896.1	1011.8
323.15	34625.9	1020.5	323.15	33696.1	1017.6	323.15	32798.8	1014.7	323.15	31883.8	1011.8
323.15	34613.5	1020.4	323.15	33683.8	1017.5	323.15	32786.9	1014.7	323.15	31872.8	1011.7
323.15	34600.1	1020.4	323.15	33671.7	1017.5	323.15	32775.1	1014.7	323.15	31859.5	1011.7
323.15	34587.2	1020.4	323.15	33659.7	1017.5	323.15	32763.9	1014.6	323.15	31846.6	1011.7
323.15	34575.2	1020.3	323.15	33648.1	1017.4	323.15	32753.9	1014.6	323.15	31834.6	1011.6
323.15	34562.7	1020.3	323.15	33636.4	1017.4	323.15	32742.8	1014.5	323.15	31822.7	1011.6
323.15	34549.3	1020.2	323.15	33625.4	1017.4	323.15	32731.6	1014.5	323.15	31809.3	1011.6
323.15	34536.7	1020.2	323.15	33613.2	1017.3	323.15	32720.3	1014.5	323.15	31797.8	1011.5
323.15	34522.5	1020.1	323.15	33602.1	1017.3	323.15	32709.5	1014.5	323.15	31785.6	1011.4
323.15	34509.2	1020.1	323.15	33589.3	1017.3	323.15	32699.0	1014.4	323.15	31773.2	1011.4
323.15	34495.9	1020.1	323.15	33577.8	1017.2	323.15	32687.1	1014.4	323.14	31760.5	1011.4
323.15	34483.1	1020.0	323.15	33567.3	1017.2	323.14	32676.5	1014.4	323.15	31748.3	1011.3
323.15	34470.0	1020.0	323.15	33555.9	1017.1	323.15	32663.4	1014.3	323.15	31736.7	1011.3
323.15	34457.6	1020.0	323.15	33544.3	1017.1	323.15	32651.2	1014.3	323.15	31722.9	1011.2
323.15	34445.4	1019.9	323.15	33533.1	1017.1	323.15	32640.4	1014.2	323.15	31710.1	1011.2
323.15	34432.1	1019.9	323.15	33521.6	1017.0	323.15	32628.1	1014.2	323.15	31697.8	1011.1
323.15	34419.1	1019.9	323.15	33510.3	1017.0	323.15	32615.6	1014.2	323.15	31684.4	1011.2
323.15	34405.6	1019.8	323.15	33499.8	1016.9	323.15	32602.9	1014.1	323.15	31672.8	1011.1
323.15	34392.2	1019.8	323.15	33488.2	1016.9	323.15	32591.7	1014.1	323.15	31660.1	1011.0
323.15	34379.7	1019.7	323.15	33477.2	1016.9	323.15	32580.0	1014.1	323.15	31649.3	1011.0
323.15	34366.7	1019.7	323.15	33467.4	1016.9	323.15	32567.5	1014.0	323.15	31636.7	1010.9
323.15	34353.4	1019.6	323.15	33456.8	1016.8	323.15	32554.3	1014.0	323.15	31625.2	1010.9
323.15	34340.4	1019.6	323.15	33445.1	1016.8	323.15	32542.4	1013.9	323.15	31612.8	1010.9
323.15	34328.0	1019.5	323.15	33433.5	1016.8	323.15	32528.2	1013.9	323.15	31600.3	1010.8
323.15	34314.2	1019.5	323.15	33421.1	1016.7	323.15	32515.5	1013.8	323.15	31588.4	1010.8
323.15	34300.8	1019.5	323.15	33408.7	1016.7	323.15	32502.3	1013.8	323.15	31575.1	1010.8
323.15	34288.3	1019.4	323.15	33397.4	1016.7	323.15	32489.0	1013.8	323.15	31564.5	1010.7
323.15	34274.2	1019.4	323.15	33384.3	1016.8	323.15	32475.5	1013.7	323.15	31554.2	1010.7
323.15	34261.9	1019.3	323.15	33371.2	1016.5	323.15	32461.9	1013.7	323.15	31543.9	1010.7
323.15	34249.1	1019.3	323.15	33358.9	1016.5	323.15	32448.5	1013.7	323.15	31533.8	1010.7
323.15	34236.8	1019.3	323.15	33347.0	1016.5	323.15	32436.5	1013.6	323.15	31522.9	1010.6
323.15	34222.7	1019.2	323.15	33333.7	1016.5	323.15	32423.2	1013.5	323.14	31512.7	1010.6
323.14	34210.3	1019.2	323.15	33322.0	1016.4	323.15	32409.4	1013.5	323.15	31502.1	1010.5
323.14	34197.1	1019.2	323.15	33309.3	1016.3	323.15	32397.3	1013.5	323.15	31491.9	1010.5

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
323.15	31481.4	1010.5	323.15	30588.5	1007.5	323.15	29644.2	1004.3	323.15	28726.0	1001.1
323.15	31468.8	1010.4	323.15	30576.5	1007.4	323.14	29631.7	1004.2	323.15	28715.0	1001.0
323.15	31456.1	1010.4	323.15	30564.4	1007.4	323.14	29620.1	1004.1	323.15	28702.8	1000.9
323.15	31444.4	1010.3	323.14	30551.9	1007.3	323.15	29608.3	1004.2	323.15	28691.3	1000.9
323.15	31431.7	1010.3	323.14	30540.3	1007.3	323.15	29596.0	1004.1	323.15	28678.3	1000.9
323.15	31418.2	1010.2	323.14	30527.9	1007.2	323.15	29584.3	1004.1	323.15	28665.7	1000.9
323.15	31405.2	1010.2	323.14	30516.5	1007.2	323.15	29570.1	1004.0	323.15	28653.6	1000.8
323.15	31393.2	1010.1	323.15	30504.1	1007.2	323.15	29558.3	1003.9	323.15	28642.0	1000.8
323.15	31381.2	1010.1	323.15	30492.6	1007.2	323.15	29546.4	1003.9	323.15	28630.4	1000.7
323.15	31367.4	1010.1	323.15	30482.1	1007.1	323.14	29532.9	1003.9	323.15	28617.6	1000.7
323.15	31355.2	1010.0	323.15	30469.9	1007.1	323.15	29520.6	1003.9	323.15	28603.9	1000.7
323.15	31343.6	1010.0	323.15	30458.7	1007.0	323.15	29509.1	1003.8	323.15	28592.3	1000.6
323.15	31331.8	1010.0	323.15	30448.0	1007.0	323.15	29496.3	1003.7	323.15	28579.6	1000.6
323.15	31320.7	1009.9	323.15	30434.9	1006.9	323.15	29483.8	1003.7	323.15	28567.0	1000.5
323.15	31309.5	1009.9	323.15	30422.7	1006.9	323.15	29472.7	1003.7	323.15	28554.8	1000.5
323.15	31299.2	1009.9	323.15	30410.5	1006.8	323.15	29460.4	1003.6	323.15	28542.8	1000.4
323.15	31288.2	1009.8	323.14	30397.8	1006.8	323.15	29447.6	1003.6	323.15	28529.9	1000.4
323.15	31276.4	1009.8	323.15	30385.7	1006.8	323.15	29436.7	1003.5	323.15	28518.1	1000.3
323.15	31265.5	1009.7	323.15	30373.8	1006.7	323.15	29425.3	1003.5	323.15	28506.7	1000.3
323.15	31254.4	1009.7	323.15	30361.4	1006.7	323.15	29413.4	1003.4	323.15	28494.2	1000.3
323.15	31242.6	1009.8	323.15	30349.1	1006.6	323.15	29401.8	1003.4	323.15	28482.0	1000.2
323.15	31231.4	1009.6	323.15	30336.0	1006.6	323.15	29390.8	1003.4	323.15	28470.2	1000.2
323.15	31220.2	1009.6	323.15	30325.3	1006.6	323.15	29379.4	1003.4	323.15	28461.1	1000.1
323.15	31209.9	1009.6	323.15	30313.5	1006.5	323.15	29367.6	1003.3	323.15	28448.1	1000.1
323.15	31198.4	1009.5	323.15	30302.0	1006.5	323.15	29357.2	1003.3	323.15	28436.5	1000.0
323.15	31188.6	1009.5	323.15	30289.0	1006.5	323.15	29346.0	1003.2	323.15	28424.6	1000.0
323.15	31178.8	1009.4	323.15	30276.8	1006.4	323.15	29334.3	1003.2	323.15	28412.3	1000.0
323.15	31168.2	1009.4	323.15	30265.2	1006.4	323.15	29322.9	1003.2	323.15	28401.0	999.9
323.15	31156.2	1009.4	323.15	30252.7	1006.4	323.15	29310.3	1003.1	323.15	28388.7	999.8
323.15	31146.5	1009.3	323.15	30241.0	1006.3	323.15	29298.4	1003.1	323.15	28376.7	999.8
323.15	31134.4	1009.3	323.15	30229.9	1006.2	323.15	29287.1	1003.0	323.14	28362.7	999.8
323.15	31123.5	1009.3	323.15	30217.7	1006.2	323.15	29275.8	1003.0	323.15	28350.5	999.7
323.15	31111.3	1009.2	323.15	30207.0	1006.2	323.15	29264.4	1002.9	323.15	28337.1	999.7
323.15	31098.5	1009.2	323.15	30196.1	1006.1	323.15	29253.0	1002.9	323.15	28324.5	999.7
323.14	31086.2	1009.1	323.15	30185.1	1006.1	323.15	29242.4	1002.9	323.15	28310.5	999.6
323.15	31075.5	1009.1	323.15	30173.8	1006.1	323.15	29231.3	1002.9	323.15	28297.8	999.6
323.15	31063.9	1009.1	323.15	30162.2	1006.0	323.15	29220.3	1002.8	323.15	28285.1	999.5
323.15	31052.3	1009.0	323.15	30151.0	1006.0	323.15	29209.7	1002.8	323.15	28271.4	999.4
323.15	31040.1	1009.0	323.15	30139.9	1005.9	323.15	29199.7	1002.7	323.15	28259.7	999.4
323.15	31028.2	1008.9	323.15	30127.6	1005.9	323.15	29187.5	1002.6	323.15	28248.3	999.3
323.15	31017.6	1008.9	323.15	30116.4	1005.9	323.15	29175.6	1002.6	323.15	28236.2	999.4
323.15	31005.3	1008.8	323.15	30105.1	1005.8	323.15	29163.6	1002.6	323.15	28225.5	999.3
323.15	30993.2	1008.8	323.15	30094.4	1005.8	323.15	29151.3	1002.5	323.15	28213.1	999.2
323.15	30980.7	1008.8	323.15	30083.9	1005.7	323.15	29139.4	1002.5	323.15	28202.1	999.2
323.15	30969.7	1008.8	323.15	30072.3	1005.6	323.15	29126.5	1002.5	323.15	28190.2	999.1
323.15	30957.5	1008.7	323.15	30059.2	1005.7	323.15	29113.7	1002.4	323.15	28178.4	999.1
323.15	30945.4	1008.7	323.15	30046.7	1005.6	323.15	29100.0	1002.4	323.15	28165.7	999.1
323.15	30934.3	1008.6	323.15	30032.8	1005.6	323.15	29087.3	1002.3	323.15	28152.5	999.1
323.15	30921.6	1008.6	323.15	30020.3	1005.6	323.15	29076.1	1002.3	323.15	28140.6	999.0
323.15	30911.0	1008.6	323.15	30006.6	1005.5	323.15	29064.3	1002.2	323.15	28128.7	999.0
323.15	30900.3	1008.5	323.15	29993.4	1005.5	323.15	29052.8	1002.2	323.15	28116.7	998.9
323.15	30890.3	1008.5	323.15	29980.2	1005.4	323.15	29038.9	1002.2	323.15	28104.6	998.8
323.15	30880.6	1008.4	323.15	29967.6	1005.4	323.15	29026.7	1002.1	323.15	28091.9	998.8
323.15	30871.2	1008.5	323.15	29955.1	1005.3	323.15	29013.9	1002.1	323.15	28080.4	998.8
323.15	30862.2	1008.4	323.15	29943.0	1005.3	323.15	29001.0	1002.0	323.15	28068.7	998.7
323.15	30850.8	1008.4	323.15	29929.9	1005.2	323.15	28990.0	1002.0	323.15	28056.3	998.7
323.15	30841.2	1008.3	323.15	29916.0	1005.2	323.15	28978.9	1001.9	323.15	28045.6	998.7
323.15	30830.9	1008.3	323.15	29904.4	1005.1	323.15	28968.4	1001.9	323.15	28032.9	998.6
323.15	30819.2	1008.3	323.15	29891.3	1005.1	323.15	28956.8	1001.9	323.15	28020.4	998.5
323.15	30806.5	1008.2	323.15	29879.7	1005.1	323.15	28947.3	1001.9	323.15	28008.5	998.5
323.15	30795.1	1008.1	323.15	29866.9	1005.0	323.15	28935.7	1001.8	323.15	27997.7	998.5
323.15	30783.3	1008.2	323.15	29854.6	1005.0	323.15	28923.7	1001.7	323.15	27986.2	998.4
323.15	30772.0	1008.1	323.15	29842.5	1004.9	323.15	28911.2	1001.7	323.15	27974.3	998.4
323.15	30761.1	1008.1	323.15	29830.6	1004.9	323.15	28899.4	1001.7	323.15	27962.1	998.4
323.15	30750.3	1008.0	323.15	29819.5	1004.9	323.15	28888.5	1001.6	323.15	27949.9	998.3
323.15	30740.4	1008.0	323.15	29807.9	1004.8	323.15	28876.5	1001.6	323.15	27937.9	998.2
323.15	30729.0	1008.0	323.15	29794.6	1004.8	323.15	28864.2	1001.6	323.15	27925.3	998.2
323.15	30716.3	1007.9	323.15	29782.3	1004.7	323.15	28852.2	1001.5	323.15	27913.5	998.2
323.15	30702.9	1007.8	323.15	29770.2	1004.7	323.15	28841.0	1001.4	323.15	27902.3	998.1
323.15	30690.4	1007.8	323.15	29758.5	1004.7	323.15	28831.5	1001.4	323.14	27890.1	998.1
323.15	30679.1	1007.8	323.15	29746.0	1004.6	323.15	28820.9	1001.4	323.14	27877.7	998.0
323.14	30667.8	1007.7	323.15	29734.8	1004.6	323.15	28809.9	1001.3	323.14	27864.7	998.0
323.14	30656.4	1007.7	323.15	29721.6	1004.5	323.15	28797.0	1001.4	323.15	27852.3	997.9
323.14	30646.0	1007.7	323.15	29710.2	1004.5	323.15	28785.0	1001.3	323.15	27840.0	997.9
323.15	30633.9	1007.6	323.15	29697.9	1004.5	323.15	28774.0	1001.2	323.15	27828.0	997.8
323.15	30622.8	1007.6	323.15	29684.9	1004.4	323.15	28761.7	1001.2	323.15	27817.3	997.8
323.15	30611.8	1007.6	323.15	29671.1	1004.3	323.15	28750.1	1001.1	323.15	27804.4	997.8
323.15	30599.5	1007.5	323.15	29657.8	1004.3	323.15	28739.2	1001.1	323.15	27792.4	997.7

Valori della densità del fluido R32 _ *T*=50°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
323.15	27780.5	997.7	323.15	26825.9	994.2	323.15	25850.8	990.5	323.15	24884.0	986.8
323.14	27766.9	997.6	323.14	26813.2	994.2	323.15	25837.8	990.5	323.15	24871.6	986.8
323.14	27753.7	997.6	323.15	26801.4	994.1	323.15	25826.3	990.4	323.14	24859.0	986.7
323.15	27741.8	997.6	323.15	26788.8	994.1	323.15	25813.9	990.4	323.15	24847.9	986.7
323.15	27729.3	997.5	323.15	26774.7	994.0	323.15	25800.8	990.3	323.15	24836.2	986.7
323.15	27716.8	997.4	323.14	26760.8	994.0	323.15	25788.8	990.3	323.15	24823.6	986.5
323.15	27704.1	997.4	323.15	26748.3	993.9	323.15	25776.3	990.2	323.15	24812.0	986.5
323.15	27692.2	997.4	323.15	26735.9	993.8	323.15	25763.4	990.2	323.15	24798.1	986.5
323.15	27679.5	997.3	323.15	26722.7	993.8	323.15	25751.0	990.2	323.15	24786.2	986.5
323.15	27666.4	997.3	323.15	26711.6	993.8	323.15	25738.9	990.1	323.15	24774.7	986.4
323.15	27654.6	997.2	323.15	26698.1	993.7	323.15	25726.2	990.0	323.15	24761.8	986.3
323.15	27641.6	997.2	323.15	26685.7	993.7	323.15	25713.3	990.1	323.15	24749.4	986.3
323.15	27628.1	997.1	323.15	26672.9	993.6	323.15	25701.6	990.0	323.15	24737.7	986.2
323.15	27615.0	997.1	323.15	26661.1	993.6	323.15	25690.0	989.9	323.15	24726.0	986.2
323.15	27601.5	997.0	323.15	26649.3	993.5	323.15	25677.2	989.9	323.15	24712.8	986.2
323.15	27589.3	997.0	323.15	26636.2	993.5	323.15	25664.6	989.8	323.15	24700.7	986.1
323.15	27578.0	996.9	323.15	26624.2	993.5	323.15	25651.5	989.8	323.15	24688.9	986.0
323.15	27565.3	996.9	323.15	26610.8	993.4	323.15	25639.0	989.7	323.15	24676.7	986.0
323.15	27553.8	996.8	323.15	26597.9	993.3	323.15	25626.7	989.7	323.15	24665.7	986.0
323.15	27542.2	996.8	323.15	26585.8	993.3	323.15	25614.3	989.6	323.15	24653.8	985.9
323.15	27530.5	996.8	323.15	26572.6	993.3	323.15	25602.3	989.6	323.15	24641.2	985.9
323.15	27518.0	996.7	323.15	26560.7	993.2	323.15	25588.7	989.5	323.15	24630.7	985.8
323.15	27506.2	996.7	323.15	26547.6	993.2	323.15	25576.4	989.5	323.15	24619.0	985.8
323.15	27494.1	996.6	323.15	26534.0	993.1	323.15	25563.5	989.4	323.15	24607.4	985.7
323.15	27483.2	996.6	323.15	26522.5	993.0	323.15	25550.3	989.4	323.15	24596.6	985.7
323.15	27471.9	996.6	323.15	26510.0	993.0	323.15	25537.5	989.3	323.15	24584.4	985.6
323.15	27459.4	996.5	323.15	26498.1	993.0	323.15	25525.1	989.3	323.15	24573.0	985.5
323.15	27445.9	996.5	323.15	26486.7	992.9	323.15	25512.1	989.2	323.15	24560.5	985.5
323.15	27434.9	996.4	323.15	26474.8	992.9	323.15	25498.8	989.2	323.15	24548.8	985.5
323.14	27424.0	996.4	323.15	26462.7	992.8	323.15	25484.0	989.1	323.15	24536.6	985.5
323.15	27412.3	996.4	323.15	26449.9	992.8	323.15	25472.0	989.0	323.15	24524.7	985.4
323.15	27401.2	996.3	323.15	26437.7	992.7	323.15	25459.8	989.1	323.15	24513.0	985.3
323.15	27390.5	996.3	323.15	26425.1	992.7	323.14	25448.9	989.0	323.15	24502.9	985.3
323.15	27378.2	996.2	323.15	26412.4	992.7	323.15	25439.8	989.0	323.15	24489.9	985.3
323.15	27366.4	996.2	323.15	26402.1	992.6	323.15	25427.3	988.9	323.15	24478.6	985.2
323.15	27355.1	996.1	323.15	26390.9	992.6	323.15	25416.2	988.8	323.15	24466.1	985.1
323.15	27342.9	996.1	323.15	26377.8	992.5	323.15	25405.3	988.8	323.15	24453.9	985.1
323.15	27330.7	996.1	323.15	26365.4	992.4	323.15	25393.9	988.8	323.15	24443.4	985.1
323.15	27319.0	996.0	323.15	26353.4	992.4	323.15	25381.4	988.7	323.15	24432.2	985.0
323.15	27306.1	996.0	323.15	26339.2	992.4	323.15	25369.3	988.7	323.15	24418.9	984.9
323.15	27292.1	995.9	323.15	26326.3	992.3	323.15	25359.1	988.7	323.15	24406.9	984.9
323.15	27279.6	995.9	323.15	26313.2	992.3	323.15	25346.9	988.6	323.15	24394.6	984.9
323.15	27265.8	995.8	323.15	26300.9	992.2	323.15	25335.2	988.6	323.15	24383.2	984.9
323.15	27252.4	995.8	323.15	26286.5	992.2	323.15	25322.8	988.5	323.15	24370.9	984.8
323.15	27239.0	995.7	323.15	26274.0	992.1	323.15	25311.3	988.4	323.15	24360.3	984.7
323.15	27226.1	995.7	323.15	26262.0	992.1	323.15	25299.2	988.4	323.15	24349.1	984.7
323.15	27212.7	995.6	323.15	26249.4	992.1	323.14	25286.7	988.4	323.15	24338.8	984.7
323.14	27199.0	995.6	323.15	26237.8	992.0	323.15	25275.2	988.3	323.15	24326.8	984.6
323.14	27185.1	995.5	323.15	26225.8	992.0	323.15	25262.9	988.3	323.15	24314.5	984.5
323.15	27171.5	995.5	323.15	26214.7	991.9	323.15	25249.3	988.2	323.15	24302.0	984.5
323.15	27158.6	995.5	323.15	26203.3	991.9	323.15	25237.6	988.2	323.15	24288.8	984.5
323.15	27145.9	995.4	323.15	26190.8	991.8	323.15	25224.0	988.2	323.15	24277.4	984.4
323.15	27133.4	995.3	323.15	26178.8	991.8	323.15	25211.8	988.1	323.15	24265.2	984.4
323.15	27122.3	995.3	323.15	26165.8	991.7	323.15	25199.8	988.1	323.15	24253.5	984.3
323.15	27108.6	995.2	323.15	26153.4	991.7	323.15	25186.4	987.9	323.15	24241.7	984.3
323.15	27097.8	995.2	323.15	26141.0	991.6	323.15	25174.9	988.0	323.15	24231.1	984.3
323.15	27085.6	995.2	323.15	26127.5	991.6	323.15	25163.1	987.9	323.14	24220.7	984.2
323.15	27074.6	995.1	323.14	26115.8	991.5	323.14	25148.9	987.8	323.15	24209.0	984.2
323.15	27063.1	995.1	323.15	26104.3	991.5	323.14	25136.2	987.8	323.15	24197.6	984.1
323.15	27052.3	995.0	323.14	26090.8	991.5	323.14	25122.1	987.7	323.15	24186.3	984.1
323.15	27042.2	995.0	323.15	26078.3	991.4	323.14	25108.7	987.7	323.15	24174.2	984.0
323.15	27031.3	994.9	323.15	26065.8	991.3	323.15	25096.8	987.6	323.15	24162.3	984.0
323.15	27019.8	994.9	323.15	26053.4	991.3	323.15	25083.6	987.6	323.15	24148.1	983.9
323.15	27008.8	994.9	323.14	26042.0	991.3	323.15	25071.7	987.6	323.15	24135.4	983.8
323.15	26997.7	994.8	323.15	26028.4	991.2	323.15	25058.8	987.5	323.14	24124.0	983.8
323.15	26986.6	994.8	323.15	26016.7	991.2	323.15	25046.6	987.4	323.14	24112.3	983.7
323.15	26976.4	994.8	323.15	26002.7	991.1	323.15	25032.6	987.4	323.14	24100.0	983.7
323.15	26964.5	994.7	323.14	25989.6	991.0	323.15	25019.9	987.4	323.14	24088.3	983.6
323.15	26951.4	994.7	323.15	25978.0	991.0	323.15	25008.5	987.3	323.15	24076.1	983.6
323.15	26939.0	994.6	323.15	25964.5	991.0	323.15	24996.5	987.2	323.15	24062.3	983.6
323.15	26926.7	994.5	323.15	25951.0	990.9	323.15	24984.0	987.2	323.15	24050.4	983.5
323.15	26913.4	994.5	323.15	25938.6	990.9	323.15	24972.1	987.2	323.15	24038.3	983.5
323.15	26901.9	994.5	323.15	25925.9	990.8	323.15	24960.0	987.1	323.15	24027.3	983.4
323.15	26890.6	994.4	323.15	25913.4	990.7	323.15	24946.6	987.1	323.15	24016.1	983.4
323.15	26877.7	994.4	323.15	25901.6	990.7	323.14	24934.4	987.0	323.15	24005.7	983.3
323.15	26864.8	994.3	323.15	25887.8	990.7	323.15	24921.1	987.0	323.15	23994.8	983.3
323.15	26851.7	994.2	323.15	25875.0	990.6	323.15	24909.6	987.0	323.14	23983.5	983.2
323.15	26838.2	994.2	323.15	25862.7	990.6	323.15	24896.4	986.9	323.14	23973.2	983.2

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
323.15	23961.7	983.1	323.15	23059.3	979.5	323.15	22116.8	975.6	323.15	21162.1	971.4
323.15	23951.2	983.1	323.15	23047.5	979.5	323.14	22103.7	975.5	323.15	21150.6	971.4
323.15	23939.9	983.1	323.15	23036.8	979.4	323.15	22091.6	975.4	323.15	21137.5	971.3
323.15	23930.0	983.0	323.15	23026.4	979.4	323.15	22078.5	975.4	323.15	21126.1	971.2
323.15	23918.2	983.0	323.15	23018.3	979.3	323.15	22065.6	975.3	323.15	21113.7	971.2
323.15	23907.4	982.9	323.15	23010.0	979.3	323.15	22054.5	975.3	323.15	21101.7	971.2
323.15	23895.9	982.9	323.15	23000.7	979.2	323.15	22041.3	975.2	323.15	21090.3	971.1
323.15	23884.7	982.8	323.15	22991.2	979.2	323.15	22029.4	975.1	323.15	21079.2	971.1
323.14	23872.0	982.8	323.15	22981.4	979.2	323.15	22017.9	975.1	323.15	21067.8	971.0
323.14	23859.9	982.7	323.15	22970.8	979.1	323.15	22005.2	975.1	323.15	21056.4	971.0
323.14	23849.0	982.7	323.15	22960.3	979.1	323.15	21992.3	975.0	323.15	21045.8	970.9
323.14	23838.1	982.7	323.15	22948.5	979.0	323.15	21980.1	975.0	323.15	21033.7	970.8
323.15	23827.1	982.6	323.15	22936.6	979.0	323.15	21968.2	974.9	323.15	21021.8	970.8
323.15	23814.1	982.6	323.15	22926.6	978.9	323.15	21954.4	974.9	323.15	21009.4	970.7
323.15	23802.6	982.5	323.15	22915.8	978.9	323.15	21942.1	974.8	323.15	20999.5	970.7
323.15	23790.5	982.4	323.15	22903.9	978.9	323.15	21929.3	974.7	323.15	20988.6	970.7
323.15	23778.6	982.4	323.15	22892.8	978.8	323.15	21917.9	974.7	323.15	20977.1	970.6
323.15	23768.6	982.4	323.15	22881.5	978.8	323.15	21904.7	974.7	323.15	20965.2	970.6
323.15	23757.9	982.4	323.15	22871.0	978.7	323.15	21892.7	974.6	323.14	20953.3	970.5
323.14	23745.8	982.3	323.15	22860.3	978.7	323.15	21879.7	974.5	323.14	20940.5	970.4
323.14	23734.4	982.2	323.15	22846.6	978.6	323.15	21867.1	974.5	323.15	20927.9	970.4
323.14	23721.3	982.2	323.15	22832.8	978.5	323.15	21854.1	974.5	323.15	20914.9	970.3
323.14	23709.5	982.1	323.15	22819.7	978.5	323.15	21841.1	974.3	323.15	20902.3	970.3
323.14	23698.5	982.1	323.15	22807.8	978.4	323.15	21828.7	974.3	323.15	20890.7	970.2
323.15	23686.3	982.0	323.15	22793.7	978.4	323.15	21815.9	974.2	323.15	20879.4	970.2
323.15	23674.6	982.0	323.15	22779.5	978.3	323.15	21803.5	974.2	323.15	20867.5	970.1
323.15	23660.5	982.0	323.15	22765.9	978.3	323.15	21791.2	974.2	323.15	20856.3	970.0
323.15	23649.4	981.9	323.15	22753.5	978.2	323.15	21778.9	974.1	323.15	20846.4	970.0
323.15	23638.1	981.9	323.15	22741.1	978.2	323.15	21767.1	974.1	323.14	20833.8	969.9
323.15	23627.0	981.8	323.15	22727.8	978.1	323.15	21754.4	974.0	323.14	20822.5	969.9
323.15	23615.4	981.7	323.15	22713.7	978.1	323.15	21742.1	973.9	323.15	20810.4	969.9
323.15	23604.0	981.7	323.15	22700.6	978.0	323.15	21728.8	973.9	323.15	20799.7	969.8
323.14	23593.3	981.7	323.15	22689.5	977.9	323.15	21716.7	973.8	323.15	20788.7	969.8
323.14	23582.3	981.6	323.15	22675.3	977.9	323.15	21704.7	973.8	323.15	20778.5	969.8
323.14	23570.8	981.6	323.15	22662.1	977.8	323.15	21690.6	973.7	323.15	20768.0	969.7
323.14	23559.1	981.5	323.15	22649.7	977.8	323.15	21676.9	973.7	323.15	20756.7	969.6
323.15	23546.6	981.5	323.15	22636.4	977.7	323.15	21664.8	973.6	323.15	20744.6	969.6
323.15	23535.7	981.5	323.15	22624.9	977.7	323.15	21652.0	973.6	323.15	20733.3	969.5
323.15	23524.1	981.4	323.15	22612.9	977.6	323.15	21639.9	973.5	323.15	20722.1	969.5
323.15	23512.1	981.3	323.15	22601.3	977.6	323.14	21627.4	973.5	323.15	20709.1	969.4
323.15	23500.4	981.3	323.15	22588.4	977.5	323.15	21614.5	973.4	323.15	20695.5	969.4
323.15	23487.8	981.2	323.15	22577.2	977.5	323.15	21601.9	973.3	323.15	20684.8	969.3
323.15	23476.6	981.2	323.15	22564.9	977.5	323.15	21589.7	973.3	323.15	20673.1	969.3
323.15	23466.0	981.0	323.15	22552.8	977.4	323.15	21578.2	973.3	323.15	20661.1	969.2
323.15	23453.3	981.1	323.15	22538.3	977.3	323.15	21566.1	973.2	323.15	20649.0	969.2
323.15	23441.1	981.1	323.15	22525.6	977.2	323.15	21555.1	973.1	323.15	20637.0	969.1
323.15	23429.0	981.0	323.15	22511.3	977.2	323.15	21543.8	973.1	323.15	20625.6	969.1
323.15	23417.8	981.0	323.15	22498.3	977.2	323.15	21534.3	973.1	323.15	20614.7	969.0
323.15	23405.3	980.9	323.15	22484.1	977.1	323.15	21522.5	973.0	323.15	20603.1	969.0
323.15	23394.0	980.9	323.15	22471.3	977.1	323.15	21512.1	973.0	323.15	20591.0	968.9
323.15	23382.9	980.8	323.14	22458.3	977.0	323.15	21500.9	972.9	323.15	20580.9	968.8
323.14	23371.8	980.8	323.15	22444.9	976.9	323.15	21489.6	972.9	323.15	20570.3	968.8
323.15	23361.8	980.7	323.15	22431.0	976.9	323.15	21478.5	972.8	323.15	20559.2	968.8
323.15	23350.9	980.6	323.15	22419.5	976.8	323.15	21467.2	972.8	323.14	20547.8	968.7
323.15	23338.7	980.6	323.15	22405.6	976.8	323.15	21455.7	972.7	323.15	20536.5	968.6
323.15	23326.1	980.6	323.14	22393.5	976.7	323.15	21443.4	972.7	323.15	20524.3	968.6
323.15	23315.8	980.5	323.15	22381.5	976.7	323.15	21431.6	972.6	323.15	20512.0	968.6
323.15	23305.6	980.5	323.15	22368.5	976.6	323.15	21419.4	972.6	323.15	20499.2	968.5
323.15	23294.0	980.5	323.14	22356.9	976.5	323.15	21407.3	972.5	323.15	20487.1	968.4
323.15	23283.3	980.4	323.15	22344.1	976.5	323.15	21394.7	972.4	323.15	20474.1	968.4
323.15	23271.8	980.4	323.15	22332.7	976.4	323.15	21383.1	972.4	323.15	20461.6	968.3
323.15	23260.5	980.3	323.15	22321.0	976.4	323.15	21368.8	972.4	323.15	20449.6	968.3
323.15	23250.7	980.3	323.15	22310.8	976.3	323.15	21356.8	972.3	323.15	20437.8	968.2
323.15	23239.6	980.2	323.15	22299.0	976.3	323.15	21343.0	972.2	323.15	20426.1	968.1
323.15	23227.3	980.2	323.15	22288.1	976.3	323.15	21329.7	972.2	323.15	20414.5	968.1
323.15	23215.6	980.1	323.15	22276.2	976.2	323.15	21317.2	972.1	323.15	20402.7	968.1
323.15	23204.4	980.1	323.15	22263.1	976.1	323.15	21307.0	972.1	323.15	20392.0	968.0
323.15	23192.6	980.0	323.15	22251.3	976.1	323.15	21293.1	972.0	323.15	20381.0	968.0
323.15	23181.2	980.0	323.15	22238.2	976.1	323.15	21281.7	971.9	323.15	20368.9	967.9
323.15	23170.4	980.0	323.15	22226.6	976.0	323.15	21270.5	971.9	323.15	20357.3	967.8
323.15	23157.9	979.9	323.15	22214.4	976.0	323.15	21258.3	971.8	323.15	20344.9	967.8
323.15	23146.0	979.8	323.15	22200.8	975.9	323.15	21245.2	971.8	323.15	20331.6	967.7
323.15	23133.8	979.8	323.15	22190.0	975.9	323.15	21233.8	971.8	323.15	20319.8	967.7
323.15	23124.1	979.8	323.15	22179.3	975.8	323.15	21221.0	971.7	323.14	20307.3	967.6
323.15	23111.6	979.7	323.15	22167.2	975.8	323.15	21209.8	971.6	323.14	20293.9	967.5
323.15	23097.5	979.7	323.15	22155.3	975.7	323.15	21198.9	971.6	323.14	20281.4	967.5
323.15	23084.8	979.6	323.14	22143.2	975.6	323.15	21185.8	971.5	323.15	20268.5	967.4
323.15	23072.5	979.5	323.14	22129.3	975.6	323.15	21174.1	971.5	323.15	20256.7	967.4

Valori della densità del fluido R32 _ *T*=50°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
323.15	20243.9	967.4	323.15	19317.0	963.1	323.14	18350.4	958.5	323.14	17425.6	953.9
323.15	20230.4	967.2	323.15	19306.2	963.0	323.14	18337.2	958.4	323.14	17413.3	953.9
323.15	20218.3	967.2	323.15	19293.6	963.0	323.14	18324.7	958.4	323.14	17402.6	953.8
323.15	20204.8	967.2	323.15	19282.0	963.0	323.14	18312.5	958.3	323.14	17391.6	953.8
323.15	20193.2	967.1	323.15	19269.9	962.8	323.14	18300.8	958.3	323.14	17380.0	953.7
323.15	20180.3	967.1	323.15	19257.6	962.8	323.15	18288.7	958.2	323.14	17368.0	953.7
323.15	20167.1	967.0	323.15	19245.5	962.7	323.14	18277.8	958.1	323.14	17355.5	953.6
323.14	20154.1	966.9	323.15	19231.6	962.7	323.14	18265.6	958.1	323.14	17344.2	953.5
323.14	20142.4	966.9	323.15	19219.8	962.6	323.14	18253.5	958.0	323.14	17334.0	953.5
323.14	20129.1	966.8	323.15	19206.2	962.6	323.14	18243.2	958.0	323.14	17322.9	953.4
323.15	20116.3	966.8	323.15	19192.9	962.5	323.14	18230.6	957.9	323.14	17310.9	953.3
323.15	20104.2	966.7	323.15	19180.1	962.5	323.14	18217.8	957.8	323.14	17299.4	953.3
323.15	20092.9	966.6	323.14	19165.6	962.4	323.14	18206.1	957.8	323.14	17288.5	953.2
323.15	20081.2	966.6	323.14	19152.6	962.3	323.14	18193.1	957.7	323.14	17277.0	953.2
323.15	20069.8	966.5	323.15	19139.3	962.3	323.14	18181.3	957.6	323.14	17265.9	953.1
323.15	20057.5	966.5	323.15	19126.4	962.2	323.14	18170.9	957.6	323.14	17254.9	953.1
323.15	20044.9	966.4	323.15	19113.2	962.1	323.14	18159.6	957.5	323.14	17243.1	953.0
323.14	20034.3	966.4	323.15	19099.2	962.1	323.14	18147.5	957.5	323.14	17231.7	952.9
323.15	20021.2	966.3	323.15	19085.5	962.0	323.15	18136.2	957.5	323.14	17221.6	952.9
323.14	20009.1	966.3	323.15	19071.9	961.9	323.15	18123.4	957.4	323.14	17210.8	952.8
323.15	19997.5	966.2	323.15	19059.6	961.9	323.14	18110.2	957.3	323.14	17200.7	952.8
323.15	19984.6	966.2	323.15	19046.6	961.8	323.14	18097.4	957.2	323.14	17190.1	952.7
323.15	19972.1	966.1	323.14	19035.8	961.8	323.14	18085.0	957.2	323.14	17176.9	952.6
323.15	19958.9	966.0	323.14	19023.5	961.7	323.14	18073.4	957.2	323.14	17165.8	952.7
323.15	19947.1	966.0	323.15	19011.0	961.6	323.14	18061.6	957.0	323.14	17152.1	952.5
323.15	19935.6	965.9	323.14	18997.7	961.6	323.14	18049.4	957.0	323.14	17139.1	952.5
323.15	19923.4	965.9	323.14	18985.5	961.5	323.14	18038.1	956.9	323.14	17127.5	952.4
323.14	19911.0	965.8	323.14	18972.9	961.5	323.14	18026.3	956.9	323.14	17113.6	952.3
323.15	19898.8	965.8	323.15	18960.9	961.4	323.14	18014.8	956.9	323.14	17101.5	952.3
323.14	19886.4	965.7	323.14	18948.4	961.3	323.14	18003.7	956.8	323.14	17088.8	952.2
323.15	19874.3	965.7	323.14	18936.5	961.3	323.14	17992.2	956.8	323.14	17077.5	952.2
323.15	19863.0	965.6	323.15	18925.5	961.2	323.14	17979.9	956.7	323.14	17065.4	952.1
323.15	19851.3	965.6	323.14	18914.6	961.2	323.14	17969.5	956.6	323.14	17053.9	952.0
323.15	19838.4	965.5	323.14	18902.0	961.1	323.14	17957.9	956.6	323.14	17041.6	952.0
323.15	19826.7	965.5	323.14	18889.4	961.1	323.14	17945.9	956.5	323.14	17030.4	951.9
323.15	19813.9	965.4	323.14	18876.9	961.0	323.14	17933.7	956.5	323.14	17018.7	951.9
323.15	19803.5	965.3	323.14	18863.8	960.9	323.14	17922.9	956.4	323.15	17007.3	951.8
323.14	19793.4	965.3	323.15	18850.6	960.9	323.14	17911.9	956.3	323.15	16994.5	951.7
323.14	19781.8	965.2	323.15	18837.8	960.8	323.14	17900.7	956.3	323.14	16981.1	951.7
323.14	19770.9	965.2	323.15	18824.3	960.8	323.14	17888.6	956.2	323.14	16968.1	951.6
323.14	19759.3	965.2	323.15	18811.8	960.7	323.14	17875.6	956.1	323.14	16956.0	951.5
323.14	19748.1	965.1	323.15	18800.5	960.6	323.14	17863.4	956.1	323.14	16943.3	951.4
323.14	19737.2	965.0	323.14	18787.9	960.6	323.14	17850.4	956.1	323.14	16929.7	951.4
323.15	19726.3	965.0	323.14	18773.8	960.5	323.14	17837.3	956.0	323.14	16916.9	951.4
323.15	19713.9	964.9	323.14	18761.4	960.5	323.14	17824.3	955.9	323.14	16902.4	951.2
323.15	19700.9	964.9	323.14	18748.9	960.4	323.14	17813.2	955.8	323.14	16890.4	951.2
323.15	19687.6	964.8	323.14	18736.8	960.4	323.14	17802.2	955.8	323.14	16875.5	951.1
323.15	19673.7	964.7	323.14	18724.2	960.3	323.14	17790.6	955.7	323.14	16862.0	951.1
323.15	19660.8	964.7	323.14	18712.9	960.2	323.14	17779.3	955.7	323.14	16847.2	951.0
323.14	19648.9	964.6	323.14	18701.5	960.2	323.14	17767.2	955.6	323.14	16832.8	950.9
323.15	19635.8	964.5	323.14	18689.5	960.1	323.14	17755.7	955.6	323.14	16818.6	950.8
323.15	19624.1	964.5	323.14	18676.7	960.1	323.14	17744.4	955.5	323.14	16803.5	950.8
323.15	19610.8	964.4	323.14	18663.7	960.0	323.14	17732.1	955.5	323.14	16788.8	950.7
323.15	19598.7	964.4	323.14	18651.7	960.0	323.14	17719.8	955.4	323.14	16776.1	950.6
323.14	19585.8	964.3	323.14	18639.3	959.9	323.14	17707.5	955.3	323.14	16762.6	950.5
323.15	19573.7	964.3	323.15	18626.8	959.8	323.15	17697.1	955.3	323.15	16748.5	950.5
323.15	19562.7	964.2	323.15	18615.2	959.8	323.14	17685.6	955.2	323.15	16734.4	950.4
323.15	19553.1	964.2	323.15	18603.6	959.7	323.15	17673.4	955.2	323.15	16719.0	950.3
323.14	19542.3	964.2	323.15	18592.0	959.6	323.15	17661.2	955.1	323.14	16705.3	950.2
323.15	19530.0	964.1	323.15	18581.0	959.6	323.14	17647.3	954.9	323.15	16691.1	950.2
323.15	19518.1	964.0	323.15	18567.7	959.5	323.14	17633.1	955.0	323.14	16676.7	950.1
323.15	19507.0	964.0	323.14	18556.1	959.5	323.14	17620.3	954.9	323.14	16662.8	950.0
323.15	19497.3	963.9	323.14	18545.5	959.5	323.14	17608.1	954.8	323.14	16646.7	950.0
323.15	19486.4	963.8	323.14	18533.0	959.3	323.14	17595.4	954.8	323.14	16632.0	949.9
323.15	19474.6	963.8	323.14	18520.7	959.4	323.14	17584.6	954.7	323.14	16615.8	949.8
323.14	19461.6	963.8	323.14	18509.1	959.3	323.14	17573.9	954.7	323.14	16602.8	949.7
323.15	19450.8	963.7	323.14	18496.8	959.2	323.14	17563.5	954.6	323.15	16590.4	949.7
323.15	19439.9	963.7	323.15	18484.8	959.2	323.14	17552.0	954.6	323.15	16576.7	949.6
323.15	19429.6	963.6	323.15	18472.7	959.1	323.14	17540.6	954.5	323.15	16562.5	949.5
323.15	19417.9	963.6	323.15	18460.6	959.0	323.14	17529.6	954.5	323.15	16549.3	949.5
323.15	19405.4	963.5	323.15	18448.8	959.0	323.14	17518.7	954.4	323.15	16535.6	949.4
323.15	19394.5	963.4	323.14	18437.1	958.9	323.14	17508.8	954.3	323.14	16522.5	949.3
323.15	19383.6	963.4	323.14	18424.3	958.8	323.14	17497.5	954.3	323.14	16507.6	949.3
323.15	19372.7	963.3	323.14	18411.0	958.8	323.14	17485.5	954.2	323.14	16494.2	949.2
323.15	19362.3	963.3	323.14	18398.0	958.7	323.14	17474.2	954.1	323.14	16481.0	949.1
323.15	19351.2	963.2	323.14	18387.4	958.6	323.14	17462.3	954.1	323.14	16467.7	949.0
323.15	19340.3	963.2	323.14	18375.3	958.6	323.14	17450.1	954.0	323.14	16454.8	949.0
323.15	19329.3	963.2	323.14	18362.5	958.5	323.14	17438.1	954.0	323.15	16441.7	948.9

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
323.15	16429.0	948.9	323.15	15483.2	943.8	323.14	14547.4	938.5	323.15	13581.4	932.9
323.15	16416.8	948.8	323.15	15470.0	943.7	323.14	14535.5	938.5	323.15	13570.1	932.8
323.15	16404.0	948.7	323.14	15456.5	943.6	323.14	14523.2	938.4	323.15	13558.4	932.8
323.15	16391.5	948.6	323.15	15442.8	943.6	323.14	14510.2	938.3	323.15	13549.3	932.7
323.15	16378.8	948.6	323.15	15429.8	943.5	323.15	14498.1	938.3	323.15	13539.1	932.7
323.15	16365.6	948.5	323.15	15416.6	943.4	323.15	14486.0	938.2	323.15	13528.2	932.6
323.14	16351.5	948.4	323.15	15404.1	943.3	323.15	14475.0	938.1	323.15	13517.5	932.6
323.14	16338.1	948.4	323.15	15391.4	943.3	323.15	14463.5	938.1	323.15	13506.4	932.5
323.14	16325.8	948.3	323.14	15379.3	943.2	323.15	14452.3	938.0	323.15	13495.2	932.4
323.14	16313.1	948.2	323.14	15367.6	943.1	323.15	14440.0	937.9	323.15	13482.5	932.4
323.14	16300.4	948.2	323.15	15354.7	943.1	323.15	14427.0	937.9	323.15	13472.0	932.3
323.15	16288.4	948.1	323.14	15342.0	943.0	323.14	14413.8	937.8	323.15	13460.5	932.2
323.15	16275.5	948.0	323.15	15328.6	942.9	323.14	14401.4	937.7	323.15	13451.4	932.2
323.15	16264.1	947.9	323.15	15316.0	942.9	323.14	14388.6	937.6	323.15	13440.8	932.1
323.15	16252.7	947.9	323.15	15303.8	942.8	323.14	14376.2	937.6	323.15	13430.1	932.1
323.15	16240.5	947.8	323.15	15291.5	942.7	323.14	14364.3	937.5	323.15	13419.5	931.9
323.15	16227.6	947.7	323.15	15279.2	942.6	323.14	14351.8	937.4	323.15	13406.8	931.9
323.15	16216.0	947.7	323.15	15265.2	942.6	323.14	14338.8	937.4	323.15	13394.1	931.8
323.15	16203.3	947.6	323.15	15253.6	942.5	323.14	14325.8	937.3	323.15	13381.9	931.7
323.15	16190.8	947.6	323.15	15242.8	942.4	323.14	14314.8	937.2	323.15	13370.4	931.7
323.15	16175.9	947.5	323.14	15231.4	942.4	323.15	14302.4	937.1	323.14	13358.7	931.6
323.15	16163.5	947.4	323.14	15221.1	942.3	323.14	14291.4	937.1	323.15	13346.7	931.5
323.15	16152.5	947.3	323.14	15210.1	942.3	323.14	14278.4	937.0	323.14	13334.9	931.4
323.15	16140.7	947.3	323.14	15199.6	942.2	323.14	14265.7	936.9	323.15	13325.4	931.4
323.15	16129.2	947.2	323.14	15188.7	942.2	323.14	14253.4	936.8	323.14	13315.4	931.3
323.15	16116.5	947.2	323.15	15178.5	942.1	323.14	14240.2	936.8	323.14	13305.1	931.3
323.14	16102.3	947.1	323.14	15167.0	942.0	323.14	14226.1	936.7	323.14	13293.7	931.2
323.14	16089.1	947.1	323.15	15155.9	942.0	323.14	14212.9	936.6	323.14	13282.0	931.2
323.14	16076.0	947.0	323.15	15144.8	941.9	323.15	14199.3	936.6	323.14	13268.9	931.0
323.14	16063.6	946.9	323.15	15132.8	941.9	323.15	14186.6	936.5	323.14	13255.3	931.0
323.14	16051.1	946.8	323.15	15120.3	941.8	323.15	14173.6	936.4	323.14	13243.5	930.9
323.15	16040.5	946.8	323.15	15108.1	941.7	323.14	14159.9	936.3	323.15	13230.8	930.8
323.15	16029.9	946.7	323.15	15096.1	941.7	323.14	14145.3	936.3	323.15	13217.5	930.8
323.15	16017.9	946.6	323.14	15084.8	941.6	323.14	14130.4	936.1	323.15	13204.6	930.6
323.15	16004.7	946.6	323.15	15074.3	941.5	323.14	14117.7	936.1	323.15	13191.5	930.5
323.15	15992.5	946.5	323.15	15064.9	941.5	323.14	14105.5	936.0	323.15	13178.2	930.5
323.15	15981.3	946.4	323.15	15053.9	941.4	323.15	14093.3	935.9	323.15	13165.2	930.4
323.15	15970.9	946.4	323.15	15043.3	941.3	323.14	14080.6	935.9	323.15	13151.3	930.3
323.14	15960.6	946.3	323.15	15031.3	941.3	323.14	14066.9	935.8	323.15	13137.7	930.2
323.14	15950.2	946.3	323.15	15019.1	941.2	323.14	14054.5	935.7	323.15	13125.7	930.2
323.14	15940.8	946.3	323.15	15007.3	941.1	323.15	14042.7	935.6	323.14	13112.6	930.1
323.14	15931.3	946.2	323.15	14995.5	941.1	323.14	14030.7	935.6	323.14	13099.4	930.0
323.14	15920.1	946.1	323.15	14984.8	941.0	323.14	14018.4	935.5	323.15	13086.2	930.0
323.15	15908.6	946.1	323.14	14973.4	941.0	323.14	14005.8	935.4	323.14	13074.2	929.8
323.15	15896.3	946.0	323.15	14961.9	940.9	323.14	13993.6	935.4	323.15	13061.8	929.8
323.15	15883.5	945.9	323.15	14951.1	940.8	323.14	13980.9	935.3	323.15	13050.1	929.7
323.15	15872.1	945.9	323.15	14939.6	940.8	323.14	13968.7	935.2	323.15	13037.9	929.6
323.15	15862.1	945.8	323.14	14928.4	940.7	323.14	13956.4	935.2	323.15	13025.7	929.6
323.15	15851.5	945.7	323.15	14917.7	940.6	323.14	13944.2	935.1	323.15	13014.8	929.5
323.15	15839.8	945.7	323.15	14906.0	940.6	323.14	13932.5	935.0	323.14	13003.6	929.4
323.15	15827.4	945.6	323.15	14894.3	940.5	323.15	13920.7	934.9	323.14	12991.6	929.3
323.15	15816.2	945.6	323.15	14881.3	940.4	323.14	13908.1	934.9	323.15	12979.9	929.3
323.14	15804.7	945.5	323.15	14867.9	940.3	323.14	13896.5	934.8	323.15	12966.9	929.2
323.14	15791.5	945.5	323.15	14854.9	940.3	323.15	13884.5	934.7	323.15	12954.8	929.1
323.15	15779.5	945.4	323.15	14842.7	940.3	323.15	13870.8	934.7	323.15	12944.5	929.1
323.15	15767.6	945.3	323.15	14830.9	940.1	323.15	13858.2	934.6	323.15	12932.5	929.0
323.15	15754.9	945.3	323.15	14817.9	940.1	323.15	13844.5	934.5	323.15	12919.8	928.9
323.15	15740.5	945.2	323.14	14805.3	940.0	323.15	13830.6	934.4	323.15	12907.8	928.8
323.15	15729.4	945.1	323.14	14792.8	940.0	323.14	13818.8	934.4	323.14	12895.4	928.8
323.15	15715.3	945.0	323.14	14781.7	939.9	323.14	13805.2	934.3	323.15	12883.7	928.7
323.15	15703.1	945.0	323.15	14769.3	939.8	323.14	13794.7	934.2	323.14	12872.7	928.6
323.14	15689.5	944.9	323.15	14756.3	939.7	323.14	13783.1	934.1	323.14	12859.8	928.5
323.15	15675.6	944.8	323.15	14744.9	939.7	323.14	13771.7	934.0	323.14	12848.0	928.5
323.14	15662.4	944.8	323.15	14733.3	939.6	323.14	13760.6	934.0	323.14	12835.9	928.4
323.14	15649.6	944.7	323.15	14723.5	939.6	323.14	13749.7	933.9	323.15	12826.1	928.3
323.15	15638.6	944.7	323.15	14713.6	939.5	323.14	13738.8	933.9	323.14	12814.5	928.2
323.14	15628.0	944.5	323.15	14701.1	939.4	323.15	13727.4	933.8	323.14	12802.9	928.2
323.15	15615.8	944.5	323.15	14687.4	939.3	323.15	13716.1	933.8	323.14	12791.1	928.1
323.14	15604.9	944.4	323.14	14675.2	939.3	323.15	13704.4	933.6	323.14	12778.9	928.1
323.14	15592.2	944.3	323.14	14661.6	939.2	323.15	13691.7	933.6	323.14	12767.4	928.0
323.15	15580.9	944.3	323.14	14647.7	939.1	323.15	13679.6	933.5	323.14	12756.2	927.9
323.14	15568.7	944.3	323.14	14634.8	939.0	323.15	13666.5	933.5	323.14	12744.4	927.8
323.15	15556.9	944.1	323.15	14622.6	939.0	323.14	13654.0	933.3	323.14	12733.1	927.7
323.15	15545.7	944.1	323.15	14609.4	938.9	323.14	13642.0	933.3	323.14	12721.5	927.7
323.15	15532.6	944.0	323.15	14596.9	938.8	323.14	13630.1	933.2	323.15	12710.4	927.6
323.15	15520.2	944.0	323.15	14585.4	938.8	323.14	13617.9	933.2	323.14	12699.9	927.6
323.15	15507.6	943.9	323.15	14572.8	938.7	323.15	13606.3	933.0	323.14	12689.4	927.5
323.15	15495.4	943.8	323.14	14560.2	938.6	323.15	13593.7	933.0	323.14	12677.4	927.4

Valori della densità del fluido R32 _ *T*=50°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
323.14	12665.4	927.3	323.14	11704.5	921.2	323.14	10816.3	915.1	323.15	9898.9	908.5
323.14	12654.2	927.3	323.14	11691.6	921.1	323.14	10803.3	915.1	323.14	9887.0	908.4
323.14	12642.7	927.2	323.14	11679.1	921.0	323.14	10790.6	914.9	323.14	9874.9	908.4
323.14	12630.8	927.1	323.14	11666.3	920.9	323.14	10778.4	914.8	323.14	9862.9	908.2
323.14	12617.8	927.1	323.14	11653.4	920.8	323.14	10765.8	914.7	323.14	9851.7	908.2
323.14	12604.9	927.0	323.14	11640.7	920.7	323.14	10753.8	914.7	323.15	9839.6	908.1
323.14	12593.1	926.9	323.14	11627.4	920.7	323.14	10742.4	914.6	323.14	9827.9	908.0
323.14	12580.3	926.8	323.14	11615.1	920.6	323.15	10731.0	914.5	323.14	9817.2	907.9
323.14	12568.6	926.7	323.14	11601.8	920.5	323.15	10720.7	914.4	323.15	9805.1	907.8
323.14	12557.6	926.7	323.14	11589.1	920.4	323.14	10709.0	914.4	323.14	9794.3	907.7
323.14	12546.3	926.6	323.14	11577.0	920.3	323.14	10696.8	914.3	323.14	9783.3	907.7
323.14	12535.6	926.5	323.14	11564.2	920.2	323.14	10684.6	914.2	323.14	9771.2	907.6
323.14	12524.5	926.4	323.14	11552.1	920.1	323.14	10673.2	914.1	323.14	9760.7	907.5
323.14	12514.6	926.4	323.14	11540.3	920.1	323.14	10662.4	914.0	323.14	9748.6	907.4
323.14	12503.0	926.3	323.14	11529.5	920.0	323.14	10650.0	913.9	323.14	9737.8	907.3
323.14	12489.6	926.2	323.14	11518.3	919.9	323.14	10637.9	913.9	323.14	9726.7	907.2
323.14	12477.6	926.2	323.14	11508.8	919.9	323.15	10626.9	913.8	323.14	9714.5	907.1
323.14	12463.5	926.1	323.14	11498.0	919.8	323.15	10614.5	913.7	323.14	9703.3	907.1
323.14	12451.6	926.0	323.14	11487.8	919.7	323.15	10603.0	913.6	323.14	9691.9	907.0
323.14	12439.9	926.0	323.14	11476.3	919.6	323.15	10590.2	913.5	323.14	9680.6	906.9
323.14	12427.7	925.8	323.15	11466.3	919.6	323.14	10578.0	913.4	323.14	9671.0	906.8
323.14	12416.2	925.8	323.14	11455.0	919.5	323.14	10565.4	913.3	323.14	9658.4	906.7
323.14	12403.3	925.7	323.15	11445.7	919.4	323.14	10551.4	913.3	323.14	9647.3	906.6
323.14	12390.8	925.6	323.15	11435.9	919.4	323.14	10540.5	913.2	323.14	9636.3	906.5
323.14	12378.5	925.5	323.15	11425.1	919.3	323.14	10528.1	913.1	323.14	9624.4	906.5
323.14	12366.5	925.4	323.14	11414.7	919.2	323.15	10516.2	913.0	323.14	9612.9	906.4
323.14	12355.0	925.4	323.14	11403.8	919.1	323.14	10505.4	912.9	323.14	9601.2	906.3
323.14	12343.3	925.3	323.15	11392.5	919.1	323.14	10493.9	912.8	323.14	9590.1	906.2
323.14	12332.1	925.2	323.14	11380.6	919.0	323.14	10482.3	912.8	323.14	9579.6	906.1
323.14	12319.3	925.1	323.14	11369.3	918.9	323.14	10471.0	912.7	323.14	9568.8	906.0
323.14	12308.1	925.1	323.14	11357.7	918.8	323.14	10458.8	912.6	323.14	9557.5	905.9
323.14	12296.4	925.0	323.14	11344.3	918.7	323.14	10446.7	912.5	323.14	9545.8	905.9
323.14	12285.6	925.0	323.14	11332.9	918.7	323.14	10434.8	912.4	323.14	9533.9	905.8
323.14	12275.3	924.8	323.14	11320.6	918.6	323.14	10424.3	912.3	323.14	9522.4	905.7
323.14	12263.9	924.8	323.14	11309.0	918.5	323.14	10412.6	912.3	323.14	9510.8	905.6
323.14	12252.6	924.7	323.14	11298.0	918.4	323.14	10400.7	912.2	323.14	9498.4	905.5
323.14	12240.7	924.7	323.14	11286.5	918.4	323.14	10389.7	912.1	323.14	9487.5	905.4
323.14	12229.5	924.5	323.14	11275.0	918.3	323.15	10378.8	912.0	323.14	9475.8	905.4
323.14	12216.0	924.5	323.15	11263.1	918.2	323.15	10367.6	912.0	323.14	9464.4	905.3
323.14	12203.8	924.4	323.14	11249.5	918.1	323.15	10356.4	911.8	323.14	9453.5	905.2
323.14	12190.5	924.3	323.14	11235.8	918.0	323.15	10344.4	911.8	323.14	9442.2	905.1
323.14	12177.5	924.2	323.14	11225.0	917.9	323.14	10331.5	911.7	323.14	9430.6	905.0
323.14	12166.6	924.2	323.14	11215.1	917.9	323.15	10318.4	911.6	323.14	9419.8	904.9
323.15	12155.1	924.1	323.14	11205.5	917.8	323.15	10307.6	911.5	323.14	9408.2	904.8
323.15	12143.1	924.0	323.14	11197.2	917.8	323.15	10295.7	911.4	323.14	9395.8	904.8
323.15	12132.1	923.9	323.14	11187.9	917.7	323.15	10284.3	911.4	323.14	9384.1	904.6
323.14	12121.6	923.9	323.14	11178.5	917.6	323.15	10271.9	911.2	323.14	9373.4	904.5
323.15	12111.3	923.8	323.15	11168.0	917.5	323.15	10260.2	911.2	323.14	9360.8	904.4
323.14	12099.4	923.7	323.14	11157.3	917.4	323.14	10248.7	911.1	323.14	9348.8	904.4
323.14	12088.9	923.6	323.14	11146.1	917.4	323.14	10236.6	911.0	323.14	9337.7	904.3
323.14	12077.6	923.6	323.15	11135.8	917.3	323.14	10224.7	910.9	323.14	9326.3	904.2
323.14	12065.7	923.5	323.15	11125.5	917.3	323.14	10213.0	910.8	323.14	9315.5	904.1
323.14	12054.2	923.4	323.15	11114.1	917.2	323.14	10201.0	910.8	323.14	9305.2	904.0
323.14	12040.1	923.3	323.15	11103.3	917.1	323.14	10189.1	910.7	323.14	9293.9	903.9
323.15	12029.8	923.3	323.15	11093.0	917.0	323.14	10177.2	910.5	323.14	9283.6	903.8
323.15	12016.8	923.2	323.15	11082.3	917.0	323.15	10165.8	910.5	323.14	9272.2	903.8
323.14	12002.0	923.1	323.14	11073.2	916.9	323.15	10153.9	910.4	323.14	9260.7	903.7
323.14	11988.4	923.0	323.15	11060.4	916.8	323.14	10142.2	910.4	323.14	9249.1	903.6
323.14	11975.4	922.9	323.14	11050.3	916.7	323.14	10130.9	910.2	323.14	9236.9	903.5
323.14	11960.7	922.9	323.14	11037.4	916.6	323.15	10120.0	910.1	323.14	9224.3	903.4
323.14	11947.5	922.7	323.14	11026.6	916.5	323.15	10109.2	910.1	323.14	9213.5	903.3
323.14	11933.7	922.7	323.15	11013.8	916.5	323.14	10097.5	910.0	323.14	9200.7	903.3
323.14	11921.6	922.6	323.14	11000.9	916.4	323.14	10085.9	909.9	323.14	9187.9	903.2
323.14	11908.4	922.5	323.15	10988.2	916.3	323.14	10074.4	909.8	323.14	9175.9	903.0
323.14	11895.3	922.4	323.14	10977.0	916.3	323.14	10063.5	909.7	323.14	9162.8	902.9
323.14	11880.7	922.3	323.15	10965.5	916.2	323.15	10051.6	909.7	323.14	9150.7	902.9
323.14	11866.6	922.2	323.15	10954.5	916.1	323.14	10039.9	909.6	323.14	9139.7	902.8
323.15	11854.6	922.1	323.15	10943.3	916.0	323.14	10028.6	909.5	323.14	9128.3	902.7
323.14	11838.8	922.0	323.14	10932.7	915.9	323.14	10017.4	909.4	323.14	9115.6	902.5
323.14	11825.9	921.9	323.14	10920.4	915.8	323.14	10005.5	909.3	323.14	9101.9	902.4
323.14	11812.1	921.8	323.14	10908.5	915.7	323.14	9992.2	909.3	323.14	9089.2	902.4
323.14	11797.9	921.8	323.14	10897.5	915.7	323.14	9979.1	909.1	323.14	9077.1	902.3
323.14	11785.7	921.7	323.14	10886.8	915.6	323.15	9966.9	909.0	323.14	9064.3	902.2
323.14	11772.4	921.6	323.14	10875.5	915.5	323.15	9954.5	908.9	323.14	9050.9	902.1
323.14	11759.5	921.5	323.14	10864.3	915.5	323.15	9943.0	908.9	323.14	9038.3	902.0
323.14	11744.4	921.4	323.14	10852.7	915.3	323.15	9932.6	908.8	323.14	9025.9	901.9
323.14	11731.1	921.3	323.14	10840.9	915.3	323.15	9921.1	908.7	323.14	9013.8	901.8
323.15	11718.2	921.2	323.14	10829.3	915.2	323.15	9909.9	908.6	323.14	9002.3	901.7

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
323.14	8991.8	901.6	323.14	8049.4	893.9	323.14	7150.3	885.9	323.15	6290.9	877.7
323.14	8980.4	901.5	323.14	8036.6	893.8	323.14	7139.4	885.8	323.15	6278.6	877.5
323.14	8969.2	901.4	323.14	8021.1	893.7	323.14	7129.5	885.7	323.15	6267.5	877.4
323.14	8957.8	901.4	323.14	8006.4	893.6	323.14	7119.5	885.6	323.15	6255.4	877.3
323.14	8946.4	901.3	323.14	7992.5	893.4	323.14	7108.3	885.5	323.15	6244.2	877.1
323.14	8935.3	901.2	323.14	7979.0	893.4	323.14	7098.3	885.4	323.15	6233.6	877.1
323.14	8924.4	901.0	323.14	7964.7	893.2	323.14	7087.6	885.4	323.15	6221.2	877.0
323.14	8913.3	901.0	323.14	7950.5	893.1	323.14	7077.0	885.2	323.15	6208.2	876.8
323.14	8902.7	900.9	323.14	7937.1	893.0	323.14	7066.7	885.2	323.15	6196.8	876.7
323.14	8891.9	900.8	323.14	7923.6	892.8	323.14	7055.6	885.1	323.15	6185.7	876.6
323.14	8881.1	900.7	323.14	7910.1	892.7	323.14	7045.3	884.9	323.15	6174.8	876.5
323.14	8869.5	900.6	323.14	7897.6	892.6	323.14	7034.4	884.8	323.15	6163.1	876.4
323.14	8858.7	900.6	323.14	7884.8	892.4	323.15	7023.8	884.7	323.16	6151.7	876.2
323.14	8847.3	900.4	323.14	7871.7	892.4	323.14	7013.7	884.7	323.16	6140.4	876.1
323.14	8835.7	900.3	323.14	7858.9	892.3	323.14	7002.3	884.6	323.15	6129.5	876.0
323.14	8824.0	900.3	323.14	7846.8	892.2	323.14	6991.2	884.4	323.15	6119.3	875.9
323.15	8812.5	900.2	323.14	7833.9	892.1	323.14	6979.0	884.3	323.15	6106.9	875.9
323.14	8801.6	900.1	323.14	7823.3	892.0	323.14	6968.7	884.2	323.15	6096.4	875.7
323.14	8789.9	900.0	323.14	7811.3	891.9	323.14	6956.8	884.1	323.15	6085.1	875.6
323.14	8779.0	899.9	323.14	7800.2	891.8	323.14	6944.9	884.0	323.15	6072.8	875.4
323.14	8767.3	899.8	323.14	7788.7	891.7	323.14	6933.2	883.9	323.15	6061.9	875.4
323.14	8757.1	899.7	323.14	7776.6	891.6	323.14	6921.8	883.8	323.15	6052.3	875.2
323.14	8745.7	899.6	323.14	7765.9	891.5	323.14	6911.2	883.7	323.15	6040.5	875.1
323.14	8735.9	899.5	323.14	7754.8	891.4	323.14	6900.9	883.6	323.15	6029.3	875.0
323.14	8724.2	899.4	323.14	7743.4	891.3	323.14	6890.3	883.5	323.15	6016.1	874.9
323.14	8713.3	899.4	323.14	7732.4	891.2	323.15	6880.1	883.4	323.15	6003.0	874.7
323.14	8702.3	899.2	323.14	7720.5	891.1	323.14	6869.9	883.3	323.15	5991.6	874.6
323.14	8690.9	899.2	323.14	7709.3	890.9	323.14	6857.9	883.2	323.15	5980.7	874.5
323.14	8680.4	899.1	323.14	7698.9	890.8	323.14	6845.9	883.1	323.15	5968.8	874.4
323.14	8669.0	899.0	323.14	7688.9	890.8	323.14	6833.9	883.0	323.15	5957.7	874.3
323.14	8658.1	898.9	323.14	7678.4	890.7	323.14	6822.3	882.8	323.15	5947.9	874.1
323.14	8646.9	898.8	323.14	7666.3	890.6	323.14	6811.2	882.7	323.15	5937.3	874.0
323.14	8635.4	898.7	323.14	7653.7	890.5	323.14	6799.0	882.6	323.15	5926.1	873.9
323.14	8624.8	898.6	323.14	7642.3	890.4	323.14	6787.4	882.5	323.15	5913.8	873.8
323.14	8613.8	898.6	323.14	7630.0	890.2	323.14	6776.3	882.4	323.15	5902.9	873.7
323.14	8602.9	898.5	323.14	7616.4	890.1	323.14	6764.9	882.3	323.15	5891.8	873.6
323.14	8592.6	898.4	323.14	7604.1	890.0	323.14	6754.2	882.2	323.15	5881.3	873.5
323.14	8582.1	898.3	323.14	7592.7	889.9	323.14	6742.1	882.1	323.15	5870.6	873.3
323.14	8571.0	898.2	323.14	7583.1	889.8	323.14	6730.2	882.0	323.15	5859.0	873.2
323.14	8560.0	898.2	323.14	7572.4	889.7	323.14	6718.3	881.8	323.15	5849.1	873.1
323.14	8548.8	898.0	323.14	7561.1	889.6	323.14	6706.7	881.7	323.15	5837.7	873.0
323.14	8537.8	897.9	323.14	7550.8	889.6	323.14	6695.1	881.6	323.15	5827.2	872.9
323.14	8525.5	897.8	323.14	7540.8	889.5	323.14	6683.7	881.5	323.15	5815.9	872.8
323.14	8513.8	897.8	323.14	7528.7	889.4	323.14	6672.2	881.4	323.15	5805.7	872.7
323.14	8501.2	897.7	323.14	7518.2	889.2	323.14	6661.1	881.3	323.15	5794.1	872.6
323.14	8490.0	897.6	323.14	7507.5	889.1	323.14	6650.5	881.2	323.15	5783.1	872.4
323.14	8478.9	897.5	323.14	7497.8	889.0	323.14	6639.5	881.1	323.15	5772.5	872.3
323.14	8467.9	897.4	323.14	7487.3	889.0	323.14	6627.4	881.0	323.15	5762.3	872.2
323.14	8455.8	897.3	323.14	7477.8	888.9	323.14	6616.5	880.9	323.15	5751.8	872.0
323.14	8444.1	897.2	323.14	7467.2	888.8	323.14	6604.7	880.8	323.15	5739.9	871.9
323.14	8433.5	897.1	323.14	7456.5	888.7	323.14	6592.8	880.7	323.15	5727.4	871.9
323.14	8421.1	897.0	323.14	7445.8	888.6	323.14	6581.6	880.6	323.15	5716.8	871.7
323.14	8409.9	896.9	323.14	7435.5	888.5	323.14	6570.0	880.4	323.15	5705.1	871.6
323.14	8399.0	896.8	323.14	7423.4	888.4	323.14	6559.7	880.3	323.15	5692.5	871.5
323.14	8387.3	896.7	323.14	7412.7	888.3	323.14	6548.6	880.2	323.15	5682.4	871.4
323.14	8374.5	896.6	323.14	7403.0	888.2	323.14	6537.2	880.1	323.15	5671.4	871.2
323.14	8362.0	896.5	323.14	7391.1	888.1	323.14	6526.3	880.0	323.15	5659.9	871.1
323.14	8349.4	896.4	323.14	7379.9	888.0	323.14	6515.6	879.9	323.15	5649.1	871.0
323.14	8335.0	896.3	323.14	7369.7	887.9	323.14	6504.7	879.8	323.15	5637.3	870.9
323.14	8321.2	896.1	323.14	7361.0	887.8	323.14	6493.8	879.7	323.15	5625.0	870.7
323.14	8307.5	896.1	323.14	7350.4	887.8	323.14	6481.7	879.6	323.15	5613.8	870.7
323.14	8293.2	895.9	323.14	7339.2	887.6	323.14	6470.5	879.4	323.15	5604.4	870.5
323.14	8279.6	895.8	323.14	7328.3	887.5	323.14	6460.3	879.4	323.15	5593.0	870.4
323.14	8264.7	895.7	323.14	7317.8	887.4	323.14	6449.6	879.3	323.15	5580.9	870.3
323.14	8250.1	895.6	323.14	7307.2	887.4	323.14	6438.4	879.1	323.15	5569.3	870.1
323.14	8236.4	895.5	323.14	7296.5	887.2	323.14	6427.0	879.0	323.15	5557.0	870.0
323.14	8222.5	895.3	323.14	7285.0	887.1	323.14	6416.6	878.9	323.15	5545.6	869.9
323.14	8207.1	895.2	323.14	7273.1	887.0	323.14	6406.9	878.8	323.15	5534.9	869.7
323.14	8192.4	895.1	323.14	7262.5	887.0	323.14	6396.0	878.7	323.15	5523.1	869.6
323.14	8177.3	895.0	323.14	7252.2	886.8	323.14	6385.0	878.6	323.15	5510.7	869.5
323.14	8161.9	894.9	323.14	7241.5	886.7	323.14	6375.7	878.5	323.15	5499.3	869.4
323.14	8147.6	894.7	323.14	7229.5	886.7	323.14	6363.6	878.4	323.15	5488.7	869.3
323.14	8133.6	894.6	323.15	7218.6	886.6	323.14	6351.7	878.3	323.15	5477.7	869.2
323.14	8119.6	894.5	323.14	7206.2	886.4	323.14	6341.7	878.2	323.15	5467.5	869.0
323.14	8106.5	894.4	323.14	7195.3	886.3	323.15	6330.8	878.1	323.15	5456.6	868.9
323.14	8092.0	894.3	323.14	7184.6	886.2	323.15	6319.9	878.0	323.15	5445.1	868.8
323.14	8078.1	894.2	323.14	7172.9	886.1	323.15	6309.4	877.8	323.15	5433.0	868.7
323.14	8063.7	894.1	323.14	7162.0	886.0	323.15	6300.4	877.8	323.15	5422.7	868.5

Valori della densità del fluido R32 _ *T*=50°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
323.15	5410.4	868.4	323.15	4903.1	862.6	323.15	4379.3	856.2	323.15	3878.4	849.7
323.15	5400.2	868.2	323.15	4891.8	862.4	323.15	4369.0	856.1	323.15	3867.3	849.4
323.15	5388.9	868.1	323.15	4879.4	862.4	323.15	4357.9	856.0	323.15	3856.7	849.3
323.15	5377.9	868.0	323.15	4866.9	862.2	323.15	4347.4	855.8	323.15	3846.7	849.2
323.15	5367.4	867.9	323.15	4855.3	862.0	323.15	4336.8	855.7	323.15	3836.1	849.0
323.15	5356.2	867.8	323.15	4843.6	861.9	323.15	4326.4	855.6	323.15	3825.0	848.9
323.15	5344.3	867.7	323.15	4831.4	861.8	323.15	4316.0	855.4	323.15	3815.0	848.8
323.15	5333.5	867.5	323.15	4820.5	861.6	323.15	4305.8	855.3	323.15	3804.7	848.6
323.15	5322.6	867.4	323.15	4808.6	861.5	323.15	4295.4	855.1	323.15	3794.0	848.5
323.15	5311.4	867.3	323.15	4798.0	861.4	323.15	4285.6	855.0	323.15	3782.1	848.2
323.15	5300.2	867.2	323.15	4786.4	861.2	323.15	4275.0	854.9	323.15	3771.5	848.2
323.15	5289.9	867.1	323.15	4775.2	861.1	323.15	4263.7	854.7	323.15	3761.1	848.0
323.15	5278.9	866.9	323.15	4764.1	860.9	323.15	4253.2	854.6	323.15	3750.9	847.8
323.15	5268.2	866.8	323.15	4753.6	860.8	323.15	4243.3	854.5	323.15	3739.8	847.7
323.15	5257.4	866.7	323.15	4743.0	860.7	323.15	4233.3	854.3	323.15	3728.7	847.5
323.15	5246.0	866.5	323.15	4732.8	860.5	323.15	4222.0	854.2	323.15	3717.3	847.4
323.15	5236.7	866.5	323.15	4722.0	860.5	323.15	4211.3	854.0	323.15	3705.8	847.2
323.15	5223.4	866.3	323.15	4709.7	860.3	323.15	4200.2	853.9	323.15	3694.4	847.1
323.15	5211.8	866.2	323.15	4698.5	860.1	323.15	4188.9	853.7	323.15	3683.3	847.0
323.15	5200.2	866.0	323.15	4687.1	860.1	323.15	4178.0	853.6	323.15	3671.9	846.7
323.15	5189.5	865.9	323.15	4676.3	859.9	323.15	4166.6	853.5	323.15	3661.1	846.6
323.15	5177.9	865.8	323.16	4665.6	859.8	323.15	4155.5	853.3	323.15	3651.6	846.5
323.15	5167.0	865.7	323.15	4654.0	859.6	323.15	4145.6	853.2	323.15	3640.7	846.3
323.15	5155.6	865.5	323.16	4641.7	859.5	323.15	4135.4	853.0	323.15	3629.1	846.1
323.15	5144.3	865.4	323.15	4630.1	859.3	323.15	4124.2	852.9	323.15	3617.5	845.9
323.15	5132.7	865.3	323.15	4619.6	859.2	323.16	4113.1	852.7	323.15	3606.7	845.8
323.15	5121.5	865.1	323.15	4608.7	859.1	323.15	4101.0	852.6	323.15	3595.6	845.7
323.15	5111.1	865.0	323.15	4597.2	858.9	323.15	4090.0	852.5	323.15	3585.1	845.5
323.15	5100.0	864.9	323.15	4585.8	858.8	323.15	4079.1	852.3	323.15	3574.1	845.3
323.15	5089.6	864.8	323.15	4575.1	858.7	323.15	4069.3	852.2	323.15	3563.9	845.2
323.15	5078.9	864.7	323.15	4562.8	858.5	323.15	4058.9	852.0	323.15	3553.0	845.0
323.15	5067.3	864.5	323.15	4552.1	858.4	323.15	4047.1	852.0	323.15	3542.3	844.9
323.15	5056.2	864.4	323.15	4539.8	858.2	323.15	4037.6	851.7	323.15	3530.6	844.7
323.15	5044.5	864.3	323.15	4528.3	858.1	323.15	4026.8	851.6	323.15	3519.9	844.6
323.15	5033.9	864.1	323.15	4516.4	857.9	323.15	4016.1	851.5	323.15	3508.8	844.4
323.15	5022.1	864.0	323.15	4504.6	857.8	323.15	4005.4	851.4	323.15	3498.4	844.2
323.15	5011.3	863.9	323.15	4492.7	857.6	323.15	3993.6	851.2	323.15	3487.3	844.1
323.15	5000.5	863.7	323.15	4481.6	857.5	323.15	3983.4	851.1	323.14	3477.6	843.9
323.15	4989.6	863.6	323.15	4470.2	857.3	323.15	3971.6	850.9	323.15	3467.0	843.8
323.15	4978.0	863.5	323.15	4458.9	857.2	323.15	3961.2	850.8	323.15	3456.1	843.6
323.15	4968.3	863.3	323.15	4447.1	857.1	323.15	3947.8	850.6			
323.15	4956.6	863.2	323.15	4435.7	856.9	323.15	3936.2	850.4			
323.15	4946.2	863.1	323.15	4425.2	856.8	323.15	3923.6	850.2			
323.15	4936.3	863.0	323.15	4414.4	856.6	323.15	3911.6	850.1			
323.15	4924.9	862.9	323.15	4402.5	856.5	323.15	3900.2	849.9			
323.15	4914.2	862.8	323.15	4390.9	856.3	323.15	3889.1	849.8			

Tabella D6: Valori della densità del fluido R32 per T = 333.15 K (60°C)

T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]
333.15	35002.8	995.9	333.15	34114.5	993.0	333.15	33231.1	989.9	333.15	32338.0	986.7
333.15	34990.9	995.9	333.15	34101.7	992.9	333.15	33218.9	989.8	333.15	32327.5	986.7
333.15	34979.6	995.9	333.15	34088.6	992.9	333.15	33205.4	989.8	333.15	32316.1	986.6
333.15	34968.5	995.8	333.16	34076.8	992.8	333.15	33192.6	989.7	333.15	32303.6	986.6
333.16	34958.1	995.8	333.15	34064.9	992.8	333.15	33181.4	989.7	333.15	32292.3	986.5
333.16	34946.1	995.8	333.15	34052.6	992.7	333.15	33169.2	989.6	333.15	32280.5	986.5
333.15	34935.9	995.7	333.15	34041.3	992.7	333.15	33157.2	989.6	333.15	32268.5	986.4
333.15	34925.1	995.7	333.15	34029.4	992.6	333.15	33145.5	989.6	333.15	32255.7	986.4
333.15	34914.0	995.6	333.15	34018.8	992.6	333.15	33133.0	989.5	333.15	32243.6	986.4
333.15	34903.6	995.6	333.15	34007.0	992.6	333.15	33120.5	989.5	333.15	32229.8	986.3
333.15	34894.4	995.6	333.15	33995.2	992.6	333.15	33109.4	989.5	333.15	32216.1	986.2
333.15	34884.5	995.6	333.15	33983.1	992.5	333.15	33096.2	989.4	333.15	32202.4	986.2
333.15	34873.7	995.5	333.15	33971.0	992.4	333.15	33082.6	989.3	333.15	32190.9	986.2
333.15	34862.4	995.5	333.15	33958.8	992.5	333.15	33068.3	989.3	333.15	32178.4	986.1
333.15	34852.2	995.4	333.15	33947.2	992.4	333.15	33055.0	989.2	333.15	32165.8	986.1
333.15	34840.2	995.4	333.15	33935.3	992.3	333.15	33041.7	989.2	333.15	32153.1	986.0
333.15	34827.9	995.4	333.15	33923.9	992.3	333.15	33028.3	989.1	333.15	32140.4	986.0
333.15	34815.4	995.3	333.15	33910.9	992.2	333.15	33015.9	989.1	333.15	32127.0	986.0
333.15	34802.8	995.3	333.15	33899.6	992.2	333.15	33001.2	989.1	333.15	32115.0	985.9
333.15	34791.5	995.3	333.14	33887.9	992.2	333.15	32988.1	989.0	333.15	32103.7	985.8
333.15	34780.0	995.2	333.14	33875.8	992.1	333.15	32975.5	989.0	333.15	32091.7	985.9
333.15	34767.0	995.2	333.15	33864.4	992.1	333.15	32964.7	988.9	333.15	32080.2	985.8
333.15	34755.4	995.1	333.15	33852.9	992.1	333.15	32952.4	988.9	333.15	32069.0	985.7
333.15	34742.9	995.1	333.15	33842.7	992.0	333.15	32940.1	988.8	333.15	32057.4	985.7
333.15	34732.1	995.1	333.15	33831.6	992.0	333.15	32928.4	988.8	333.15	32046.1	985.6
333.15	34720.1	995.0	333.15	33820.5	991.9	333.15	32917.5	988.8	333.15	32033.6	985.6
333.15	34707.6	995.0	333.15	33810.9	991.9	333.15	32905.7	988.7	333.15	32021.6	985.6
333.15	34694.3	994.9	333.15	33800.8	991.9	333.15	32895.4	988.7	333.15	32007.8	985.6
333.15	34681.1	994.9	333.15	33789.4	991.8	333.15	32884.6	988.7	333.15	31994.6	985.5
333.15	34670.4	994.8	333.15	33777.9	991.8	333.15	32873.9	988.6	333.15	31981.5	985.4
333.15	34656.4	994.8	333.15	33765.9	991.7	333.15	32862.4	988.6	333.15	31969.2	985.4
333.15	34644.0	994.7	333.15	33754.1	991.7	333.15	32851.1	988.5	333.15	31955.8	985.3
333.15	34631.4	994.7	333.15	33740.9	991.7	333.15	32841.2	988.5	333.15	31942.5	985.3
333.15	34619.6	994.7	333.15	33726.8	991.6	333.15	32830.5	988.5	333.15	31929.0	985.2
333.15	34606.6	994.6	333.15	33714.6	991.6	333.15	32818.9	988.4	333.15	31915.1	985.2
333.15	34593.7	994.6	333.15	33702.8	991.5	333.15	32808.2	988.4	333.15	31900.8	985.1
333.15	34581.4	994.6	333.15	33690.5	991.5	333.15	32797.1	988.4	333.15	31887.0	985.1
333.15	34568.5	994.5	333.15	33679.5	991.4	333.15	32786.4	988.3	333.15	31873.9	985.0
333.15	34554.4	994.4	333.15	33669.5	991.4	333.15	32776.3	988.3	333.15	31861.0	985.0
333.15	34540.7	994.4	333.15	33658.0	991.4	333.15	32765.1	988.2	333.15	31847.4	984.9
333.15	34528.8	994.4	333.15	33646.8	991.3	333.15	32753.2	988.2	333.15	31835.2	984.9
333.15	34515.5	994.3	333.15	33635.2	991.3	333.15	32742.1	988.2	333.15	31822.3	984.8
333.15	34503.2	994.2	333.15	33623.3	991.2	333.15	32730.4	988.1	333.15	31809.7	984.8
333.15	34490.3	994.2	333.15	33611.6	991.2	333.15	32718.3	988.1	333.15	31797.9	984.7
333.15	34476.9	994.1	333.15	33600.3	991.2	333.15	32705.8	988.0	333.15	31784.2	984.7
333.15	34463.8	994.1	333.15	33588.6	991.1	333.15	32694.1	988.0	333.15	31771.8	984.6
333.15	34450.9	994.1	333.15	33576.4	991.1	333.15	32682.0	987.9	333.15	31759.6	984.6
333.16	34439.4	994.0	333.15	33565.5	991.1	333.15	32669.8	987.9	333.15	31748.1	984.6
333.15	34426.7	994.0	333.15	33552.4	991.0	333.15	32657.9	987.8	333.15	31736.2	984.5
333.15	34413.7	994.0	333.15	33539.4	991.0	333.15	32646.3	987.8	333.15	31725.4	984.5
333.15	34402.3	994.0	333.15	33527.1	990.9	333.15	32633.8	987.8	333.15	31713.2	984.4
333.15	34389.8	993.9	333.15	33514.1	990.9	333.15	32621.0	987.7	333.15	31701.4	984.4
333.15	34376.9	993.8	333.15	33501.9	990.8	333.15	32610.3	987.7	333.15	31689.3	984.4
333.15	34364.1	993.8	333.15	33490.6	990.8	333.15	32598.3	987.6	333.15	31678.4	984.3
333.15	34351.2	993.8	333.15	33478.6	990.8	333.15	32587.8	987.6	333.15	31667.3	984.2
333.15	34338.1	993.7	333.15	33468.1	990.7	333.15	32575.8	987.5	333.15	31655.3	984.2
333.15	34325.7	993.7	333.15	33456.2	990.7	333.15	32565.5	987.5	333.15	31642.8	984.2
333.15	34314.6	993.7	333.15	33445.3	990.6	333.15	32554.4	987.5	333.15	31631.0	984.2
333.15	34304.3	993.6	333.15	33434.3	990.6	333.15	32541.7	987.4	333.15	31619.4	984.1
333.15	34293.6	993.6	333.15	33423.6	990.5	333.15	32529.5	987.4	333.15	31608.8	984.0
333.15	34284.2	993.6	333.15	33413.2	990.5	333.15	32517.0	987.3	333.15	31597.5	984.0
333.15	34274.5	993.5	333.15	33402.6	990.4	333.15	32505.9	987.3	333.15	31586.3	984.0
333.15	34263.0	993.4	333.15	33391.7	990.5	333.15	32495.5	987.3	333.15	31576.3	984.0
333.15	34250.5	993.4	333.15	33379.9	990.4	333.15	32483.7	987.2	333.15	31564.6	983.9
333.15	34239.1	993.4	333.15	33368.6	990.3	333.15	32472.1	987.2	333.15	31553.3	983.9
333.15	34228.8	993.3	333.15	33357.7	990.3	333.15	32459.4	987.2	333.15	31541.6	983.8
333.15	34218.7	993.3	333.15	33345.5	990.2	333.15	32446.4	987.1	333.15	31528.9	983.8
333.15	34208.0	993.3	333.15	33332.7	990.2	333.15	32433.8	987.0	333.15	31516.4	983.7
333.15	34197.7	993.2	333.15	33320.6	990.2	333.15	32421.5	987.0	333.15	31503.4	983.7
333.15	34186.9	993.2	333.15	33307.3	990.1	333.15	32408.2	987.0	333.15	31490.9	983.6
333.15	34176.1	993.2	333.15	33295.1	990.1	333.15	32395.5	986.9	333.15	31478.8	983.6
333.15	34163.7	993.1	333.15	33282.7	990.1	333.15	32383.5	986.9	333.15	31466.8	983.6
333.15	34151.4	993.1	333.15	33269.6	990.0	333.15	32370.7	986.8	333.15	31453.1	983.5
333.15	34139.1	993.0	333.15	33256.8	990.0	333.15	32360.8	986.8	333.15	31441.9	983.4
333.15	34126.5	993.0	333.15	33244.2	989.9	333.15	32349.3	986.7	333.15	31429.8	983.4

Valori della densità del fluido R32_*T*=60°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
333.15	31416.8	983.4	333.15	30480.9	979.9	333.15	29534.2	976.3	333.15	28613.4	972.7
333.15	31405.5	983.3	333.15	30467.7	979.8	333.15	29521.7	976.3	333.15	28601.2	972.6
333.15	31393.1	983.3	333.15	30455.8	979.8	333.15	29508.3	976.2	333.15	28589.0	972.6
333.15	31381.0	983.3	333.15	30442.7	979.7	333.15	29497.3	976.2	333.15	28577.5	972.5
333.15	31369.2	983.2	333.15	30431.0	979.7	333.15	29484.4	976.1	333.15	28565.9	972.5
333.15	31357.5	983.2	333.15	30418.9	979.7	333.15	29471.6	976.0	333.15	28554.5	972.4
333.15	31344.8	983.1	333.15	30407.4	979.6	333.15	29459.1	976.0	333.15	28542.1	972.4
333.15	31332.1	983.1	333.15	30395.2	979.6	333.15	29446.4	975.9	333.15	28529.8	972.3
333.15	31320.7	983.0	333.15	30383.2	979.5	333.15	29433.7	975.9	333.15	28518.9	972.3
333.15	31308.6	982.9	333.15	30371.4	979.5	333.15	29421.6	975.8	333.15	28506.9	972.2
333.15	31296.2	982.9	333.15	30357.7	979.4	333.15	29408.3	975.8	333.15	28493.5	972.2
333.15	31284.3	982.9	333.15	30344.5	979.4	333.15	29394.0	975.8	333.15	28480.5	972.2
333.15	31273.1	982.8	333.15	30332.2	979.3	333.15	29380.2	975.7	333.15	28469.6	972.1
333.15	31261.0	982.8	333.15	30318.7	979.3	333.15	29366.8	975.7	333.15	28457.5	972.1
333.15	31248.3	982.7	333.15	30306.3	979.2	333.15	29353.6	975.6	333.15	28446.1	972.1
333.15	31236.3	982.7	333.15	30295.2	979.2	333.15	29340.9	975.5	333.15	28434.1	972.0
333.15	31224.6	982.7	333.15	30282.7	979.1	333.15	29329.2	975.5	333.15	28422.5	972.0
333.15	31212.0	982.6	333.15	30270.5	979.1	333.15	29316.7	975.4	333.15	28410.7	971.9
333.15	31200.3	982.6	333.15	30259.2	979.0	333.14	29304.7	975.4	333.15	28398.0	971.8
333.15	31187.6	982.5	333.15	30247.0	979.0	333.15	29292.2	975.4	333.15	28385.2	971.8
333.15	31174.5	982.5	333.15	30233.6	979.0	333.14	29280.6	975.3	333.15	28372.8	971.7
333.15	31161.3	982.4	333.15	30221.5	978.9	333.15	29268.2	975.3	333.15	28361.1	971.7
333.15	31148.5	982.4	333.15	30208.8	978.9	333.15	29257.1	975.2	333.15	28349.1	971.6
333.15	31135.8	982.3	333.15	30196.6	978.8	333.15	29245.2	975.1	333.15	28336.5	971.6
333.15	31122.8	982.3	333.15	30184.3	978.7	333.15	29233.9	975.1	333.15	28324.7	971.5
333.15	31109.0	982.2	333.15	30173.5	978.7	333.15	29221.7	975.1	333.15	28312.3	971.5
333.15	31095.6	982.2	333.15	30160.7	978.6	333.15	29209.7	975.0	333.15	28299.5	971.4
333.15	31083.8	982.2	333.15	30148.1	978.6	333.15	29197.7	975.0	333.15	28288.2	971.4
333.15	31071.8	982.1	333.15	30135.6	978.6	333.15	29184.9	974.9	333.15	28278.3	971.3
333.15	31060.4	982.1	333.15	30123.4	978.5	333.15	29174.2	974.9	333.15	28267.0	971.3
333.15	31047.7	982.0	333.15	30110.7	978.5	333.14	29161.8	974.8	333.15	28254.7	971.2
333.15	31035.5	982.0	333.15	30099.1	978.4	333.14	29148.5	974.8	333.14	28243.5	971.2
333.15	31023.4	981.9	333.15	30087.3	978.4	333.14	29136.7	974.7	333.14	28232.0	971.2
333.15	31010.7	981.9	333.15	30076.6	978.4	333.15	29126.8	974.7	333.15	28220.2	971.2
333.15	30998.9	981.8	333.15	30063.9	978.3	333.14	29115.8	974.6	333.14	28209.1	971.1
333.15	30986.5	981.8	333.15	30052.8	978.3	333.15	29103.8	974.6	333.14	28196.4	971.0
333.15	30973.4	981.7	333.15	30042.2	978.2	333.15	29091.9	974.6	333.15	28184.0	971.0
333.15	30960.8	981.7	333.15	30032.5	978.2	333.15	29080.2	974.5	333.15	28171.7	970.9
333.15	30948.1	981.6	333.15	30020.8	978.1	333.15	29068.0	974.5	333.15	28160.4	970.9
333.15	30936.4	981.6	333.15	30010.3	978.1	333.15	29055.2	974.5	333.15	28149.8	970.8
333.15	30925.2	981.5	333.15	30000.2	978.1	333.15	29040.6	974.4	333.15	28138.0	970.8
333.15	30911.9	981.5	333.15	29988.2	978.0	333.14	29027.1	974.3	333.15	28123.8	970.7
333.15	30899.2	981.4	333.15	29975.4	978.0	333.15	29014.9	974.2	333.15	28112.8	970.7
333.15	30887.9	981.4	333.15	29962.7	977.9	333.14	29000.8	974.2	333.15	28100.5	970.6
333.15	30874.8	981.4	333.15	29949.8	977.9	333.14	28988.3	974.2	333.14	28087.6	970.6
333.15	30863.4	981.3	333.15	29937.9	977.8	333.14	28976.3	974.1	333.15	28075.8	970.6
333.15	30851.4	981.3	333.15	29926.3	977.8	333.15	28965.3	974.1	333.15	28064.3	970.5
333.15	30838.4	981.2	333.15	29914.6	977.7	333.15	28954.4	974.0	333.15	28053.0	970.4
333.15	30826.9	981.1	333.15	29903.7	977.7	333.15	28942.1	974.0	333.15	28042.2	970.4
333.15	30813.9	981.1	333.15	29891.5	977.6	333.15	28930.2	973.9	333.15	28032.2	970.4
333.15	30802.6	981.0	333.15	29881.1	977.6	333.15	28919.6	973.9	333.15	28021.5	970.3
333.15	30792.4	981.0	333.15	29869.3	977.6	333.15	28908.7	973.8	333.15	28010.0	970.3
333.15	30783.0	981.0	333.15	29857.8	977.5	333.15	28898.7	973.8	333.14	27999.0	970.3
333.15	30771.0	981.0	333.15	29845.6	977.5	333.14	28888.6	973.7	333.14	27989.5	970.2
333.15	30760.3	980.9	333.15	29834.4	977.4	333.14	28878.6	973.8	333.14	27980.6	970.2
333.15	30749.7	980.9	333.15	29823.1	977.4	333.14	28868.1	973.7	333.14	27970.0	970.1
333.15	30738.1	980.9	333.15	29811.9	977.4	333.14	28858.5	973.6	333.14	27958.8	970.1
333.15	30727.2	980.8	333.15	29800.3	977.3	333.15	28846.6	973.6	333.15	27949.2	970.0
333.15	30716.5	980.8	333.15	29788.3	977.3	333.15	28834.5	973.6	333.15	27938.0	970.0
333.15	30704.6	980.7	333.15	29776.8	977.2	333.15	28822.7	973.5	333.15	27925.8	969.9
333.15	30694.2	980.7	333.15	29766.6	977.2	333.15	28810.0	973.4	333.15	27914.0	969.9
333.15	30683.5	980.6	333.15	29754.8	977.1	333.15	28798.7	973.4	333.15	27902.3	969.8
333.15	30671.0	980.6	333.15	29743.1	977.1	333.15	28786.3	973.4	333.15	27891.7	969.8
333.15	30660.7	980.6	333.15	29730.6	977.0	333.15	28774.4	973.3	333.15	27879.6	969.8
333.15	30648.9	980.5	333.15	29716.7	976.9	333.15	28762.8	973.3	333.15	27867.2	969.7
333.15	30637.0	980.4	333.15	29703.9	976.9	333.15	28751.4	973.2	333.15	27856.1	969.7
333.15	30624.8	980.4	333.15	29690.7	976.9	333.15	28740.3	973.2	333.15	27844.6	969.6
333.15	30613.2	980.4	333.15	29678.1	976.9	333.14	28730.1	973.1	333.15	27833.1	969.6
333.15	30600.7	980.3	333.15	29664.6	976.8	333.14	28719.1	973.1	333.15	27821.4	969.5
333.15	30588.9	980.3	333.15	29651.6	976.7	333.15	28708.4	973.1	333.15	27810.0	969.5
333.15	30576.7	980.3	333.15	29638.1	976.7	333.15	28698.6	973.0	333.15	27799.4	969.4
333.15	30565.2	980.2	333.15	29624.7	976.6	333.15	28689.3	973.0	333.15	27787.0	969.4
333.15	30553.7	980.2	333.15	29611.0	976.6	333.15	28679.1	973.0	333.15	27775.8	969.3
333.15	30542.5	980.1	333.15	29598.7	976.5	333.15	28667.3	972.9	333.15	27762.7	969.3
333.15	30531.0	980.0	333.15	29585.6	976.5	333.15	28656.9	972.9	333.15	27752.3	969.2
333.15	30519.1	980.0	333.15	29571.7	976.4	333.15	28646.6	972.8	333.15	27740.2	969.2
333.15	30506.6	980.0	333.15	29558.9	976.4	333.15	28635.1	972.8	333.15	27728.5	969.1
333.15	30492.5	979.9	333.15	29546.0	976.4	333.15	28624.6	972.8	333.15	27717.0	969.1

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
333.15	27706.0	969.1	333.15	26825.0	965.4	333.15	25904.0	961.6	333.15	24998.1	957.6
333.15	27695.1	969.0	333.15	26811.8	965.4	333.15	25891.5	961.5	333.15	24986.2	957.6
333.15	27685.8	969.0	333.15	26798.5	965.3	333.15	25879.5	961.4	333.15	24975.5	957.5
333.15	27675.1	968.9	333.15	26786.4	965.3	333.15	25868.7	961.4	333.15	24964.1	957.4
333.15	27663.7	968.9	333.15	26775.3	965.2	333.15	25856.7	961.4	333.15	24951.4	957.4
333.15	27653.4	968.8	333.15	26764.4	965.2	333.15	25845.7	961.3	333.15	24939.1	957.3
333.15	27643.6	968.8	333.15	26752.9	965.2	333.15	25833.7	961.3	333.15	24928.1	957.3
333.15	27633.4	968.8	333.15	26741.2	965.1	333.15	25822.2	961.2	333.15	24916.0	957.2
333.15	27623.4	968.7	333.15	26729.1	965.0	333.15	25809.9	961.2	333.15	24904.6	957.2
333.15	27611.9	968.7	333.15	26717.6	965.0	333.15	25799.4	961.1	333.15	24893.4	957.1
333.15	27600.3	968.6	333.14	26705.4	964.9	333.15	25788.4	961.1	333.15	24882.7	957.1
333.15	27589.5	968.6	333.14	26693.6	964.9	333.15	25776.7	961.0	333.15	24871.7	957.0
333.15	27577.5	968.5	333.15	26680.6	964.8	333.15	25766.3	960.9	333.15	24861.0	957.0
333.15	27565.6	968.5	333.15	26667.7	964.8	333.15	25754.6	960.9	333.15	24851.1	957.0
333.15	27553.7	968.4	333.15	26654.0	964.7	333.15	25744.4	960.9	333.15	24839.0	956.9
333.15	27542.6	968.4	333.15	26641.9	964.7	333.15	25733.2	960.8	333.15	24827.3	956.9
333.15	27533.4	968.4	333.15	26630.3	964.6	333.15	25723.0	960.7	333.15	24816.8	956.8
333.15	27522.8	968.3	333.15	26617.5	964.6	333.15	25712.7	960.7	333.15	24804.9	956.8
333.15	27510.5	968.3	333.15	26606.3	964.5	333.15	25702.1	960.6	333.15	24792.3	956.7
333.15	27499.4	968.2	333.15	26594.6	964.5	333.15	25691.3	960.6	333.15	24781.3	956.6
333.15	27488.4	968.1	333.15	26582.5	964.4	333.15	25679.9	960.6	333.15	24770.9	956.6
333.15	27477.9	968.1	333.15	26570.7	964.3	333.15	25669.4	960.5	333.14	24758.5	956.6
333.15	27466.8	968.1	333.15	26559.4	964.3	333.15	25658.5	960.5	333.14	24748.2	956.5
333.15	27455.1	968.0	333.15	26546.3	964.3	333.15	25647.1	960.4	333.15	24737.3	956.5
333.15	27443.7	968.0	333.15	26534.2	964.2	333.15	25635.2	960.4	333.14	24725.0	956.4
333.15	27432.1	967.9	333.15	26523.1	964.1	333.15	25624.0	960.3	333.14	24712.6	956.3
333.15	27421.2	967.9	333.15	26510.6	964.1	333.15	25613.8	960.3	333.14	24701.6	956.3
333.15	27409.4	967.8	333.15	26498.2	964.1	333.15	25601.6	960.2	333.14	24690.1	956.3
333.15	27396.7	967.8	333.15	26484.8	964.0	333.15	25590.9	960.2	333.15	24679.3	956.2
333.15	27385.4	967.8	333.15	26472.7	963.9	333.15	25579.3	960.1	333.15	24668.8	956.1
333.14	27374.2	967.7	333.15	26461.2	963.9	333.15	25566.8	960.1	333.15	24657.6	956.1
333.15	27362.7	967.6	333.15	26448.8	963.8	333.15	25554.7	960.1	333.15	24646.9	956.0
333.15	27352.6	967.6	333.15	26435.5	963.8	333.15	25544.3	960.0	333.15	24636.9	956.0
333.15	27342.0	967.6	333.15	26422.6	963.7	333.15	25532.8	959.9	333.15	24625.2	956.0
333.15	27330.7	967.5	333.15	26413.0	963.7	333.15	25520.9	959.9	333.15	24613.6	955.9
333.15	27318.8	967.5	333.15	26402.1	963.7	333.15	25508.7	959.9	333.15	24602.0	955.8
333.15	27305.6	967.4	333.15	26391.1	963.6	333.15	25497.3	959.8	333.15	24590.1	955.8
333.15	27293.2	967.4	333.15	26379.9	963.6	333.15	25485.4	959.8	333.15	24578.5	955.7
333.15	27281.5	967.3	333.15	26367.8	963.5	333.15	25474.0	959.7	333.15	24567.2	955.7
333.14	27269.0	967.3	333.15	26356.7	963.5	333.15	25460.8	959.7	333.15	24554.3	955.7
333.15	27256.6	967.2	333.15	26344.4	963.4	333.15	25447.7	959.6	333.15	24541.0	955.6
333.15	27244.5	967.2	333.14	26332.5	963.4	333.15	25435.1	959.5	333.15	24528.0	955.5
333.15	27232.5	967.1	333.14	26321.8	963.3	333.15	25422.0	959.5	333.15	24514.1	955.5
333.15	27222.1	967.1	333.14	26309.2	963.3	333.15	25410.4	959.4	333.15	24502.0	955.4
333.15	27211.0	967.0	333.14	26297.5	963.2	333.15	25398.1	959.4	333.15	24489.2	955.4
333.15	27199.2	967.0	333.15	26285.3	963.2	333.14	25386.7	959.3	333.15	24476.5	955.4
333.15	27189.6	966.9	333.15	26272.9	963.1	333.14	25375.0	959.3	333.15	24465.5	955.3
333.15	27179.0	966.9	333.15	26262.1	963.1	333.15	25362.4	959.2	333.15	24454.6	955.2
333.15	27167.7	966.8	333.15	26250.0	963.0	333.15	25351.3	959.2	333.15	24442.9	955.1
333.15	27156.3	966.8	333.15	26238.5	963.0	333.15	25339.1	959.1	333.15	24432.2	955.1
333.14	27146.7	966.8	333.15	26227.4	962.9	333.15	25326.6	959.0	333.15	24421.2	955.1
333.15	27134.8	966.7	333.15	26215.9	962.8	333.15	25314.2	959.0	333.15	24409.6	955.0
333.15	27123.7	966.7	333.14	26203.7	962.8	333.15	25301.8	958.9	333.15	24398.0	954.9
333.15	27111.3	966.6	333.14	26190.2	962.8	333.15	25289.4	958.9	333.15	24386.6	954.9
333.15	27098.3	966.6	333.14	26179.0	962.7	333.15	25278.9	958.9	333.15	24375.0	954.9
333.15	27085.7	966.5	333.15	26169.0	962.7	333.15	25267.2	958.8	333.15	24363.8	954.8
333.15	27074.2	966.5	333.15	26156.8	962.6	333.15	25255.5	958.8	333.15	24352.3	954.7
333.15	27062.7	966.4	333.15	26146.0	962.6	333.15	25243.9	958.7	333.15	24340.7	954.7
333.15	27052.3	966.4	333.15	26136.5	962.5	333.15	25232.2	958.6	333.15	24329.8	954.7
333.15	27042.2	966.3	333.15	26125.1	962.5	333.15	25220.7	958.6	333.15	24318.0	954.6
333.14	27030.3	966.3	333.15	26114.2	962.4	333.15	25209.3	958.6	333.15	24306.4	954.6
333.14	27019.4	966.2	333.15	26101.7	962.4	333.15	25197.4	958.5	333.15	24295.2	954.5
333.14	27009.2	966.2	333.15	26088.2	962.3	333.15	25185.8	958.4	333.15	24283.9	954.4
333.14	26999.6	966.2	333.15	26076.2	962.3	333.15	25174.8	958.4	333.15	24272.2	954.4
333.15	26988.7	966.1	333.15	26064.1	962.2	333.15	25162.4	958.3	333.15	24261.0	954.3
333.15	26977.7	966.1	333.15	26052.2	962.2	333.15	25150.1	958.3	333.15	24249.3	954.3
333.15	26966.9	966.0	333.15	26039.0	962.1	333.15	25138.3	958.2	333.15	24237.5	954.2
333.15	26955.4	966.0	333.15	26027.1	962.1	333.15	25126.7	958.1	333.15	24224.6	954.2
333.15	26944.2	966.0	333.15	26014.1	962.0	333.15	25114.5	958.1	333.15	24211.9	954.1
333.15	26932.9	965.9	333.15	26002.8	961.9	333.15	25102.9	958.0	333.15	24200.5	954.1
333.15	26921.5	965.8	333.15	25991.0	961.9	333.15	25091.1	958.0	333.15	24187.7	954.0
333.15	26911.3	965.8	333.15	25980.1	961.8	333.15	25078.5	958.0	333.15	24174.4	953.9
333.15	26899.5	965.7	333.15	25970.6	961.8	333.15	25066.7	957.9	333.15	24161.4	953.9
333.15	26887.4	965.7	333.15	25960.9	961.8	333.15	25054.7	957.8	333.15	24147.8	953.8
333.15	26875.4	965.6	333.15	25950.2	961.8	333.15	25043.6	957.8	333.15	24135.7	953.8
333.15	26862.0	965.6	333.14	25937.9	961.7	333.15	25032.6	957.8	333.15	24124.0	953.7
333.15	26848.6	965.5	333.15	25926.3	961.6	333.15	25021.4	957.7	333.15	24112.2	953.6
333.15	26837.6	965.5	333.15	25916.4	961.6	333.15	25010.0	957.7	333.15	24102.3	953.6

Valori della densità del fluido R32_*T*=60°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
333.15	24090.1	953.5	333.15	23163.4	949.3	333.15	22248.7	944.9	333.14	21316.4	940.4
333.15	24077.3	953.5	333.15	23152.0	949.2	333.15	22236.9	944.9	333.15	21304.2	940.3
333.15	24065.3	953.5	333.15	23139.7	949.2	333.15	22225.7	944.9	333.15	21292.6	940.2
333.14	24052.5	953.4	333.15	23128.0	949.2	333.15	22214.1	944.8	333.15	21280.5	940.2
333.15	24039.2	953.3	333.15	23117.3	949.1	333.15	22201.8	944.7	333.15	21269.6	940.1
333.15	24026.8	953.3	333.15	23104.8	949.0	333.15	22190.4	944.7	333.15	21260.1	940.1
333.15	24015.2	953.2	333.15	23092.1	949.0	333.15	22177.0	944.6	333.15	21247.1	940.0
333.15	24003.7	953.2	333.15	23081.0	948.9	333.15	22164.6	944.5	333.15	21235.5	939.9
333.15	23992.1	953.1	333.15	23069.8	948.9	333.15	22152.3	944.5	333.15	21223.6	939.9
333.15	23980.1	953.0	333.15	23058.0	948.8	333.15	22139.8	944.4	333.15	21211.6	939.8
333.14	23968.0	953.0	333.15	23047.1	948.7	333.15	22127.2	944.3	333.15	21200.1	939.8
333.14	23956.7	952.9	333.15	23035.6	948.6	333.15	22114.1	944.3	333.15	21188.4	939.7
333.14	23944.5	952.9	333.15	23022.9	948.6	333.15	22102.3	944.2	333.15	21176.3	939.6
333.14	23932.3	952.8	333.15	23009.7	948.6	333.15	22090.3	944.2	333.15	21165.9	939.6
333.14	23919.7	952.8	333.15	22996.6	948.5	333.15	22078.3	944.2	333.15	21154.7	939.5
333.14	23907.4	952.7	333.15	22985.9	948.4	333.14	22066.9	944.1	333.15	21143.7	939.5
333.15	23895.2	952.7	333.15	22975.0	948.4	333.15	22054.5	944.0	333.15	21132.7	939.4
333.15	23883.8	952.6	333.15	22964.0	948.4	333.15	22043.6	944.0	333.15	21120.1	939.3
333.15	23871.7	952.6	333.15	22954.4	948.3	333.15	22032.8	943.9	333.15	21106.3	939.3
333.15	23861.2	952.5	333.15	22943.4	948.3	333.15	22019.9	943.8	333.15	21093.7	939.2
333.15	23848.2	952.4	333.15	22931.1	948.2	333.15	22008.5	943.8	333.15	21081.1	939.2
333.15	23835.7	952.4	333.15	22919.6	948.2	333.15	21996.9	943.7	333.15	21067.8	939.1
333.14	23822.8	952.3	333.15	22908.3	948.1	333.15	21985.3	943.6	333.15	21054.8	939.1
333.14	23810.3	952.3	333.15	22897.9	948.1	333.15	21972.9	943.6	333.15	21041.8	938.9
333.15	23798.0	952.2	333.15	22888.0	948.0	333.15	21959.4	943.5	333.15	21029.8	938.9
333.15	23786.3	952.1	333.15	22876.7	947.9	333.15	21946.8	943.5	333.15	21016.6	938.8
333.15	23775.5	952.1	333.15	22865.3	947.9	333.15	21934.2	943.4	333.15	21003.8	938.8
333.15	23762.7	952.1	333.15	22853.7	947.9	333.14	21921.2	943.3	333.15	20991.4	938.7
333.15	23750.8	952.1	333.15	22843.5	947.7	333.15	21909.5	943.3	333.14	20979.5	938.7
333.15	23739.7	951.9	333.15	22832.4	947.7	333.15	21896.7	943.3	333.15	20968.4	938.6
333.15	23727.5	951.8	333.15	22820.8	947.7	333.15	21885.1	943.2	333.15	20956.1	938.5
333.15	23715.1	951.8	333.15	22809.9	947.6	333.15	21872.5	943.1	333.15	20944.5	938.5
333.15	23705.2	951.8	333.15	22798.6	947.6	333.15	21861.2	943.1	333.15	20933.4	938.4
333.14	23693.1	951.8	333.15	22787.8	947.5	333.15	21849.6	943.0	333.15	20920.2	938.3
333.15	23681.0	951.7	333.15	22776.2	947.5	333.15	21837.2	943.0	333.15	20907.2	938.3
333.15	23669.1	951.6	333.15	22766.0	947.4	333.15	21823.5	942.9	333.15	20892.2	938.2
333.15	23656.7	951.6	333.15	22754.5	947.4	333.15	21811.5	942.8	333.15	20878.7	938.2
333.15	23644.8	951.5	333.15	22743.5	947.3	333.15	21799.3	942.8	333.14	20865.6	938.1
333.15	23633.5	951.5	333.15	22731.4	947.2	333.15	21787.0	942.7	333.14	20851.6	938.0
333.15	23621.5	951.4	333.15	22719.2	947.2	333.15	21775.9	942.7	333.14	20838.5	937.9
333.15	23610.4	951.3	333.15	22706.7	947.1	333.15	21765.4	942.6	333.14	20825.7	937.9
333.15	23598.6	951.3	333.15	22696.7	947.1	333.15	21753.8	942.5	333.15	20811.8	937.8
333.15	23587.1	951.3	333.15	22684.1	947.0	333.15	21743.2	942.5	333.15	20797.6	937.7
333.15	23575.5	951.2	333.15	22672.7	946.9	333.15	21732.3	942.4	333.15	20783.6	937.7
333.15	23563.2	951.1	333.15	22660.6	946.9	333.15	21720.3	942.4	333.15	20769.7	937.6
333.15	23552.0	951.1	333.15	22647.8	946.9	333.15	21708.1	942.3	333.15	20756.6	937.5
333.15	23539.2	951.0	333.15	22636.9	946.8	333.15	21695.5	942.2	333.14	20744.2	937.5
333.15	23525.4	951.0	333.15	22624.4	946.7	333.14	21683.4	942.2	333.14	20731.3	937.4
333.15	23513.9	950.9	333.15	22611.7	946.7	333.15	21672.0	942.1	333.14	20717.2	937.3
333.15	23502.8	950.9	333.15	22599.2	946.6	333.15	21661.0	942.1	333.14	20704.5	937.3
333.15	23492.4	950.8	333.15	22586.1	946.5	333.15	21649.8	942.0	333.14	20690.9	937.2
333.15	23479.5	950.8	333.14	22573.5	946.5	333.15	21636.9	941.9	333.14	20678.1	937.1
333.15	23467.9	950.7	333.15	22561.9	946.4	333.15	21626.2	941.9	333.15	20666.3	937.0
333.15	23456.3	950.6	333.15	22548.9	946.4	333.15	21614.7	941.9	333.14	20654.2	937.0
333.15	23445.5	950.6	333.15	22534.7	946.3	333.15	21603.8	941.8	333.14	20642.7	936.9
333.15	23434.7	950.6	333.15	22522.3	946.2	333.15	21591.4	941.7	333.14	20631.6	936.9
333.15	23423.4	950.5	333.15	22510.8	946.2	333.15	21577.7	941.6	333.14	20619.5	936.8
333.15	23411.3	950.5	333.15	22498.2	946.1	333.15	21564.8	941.6	333.14	20607.7	936.7
333.15	23400.5	950.4	333.15	22486.0	946.1	333.15	21552.8	941.5	333.14	20596.2	936.7
333.15	23388.4	950.3	333.15	22473.6	946.0	333.15	21541.1	941.5	333.15	20584.9	936.7
333.15	23376.5	950.3	333.15	22461.2	945.9	333.15	21529.3	941.4	333.15	20572.8	936.6
333.15	23364.0	950.3	333.14	22449.3	945.9	333.15	21517.6	941.4	333.15	20561.7	936.5
333.15	23352.0	950.1	333.14	22437.8	945.8	333.15	21505.5	941.3	333.15	20548.9	936.5
333.15	23340.7	950.1	333.15	22425.7	945.8	333.15	21492.7	941.2	333.15	20536.5	936.4
333.15	23328.7	950.1	333.15	22413.2	945.7	333.15	21481.3	941.1	333.15	20524.2	936.3
333.15	23316.9	950.0	333.15	22401.9	945.7	333.15	21469.0	941.1	333.15	20510.9	936.2
333.15	23305.6	949.9	333.15	22389.2	945.6	333.15	21458.3	941.0	333.15	20499.1	936.2
333.15	23293.7	949.9	333.15	22377.0	945.5	333.15	21448.2	941.1	333.15	20486.3	936.1
333.15	23281.9	949.8	333.15	22363.2	945.5	333.15	21437.7	941.0	333.15	20473.8	936.1
333.15	23270.4	949.8	333.15	22350.9	945.4	333.15	21425.0	940.9	333.15	20462.9	936.0
333.15	23258.5	949.7	333.15	22339.5	945.4	333.15	21412.9	940.8	333.15	20450.8	935.9
333.15	23246.2	949.7	333.15	22328.1	945.3	333.15	21399.8	940.8	333.15	20438.8	935.9
333.15	23233.3	949.6	333.15	22315.1	945.2	333.15	21386.5	940.7	333.15	20427.6	935.8
333.15	23221.7	949.6	333.15	22303.5	945.2	333.15	21373.7	940.6	333.15	20415.4	935.7
333.15	23209.8	949.5	333.14	22291.8	945.1	333.15	21360.7	940.6	333.15	20403.6	935.7
333.15	23197.9	949.5	333.14	22281.0	945.1	333.14	21349.4	940.5	333.15	20393.5	935.6
333.15	23187.0	949.4	333.15	22270.2	945.0	333.14	21339.1	940.5	333.15	20381.4	935.6
333.15	23174.4	949.3	333.15	22260.5	945.0	333.15	21327.4	940.4	333.15	20370.5	935.6

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
333.14	20359.0	935.5	333.14	19390.9	930.3	333.15	18461.4	925.2	333.15	17556.0	920.0
333.14	20347.8	935.4	333.14	19378.1	930.3	333.15	18450.0	925.1	333.15	17543.2	919.9
333.15	20336.2	935.3	333.15	19364.4	930.2	333.14	18439.5	925.1	333.15	17531.9	919.8
333.15	20326.0	935.3	333.14	19351.9	930.1	333.14	18427.5	925.0	333.15	17519.7	919.8
333.15	20313.6	935.2	333.15	19340.3	930.1	333.15	18415.3	924.9	333.15	17508.1	919.7
333.15	20302.0	935.1	333.15	19327.7	930.0	333.14	18403.8	924.9	333.15	17497.0	919.7
333.15	20288.4	935.1	333.15	19315.4	929.9	333.14	18389.9	924.8	333.15	17485.9	919.6
333.15	20276.1	935.0	333.15	19305.1	929.9	333.14	18379.0	924.8	333.15	17474.7	919.5
333.15	20264.5	934.9	333.15	19293.2	929.8	333.14	18366.6	924.6	333.15	17463.6	919.4
333.15	20253.6	934.9	333.15	19280.2	929.8	333.15	18354.2	924.6	333.15	17453.4	919.3
333.15	20240.8	934.9	333.15	19267.2	929.7	333.15	18343.0	924.5	333.15	17443.3	919.3
333.15	20227.9	934.8	333.15	19253.9	929.6	333.15	18332.7	924.5	333.15	17432.3	919.3
333.15	20216.0	934.7	333.15	19241.3	929.5	333.15	18320.2	924.4	333.15	17421.5	919.2
333.15	20202.9	934.6	333.14	19229.8	929.5	333.15	18309.1	924.4	333.15	17411.7	919.2
333.15	20190.8	934.6	333.15	19218.6	929.4	333.15	18297.2	924.2	333.15	17399.7	919.1
333.15	20179.7	934.5	333.14	19207.1	929.4	333.15	18285.5	924.2	333.15	17387.7	919.0
333.15	20167.1	934.5	333.14	19195.0	929.2	333.15	18274.7	924.1	333.15	17374.3	918.9
333.15	20154.8	934.4	333.15	19182.8	929.2	333.15	18262.1	924.1	333.15	17361.3	918.8
333.15	20144.6	934.4	333.15	19169.5	929.1	333.15	18250.6	924.0	333.15	17349.9	918.8
333.15	20133.2	934.2	333.15	19156.9	929.1	333.15	18239.9	924.0	333.15	17337.6	918.7
333.15	20121.9	934.2	333.15	19144.4	928.9	333.15	18228.3	923.9	333.15	17325.9	918.6
333.15	20110.8	934.2	333.15	19131.0	928.9	333.15	18217.1	923.8	333.15	17312.6	918.6
333.15	20097.8	934.1	333.15	19117.8	928.8	333.15	18205.5	923.8	333.15	17301.4	918.5
333.15	20086.2	934.0	333.14	19104.7	928.8	333.15	18194.4	923.7	333.15	17291.0	918.4
333.15	20073.6	933.9	333.14	19091.8	928.7	333.15	18184.3	923.7	333.15	17279.4	918.3
333.15	20060.6	933.9	333.15	19080.0	928.6	333.15	18173.4	923.5	333.14	17268.1	918.3
333.15	20045.8	933.8	333.15	19068.3	928.6	333.15	18163.3	923.5	333.15	17256.2	918.2
333.15	20032.3	933.7	333.15	19056.3	928.5	333.15	18152.5	923.4	333.15	17244.3	918.1
333.15	20018.3	933.7	333.15	19043.8	928.4	333.15	18141.9	923.4	333.15	17232.8	918.1
333.15	20004.3	933.6	333.15	19032.5	928.4	333.15	18131.2	923.3	333.15	17221.7	918.0
333.15	19991.5	933.5	333.15	19020.4	928.3	333.15	18120.0	923.3	333.15	17209.6	918.0
333.15	19978.5	933.4	333.15	19008.5	928.2	333.15	18108.6	923.2	333.14	17196.9	917.9
333.15	19967.1	933.4	333.15	18996.7	928.2	333.15	18096.9	923.1	333.14	17185.1	917.8
333.15	19952.9	933.3	333.15	18984.9	928.1	333.15	18085.7	923.1	333.14	17175.0	917.7
333.15	19940.6	933.3	333.15	18973.2	928.1	333.15	18074.6	923.0	333.15	17163.0	917.7
333.15	19929.4	933.2	333.15	18962.0	928.0	333.15	18062.9	922.9	333.14	17152.4	917.6
333.15	19917.2	933.2	333.15	18949.9	927.9	333.15	18051.1	922.9	333.15	17142.3	917.5
333.15	19905.7	933.0	333.15	18937.2	927.8	333.15	18038.5	922.8	333.15	17131.2	917.5
333.14	19893.5	933.0	333.15	18924.3	927.8	333.15	18027.2	922.7	333.15	17119.9	917.4
333.15	19883.6	932.9	333.15	18911.8	927.7	333.15	18015.2	922.6	333.15	17109.2	917.3
333.15	19872.3	932.9	333.15	18899.9	927.7	333.15	18003.2	922.6	333.15	17097.9	917.3
333.15	19861.1	932.8	333.15	18888.2	927.6	333.14	17991.3	922.5	333.15	17087.2	917.2
333.15	19849.7	932.8	333.15	18876.0	927.5	333.14	17979.5	922.4	333.15	17076.7	917.1
333.15	19838.5	932.7	333.15	18864.1	927.4	333.14	17967.9	922.4	333.15	17065.7	917.0
333.15	19827.1	932.6	333.15	18851.6	927.4	333.15	17956.1	922.3	333.15	17054.7	917.0
333.15	19817.1	932.6	333.15	18839.3	927.3	333.15	17944.3	922.2	333.15	17043.6	916.9
333.15	19804.7	932.5	333.15	18828.2	927.3	333.15	17931.4	922.2	333.14	17032.4	916.9
333.15	19792.9	932.5	333.15	18816.6	927.2	333.15	17919.6	922.1	333.15	17022.2	916.8
333.15	19779.0	932.4	333.15	18805.8	927.1	333.15	17908.0	922.1	333.15	17010.7	916.7
333.14	19766.8	932.3	333.15	18794.7	927.0	333.15	17897.1	922.0	333.15	17000.3	916.7
333.15	19752.8	932.3	333.14	18781.5	927.0	333.15	17886.7	921.9	333.15	16989.0	916.6
333.14	19739.5	932.2	333.15	18769.2	926.9	333.15	17874.6	921.9	333.15	16977.3	916.5
333.14	19724.9	932.1	333.15	18756.7	926.8	333.15	17864.1	921.8	333.15	16967.2	916.5
333.15	19709.8	932.0	333.15	18746.0	926.8	333.15	17852.1	921.7	333.15	16957.1	916.4
333.15	19696.9	932.0	333.15	18735.6	926.7	333.15	17841.0	921.7	333.15	16945.3	916.3
333.15	19682.7	931.9	333.15	18723.1	926.7	333.15	17830.1	921.6	333.14	16933.4	916.3
333.15	19669.7	931.8	333.15	18711.0	926.6	333.15	17816.5	921.5	333.15	16920.0	916.2
333.15	19658.6	931.8	333.15	18700.8	926.6	333.15	17805.1	921.5	333.15	16906.6	916.2
333.15	19646.5	931.7	333.15	18688.5	926.5	333.15	17793.3	921.4	333.15	16893.8	916.0
333.15	19634.8	931.6	333.15	18677.3	926.4	333.15	17781.0	921.3	333.15	16881.0	916.0
333.15	19623.4	931.6	333.15	18666.8	926.3	333.15	17771.2	921.2	333.15	16870.0	915.9
333.15	19610.5	931.5	333.14	18656.2	926.3	333.15	17759.9	921.2	333.15	16858.9	915.8
333.14	19597.7	931.4	333.14	18645.0	926.3	333.15	17748.7	921.1	333.15	16846.7	915.8
333.14	19584.8	931.4	333.14	18634.0	926.2	333.15	17736.9	921.0	333.15	16835.3	915.7
333.14	19571.2	931.3	333.15	18622.7	926.1	333.15	17724.9	921.0	333.15	16824.8	915.6
333.14	19558.2	931.2	333.15	18610.9	926.0	333.15	17712.6	920.9	333.15	16814.2	915.6
333.14	19545.3	931.2	333.15	18598.3	926.0	333.15	17700.8	920.8	333.15	16804.1	915.5
333.15	19532.1	931.1	333.15	18585.4	925.9	333.15	17687.4	920.8	333.15	16793.8	915.4
333.15	19519.4	931.0	333.15	18574.0	925.9	333.15	17674.7	920.7	333.15	16784.0	915.4
333.15	19505.7	931.0	333.15	18562.7	925.8	333.14	17663.1	920.6	333.15	16773.1	915.3
333.15	19492.5	930.9	333.15	18551.1	925.7	333.15	17652.0	920.5	333.15	16763.2	915.3
333.15	19481.7	930.8	333.15	18539.8	925.6	333.15	17639.5	920.5	333.15	16754.1	915.2
333.15	19468.7	930.8	333.15	18528.4	925.6	333.15	17627.5	920.5	333.15	16743.0	915.1
333.15	19456.1	930.7	333.15	18516.4	925.5	333.15	17616.0	920.3	333.15	16732.2	915.1
333.15	19442.8	930.6	333.15	18506.0	925.4	333.15	17603.2	920.3	333.15	16721.5	915.0
333.15	19429.0	930.5	333.15	18494.1	925.4	333.15	17591.3	920.2	333.15	16708.7	914.9
333.15	19416.8	930.5	333.15	18482.6	925.3	333.15	17578.7	920.1	333.15	16695.0	914.8
333.15	19404.1	930.4	333.15	18472.5	925.3	333.15	17568.5	920.1	333.15	16681.3	914.7

Valori della densità del fluido R32_*T*=60°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
333.15	16668.3	914.7	333.15	15777.8	909.1	333.15	14863.6	903.0	333.15	13962.9	896.8
333.15	16657.2	914.6	333.15	15766.9	909.0	333.15	14851.4	903.0	333.15	13952.7	896.7
333.15	16643.2	914.5	333.15	15756.4	909.0	333.15	14838.7	902.9	333.15	13941.8	896.6
333.15	16631.2	914.4	333.15	15746.0	908.9	333.15	14827.4	902.8	333.15	13930.0	896.6
333.15	16618.4	914.4	333.15	15736.2	908.8	333.15	14814.9	902.7	333.15	13918.3	896.5
333.15	16605.5	914.3	333.15	15726.8	908.7	333.15	14803.4	902.6	333.15	13906.9	896.4
333.15	16594.0	914.2	333.15	15717.2	908.7	333.15	14790.9	902.6	333.15	13896.3	896.3
333.15	16583.9	914.1	333.15	15707.4	908.6	333.15	14778.9	902.5	333.15	13886.9	896.3
333.15	16572.8	914.1	333.15	15696.7	908.5	333.15	14766.2	902.4	333.15	13876.4	896.2
333.15	16561.3	914.0	333.15	15685.0	908.5	333.15	14755.4	902.3	333.15	13864.7	896.1
333.15	16550.2	913.9	333.15	15672.1	908.4	333.15	14745.1	902.2	333.15	13852.6	896.0
333.15	16538.4	913.8	333.15	15660.3	908.4	333.15	14734.5	902.2	333.15	13840.9	895.9
333.15	16528.1	913.8	333.15	15648.2	908.3	333.15	14722.3	902.1	333.15	13828.4	895.8
333.15	16517.2	913.7	333.15	15636.9	908.2	333.15	14712.2	902.0	333.15	13816.0	895.8
333.15	16505.5	913.7	333.15	15624.1	908.1	333.15	14702.1	902.0	333.15	13805.7	895.7
333.15	16494.5	913.6	333.15	15612.2	908.0	333.15	14690.7	901.9	333.15	13795.6	895.6
333.15	16481.9	913.5	333.15	15601.1	908.0	333.15	14678.7	901.8	333.15	13783.9	895.5
333.15	16471.8	913.4	333.15	15590.8	907.8	333.15	14666.4	901.7	333.15	13772.4	895.5
333.15	16460.1	913.4	333.15	15579.0	907.8	333.15	14654.2	901.6	333.15	13761.9	895.4
333.15	16449.0	913.3	333.15	15569.7	907.7	333.15	14643.6	901.6	333.15	13749.4	895.2
333.15	16438.2	913.3	333.15	15559.4	907.7	333.15	14632.8	901.5	333.15	13737.5	895.2
333.15	16427.4	913.2	333.15	15549.4	907.6	333.14	14620.0	901.4	333.15	13724.5	895.1
333.15	16414.6	913.1	333.15	15537.9	907.5	333.14	14608.4	901.3	333.15	13711.6	895.0
333.15	16403.6	913.0	333.15	15526.5	907.5	333.15	14597.1	901.2	333.15	13700.7	894.9
333.15	16392.2	912.9	333.15	15514.5	907.4	333.15	14588.4	901.2	333.15	13689.2	894.9
333.15	16379.8	912.9	333.15	15503.1	907.3	333.15	14577.4	901.1	333.15	13677.0	894.8
333.15	16368.4	912.8	333.15	15490.9	907.2	333.15	14566.8	901.1	333.15	13665.5	894.7
333.14	16355.7	912.7	333.15	15480.1	907.1	333.15	14555.6	900.9	333.15	13653.5	894.6
333.15	16343.9	912.6	333.15	15470.1	907.1	333.15	14543.1	900.9	333.15	13642.5	894.6
333.14	16331.9	912.6	333.15	15458.7	907.0	333.15	14532.8	900.8	333.15	13630.3	894.4
333.15	16320.4	912.5	333.15	15447.3	906.9	333.15	14521.3	900.7	333.15	13619.1	894.4
333.15	16309.6	912.4	333.15	15436.1	906.8	333.15	14509.0	900.6	333.15	13607.0	894.2
333.15	16298.5	912.4	333.15	15424.2	906.8	333.15	14497.3	900.6	333.15	13595.6	894.2
333.15	16287.0	912.3	333.15	15410.3	906.7	333.15	14486.4	900.5	333.15	13582.9	894.1
333.15	16275.7	912.2	333.15	15398.0	906.6	333.15	14475.5	900.4	333.15	13570.5	894.0
333.15	16264.4	912.2	333.15	15385.6	906.6	333.15	14464.3	900.4	333.15	13559.6	894.0
333.15	16253.8	912.1	333.15	15373.6	906.4	333.15	14453.4	900.3	333.15	13546.8	893.8
333.15	16243.0	912.0	333.15	15361.8	906.4	333.15	14440.8	900.2	333.15	13535.0	893.7
333.15	16232.5	912.0	333.15	15350.2	906.3	333.15	14427.3	900.1	333.15	13524.3	893.7
333.15	16222.1	911.9	333.15	15338.1	906.2	333.15	14414.4	900.0	333.15	13512.3	893.6
333.15	16212.0	911.9	333.15	15327.2	906.1	333.15	14401.7	899.9	333.15	13500.8	893.5
333.15	16201.0	911.8	333.15	15314.8	906.1	333.15	14389.8	899.8	333.15	13489.8	893.4
333.15	16189.9	911.6	333.15	15303.7	906.0	333.15	14377.5	899.7	333.15	13478.0	893.3
333.15	16179.2	911.6	333.15	15291.3	905.9	333.15	14365.3	899.7	333.15	13465.8	893.2
333.15	16167.7	911.6	333.15	15278.8	905.8	333.14	14353.3	899.6	333.15	13453.0	893.1
333.15	16155.8	911.5	333.15	15266.9	905.8	333.15	14343.2	899.5	333.15	13439.0	893.0
333.15	16144.5	911.4	333.15	15253.7	905.7	333.15	14331.5	899.4	333.15	13426.3	893.0
333.15	16133.0	911.3	333.15	15241.5	905.6	333.15	14320.6	899.4	333.15	13414.8	892.8
333.15	16121.6	911.3	333.15	15228.8	905.5	333.15	14308.2	899.3	333.15	13403.3	892.8
333.15	16109.4	911.2	333.15	15217.3	905.4	333.15	14297.1	899.2	333.15	13390.9	892.6
333.15	16096.2	911.1	333.15	15204.4	905.4	333.15	14284.2	899.1	333.15	13380.1	892.6
333.15	16083.3	911.0	333.15	15192.5	905.2	333.15	14272.7	899.0	333.15	13368.1	892.5
333.15	16070.0	910.9	333.15	15179.9	905.2	333.15	14261.5	898.9	333.15	13355.4	892.4
333.15	16057.7	910.9	333.15	15166.6	905.1	333.15	14249.5	898.8	333.15	13342.6	892.3
333.15	16045.0	910.8	333.15	15154.7	905.0	333.15	14238.4	898.8	333.15	13332.0	892.2
333.15	16032.3	910.7	333.15	15142.2	904.9	333.15	14226.9	898.7	333.15	13320.9	892.1
333.15	16019.6	910.6	333.15	15129.2	904.9	333.15	14215.7	898.6	333.15	13310.0	892.1
333.15	16008.1	910.5	333.15	15117.7	904.8	333.15	14204.5	898.5	333.15	13298.5	892.0
333.15	15995.6	910.5	333.15	15104.7	904.7	333.15	14192.9	898.5	333.15	13288.4	891.9
333.15	15985.2	910.4	333.15	15092.7	904.6	333.15	14182.6	898.4	333.15	13276.7	891.8
333.15	15972.8	910.3	333.15	15079.0	904.5	333.15	14171.6	898.3	333.15	13265.5	891.8
333.15	15961.2	910.3	333.15	15066.3	904.4	333.15	14160.8	898.3	333.15	13255.4	891.6
333.15	15949.2	910.1	333.15	15054.3	904.3	333.15	14149.1	898.1	333.15	13244.4	891.6
333.15	15938.4	910.1	333.15	15041.6	904.3	333.15	14138.0	898.1	333.15	13232.4	891.5
333.15	15926.8	910.0	333.15	15030.3	904.2	333.15	14127.5	898.0	333.14	13220.5	891.4
333.15	15914.8	909.9	333.15	15018.6	904.1	333.15	14116.6	897.9	333.15	13208.9	891.3
333.14	15905.3	909.9	333.15	15006.6	904.0	333.15	14105.0	897.8	333.14	13197.3	891.3
333.15	15895.5	909.8	333.15	14994.1	903.9	333.15	14093.7	897.8	333.14	13186.7	891.2
333.15	15885.5	909.7	333.15	14983.1	903.9	333.15	14082.2	897.6	333.14	13175.4	891.1
333.15	15876.4	909.7	333.15	14971.4	903.8	333.15	14070.0	897.6	333.15	13163.9	891.0
333.14	15865.6	909.6	333.15	14958.8	903.8	333.15	14058.8	897.5	333.15	13151.5	890.9
333.15	15855.0	909.6	333.15	14946.9	903.6	333.15	14046.2	897.4	333.15	13139.5	890.8
333.15	15844.5	909.5	333.15	14935.0	903.5	333.15	14032.6	897.3	333.15	13127.9	890.7
333.15	15833.1	909.4	333.15	14922.1	903.5	333.15	14021.1	897.2	333.15	13117.8	890.6
333.15	15821.9	909.3	333.15	14909.9	903.4	333.15	14008.9	897.1	333.15	13106.7	890.5
333.15	15811.9	909.3	333.15	14897.9	903.3	333.15	13996.7	897.1	333.15	13094.8	890.5
333.15	15800.5	909.2	333.15	14888.6	903.2	333.15	13986.1	897.0	333.15	13082.6	890.4
333.15	15789.0	909.1	333.15	14876.1	903.1	333.15	13974.5	896.9	333.14	13070.9	890.3

T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]
333.14	13058.6	890.2	333.15	12133.1	883.0	333.15	11224.3	875.4	333.14	10374.1	867.9
333.15	13048.6	890.2	333.15	12120.7	882.9	333.14	11213.1	875.3	333.14	10363.6	867.8
333.15	13036.2	890.0	333.14	12108.1	882.8	333.14	11201.2	875.2	333.15	10353.3	867.6
333.15	13023.7	889.9	333.14	12096.6	882.6	333.14	11190.5	875.1	333.15	10344.0	867.5
333.15	13011.3	889.9	333.14	12085.3	882.6	333.14	11178.5	875.1	333.15	10334.8	867.5
333.15	12999.0	889.8	333.15	12072.7	882.5	333.14	11167.7	874.9	333.15	10325.7	867.4
333.15	12986.8	889.7	333.15	12060.4	882.4	333.15	11155.6	874.9	333.15	10315.0	867.3
333.15	12974.9	889.6	333.15	12048.8	882.3	333.15	11143.1	874.8	333.15	10305.2	867.2
333.15	12962.9	889.5	333.15	12037.0	882.2	333.15	11132.0	874.7	333.14	10295.1	867.1
333.15	12951.6	889.4	333.15	12025.1	882.1	333.15	11121.4	874.5	333.14	10284.7	867.0
333.15	12941.3	889.3	333.15	12012.9	882.0	333.15	11110.4	874.5	333.14	10273.9	866.9
333.15	12930.1	889.2	333.15	12001.4	882.0	333.15	11098.1	874.4	333.15	10263.2	866.8
333.14	12918.4	889.1	333.15	11990.5	881.9	333.15	11087.2	874.2	333.15	10252.7	866.7
333.15	12906.9	889.1	333.14	11978.9	881.8	333.15	11076.1	874.1	333.15	10240.6	866.6
333.15	12895.0	889.0	333.14	11967.5	881.7	333.15	11066.3	874.0	333.15	10228.6	866.5
333.15	12882.8	888.9	333.15	11957.2	881.6	333.15	11055.3	874.0	333.15	10217.4	866.4
333.15	12868.7	888.8	333.15	11945.5	881.5	333.15	11045.0	873.9	333.15	10207.5	866.3
333.15	12856.7	888.7	333.15	11933.7	881.4	333.15	11034.1	873.8	333.15	10197.2	866.2
333.15	12846.4	888.6	333.15	11921.8	881.3	333.15	11024.2	873.7	333.15	10186.7	866.1
333.15	12835.7	888.5	333.15	11909.0	881.1	333.15	11014.0	873.6	333.15	10175.7	866.0
333.14	12823.2	888.4	333.15	11896.5	881.1	333.15	11002.5	873.5	333.15	10165.0	865.9
333.14	12814.8	888.3	333.15	11885.0	881.0	333.15	10992.0	873.4	333.15	10152.6	865.8
333.14	12804.7	888.2	333.15	11873.1	880.9	333.15	10980.8	873.3	333.15	10142.4	865.7
333.15	12794.5	888.2	333.15	11859.3	880.7	333.15	10969.1	873.2	333.15	10132.6	865.6
333.15	12783.9	888.1	333.15	11847.2	880.6	333.15	10957.7	873.1	333.15	10122.0	865.4
333.15	12772.5	888.0	333.15	11835.8	880.5	333.15	10946.0	873.0	333.15	10111.4	865.4
333.15	12761.4	887.9	333.14	11822.9	880.5	333.15	10934.0	872.9	333.15	10101.3	865.3
333.15	12749.7	887.8	333.14	11810.3	880.4	333.15	10923.3	872.8	333.15	10090.4	865.2
333.15	12738.0	887.7	333.15	11797.4	880.3	333.15	10912.1	872.7	333.14	10079.9	865.1
333.15	12726.2	887.6	333.15	11785.4	880.2	333.14	10902.1	872.6	333.15	10070.1	865.0
333.15	12714.3	887.6	333.15	11774.2	880.0	333.15	10892.3	872.5	333.15	10060.0	864.9
333.15	12704.6	887.5	333.15	11762.0	880.0	333.14	10880.6	872.4	333.15	10049.9	864.8
333.15	12692.4	887.4	333.15	11750.5	879.9	333.15	10868.9	872.4	333.15	10039.1	864.7
333.15	12681.8	887.3	333.15	11738.6	879.7	333.14	10858.2	872.2	333.15	10029.3	864.6
333.15	12670.4	887.2	333.14	11725.9	879.7	333.15	10847.4	872.1	333.15	10018.6	864.5
333.15	12658.2	887.1	333.14	11715.6	879.5	333.15	10836.4	872.1	333.15	10008.8	864.4
333.15	12645.3	887.0	333.15	11704.2	879.5	333.15	10826.7	871.9	333.15	9998.8	864.3
333.15	12633.8	886.9	333.15	11692.4	879.4	333.15	10816.4	871.9	333.15	9987.4	864.2
333.15	12620.9	886.8	333.15	11680.5	879.3	333.15	10805.7	871.8	333.15	9977.4	864.1
333.15	12608.7	886.8	333.15	11669.5	879.2	333.15	10794.2	871.7	333.15	9965.5	864.0
333.15	12597.6	886.6	333.15	11658.0	879.1	333.15	10783.9	871.6	333.15	9954.4	863.9
333.15	12586.1	886.5	333.15	11646.1	879.0	333.15	10773.6	871.4	333.15	9941.9	863.8
333.15	12574.0	886.5	333.15	11633.5	878.9	333.15	10762.0	871.4	333.15	9931.6	863.7
333.15	12563.0	886.4	333.15	11621.3	878.8	333.14	10752.5	871.3	333.15	9921.4	863.6
333.15	12552.6	886.3	333.15	11609.5	878.7	333.14	10742.2	871.2	333.15	9911.3	863.5
333.15	12541.0	886.2	333.14	11598.4	878.6	333.14	10730.3	871.1	333.15	9900.8	863.4
333.15	12528.1	886.1	333.14	11586.6	878.5	333.14	10719.3	871.0	333.15	9891.3	863.3
333.15	12517.8	886.0	333.14	11575.9	878.4	333.15	10709.8	870.9	333.15	9881.3	863.2
333.15	12504.9	885.9	333.14	11563.8	878.3	333.15	10700.0	870.8	333.15	9870.4	863.0
333.15	12491.0	885.8	333.14	11551.6	878.2	333.15	10688.8	870.7	333.14	9859.9	863.0
333.14	12477.5	885.7	333.14	11541.3	878.1	333.15	10678.2	870.6	333.14	9850.8	862.9
333.14	12465.7	885.6	333.14	11529.5	878.0	333.15	10667.1	870.5	333.14	9841.7	862.8
333.15	12452.3	885.5	333.14	11518.2	877.9	333.15	10655.8	870.4	333.14	9830.5	862.7
333.15	12438.6	885.4	333.14	11507.4	877.8	333.15	10643.6	870.3	333.15	9819.8	862.5
333.15	12425.8	885.3	333.14	11495.9	877.8	333.15	10632.4	870.2	333.15	9807.9	862.5
333.15	12412.6	885.2	333.14	11484.0	877.6	333.14	10619.8	870.1	333.15	9797.7	862.4
333.15	12398.8	885.1	333.15	11473.0	877.5	333.14	10609.3	870.0	333.15	9786.6	862.3
333.15	12386.8	885.0	333.14	11460.6	877.5	333.15	10598.9	869.9	333.15	9775.3	862.2
333.15	12375.1	884.9	333.14	11450.1	877.3	333.15	10586.6	869.8	333.15	9764.5	862.1
333.15	12362.6	884.8	333.15	11437.8	877.3	333.15	10575.1	869.7	333.15	9752.6	862.0
333.14	12350.7	884.7	333.15	11426.4	877.2	333.15	10565.5	869.6	333.15	9742.4	861.8
333.14	12338.5	884.6	333.15	11415.1	877.0	333.15	10554.8	869.5	333.15	9731.1	861.7
333.14	12326.5	884.6	333.14	11403.0	877.0	333.15	10542.9	869.4	333.14	9720.2	861.6
333.15	12315.0	884.5	333.14	11391.3	876.9	333.15	10531.7	869.3	333.15	9710.0	861.5
333.15	12302.9	884.4	333.14	11378.4	876.8	333.15	10521.0	869.2	333.15	9699.9	861.4
333.15	12290.7	884.3	333.14	11368.5	876.7	333.15	10510.0	869.1	333.15	9688.7	861.3
333.15	12278.9	884.2	333.14	11356.9	876.6	333.14	10499.3	869.0	333.15	9677.0	861.2
333.15	12266.8	884.1	333.14	11345.2	876.5	333.14	10488.0	868.9	333.15	9665.9	861.1
333.15	12255.2	884.0	333.14	11334.2	876.3	333.14	10477.2	868.8	333.15	9654.0	861.0
333.15	12244.3	883.9	333.14	11322.7	876.3	333.14	10466.1	868.7	333.15	9644.2	860.8
333.15	12233.0	883.8	333.14	11312.3	876.2	333.14	10455.6	868.6	333.15	9634.4	860.8
333.14	12220.3	883.7	333.14	11300.0	876.1	333.14	10447.1	868.5	333.15	9623.9	860.7
333.15	12209.7	883.6	333.15	11289.0	876.0	333.14	10435.7	868.4	333.15	9614.0	860.5
333.15	12198.2	883.5	333.15	11278.3	875.9	333.14	10424.5	868.3	333.15	9604.6	860.5
333.15	12185.7	883.4	333.15	11266.8	875.8	333.15	10415.1	868.2	333.15	9594.0	860.4
333.15	12172.6	883.3	333.15	11256.4	875.7	333.14	10405.3	868.1	333.15	9584.7	860.3
333.15	12160.1	883.2	333.15	11245.8	875.6	333.14	10395.0	868.0	333.15	9574.4	860.2
333.15	12146.7	883.1	333.15	11235.1	875.5	333.14	10385.1	867.9	333.15	9565.4	860.1

Valori della densità del fluido R32_*T*=60°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
333.15	9556.0	859.9	333.14	8785.6	852.0	333.15	8049.1	843.7	333.14	7337.4	835.0
333.15	9545.8	859.8	333.15	8776.3	851.9	333.15	8039.8	843.6	333.14	7327.3	834.8
333.15	9535.3	859.8	333.15	8766.8	851.8	333.15	8030.1	843.5	333.14	7318.1	834.7
333.15	9526.0	859.7	333.15	8755.7	851.7	333.15	8020.8	843.4	333.14	7309.3	834.7
333.14	9514.8	859.6	333.15	8746.0	851.5	333.15	8011.5	843.3	333.14	7299.1	834.5
333.15	9505.3	859.5	333.15	8735.8	851.5	333.15	8002.3	843.2	333.14	7289.4	834.4
333.15	9495.4	859.4	333.15	8727.4	851.4	333.14	7993.0	843.1	333.15	7280.6	834.3
333.15	9485.5	859.2	333.15	8717.9	851.3	333.15	7983.0	842.9	333.14	7271.5	834.2
333.15	9475.2	859.2	333.15	8709.1	851.2	333.15	7973.3	842.8	333.15	7261.1	834.0
333.15	9465.2	859.1	333.15	8699.1	851.0	333.15	7964.2	842.7	333.14	7252.5	833.9
333.15	9454.2	859.0	333.15	8689.6	850.9	333.15	7954.2	842.6	333.14	7243.3	833.8
333.15	9444.1	858.9	333.15	8680.3	850.8	333.15	7945.4	842.5	333.14	7234.2	833.7
333.15	9434.3	858.7	333.15	8671.1	850.8	333.15	7936.4	842.4	333.14	7226.4	833.6
333.15	9424.7	858.7	333.15	8661.0	850.6	333.14	7926.9	842.3	333.15	7218.6	833.5
333.15	9415.0	858.6	333.15	8652.0	850.5	333.14	7916.9	842.2	333.14	7210.9	833.4
333.15	9404.7	858.4	333.15	8641.7	850.4	333.14	7907.2	842.0	333.15	7202.4	833.2
333.15	9394.1	858.3	333.14	8631.5	850.3	333.14	7897.9	841.9	333.15	7195.3	833.1
333.15	9384.9	858.2	333.14	8620.7	850.2	333.14	7889.9	841.8	333.15	7186.2	833.0
333.15	9375.0	858.1	333.14	8610.7	850.1	333.15	7881.5	841.8	333.15	7177.4	832.9
333.15	9364.5	858.0	333.14	8601.0	850.0	333.15	7871.7	841.6	333.15	7168.5	832.8
333.15	9355.1	857.9	333.14	8590.2	849.8	333.14	7863.0	841.5	333.15	7159.6	832.7
333.15	9345.4	857.8	333.14	8580.3	849.8	333.14	7853.4	841.4	333.15	7150.6	832.5
333.15	9334.9	857.7	333.15	8570.3	849.7	333.15	7844.0	841.3	333.15	7141.9	832.4
333.14	9325.4	857.7	333.15	8561.2	849.5	333.14	7834.9	841.2	333.14	7134.5	832.3
333.14	9315.7	857.6	333.15	8552.2	849.4	333.14	7825.6	841.1	333.15	7125.7	832.2
333.14	9305.9	857.5	333.15	8542.6	849.4	333.14	7816.8	841.0	333.15	7118.3	832.1
333.14	9296.4	857.4	333.15	8532.9	849.2	333.15	7808.1	840.8	333.15	7109.7	832.0
333.14	9286.8	857.2	333.15	8523.9	849.1	333.15	7798.7	840.7	333.15	7101.4	831.9
333.14	9277.5	857.2	333.15	8512.4	849.0	333.15	7788.7	840.6	333.15	7092.7	831.7
333.15	9268.3	857.1	333.15	8501.8	848.9	333.15	7779.4	840.5	333.15	7084.1	831.6
333.15	9258.0	857.0	333.15	8491.5	848.8	333.15	7770.3	840.4	333.15	7074.9	831.5
333.15	9248.5	856.9	333.15	8481.0	848.6	333.15	7761.3	840.3	333.15	7065.8	831.4
333.15	9237.7	856.8	333.15	8471.6	848.5	333.15	7752.3	840.2	333.15	7057.5	831.3
333.15	9227.3	856.6	333.15	8462.7	848.5	333.15	7742.8	840.0	333.15	7050.1	831.2
333.15	9217.0	856.6	333.15	8453.2	848.3	333.14	7734.9	839.9	333.15	7042.1	831.1
333.15	9208.3	856.4	333.15	8444.1	848.2	333.14	7724.4	839.8	333.15	7033.6	831.0
333.14	9197.7	856.3	333.15	8435.3	848.1	333.14	7714.3	839.7	333.15	7023.1	830.9
333.15	9187.5	856.3	333.15	8425.3	848.0	333.14	7704.7	839.6	333.15	7013.8	830.7
333.14	9178.9	856.2	333.14	8415.2	847.9	333.14	7695.7	839.5	333.15	7003.1	830.6
333.15	9168.5	856.1	333.14	8406.3	847.8	333.15	7686.9	839.4	333.15	6993.6	830.4
333.15	9158.4	856.0	333.14	8395.9	847.7	333.15	7678.1	839.3	333.15	6983.9	830.3
333.15	9147.8	855.8	333.14	8386.3	847.6	333.15	7669.8	839.1	333.15	6974.2	830.2
333.15	9138.2	855.7	333.14	8376.8	847.5	333.15	7660.7	839.0	333.14	6963.7	830.1
333.15	9129.0	855.7	333.15	8368.3	847.4	333.15	7652.7	839.0	333.14	6954.2	829.9
333.14	9119.4	855.5	333.15	8359.0	847.3	333.15	7644.4	838.8	333.14	6945.0	829.8
333.15	9110.1	855.4	333.15	8349.9	847.2	333.15	7635.6	838.7	333.15	6934.3	829.7
333.14	9100.8	855.3	333.15	8340.5	847.1	333.14	7626.8	838.6	333.15	6922.7	829.5
333.15	9092.2	855.2	333.15	8330.5	847.0	333.14	7618.0	838.5	333.15	6912.9	829.4
333.15	9082.9	855.1	333.15	8321.9	846.9	333.14	7608.2	838.4	333.15	6904.4	829.3
333.15	9071.8	855.0	333.15	8312.6	846.8	333.14	7600.1	838.3	333.15	6894.6	829.1
333.15	9062.3	854.9	333.15	8304.1	846.7	333.15	7590.9	838.2	333.15	6883.5	829.0
333.15	9052.5	854.8	333.15	8296.0	846.6	333.15	7582.5	838.1	333.15	6873.5	828.8
333.15	9043.0	854.7	333.14	8288.3	846.5	333.15	7573.3	838.0	333.14	6864.5	828.7
333.15	9032.5	854.6	333.15	8280.0	846.4	333.15	7562.9	837.9	333.14	6854.8	828.6
333.15	9022.8	854.5	333.15	8271.5	846.3	333.15	7553.3	837.7	333.14	6846.4	828.5
333.15	9012.7	854.4	333.15	8262.0	846.2	333.15	7543.3	837.6	333.14	6836.4	828.3
333.15	9003.0	854.3	333.15	8253.4	846.1	333.14	7534.1	837.5	333.15	6824.6	828.2
333.15	8992.8	854.2	333.15	8243.2	846.0	333.14	7524.6	837.4	333.15	6814.4	828.0
333.15	8983.4	854.1	333.15	8233.9	845.9	333.14	7515.3	837.3	333.15	6805.3	827.9
333.15	8974.1	854.0	333.15	8224.3	845.8	333.14	7506.7	837.2	333.15	6795.1	827.8
333.15	8964.2	853.9	333.15	8213.5	845.6	333.14	7497.8	837.0	333.15	6785.7	827.6
333.15	8954.6	853.8	333.15	8202.9	845.5	333.14	7488.5	836.9	333.15	6774.7	827.5
333.15	8943.9	853.7	333.15	8192.0	845.4	333.15	7479.9	836.8	333.15	6763.8	827.4
333.15	8933.5	853.6	333.15	8183.5	845.3	333.15	7470.9	836.7	333.15	6753.3	827.2
333.15	8922.5	853.5	333.15	8175.1	845.2	333.15	7462.8	836.6	333.15	6741.9	827.0
333.15	8912.1	853.3	333.15	8166.4	845.1	333.15	7453.8	836.5	333.14	6729.8	826.9
333.15	8902.0	853.3	333.15	8158.3	845.0	333.14	7445.0	836.4	333.14	6720.1	826.7
333.15	8892.0	853.2	333.15	8148.8	844.9	333.14	7436.4	836.2	333.15	6708.8	826.6
333.15	8882.5	853.1	333.15	8141.1	844.8	333.14	7426.5	836.1	333.15	6698.5	826.4
333.15	8871.8	852.9	333.15	8132.6	844.7	333.14	7417.9	836.0	333.15	6688.5	826.3
333.15	8862.1	852.8	333.14	8124.2	844.6	333.14	7410.0	835.9	333.15	6679.5	826.1
333.15	8852.3	852.7	333.14	8114.5	844.5	333.14	7401.7	835.8	333.15	6668.1	826.0
333.15	8843.2	852.7	333.14	8105.2	844.4	333.14	7393.2	835.7	333.15	6657.2	825.8
333.15	8833.9	852.5	333.14	8097.1	844.3	333.14	7383.2	835.6	333.15	6646.6	825.7
333.15	8824.5	852.4	333.14	8086.7	844.2	333.15	7374.6	835.5	333.15	6636.3	825.6
333.15	8814.5	852.3	333.15	8077.2	844.1	333.15	7365.6	835.3	333.15	6624.2	825.4
333.15	8805.6	852.2	333.15	8067.1	843.9	333.14	7357.0	835.2	333.15	6615.4	825.2
333.15	8795.9	852.1	333.15	8058.1	843.8	333.14	7348.2	835.1	333.15	6602.1	825.1

T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]
333.15	6590.7	824.9	333.15	6059.2	816.9	333.15	5552.5	808.6	333.14	5049.9	799.3
333.15	6578.7	824.8	333.14	6050.2	816.8	333.15	5541.1	808.4	333.14	5039.5	799.2
333.15	6567.1	824.6	333.14	6038.8	816.6	333.14	5530.4	808.2	333.14	5029.5	799.0
333.15	6556.1	824.4	333.14	6028.2	816.4	333.15	5520.0	808.0	333.14	5019.4	798.7
333.15	6544.7	824.3	333.14	6016.6	816.4	333.14	5509.1	807.8	333.14	5009.7	798.6
333.15	6533.1	824.1	333.14	6005.7	816.1	333.14	5497.8	807.7	333.14	4999.7	798.4
333.15	6523.1	823.9	333.14	5994.9	815.9	333.14	5487.1	807.4	333.14	4990.2	798.2
333.14	6514.3	823.8	333.14	5984.1	815.8	333.14	5477.1	807.3	333.14	4980.0	797.9
333.14	6503.0	823.7	333.15	5972.9	815.5	333.14	5467.2	807.1	333.14	4968.4	797.7
333.14	6493.5	823.5	333.15	5960.8	815.4	333.14	5456.7	806.9	333.14	4956.4	797.5
333.14	6482.8	823.3	333.15	5950.9	815.2	333.14	5445.9	806.7	333.14	4944.9	797.3
333.14	6471.9	823.2	333.15	5939.2	815.0	333.14	5435.6	806.6	333.14	4933.9	797.1
333.15	6461.6	823.0	333.14	5928.5	814.8	333.14	5426.6	806.4	333.14	4921.0	796.8
333.15	6450.7	822.9	333.14	5917.0	814.6	333.14	5416.4	806.2	333.14	4908.7	796.6
333.15	6440.3	822.7	333.14	5906.8	814.5	333.14	5406.0	806.1	333.14	4897.9	796.3
333.15	6428.9	822.6	333.14	5896.3	814.3	333.14	5395.3	805.8	333.14	4884.8	796.1
333.15	6419.2	822.3	333.14	5886.3	814.2	333.14	5384.4	805.6	333.14	4873.6	795.9
333.15	6408.7	822.3	333.14	5877.1	814.1	333.14	5373.1	805.4	333.14	4862.1	795.7
333.15	6398.1	822.1	333.14	5868.3	813.9	333.14	5361.3	805.2	333.14	4850.4	795.4
333.14	6386.9	822.0	333.15	5858.1	813.7	333.14	5350.3	805.0	333.14	4838.9	795.2
333.14	6375.0	821.8	333.15	5850.0	813.6	333.14	5339.4	804.8	333.14	4827.3	795.0
333.14	6363.7	821.6	333.15	5840.1	813.4	333.14	5328.8	804.6	333.14	4813.3	794.7
333.14	6352.3	821.5	333.14	5830.4	813.2	333.14	5318.1	804.4	333.14	4801.5	794.5
333.15	6340.9	821.3	333.14	5819.7	813.1	333.14	5307.2	804.3	333.14	4790.5	794.2
333.15	6330.4	821.1	333.14	5808.3	812.9	333.14	5297.8	804.1	333.14	4779.0	794.0
333.15	6318.8	820.9	333.14	5797.0	812.7	333.14	5287.3	803.8	333.14	4767.4	793.7
333.15	6307.0	820.8	333.14	5787.5	812.5	333.14	5277.6	803.7	333.14	4756.0	793.5
333.14	6295.3	820.6	333.14	5776.6	812.4	333.14	5266.7	803.5	333.14	4743.6	793.3
333.14	6283.0	820.4	333.14	5765.0	812.2	333.14	5256.5	803.3	333.14	4731.8	793.0
333.14	6271.1	820.2	333.14	5754.1	812.0	333.14	5245.3	803.1	333.14	4719.7	792.7
333.14	6259.3	820.0	333.14	5743.3	811.8	333.14	5233.9	802.9	333.14	4707.4	792.5
333.14	6248.4	819.9	333.15	5732.5	811.6	333.14	5223.5	802.7	333.14	4696.3	792.2
333.14	6237.2	819.7	333.15	5721.1	811.5	333.14	5212.1	802.5	333.14	4684.5	792.0
333.14	6226.2	819.5	333.14	5709.5	811.2	333.14	5201.5	802.3	333.14	4672.9	791.8
333.14	6214.7	819.4	333.14	5697.9	811.1	333.14	5192.3	802.1	333.14	4661.7	791.5
333.15	6203.3	819.2	333.14	5687.6	810.9	333.14	5182.0	801.9	333.14	4650.4	791.3
333.15	6190.9	819.0	333.14	5677.7	810.7	333.14	5172.3	801.7	333.14	4639.9	791.0
333.15	6178.6	818.8	333.14	5667.7	810.6	333.14	5161.9	801.5	333.14	4627.7	790.8
333.15	6168.4	818.6	333.14	5657.6	810.3	333.14	5152.2	801.3	333.14	4616.7	790.5
333.14	6157.2	818.4	333.15	5647.6	810.2	333.14	5142.7	801.2	333.14	4606.3	790.3
333.14	6146.3	818.3	333.15	5636.9	810.0	333.14	5132.5	801.0	333.14	4594.3	790.0
333.14	6135.1	818.1	333.15	5626.9	809.9	333.14	5122.1	800.8	333.14	4583.2	789.8
333.14	6123.8	818.0	333.15	5616.7	809.7	333.14	5113.4	800.6			
333.14	6113.3	817.8	333.15	5606.3	809.5	333.14	5102.2	800.4			
333.15	6102.0	817.6	333.15	5595.4	809.3	333.14	5092.6	800.2			
333.15	6091.1	817.5	333.15	5585.2	809.1	333.14	5083.0	800.0			
333.15	6080.3	817.3	333.15	5574.6	809.0	333.14	5071.0	799.8			
333.15	6070.9	817.1	333.14	5564.4	808.8	333.14	5060.5	799.6			

Tabella D7: Valori della densità del fluido R32 per T = 343.15 K (70°C)

T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]
343.15	35000.5	969.6	343.14	34118.0	966.4	343.14	33180.2	962.7	343.14	32230.3	959.0
343.15	34995.9	969.7	343.14	34106.9	966.3	343.14	33168.8	962.7	343.14	32218.3	959.0
343.15	34989.8	969.6	343.14	34096.9	966.3	343.14	33158.1	962.7	343.14	32206.2	958.9
343.15	34983.7	969.6	343.14	34086.7	966.3	343.14	33146.9	962.6	343.15	32194.9	958.9
343.15	34976.8	969.6	343.14	34075.3	966.2	343.14	33135.9	962.6	343.15	32183.3	958.8
343.15	34970.1	969.6	343.14	34064.6	966.2	343.14	33123.9	962.5	343.15	32170.7	958.8
343.15	34960.5	969.5	343.15	34053.1	966.1	343.14	33110.7	962.5	343.15	32157.8	958.7
343.15	34952.1	969.4	343.15	34041.6	966.1	343.14	33097.1	962.5	343.15	32143.5	958.6
343.15	34941.7	969.5	343.15	34030.2	966.0	343.15	33084.9	962.3	343.15	32130.3	958.6
343.15	34929.6	969.4	343.15	34016.3	966.0	343.15	33070.8	962.3	343.15	32117.3	958.6
343.15	34916.2	969.4	343.15	34003.0	965.9	343.14	33058.7	962.3	343.15	32103.9	958.5
343.15	34903.7	969.3	343.15	33989.8	965.9	343.14	33045.3	962.2	343.15	32091.4	958.4
343.15	34890.9	969.3	343.15	33977.4	965.8	343.14	33032.2	962.2	343.15	32078.8	958.4
343.15	34879.1	969.2	343.14	33964.8	965.8	343.14	33019.0	962.1	343.15	32066.7	958.4
343.15	34866.4	969.2	343.14	33953.6	965.8	343.14	33006.5	962.1	343.15	32055.3	958.3
343.15	34854.9	969.1	343.15	33941.8	965.7	343.14	32992.3	962.0	343.14	32042.2	958.3
343.15	34843.7	969.1	343.14	33929.8	965.6	343.15	32979.0	962.0	343.14	32029.6	958.2
343.15	34830.9	969.0	343.15	33917.0	965.6	343.14	32966.2	961.9	343.14	32016.3	958.2
343.15	34819.1	969.0	343.15	33903.8	965.6	343.15	32954.6	961.9	343.14	32002.0	958.1
343.15	34807.8	968.9	343.15	33889.6	965.5	343.15	32943.1	961.8	343.14	31990.5	958.0
343.15	34798.1	968.9	343.15	33875.3	965.5	343.15	32931.1	961.8	343.14	31978.2	958.0
343.15	34786.9	968.9	343.15	33862.0	965.4	343.15	32918.9	961.7	343.14	31967.3	957.9
343.15	34774.9	968.8	343.15	33847.0	965.3	343.15	32905.8	961.7	343.14	31956.6	957.9
343.14	34763.7	968.8	343.14	33830.9	965.3	343.15	32892.2	961.6	343.14	31946.0	957.9
343.15	34752.0	968.7	343.14	33815.0	965.2	343.15	32880.1	961.5	343.15	31933.5	957.8
343.15	34739.6	968.7	343.14	33801.6	965.1	343.15	32866.8	961.5	343.15	31921.3	957.8
343.15	34726.9	968.7	343.14	33788.9	965.1	343.15	32853.8	961.5	343.15	31908.1	957.7
343.15	34714.7	968.6	343.15	33776.4	965.1	343.15	32840.8	961.4	343.15	31895.0	957.7
343.15	34701.1	968.5	343.15	33763.4	965.0	343.15	32828.5	961.4	343.15	31881.3	957.6
343.15	34687.1	968.5	343.15	33751.5	965.0	343.15	32815.6	961.3	343.15	31868.5	957.5
343.15	34674.2	968.5	343.15	33738.3	964.9	343.14	32802.5	961.3	343.14	31856.0	957.5
343.14	34659.5	968.3	343.15	33726.0	964.9	343.14	32788.7	961.2	343.14	31844.1	957.4
343.14	34645.8	968.3	343.15	33714.9	964.8	343.14	32775.0	961.2	343.14	31831.2	957.4
343.14	34633.2	968.3	343.14	33700.7	964.8	343.14	32760.0	961.1	343.14	31818.7	957.4
343.14	34621.2	968.3	343.14	33686.8	964.7	343.14	32745.6	961.1	343.14	31806.5	957.3
343.14	34607.9	968.2	343.14	33673.7	964.7	343.14	32731.0	961.0	343.15	31794.8	957.3
343.15	34595.3	968.2	343.15	33661.0	964.6	343.14	32717.5	960.9	343.14	31783.0	957.2
343.15	34582.4	968.1	343.15	33649.4	964.6	343.15	32705.2	960.9	343.15	31771.5	957.1
343.15	34569.4	968.1	343.15	33637.9	964.6	343.15	32693.1	960.8	343.14	31758.6	957.1
343.15	34557.9	968.0	343.15	33625.9	964.5	343.15	32681.4	960.8	343.14	31744.9	957.0
343.15	34545.7	968.0	343.15	33615.5	964.4	343.15	32668.3	960.8	343.14	31731.7	957.0
343.15	34532.3	968.0	343.15	33603.4	964.4	343.15	32654.3	960.7	343.14	31718.5	957.0
343.15	34519.9	967.9	343.15	33591.8	964.3	343.15	32640.7	960.6	343.14	31706.0	956.9
343.15	34507.2	967.8	343.14	33579.4	964.3	343.15	32628.4	960.6	343.14	31694.0	956.9
343.15	34494.6	967.8	343.14	33567.5	964.3	343.14	32616.0	960.6	343.14	31682.0	956.8
343.14	34482.9	967.7	343.14	33556.0	964.2	343.15	32603.5	960.5	343.15	31669.9	956.7
343.15	34472.0	967.7	343.14	33545.0	964.2	343.15	32591.0	960.4	343.14	31656.9	956.7
343.14	34460.8	967.7	343.15	33533.6	964.1	343.15	32578.9	960.4	343.14	31644.7	956.7
343.14	34449.6	967.6	343.15	33521.4	964.1	343.15	32569.4	960.4	343.14	31632.9	956.6
343.15	34437.6	967.6	343.15	33508.1	964.0	343.15	32558.8	960.3	343.14	31622.2	956.6
343.15	34426.0	967.5	343.15	33494.0	964.0	343.15	32547.5	960.3	343.14	31610.0	956.5
343.15	34414.2	967.5	343.15	33481.2	963.9	343.15	32536.3	960.2	343.15	31597.5	956.5
343.15	34402.4	967.5	343.15	33468.2	963.9	343.14	32524.6	960.2	343.15	31585.9	956.4
343.15	34390.3	967.4	343.15	33455.3	963.8	343.14	32512.3	960.1	343.15	31574.1	956.4
343.15	34377.9	967.4	343.15	33443.5	963.8	343.14	32499.7	960.1	343.15	31561.3	956.3
343.15	34365.2	967.3	343.14	33431.6	963.7	343.14	32486.7	960.0	343.14	31549.3	956.3
343.15	34351.8	967.2	343.14	33418.8	963.7	343.14	32475.2	959.9	343.14	31537.5	956.2
343.14	34339.8	967.2	343.14	33406.4	963.6	343.14	32462.1	959.9	343.14	31525.5	956.2
343.14	34327.1	967.1	343.14	33393.2	963.6	343.15	32449.8	959.9	343.14	31513.7	956.1
343.14	34314.8	967.1	343.15	33379.7	963.5	343.15	32436.7	959.8	343.14	31501.4	956.1
343.14	34302.7	967.1	343.14	33366.8	963.5	343.15	32422.3	959.8	343.14	31487.2	956.0
343.14	34289.6	967.0	343.15	33353.3	963.4	343.15	32409.2	959.7	343.14	31476.0	956.0
343.14	34279.0	967.0	343.15	33339.8	963.4	343.15	32396.6	959.7	343.15	31464.1	955.9
343.14	34266.3	966.9	343.15	33327.6	963.3	343.15	32383.8	959.6	343.15	31452.6	955.9
343.14	34253.5	966.9	343.15	33314.3	963.3	343.14	32372.3	959.6	343.14	31442.9	955.8
343.14	34241.0	966.8	343.14	33301.6	963.2	343.14	32358.9	959.5	343.14	31430.7	955.8
343.14	34231.6	966.8	343.15	33290.3	963.2	343.14	32345.3	959.5	343.14	31418.4	955.7
343.14	34218.9	966.8	343.15	33277.0	963.1	343.14	32331.4	959.4	343.14	31406.9	955.7
343.14	34207.3	966.7	343.15	33264.5	963.1	343.15	32316.5	959.3	343.14	31394.4	955.6
343.14	34194.6	966.7	343.15	33252.2	963.0	343.15	32305.2	959.3	343.14	31383.8	955.6
343.15	34181.4	966.6	343.15	33238.9	963.0	343.15	32293.3	959.3	343.14	31371.8	955.5
343.15	34168.6	966.6	343.15	33226.3	963.0	343.15	32280.6	959.2	343.14	31359.4	955.5
343.15	34157.2	966.5	343.14	33213.6	962.9	343.15	32267.3	959.1	343.15	31347.5	955.4
343.15	34144.0	966.5	343.15	33201.8	962.8	343.15	32254.2	959.1	343.15	31334.0	955.4
343.14	34130.9	966.4	343.14	33190.8	962.8	343.14	32242.6	959.0	343.15	31322.7	955.3

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
343.15	31310.1	955.3	343.16	30395.4	951.5	343.15	29471.7	947.6	343.15	28539.3	943.5
343.15	31298.7	955.2	343.16	30380.7	951.4	343.15	29460.9	947.5	343.15	28527.7	943.4
343.14	31287.4	955.2	343.16	30367.2	951.4	343.15	29450.7	947.5	343.15	28514.9	943.4
343.14	31274.7	955.1	343.16	30353.4	951.3	343.15	29438.9	947.4	343.15	28501.4	943.3
343.14	31262.5	955.1	343.16	30339.6	951.3	343.15	29427.6	947.4	343.15	28489.1	943.3
343.14	31250.4	955.0	343.16	30328.3	951.2	343.15	29415.6	947.3	343.15	28476.8	943.2
343.14	31238.8	955.0	343.16	30316.9	951.2	343.15	29402.2	947.3	343.15	28462.4	943.1
343.14	31226.7	955.0	343.16	30306.3	951.1	343.15	29390.9	947.2	343.15	28447.8	943.1
343.14	31216.8	954.9	343.16	30295.6	951.0	343.15	29378.0	947.2	343.15	28434.5	943.0
343.14	31205.1	954.8	343.15	30285.3	951.0	343.15	29365.5	947.1	343.15	28422.0	943.0
343.15	31192.4	954.8	343.15	30275.3	951.0	343.15	29354.7	947.0	343.15	28408.2	942.9
343.15	31181.4	954.8	343.15	30263.9	950.9	343.15	29341.9	947.0	343.15	28395.0	942.8
343.14	31170.6	954.8	343.15	30253.9	950.9	343.15	29329.3	947.0	343.15	28382.7	942.8
343.14	31158.8	954.7	343.15	30243.9	950.9	343.15	29318.1	946.9	343.15	28369.5	942.7
343.14	31147.8	954.6	343.15	30231.4	950.8	343.15	29304.8	946.8	343.15	28356.8	942.6
343.14	31137.2	954.6	343.15	30220.4	950.7	343.15	29292.5	946.8	343.15	28344.4	942.6
343.14	31125.1	954.5	343.15	30209.7	950.7	343.15	29279.0	946.7	343.15	28332.7	942.5
343.15	31114.0	954.5	343.15	30198.6	950.7	343.15	29266.0	946.6	343.15	28320.1	942.5
343.15	31102.6	954.4	343.15	30186.9	950.6	343.15	29252.5	946.6	343.15	28307.5	942.5
343.15	31090.9	954.4	343.15	30176.1	950.6	343.15	29241.4	946.5	343.15	28295.9	942.4
343.15	31078.8	954.3	343.15	30163.6	950.5	343.15	29229.0	946.5	343.15	28283.4	942.3
343.15	31066.2	954.3	343.15	30149.2	950.5	343.15	29216.7	946.5	343.15	28270.6	942.3
343.14	31052.9	954.2	343.15	30138.8	950.4	343.15	29205.5	946.4	343.15	28257.9	942.2
343.15	31040.5	954.2	343.15	30129.9	950.4	343.16	29194.2	946.3	343.15	28246.0	942.2
343.14	31027.5	954.1	343.15	30118.7	950.3	343.15	29181.1	946.3	343.15	28233.8	942.1
343.14	31016.2	954.1	343.15	30108.5	950.3	343.15	29169.8	946.2	343.15	28220.8	942.1
343.14	31004.4	954.0	343.15	30098.7	950.2	343.15	29157.2	946.2	343.15	28208.8	942.0
343.14	30992.6	954.0	343.15	30086.9	950.2	343.15	29145.1	946.1	343.15	28194.2	941.9
343.14	30981.8	953.9	343.15	30075.6	950.1	343.15	29133.5	946.1	343.15	28181.5	941.9
343.14	30969.7	953.9	343.15	30064.9	950.1	343.15	29120.3	946.0	343.15	28169.7	941.8
343.14	30958.9	953.8	343.15	30051.7	950.0	343.15	29108.3	946.0	343.15	28157.5	941.8
343.14	30949.4	953.8	343.15	30039.6	949.9	343.15	29095.2	945.9	343.15	28146.8	941.7
343.14	30937.9	953.8	343.15	30028.2	950.0	343.15	29082.9	945.9	343.15	28134.3	941.6
343.14	30926.7	953.7	343.15	30014.5	949.9	343.15	29071.0	945.8	343.15	28121.7	941.6
343.14	30917.1	953.6	343.15	30003.0	949.8	343.15	29060.2	945.7	343.15	28108.7	941.5
343.14	30906.4	953.6	343.15	29991.0	949.8	343.15	29047.0	945.7	343.14	28097.1	941.5
343.15	30895.6	953.6	343.15	29979.9	949.7	343.15	29036.7	945.6	343.14	28086.2	941.5
343.15	30881.7	953.5	343.15	29969.4	949.7	343.15	29026.1	945.6	343.15	28074.1	941.4
343.15	30866.5	953.4	343.15	29957.6	949.7	343.15	29016.1	945.5	343.15	28061.7	941.3
343.15	30852.5	953.4	343.15	29946.4	949.6	343.15	29005.6	945.5	343.15	28049.6	941.3
343.15	30838.7	953.3	343.15	29936.3	949.5	343.15	28993.1	945.4	343.15	28039.4	941.2
343.15	30825.7	953.3	343.15	29923.4	949.5	343.15	28982.7	945.4	343.15	28027.3	941.2
343.15	30812.8	953.2	343.15	29912.8	949.5	343.15	28970.7	945.4	343.15	28015.6	941.1
343.14	30799.0	953.2	343.15	29900.1	949.4	343.15	28959.1	945.3	343.15	28004.2	941.1
343.14	30787.2	953.1	343.15	29888.6	949.3	343.15	28948.0	945.2	343.14	27991.7	941.0
343.14	30775.5	953.1	343.15	29877.1	949.3	343.15	28935.6	945.2	343.14	27979.8	941.0
343.15	30763.2	953.0	343.15	29865.7	949.3	343.15	28924.2	945.1	343.14	27967.5	940.9
343.14	30750.4	953.0	343.15	29854.8	949.2	343.15	28912.7	945.1	343.15	27955.8	940.9
343.14	30739.0	952.9	343.15	29844.4	949.1	343.15	28900.5	945.0	343.15	27944.5	940.8
343.14	30728.4	952.9	343.15	29834.3	949.1	343.15	28888.8	945.0	343.15	27931.6	940.7
343.14	30718.1	952.8	343.15	29824.0	949.1	343.15	28876.3	945.0	343.15	27919.6	940.7
343.14	30706.3	952.8	343.15	29814.2	949.0	343.15	28864.8	944.9	343.15	27906.6	940.6
343.14	30696.9	952.8	343.15	29804.0	949.0	343.15	28854.9	944.9	343.15	27893.6	940.6
343.15	30686.5	952.7	343.15	29794.1	948.9	343.15	28843.5	944.8	343.15	27880.5	940.5
343.15	30673.4	952.7	343.15	29782.5	948.9	343.15	28831.9	944.8	343.15	27868.5	940.4
343.15	30661.6	952.6	343.15	29770.2	948.9	343.15	28820.9	944.7	343.15	27856.8	940.4
343.15	30650.2	952.5	343.15	29759.3	948.8	343.15	28810.5	944.7	343.15	27844.1	940.4
343.15	30638.3	952.5	343.15	29746.8	948.7	343.15	28800.9	944.7	343.15	27832.4	940.3
343.15	30627.8	952.5	343.15	29734.3	948.6	343.15	28788.7	944.6	343.15	27819.3	940.2
343.15	30617.2	952.4	343.15	29721.3	948.6	343.15	28776.9	944.5	343.15	27806.2	940.2
343.15	30605.3	952.4	343.15	29709.3	948.6	343.15	28765.4	944.5	343.15	27794.5	940.1
343.15	30594.9	952.3	343.15	29697.5	948.5	343.15	28751.7	944.4	343.15	27782.4	940.1
343.15	30583.1	952.3	343.15	29683.9	948.5	343.15	28739.2	944.3	343.15	27769.5	940.0
343.16	30571.0	952.2	343.15	29670.6	948.4	343.15	28725.3	944.3	343.15	27758.3	939.9
343.16	30557.6	952.2	343.15	29657.7	948.3	343.15	28712.4	944.2	343.15	27746.3	939.9
343.16	30545.9	952.1	343.15	29644.4	948.3	343.15	28700.0	944.2	343.15	27734.3	939.8
343.16	30535.8	952.1	343.15	29629.2	948.2	343.15	28687.2	944.1	343.15	27721.8	939.8
343.16	30525.6	952.0	343.15	29616.0	948.2	343.15	28675.3	944.1	343.15	27711.3	939.7
343.16	30515.9	952.0	343.15	29602.1	948.1	343.15	28663.6	944.0	343.15	27699.9	939.7
343.16	30504.5	951.9	343.15	29589.2	948.1	343.15	28650.9	943.9	343.15	27688.4	939.6
343.16	30493.4	952.0	343.15	29574.8	948.0	343.15	28638.0	943.9	343.15	27677.4	939.6
343.16	30482.1	951.9	343.15	29561.1	947.9	343.15	28624.6	943.9	343.15	27665.5	939.5
343.16	30470.8	951.8	343.15	29547.5	947.9	343.15	28611.9	943.8	343.15	27652.7	939.5
343.16	30458.9	951.8	343.15	29535.0	947.8	343.15	28599.7	943.7	343.15	27642.2	939.4
343.16	30447.3	951.7	343.15	29520.7	947.8	343.15	28587.3	943.7	343.15	27630.1	939.3
343.16	30436.1	951.6	343.15	29507.7	947.7	343.15	28575.8	943.6	343.15	27618.8	939.3
343.16	30422.4	951.6	343.15	29495.1	947.7	343.15	28563.8	943.6	343.15	27605.4	939.3
343.16	30408.4	951.6	343.15	29483.9	947.6	343.15	28552.5	943.5	343.15	27594.2	939.2

Valori della densità del fluido R32_*T*=70°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
343.15	27581.3	939.1	343.15	26640.6	934.7	343.15	25743.6	930.5	343.15	24800.7	925.8
343.15	27569.4	939.1	343.15	26626.7	934.7	343.15	25731.8	930.4	343.15	24788.2	925.7
343.15	27557.5	939.1	343.15	26614.9	934.6	343.15	25719.5	930.3	343.15	24776.0	925.7
343.15	27547.7	939.0	343.15	26603.2	934.6	343.15	25706.7	930.3	343.15	24763.5	925.6
343.15	27534.1	938.9	343.15	26592.0	934.5	343.15	25694.2	930.2	343.15	24752.2	925.5
343.15	27521.9	938.8	343.15	26581.8	934.5	343.15	25680.2	930.1	343.15	24740.0	925.5
343.15	27509.4	938.8	343.15	26570.3	934.4	343.15	25667.8	930.1	343.15	24726.5	925.4
343.14	27497.0	938.7	343.15	26560.2	934.4	343.15	25655.2	930.0	343.15	24714.4	925.3
343.14	27484.0	938.7	343.15	26548.8	934.3	343.15	25644.2	930.0	343.15	24700.6	925.3
343.14	27471.0	938.7	343.15	26538.1	934.3	343.15	25632.1	929.9	343.15	24686.4	925.2
343.15	27458.2	938.6	343.15	26528.0	934.2	343.15	25619.8	929.9	343.15	24670.6	925.1
343.15	27446.1	938.5	343.15	26516.7	934.2	343.15	25608.5	929.8	343.15	24656.1	925.1
343.15	27433.1	938.5	343.15	26506.5	934.1	343.15	25594.9	929.7	343.15	24644.0	925.0
343.15	27421.7	938.4	343.15	26496.1	934.1	343.15	25582.5	929.7	343.15	24630.8	924.9
343.15	27410.7	938.4	343.15	26485.2	934.0	343.15	25569.4	929.6	343.15	24618.1	924.9
343.15	27399.8	938.3	343.15	26476.2	934.0	343.15	25557.0	929.6	343.15	24604.5	924.8
343.15	27387.1	938.3	343.15	26465.0	933.9	343.15	25543.0	929.5	343.15	24593.0	924.8
343.14	27375.8	938.2	343.15	26454.8	933.9	343.15	25530.0	929.4	343.14	24580.8	924.7
343.15	27364.1	938.1	343.15	26442.8	933.9	343.15	25516.8	929.4	343.14	24568.6	924.6
343.15	27351.7	938.1	343.15	26431.9	933.8	343.15	25505.4	929.3	343.15	24556.1	924.5
343.15	27340.2	938.0	343.15	26419.7	933.7	343.15	25492.5	929.2	343.15	24543.9	924.5
343.15	27328.0	938.0	343.15	26408.5	933.7	343.15	25480.2	929.2	343.15	24532.4	924.4
343.15	27313.9	937.9	343.15	26396.1	933.6	343.15	25467.9	929.2	343.15	24520.0	924.4
343.15	27302.4	937.9	343.15	26384.9	933.5	343.15	25456.2	929.1	343.15	24507.9	924.3
343.15	27290.3	937.8	343.15	26373.5	933.5	343.15	25443.8	929.0	343.15	24496.9	924.2
343.14	27278.7	937.8	343.15	26361.8	933.4	343.15	25432.9	928.9	343.15	24484.3	924.2
343.15	27265.2	937.7	343.15	26350.7	933.4	343.15	25420.5	928.9	343.15	24472.2	924.1
343.15	27252.1	937.6	343.15	26338.9	933.3	343.15	25409.2	928.8	343.15	24460.5	924.1
343.15	27239.8	937.6	343.15	26327.1	933.3	343.15	25399.0	928.7	343.15	24448.9	924.0
343.15	27228.7	937.5	343.15	26316.4	933.2	343.15	25387.6	928.7	343.15	24436.3	923.9
343.15	27218.2	937.5	343.15	26305.8	933.2	343.15	25375.6	928.6	343.15	24423.3	923.9
343.15	27207.7	937.4	343.15	26294.3	933.2	343.15	25364.0	928.6	343.15	24411.0	923.8
343.15	27197.2	937.4	343.15	26282.4	933.1	343.15	25351.4	928.5	343.15	24400.1	923.7
343.15	27185.2	937.3	343.15	26272.1	933.0	343.15	25338.9	928.5	343.15	24388.3	923.7
343.15	27174.2	937.2	343.15	26259.7	933.0	343.15	25327.9	928.4	343.15	24375.4	923.6
343.14	27162.0	937.2	343.15	26248.0	932.9	343.15	25315.5	928.4	343.15	24364.5	923.6
343.14	27150.9	937.2	343.15	26238.1	932.8	343.15	25303.2	928.3	343.15	24353.6	923.5
343.14	27139.0	937.1	343.15	26225.3	932.8	343.15	25289.9	928.2	343.15	24342.4	923.4
343.14	27126.9	937.1	343.15	26214.4	932.7	343.15	25278.1	928.1	343.15	24331.3	923.4
343.15	27115.1	937.0	343.15	26203.4	932.7	343.15	25266.5	928.1	343.15	24320.0	923.3
343.15	27103.0	936.9	343.14	26190.9	932.6	343.15	25254.9	928.1	343.15	24308.3	923.3
343.15	27091.6	936.9	343.15	26179.6	932.6	343.15	25242.2	928.0	343.15	24298.9	923.2
343.15	27080.2	936.8	343.15	26168.3	932.5	343.15	25230.9	927.9	343.15	24288.4	923.2
343.15	27068.4	936.8	343.15	26155.4	932.5	343.15	25220.6	927.9	343.15	24274.3	923.1
343.15	27057.5	936.7	343.15	26144.2	932.4	343.15	25207.4	927.8	343.15	24260.2	923.0
343.15	27046.4	936.7	343.15	26131.7	932.3	343.15	25196.6	927.8	343.15	24247.9	923.0
343.15	27034.4	936.6	343.15	26121.8	932.3	343.15	25184.5	927.7	343.15	24235.7	922.9
343.15	27022.5	936.6	343.15	26112.9	932.3	343.15	25172.7	927.7	343.15	24223.6	922.8
343.15	27009.7	936.5	343.15	26101.9	932.2	343.15	25160.6	927.6	343.15	24210.9	922.8
343.15	26998.1	936.5	343.15	26090.9	932.2	343.15	25149.1	927.5	343.15	24197.8	922.7
343.15	26985.3	936.4	343.14	26078.8	932.1	343.15	25137.9	927.5	343.15	24185.7	922.7
343.15	26973.4	936.3	343.15	26065.3	932.0	343.14	25124.6	927.4	343.15	24172.7	922.6
343.15	26960.8	936.2	343.15	26051.9	932.0	343.14	25112.2	927.4	343.15	24161.0	922.5
343.15	26946.2	936.2	343.15	26040.3	931.9	343.14	25100.4	927.3	343.15	24149.4	922.5
343.15	26933.5	936.1	343.15	26026.4	931.8	343.15	25088.2	927.3	343.15	24137.0	922.4
343.15	26919.8	936.1	343.15	26015.7	931.7	343.15	25077.5	927.2	343.15	24124.7	922.3
343.15	26907.1	936.0	343.15	26003.2	931.7	343.15	25066.3	927.2	343.15	24113.0	922.3
343.15	26894.2	935.9	343.15	25991.9	931.6	343.15	25055.5	927.1	343.15	24100.5	922.2
343.15	26880.0	935.9	343.15	25981.4	931.6	343.15	25043.2	927.0	343.15	24087.4	922.2
343.15	26866.8	935.8	343.15	25969.4	931.6	343.15	25031.9	926.9	343.15	24075.4	922.1
343.15	26853.0	935.8	343.15	25958.6	931.5	343.15	25022.1	926.9	343.15	24062.0	922.0
343.15	26839.5	935.7	343.15	25947.2	931.5	343.14	25010.8	926.8	343.15	24050.2	922.0
343.15	26828.4	935.6	343.15	25935.1	931.4	343.14	24997.5	926.8	343.15	24037.1	921.9
343.15	26816.5	935.6	343.15	25923.6	931.3	343.14	24984.4	926.7	343.15	24024.4	921.8
343.15	26803.8	935.5	343.15	25912.4	931.3	343.15	24970.7	926.7	343.15	24010.7	921.7
343.15	26792.3	935.5	343.15	25899.7	931.2	343.15	24956.9	926.6	343.15	23998.3	921.7
343.15	26778.5	935.4	343.15	25889.0	931.2	343.15	24945.1	926.5	343.15	23985.5	921.6
343.15	26765.5	935.4	343.15	25877.9	931.1	343.15	24932.9	926.4	343.15	23972.4	921.5
343.15	26754.8	935.3	343.15	25867.1	931.0	343.15	24920.0	926.4	343.15	23961.4	921.5
343.15	26742.9	935.2	343.15	25856.1	931.0	343.15	24907.1	926.3	343.15	23951.5	921.4
343.15	26732.0	935.2	343.15	25844.5	930.9	343.15	24893.5	926.2	343.15	23939.5	921.4
343.15	26721.2	935.2	343.15	25833.3	930.9	343.15	24882.2	926.2	343.15	23926.7	921.3
343.15	26709.9	935.1	343.15	25820.8	930.8	343.15	24869.0	926.1	343.15	23914.1	921.2
343.15	26698.2	935.0	343.15	25808.1	930.8	343.15	24856.9	926.1	343.15	23901.7	921.2
343.15	26686.9	935.0	343.15	25795.1	930.7	343.15	24846.0	926.0	343.15	23888.8	921.1
343.15	26676.1	934.9	343.15	25782.5	930.7	343.15	24834.0	926.0	343.15	23876.1	921.0
343.15	26663.9	934.9	343.15	25769.5	930.6	343.15	24823.8	925.9	343.15	23863.5	921.0
343.15	26652.0	934.9	343.15	25756.4	930.6	343.15	24812.4	925.9	343.15	23851.0	920.9

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
343.15	23837.0	920.8	343.15	22920.5	916.0	343.14	21947.8	910.6	343.15	20983.9	905.0
343.15	23823.1	920.8	343.15	22908.6	915.9	343.14	21935.2	910.5	343.15	20971.3	904.9
343.15	23808.4	920.7	343.15	22895.8	915.8	343.14	21924.8	910.4	343.15	20958.1	904.9
343.15	23795.1	920.6	343.15	22882.9	915.7	343.15	21913.1	910.4	343.15	20944.9	904.8
343.15	23781.5	920.5	343.15	22870.7	915.7	343.15	21900.6	910.3	343.15	20932.3	904.7
343.15	23770.2	920.5	343.15	22858.1	915.6	343.15	21888.2	910.2	343.15	20917.9	904.6
343.15	23758.8	920.4	343.15	22844.6	915.5	343.15	21875.9	910.1	343.15	20905.8	904.6
343.15	23747.6	920.4	343.15	22831.4	915.4	343.15	21865.1	910.1	343.15	20892.2	904.4
343.14	23735.8	920.3	343.15	22817.2	915.4	343.15	21853.3	910.0	343.15	20880.1	904.4
343.15	23724.2	920.3	343.15	22804.8	915.3	343.15	21840.5	909.9	343.15	20866.3	904.3
343.15	23711.8	920.2	343.15	22792.2	915.3	343.15	21827.7	909.9	343.15	20853.0	904.2
343.15	23700.8	920.1	343.15	22778.7	915.2	343.15	21814.1	909.8	343.14	20841.4	904.1
343.15	23687.6	920.0	343.15	22766.7	915.1	343.14	21801.7	909.7	343.15	20829.1	904.1
343.15	23675.7	920.0	343.15	22754.7	915.1	343.15	21791.0	909.7	343.15	20817.0	904.0
343.15	23663.2	919.9	343.15	22740.9	915.0	343.15	21778.5	909.6	343.15	20804.0	904.0
343.15	23651.1	919.9	343.15	22730.2	914.9	343.15	21767.3	909.6	343.15	20790.7	903.9
343.15	23639.5	919.8	343.15	22718.9	914.8	343.15	21755.2	909.5	343.15	20778.3	903.8
343.15	23627.3	919.7	343.14	22706.6	914.8	343.15	21743.3	909.4	343.15	20766.2	903.7
343.15	23615.4	919.7	343.14	22695.3	914.7	343.15	21730.0	909.3	343.15	20754.4	903.6
343.15	23602.5	919.6	343.14	22683.6	914.6	343.15	21718.5	909.2	343.15	20742.0	903.5
343.15	23591.2	919.6	343.14	22672.4	914.6	343.15	21705.3	909.2	343.15	20728.8	903.5
343.15	23579.4	919.4	343.15	22660.7	914.5	343.15	21692.3	909.1	343.14	20716.9	903.4
343.15	23567.5	919.4	343.15	22647.5	914.5	343.14	21680.8	909.0	343.14	20703.0	903.3
343.15	23555.8	919.3	343.15	22634.8	914.4	343.14	21669.9	909.0	343.14	20688.9	903.3
343.15	23544.7	919.3	343.15	22620.8	914.3	343.14	21657.7	908.9	343.14	20675.8	903.2
343.15	23534.8	919.2	343.15	22607.2	914.2	343.14	21646.2	908.9	343.14	20663.0	903.1
343.15	23525.1	919.2	343.15	22592.9	914.1	343.15	21634.2	908.8	343.15	20650.8	903.0
343.15	23514.1	919.1	343.15	22580.0	914.1	343.15	21623.2	908.7	343.14	20638.2	902.9
343.15	23501.5	919.1	343.14	22565.8	914.0	343.15	21611.8	908.6	343.14	20625.0	902.9
343.15	23489.2	919.0	343.15	22553.9	913.9	343.15	21598.1	908.6	343.15	20613.2	902.8
343.15	23477.3	918.9	343.15	22541.1	913.9	343.15	21584.5	908.5	343.15	20600.6	902.7
343.15	23465.6	918.9	343.15	22528.6	913.8	343.15	21570.9	908.4	343.15	20587.0	902.6
343.15	23453.9	918.8	343.15	22514.3	913.7	343.14	21557.3	908.3	343.14	20573.8	902.5
343.15	23441.0	918.8	343.15	22502.4	913.6	343.14	21544.1	908.2	343.14	20559.7	902.5
343.15	23429.7	918.7	343.15	22490.1	913.6	343.14	21530.9	908.2	343.14	20545.7	902.4
343.15	23417.4	918.6	343.15	22477.7	913.5	343.14	21517.2	908.1	343.14	20532.6	902.3
343.15	23406.1	918.6	343.15	22464.1	913.4	343.14	21503.2	908.0	343.15	20519.6	902.2
343.15	23394.7	918.5	343.15	22452.0	913.4	343.14	21490.3	907.9	343.14	20505.2	902.1
343.15	23383.9	918.4	343.14	22439.2	913.3	343.14	21477.1	907.9	343.14	20491.3	902.0
343.15	23372.7	918.4	343.15	22426.3	913.2	343.14	21463.2	907.8	343.14	20479.2	902.0
343.15	23361.3	918.3	343.15	22413.7	913.2	343.14	21450.9	907.7	343.14	20466.1	901.9
343.15	23349.9	918.3	343.15	22402.1	913.1	343.15	21437.5	907.7	343.14	20454.1	901.8
343.15	23337.3	918.2	343.15	22389.9	913.0	343.14	21425.5	907.6	343.15	20441.0	901.7
343.15	23326.1	918.1	343.15	22376.9	913.0	343.14	21411.2	907.5	343.15	20428.7	901.7
343.15	23313.6	918.0	343.15	22364.7	912.9	343.14	21397.3	907.4	343.15	20416.6	901.6
343.15	23302.6	918.0	343.15	22351.1	912.8	343.14	21383.2	907.3	343.15	20403.3	901.5
343.15	23290.5	917.9	343.15	22339.1	912.8	343.14	21370.9	907.3	343.15	20391.5	901.5
343.15	23278.4	917.9	343.15	22327.8	912.7	343.14	21358.3	907.2	343.15	20379.9	901.4
343.15	23267.0	917.8	343.14	22315.8	912.6	343.14	21346.2	907.2	343.15	20367.1	901.3
343.15	23253.9	917.8	343.14	22302.5	912.6	343.15	21334.2	907.0	343.14	20354.2	901.2
343.15	23242.5	917.7	343.14	22291.2	912.4	343.15	21322.6	907.0	343.14	20340.9	901.2
343.15	23231.6	917.6	343.14	22278.1	912.4	343.15	21311.7	906.9	343.14	20328.3	901.0
343.15	23219.6	917.6	343.14	22264.0	912.4	343.15	21300.1	906.9	343.14	20314.5	901.0
343.15	23208.5	917.5	343.14	22251.7	912.3	343.15	21287.5	906.8	343.15	20302.5	900.9
343.15	23196.8	917.5	343.15	22240.1	912.2	343.15	21276.6	906.7	343.15	20289.6	900.9
343.15	23184.0	917.4	343.14	22226.5	912.1	343.15	21265.7	906.6	343.15	20275.8	900.7
343.15	23173.2	917.3	343.15	22214.0	912.0	343.15	21253.0	906.6	343.15	20265.2	900.7
343.15	23161.4	917.3	343.14	22201.2	912.0	343.15	21241.8	906.5	343.15	20252.1	900.6
343.15	23150.5	917.2	343.14	22188.3	911.9	343.15	21229.7	906.5	343.15	20240.5	900.5
343.15	23140.3	917.2	343.14	22176.0	911.8	343.15	21216.6	906.4	343.15	20228.4	900.4
343.15	23129.3	917.1	343.14	22164.5	911.8	343.15	21204.1	906.3	343.14	20215.4	900.4
343.15	23118.7	917.0	343.15	22153.0	911.7	343.15	21191.0	906.2	343.14	20203.0	900.3
343.15	23108.1	917.0	343.15	22141.2	911.7	343.15	21177.5	906.1	343.14	20190.7	900.2
343.15	23097.7	916.9	343.15	22129.1	911.6	343.15	21164.9	906.1	343.14	20177.2	900.1
343.15	23086.5	916.8	343.14	22118.6	911.5	343.15	21153.9	906.0	343.15	20164.4	900.1
343.15	23074.7	916.8	343.15	22106.5	911.4	343.15	21140.8	905.9	343.15	20150.8	900.0
343.15	23063.6	916.7	343.15	22094.5	911.4	343.15	21129.8	905.8	343.15	20138.7	899.9
343.15	23053.6	916.7	343.14	22082.1	911.3	343.15	21117.5	905.8	343.15	20126.7	899.8
343.15	23041.6	916.5	343.14	22070.9	911.2	343.15	21104.5	905.7	343.14	20111.5	899.7
343.15	23029.7	916.5	343.14	22060.6	911.2	343.15	21092.8	905.7	343.14	20100.0	899.6
343.15	23016.8	916.5	343.15	22049.7	911.1	343.15	21081.0	905.6	343.14	20087.1	899.6
343.15	23003.8	916.4	343.15	22037.6	911.1	343.15	21067.7	905.5	343.14	20074.1	899.5
343.15	22990.6	916.3	343.15	22025.0	911.0	343.14	21055.4	905.4	343.14	20061.2	899.4
343.15	22978.7	916.3	343.15	22012.4	910.9	343.14	21042.7	905.3	343.14	20048.2	899.4
343.15	22966.2	916.2	343.15	21999.3	910.9	343.15	21033.0	905.3	343.14	20034.2	899.2
343.15	22954.5	916.1	343.15	21986.7	910.8	343.15	21020.7	905.2	343.15	20021.1	899.2
343.15	22942.8	916.1	343.15	21973.2	910.7	343.15	21009.6	905.1	343.15	20009.3	899.1
343.15	22931.7	916.0	343.15	21960.8	910.6	343.15	20995.8	905.1	343.15	19998.4	899.0

Valori della densità del fluido R32_*T*=70°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
343.15	19987.1	899.0	343.14	18978.0	892.6	343.14	17969.0	885.9	343.15	16966.5	878.8
343.14	19975.5	898.9	343.14	18963.9	892.5	343.14	17954.8	885.8	343.15	16954.9	878.7
343.14	19964.2	898.8	343.14	18949.5	892.4	343.14	17941.1	885.7	343.15	16944.1	878.6
343.15	19953.1	898.8	343.14	18934.9	892.3	343.14	17927.8	885.6	343.15	16933.0	878.5
343.14	19940.9	898.7	343.14	18921.5	892.2	343.14	17913.7	885.5	343.15	16920.8	878.4
343.15	19928.7	898.6	343.14	18909.9	892.2	343.14	17901.4	885.4	343.15	16909.4	878.4
343.15	19915.4	898.5	343.14	18895.9	892.0	343.15	17890.0	885.3	343.15	16898.5	878.3
343.15	19904.7	898.5	343.14	18882.2	892.0	343.15	17877.8	885.2	343.15	16885.2	878.2
343.15	19891.2	898.4	343.14	18869.3	891.9	343.15	17866.0	885.1	343.15	16872.9	878.1
343.15	19877.8	898.3	343.14	18855.8	891.8	343.15	17852.7	885.0	343.15	16860.9	878.0
343.14	19865.8	898.2	343.15	18843.1	891.7	343.14	17837.9	885.0	343.15	16848.4	877.9
343.14	19851.6	898.1	343.15	18828.9	891.6	343.14	17825.2	884.9	343.15	16835.0	877.8
343.14	19838.5	898.0	343.15	18817.7	891.5	343.14	17811.5	884.8	343.15	16822.0	877.7
343.14	19824.3	898.0	343.15	18804.0	891.4	343.15	17797.6	884.7	343.15	16809.5	877.6
343.15	19811.8	897.9	343.15	18790.7	891.4	343.15	17786.0	884.6	343.15	16797.5	877.6
343.15	19799.9	897.8	343.15	18778.2	891.3	343.15	17772.9	884.5	343.15	16785.5	877.4
343.15	19787.3	897.7	343.15	18765.9	891.2	343.15	17759.6	884.4	343.15	16773.6	877.4
343.15	19774.1	897.7	343.14	18752.6	891.1	343.15	17746.6	884.3	343.15	16762.1	877.3
343.15	19761.0	897.5	343.15	18742.2	891.0	343.15	17733.2	884.2	343.15	16748.6	877.2
343.15	19747.8	897.5	343.15	18729.3	890.9	343.15	17719.8	884.1	343.15	16735.1	877.1
343.15	19735.3	897.4	343.15	18717.6	890.9	343.15	17707.2	884.0	343.15	16721.5	876.9
343.15	19721.1	897.3	343.15	18705.5	890.8	343.15	17694.7	883.9	343.14	16706.9	876.8
343.15	19708.6	897.2	343.15	18690.8	890.7	343.15	17681.7	883.8	343.14	16694.0	876.7
343.15	19696.8	897.2	343.15	18675.7	890.6	343.15	17668.6	883.8	343.14	16681.3	876.7
343.15	19683.2	897.1	343.15	18662.9	890.5	343.15	17656.4	883.6	343.14	16668.3	876.6
343.15	19669.8	897.0	343.15	18650.3	890.4	343.15	17643.3	883.6	343.14	16655.6	876.5
343.15	19658.1	896.9	343.15	18637.6	890.3	343.15	17631.8	883.5	343.14	16642.8	876.4
343.15	19646.3	896.8	343.15	18626.1	890.3	343.14	17618.4	883.4	343.14	16630.6	876.3
343.15	19634.3	896.8	343.14	18614.4	890.2	343.14	17606.3	883.3	343.15	16618.5	876.2
343.14	19621.3	896.7	343.14	18602.1	890.1	343.14	17594.2	883.2	343.15	16605.5	876.1
343.14	19610.0	896.6	343.14	18589.3	890.0	343.15	17582.0	883.1	343.14	16591.8	876.0
343.14	19598.5	896.5	343.14	18575.8	889.9	343.15	17568.2	883.1	343.15	16579.6	875.9
343.14	19585.7	896.5	343.14	18563.4	889.8	343.15	17554.6	883.0	343.14	16568.5	875.8
343.14	19574.4	896.4	343.14	18551.8	889.8	343.15	17540.6	882.9	343.15	16555.3	875.7
343.15	19562.7	896.3	343.14	18536.8	889.7	343.14	17528.8	882.8	343.14	16543.2	875.6
343.15	19551.9	896.2	343.15	18526.6	889.6	343.14	17517.2	882.7	343.14	16532.2	875.6
343.15	19539.1	896.2	343.14	18514.8	889.5	343.14	17504.1	882.6	343.15	16519.4	875.5
343.15	19526.8	896.1	343.15	18503.0	889.5	343.14	17490.6	882.5	343.15	16507.9	875.3
343.14	19514.0	896.0	343.15	18490.3	889.4	343.15	17476.2	882.4	343.15	16494.7	875.3
343.14	19499.2	895.9	343.15	18477.9	889.3	343.15	17464.0	882.3	343.15	16481.9	875.2
343.14	19485.0	895.8	343.15	18465.5	889.2	343.15	17450.0	882.2	343.15	16469.2	875.1
343.14	19471.5	895.7	343.15	18450.5	889.1	343.14	17437.9	882.1	343.15	16455.3	875.0
343.14	19458.7	895.6	343.15	18437.8	889.0	343.14	17425.0	882.0	343.15	16442.2	874.9
343.14	19444.7	895.6	343.15	18424.2	888.9	343.14	17411.5	882.0	343.15	16429.5	874.8
343.14	19431.4	895.5	343.14	18410.5	888.9	343.14	17399.0	881.9	343.15	16416.5	874.7
343.14	19417.6	895.4	343.14	18398.2	888.8	343.14	17386.4	881.8	343.14	16403.3	874.6
343.15	19404.8	895.3	343.14	18385.8	888.7	343.14	17373.3	881.7	343.15	16391.3	874.5
343.15	19391.9	895.3	343.15	18371.8	888.6	343.15	17359.8	881.6	343.14	16378.8	874.4
343.14	19378.8	895.1	343.15	18359.5	888.5	343.15	17345.8	881.5	343.14	16366.7	874.3
343.15	19364.9	895.0	343.15	18347.0	888.4	343.15	17332.3	881.4	343.14	16353.8	874.2
343.14	19351.1	895.0	343.15	18333.3	888.3	343.15	17321.4	881.3	343.14	16341.8	874.1
343.14	19336.3	894.8	343.15	18320.3	888.2	343.15	17307.5	881.2	343.14	16329.0	874.1
343.15	19324.5	894.8	343.15	18306.0	888.2	343.15	17294.0	881.1	343.14	16316.8	874.0
343.14	19308.6	894.7	343.15	18292.8	888.0	343.14	17282.2	881.0	343.14	16305.2	873.9
343.14	19295.0	894.6	343.15	18278.4	888.0	343.14	17268.3	881.0	343.14	16292.7	873.8
343.14	19280.3	894.6	343.15	18266.5	887.9	343.14	17256.2	880.8	343.14	16279.9	873.7
343.15	19267.1	894.4	343.15	18254.2	887.8	343.14	17243.9	880.8	343.14	16268.2	873.6
343.14	19253.7	894.3	343.15	18240.8	887.7	343.14	17230.8	880.7	343.14	16256.2	873.5
343.15	19239.1	894.3	343.15	18226.8	887.6	343.14	17216.7	880.6	343.14	16243.4	873.4
343.15	19226.2	894.2	343.15	18213.7	887.5	343.14	17203.7	880.5	343.14	16230.9	873.3
343.14	19212.3	894.1	343.15	18202.4	887.4	343.15	17192.0	880.4	343.14	16218.4	873.2
343.14	19197.3	894.0	343.15	18189.2	887.4	343.15	17178.2	880.3	343.14	16206.6	873.1
343.14	19184.6	893.9	343.15	18175.6	887.3	343.14	17166.2	880.2	343.14	16193.7	873.0
343.14	19172.0	893.8	343.15	18161.9	887.2	343.14	17153.0	880.1	343.14	16181.2	872.9
343.14	19158.2	893.7	343.15	18149.2	887.1	343.14	17140.9	880.0	343.14	16168.2	872.8
343.14	19145.6	893.6	343.15	18135.4	887.0	343.14	17129.1	880.0	343.14	16156.7	872.7
343.14	19132.3	893.6	343.15	18124.1	886.9	343.14	17116.4	879.9	343.14	16144.9	872.7
343.14	19118.7	893.5	343.14	18110.4	886.8	343.15	17103.6	879.8	343.14	16133.3	872.6
343.14	19106.3	893.4	343.14	18098.0	886.8	343.15	17090.2	879.7	343.14	16121.8	872.5
343.14	19094.0	893.3	343.14	18085.2	886.6	343.15	17078.1	879.6	343.14	16109.3	872.4
343.14	19080.5	893.2	343.14	18072.5	886.6	343.15	17066.3	879.5	343.14	16096.8	872.3
343.14	19067.2	893.2	343.14	18060.9	886.5	343.15	17054.3	879.4	343.14	16084.5	872.2
343.14	19055.8	893.1	343.15	18047.7	886.4	343.15	17041.8	879.3	343.15	16072.1	872.1
343.15	19043.0	893.0	343.15	18033.8	886.3	343.15	17027.4	879.2	343.14	16059.3	872.0
343.14	19029.3	892.9	343.15	18021.6	886.2	343.14	17015.1	879.1	343.14	16046.1	871.9
343.14	19015.7	892.8	343.15	18008.2	886.1	343.15	17003.7	879.1	343.14	16033.8	871.8
343.14	19003.7	892.7	343.15	17994.7	886.0	343.15	16990.2	878.9	343.14	16022.1	871.7
343.14	18990.4	892.7	343.15	17982.8	886.0	343.15	16978.5	878.9	343.14	16009.9	871.6

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
343.14	15998.7	871.5	343.15	14980.5	863.4	343.15	14048.2	855.4	343.15	13078.9	846.6
343.14	15986.3	871.4	343.15	14969.3	863.3	343.15	14035.5	855.3	343.15	13066.0	846.5
343.14	15974.5	871.4	343.15	14956.5	863.3	343.15	14024.6	855.3	343.15	13055.0	846.3
343.14	15962.7	871.3	343.15	14944.6	863.1	343.15	14013.7	855.1	343.15	13042.3	846.2
343.14	15950.3	871.1	343.15	14932.6	863.1	343.15	14001.7	855.0	343.15	13028.9	846.1
343.14	15939.4	871.0	343.15	14918.8	862.9	343.15	13990.6	855.0	343.15	13017.5	846.0
343.14	15928.4	871.0	343.15	14905.0	862.8	343.15	13978.4	854.8	343.14	13004.5	845.8
343.14	15917.1	870.9	343.15	14893.2	862.7	343.15	13966.0	854.7	343.14	12991.5	845.7
343.14	15906.0	870.8	343.15	14879.8	862.6	343.15	13953.0	854.6	343.14	12980.1	845.6
343.15	15895.4	870.8	343.15	14866.3	862.5	343.15	13939.9	854.5	343.14	12966.5	845.5
343.15	15885.1	870.7	343.15	14853.4	862.4	343.15	13926.6	854.3	343.14	12954.0	845.4
343.15	15872.9	870.6	343.15	14839.7	862.3	343.15	13914.4	854.3	343.14	12942.3	845.2
343.15	15860.4	870.5	343.15	14826.1	862.1	343.15	13901.5	854.2	343.15	12930.1	845.1
343.14	15846.9	870.4	343.15	14813.8	862.0	343.15	13888.6	854.1	343.15	12920.0	845.0
343.14	15833.7	870.2	343.15	14802.1	861.9	343.15	13874.2	853.9	343.15	12909.5	844.9
343.14	15820.2	870.2	343.15	14790.7	861.8	343.15	13861.2	853.8	343.15	12898.9	844.8
343.14	15809.2	870.1	343.15	14779.2	861.7	343.14	13848.5	853.7	343.15	12888.9	844.7
343.14	15798.8	870.0	343.15	14767.2	861.7	343.14	13834.2	853.6	343.15	12877.9	844.6
343.14	15786.8	869.9	343.15	14755.6	861.5	343.14	13820.8	853.4	343.15	12867.1	844.5
343.15	15774.1	869.8	343.15	14742.3	861.4	343.15	13808.0	853.3	343.15	12858.2	844.4
343.15	15760.4	869.7	343.15	14730.1	861.4	343.15	13794.4	853.2	343.15	12848.9	844.3
343.15	15746.2	869.6	343.15	14717.6	861.2	343.15	13780.9	853.1	343.15	12838.4	844.2
343.15	15732.4	869.5	343.15	14706.3	861.2	343.15	13767.3	853.0	343.15	12829.5	844.1
343.15	15718.0	869.4	343.15	14694.8	861.1	343.15	13753.4	852.8	343.15	12819.7	844.0
343.15	15701.9	869.2	343.15	14683.5	860.9	343.15	13741.5	852.7	343.15	12808.9	843.9
343.15	15687.5	869.1	343.15	14672.9	860.8	343.15	13727.8	852.6	343.15	12798.6	843.8
343.14	15674.1	869.0	343.15	14660.7	860.7	343.14	13713.9	852.5	343.15	12786.0	843.7
343.15	15659.6	868.9	343.15	14649.2	860.6	343.14	13700.2	852.4	343.15	12775.0	843.6
343.14	15644.9	868.8	343.15	14637.6	860.6	343.14	13685.6	852.3	343.15	12764.4	843.5
343.14	15629.4	868.7	343.14	14624.8	860.4	343.14	13672.4	852.1	343.15	12752.5	843.4
343.15	15614.0	868.5	343.15	14613.2	860.4	343.15	13658.5	852.0	343.15	12743.6	843.3
343.15	15599.1	868.4	343.14	14600.7	860.3	343.15	13646.3	851.9	343.15	12732.9	843.2
343.15	15586.5	868.3	343.14	14589.3	860.2	343.15	13634.6	851.8	343.15	12722.8	843.1
343.15	15572.2	868.3	343.15	14579.0	860.0	343.15	13622.3	851.6	343.15	12712.1	843.0
343.15	15559.6	868.1	343.15	14566.7	860.0	343.15	13609.9	851.5	343.15	12701.0	842.9
343.15	15545.4	868.0	343.15	14555.6	859.9	343.15	13595.1	851.5	343.15	12691.0	842.7
343.14	15530.5	867.9	343.15	14544.1	859.8	343.15	13582.1	851.3	343.15	12681.5	842.7
343.14	15516.9	867.8	343.15	14530.9	859.7	343.14	13569.4	851.1	343.15	12671.4	842.6
343.14	15502.6	867.7	343.15	14517.8	859.5	343.14	13556.1	851.1	343.15	12660.3	842.5
343.14	15488.8	867.6	343.15	14505.8	859.4	343.14	13544.5	851.0	343.15	12647.9	842.4
343.14	15475.1	867.5	343.15	14494.8	859.4	343.14	13531.6	850.8	343.15	12637.4	842.3
343.14	15461.9	867.3	343.15	14483.7	859.3	343.15	13518.6	850.7	343.15	12627.4	842.1
343.15	15450.1	867.3	343.15	14471.5	859.1	343.15	13506.4	850.6	343.15	12617.0	842.1
343.15	15436.6	867.2	343.15	14460.0	859.0	343.15	13493.3	850.5	343.15	12605.8	841.9
343.15	15423.9	867.0	343.15	14449.4	858.9	343.15	13482.2	850.4	343.15	12595.5	841.8
343.15	15409.7	866.9	343.15	14437.0	858.8	343.15	13469.7	850.2	343.15	12585.2	841.7
343.15	15395.4	866.8	343.15	14426.2	858.8	343.15	13457.3	850.1	343.15	12573.8	841.7
343.15	15383.6	866.7	343.15	14413.5	858.7	343.15	13446.7	850.0	343.15	12562.7	841.5
343.15	15370.8	866.6	343.15	14401.0	858.5	343.15	13435.0	849.9	343.15	12549.1	841.4
343.14	15357.6	866.5	343.15	14388.6	858.4	343.14	13424.7	849.8	343.15	12536.0	841.2
343.14	15344.0	866.4	343.15	14379.0	858.4	343.14	13413.8	849.7	343.15	12523.1	841.1
343.14	15328.4	866.3	343.15	14367.3	858.3	343.14	13403.7	849.6	343.15	12511.5	841.0
343.14	15315.4	866.1	343.15	14356.7	858.2	343.15	13392.6	849.5	343.15	12500.1	840.9
343.15	15301.7	866.1	343.15	14344.7	858.0	343.14	13381.6	849.4	343.15	12489.3	840.8
343.15	15287.1	865.9	343.15	14333.4	857.9	343.14	13370.8	849.3	343.15	12479.0	840.7
343.15	15273.1	865.8	343.15	14322.2	857.9	343.15	13359.8	849.2	343.15	12470.6	840.6
343.15	15259.2	865.7	343.14	14310.9	857.8	343.15	13347.8	849.1	343.15	12461.6	840.5
343.15	15245.6	865.6	343.15	14299.2	857.6	343.15	13335.6	849.0	343.15	12450.4	840.4
343.15	15231.9	865.5	343.15	14288.4	857.6	343.15	13323.8	848.9	343.15	12440.5	840.3
343.15	15217.5	865.4	343.15	14276.4	857.5	343.15	13309.7	848.8	343.15	12430.2	840.2
343.15	15203.3	865.3	343.15	14266.5	857.4	343.14	13297.5	848.6	343.15	12421.2	840.0
343.15	15191.7	865.2	343.15	14256.3	857.3	343.14	13284.6	848.6	343.15	12412.5	840.0
343.15	15178.6	865.1	343.15	14244.7	857.2	343.14	13271.0	848.4	343.15	12401.1	839.9
343.15	15166.6	865.0	343.15	14233.7	857.1	343.14	13258.5	848.3	343.15	12389.9	839.8
343.15	15155.3	864.9	343.14	14221.7	857.0	343.14	13244.2	848.1	343.15	12377.9	839.7
343.15	15142.1	864.8	343.15	14210.0	856.9	343.15	13232.4	848.0	343.15	12365.5	839.5
343.15	15128.6	864.7	343.14	14197.2	856.8	343.15	13221.9	847.9	343.15	12354.4	839.4
343.15	15116.9	864.6	343.14	14185.8	856.7	343.15	13210.9	847.8	343.15	12343.0	839.3
343.15	15104.6	864.4	343.15	14172.1	856.5	343.15	13198.6	847.7	343.15	12330.5	839.2
343.15	15092.8	864.4	343.15	14159.6	856.4	343.15	13186.7	847.6	343.15	12318.7	839.1
343.15	15081.8	864.2	343.15	14146.0	856.3	343.15	13175.0	847.4	343.15	12307.3	838.9
343.15	15069.3	864.2	343.15	14136.2	856.2	343.15	13162.8	847.4	343.15	12295.1	838.8
343.15	15056.6	864.0	343.14	14123.9	856.1	343.15	13151.5	847.3	343.15	12284.1	838.7
343.14	15044.2	863.9	343.15	14112.7	856.0	343.15	13141.0	847.2	343.15	12270.7	838.6
343.15	15031.0	863.8	343.14	14100.6	855.9	343.14	13129.5	847.0	343.15	12257.1	838.4
343.15	15018.0	863.7	343.15	14088.4	855.8	343.14	13117.7	846.9	343.15	12245.3	838.3
343.14	15004.3	863.6	343.15	14073.6	855.7	343.14	13104.6	846.8	343.15	12233.4	838.2
343.15	14991.4	863.5	343.15	14060.1	855.6	343.15	13093.1	846.7	343.15	12221.4	838.0

Valori della densità del fluido R32_*T*=70°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
343.15	12209.7	837.9	343.14	11301.4	828.2	343.14	10597.3	819.8	343.15	9701.2	808.2
343.15	12197.3	837.8	343.15	11289.0	828.0	343.14	10586.4	819.6	343.15	9689.0	808.0
343.14	12184.2	837.7	343.14	11278.3	827.9	343.14	10575.0	819.5	343.15	9678.0	807.9
343.14	12170.8	837.5	343.14	11267.2	827.8	343.14	10563.5	819.4	343.15	9665.7	807.7
343.14	12159.0	837.4	343.15	11255.7	827.7	343.15	10553.7	819.3	343.15	9652.8	807.6
343.14	12148.1	837.3	343.15	11245.4	827.5	343.15	10542.3	819.1	343.15	9641.3	807.4
343.15	12136.1	837.2	343.15	11234.4	827.4	343.15	10533.5	819.0	343.15	9629.7	807.2
343.14	12123.7	837.0	343.15	11223.7	827.3	343.15	10523.6	818.9	343.15	9617.6	807.1
343.14	12112.5	836.9	343.15	11212.7	827.1	343.15	10511.7	818.8	343.15	9605.7	806.9
343.14	12101.9	836.8	343.15	11201.7	827.0	343.15	10500.5	818.6	343.16	9592.7	806.7
343.14	12089.0	836.6	343.15	11190.2	826.9	343.15	10488.6	818.5	343.16	9580.1	806.6
343.15	12077.3	836.6	343.15	11180.0	826.8	343.15	10477.0	818.3	343.16	9568.0	806.4
343.15	12064.8	836.4	343.15	11167.6	826.6	343.15	10465.9	818.2	343.16	9555.9	806.2
343.15	12053.9	836.3	343.15	11155.2	826.5	343.15	10455.0	818.1	343.15	9544.4	806.0
343.14	12042.8	836.2	343.15	11142.5	826.3	343.15	10443.6	818.0	343.15	9532.8	805.9
343.14	12032.6	836.0	343.15	11128.9	826.2	343.15	10431.9	817.8	343.15	9521.3	805.7
343.14	12020.4	836.0	343.15	11116.5	826.0	343.15	10421.6	817.6	343.15	9510.3	805.6
343.14	12009.4	835.9	343.15	11103.2	825.9	343.16	10409.2	817.5	343.15	9498.4	805.4
343.14	11998.8	835.7	343.15	11089.7	825.7	343.16	10398.7	817.3	343.15	9487.0	805.3
343.14	11986.0	835.6	343.15	11075.0	825.6	343.16	10387.1	817.2	343.15	9476.5	805.0
343.15	11973.6	835.5	343.14	11060.8	825.4	343.15	10376.5	817.0	343.15	9464.4	804.9
343.15	11961.3	835.3	343.14	11046.3	825.2	343.15	10366.8	816.9	343.16	9453.2	804.7
343.15	11948.7	835.2	343.14	11031.8	825.1	343.15	10355.3	816.8	343.16	9442.7	804.6
343.15	11936.8	835.1	343.15	11020.0	824.9	343.15	10343.6	816.6	343.16	9429.6	804.4
343.15	11926.2	835.0	343.15	11006.3	824.4	343.15	10332.0	816.5	343.16	9418.6	804.2
343.15	11914.5	834.8	343.15	11005.1	824.5	343.15	10319.5	816.4	343.15	9407.4	804.0
343.14	11903.8	834.7	343.15	11005.1	824.5	343.15	10307.6	816.2	343.15	9394.8	803.9
343.15	11893.2	834.6	343.15	11005.1	824.5	343.16	10295.7	816.0	343.15	9384.4	803.7
343.15	11882.0	834.5	343.15	11005.5	824.5	343.16	10284.0	815.9	343.15	9373.1	803.6
343.15	11870.7	834.3	343.15	11005.6	824.5	343.16	10272.9	815.7	343.15	9360.5	803.4
343.15	11859.8	834.3	343.15	11003.9	824.5	343.15	10261.4	815.6	343.15	9349.1	803.3
343.15	11848.6	834.1	343.15	11001.2	824.4	343.15	10249.9	815.4	343.15	9338.7	803.1
343.15	11838.3	834.0	343.15	10996.0	824.4	343.14	10239.2	815.3	343.15	9326.2	802.9
343.15	11827.3	833.9	343.15	10990.8	824.4	343.15	10229.4	815.1	343.16	9314.8	802.7
343.15	11815.5	833.8	343.15	10985.2	824.3	343.15	10218.7	815.1	343.15	9302.7	802.5
343.15	11806.0	833.7	343.14	10979.0	824.2	343.15	10208.0	814.9	343.15	9292.0	802.4
343.15	11794.3	833.6	343.14	10972.6	824.1	343.15	10196.5	814.8	343.15	9280.5	802.2
343.14	11784.7	833.4	343.14	10965.5	824.0	343.15	10186.0	814.6	343.15	9267.9	802.0
343.15	11773.5	833.3	343.14	10959.3	824.0	343.16	10174.4	814.5	343.15	9254.6	801.9
343.15	11763.0	833.2	343.14	10953.1	823.9	343.16	10162.9	814.3	343.15	9241.9	801.7
343.14	11753.2	833.1	343.14	10945.5	823.8	343.15	10151.7	814.2	343.15	9230.3	801.5
343.14	11742.2	833.0	343.14	10938.8	823.8	343.15	10139.8	814.0	343.15	9218.4	801.3
343.14	11731.0	832.8	343.15	10932.7	823.7	343.15	10128.1	813.9	343.15	9206.2	801.2
343.14	11721.0	832.8	343.15	10926.3	823.6	343.15	10117.7	813.7	343.15	9193.6	801.0
343.14	11709.0	832.7	343.15	10921.4	823.6	343.15	10105.2	813.6	343.15	9182.0	800.8
343.14	11698.5	832.5	343.15	10915.0	823.5	343.15	10093.6	813.5	343.15	9170.5	800.6
343.14	11686.3	832.4	343.14	10907.4	823.4	343.15	10081.4	813.3	343.15	9159.1	800.5
343.14	11675.0	832.3	343.14	10902.1	823.4	343.15	10068.3	813.2	343.15	9147.5	800.3
343.14	11663.6	832.2	343.14	10895.4	823.3	343.15	10056.9	813.0	343.15	9136.7	800.1
343.15	11652.8	832.0	343.14	10888.0	823.2	343.16	10046.1	812.8	343.15	9125.1	799.9
343.15	11641.4	831.9	343.14	10881.1	823.1	343.16	10033.3	812.7	343.15	9113.1	799.8
343.15	11628.3	831.8	343.14	10873.7	823.0	343.16	10021.6	812.5	343.15	9100.6	799.6
343.15	11615.6	831.6	343.14	10865.4	823.0	343.16	10009.4	812.4	343.15	9088.9	799.4
343.15	11604.1	831.5	343.14	10857.5	822.9	343.15	9997.7	812.2	343.15	9076.7	799.2
343.15	11593.4	831.4	343.14	10850.3	822.8	343.15	9986.8	812.0	343.15	9064.1	799.0
343.15	11581.7	831.2	343.15	10842.9	822.7	343.15	9976.3	811.9	343.15	9051.3	798.9
343.15	11570.6	831.1	343.15	10834.4	822.6	343.15	9963.5	811.8	343.15	9039.4	798.7
343.15	11558.4	831.0	343.15	10824.7	822.5	343.15	9951.2	811.6	343.15	9027.5	798.5
343.15	11546.1	830.9	343.15	10815.8	822.4	343.16	9941.1	811.4	343.15	9015.6	798.3
343.15	11534.8	830.7	343.14	10806.6	822.3	343.15	9929.2	811.3	343.15	9004.9	798.2
343.14	11522.4	830.6	343.14	10797.2	822.1	343.15	9917.1	811.1	343.15	8993.6	798.0
343.14	11511.9	830.5	343.14	10786.7	822.0	343.15	9906.3	811.0	343.15	8981.3	797.8
343.14	11499.4	830.4	343.14	10776.7	821.9	343.15	9894.6	810.8	343.15	8970.6	797.6
343.14	11487.1	830.2	343.14	10765.3	821.8	343.15	9883.5	810.7	343.15	8959.1	797.4
343.14	11475.6	830.1	343.14	10754.3	821.7	343.15	9871.6	810.5	343.15	8947.2	797.3
343.14	11463.7	830.0	343.14	10742.8	821.6	343.15	9858.9	810.4	343.15	8935.6	797.1
343.15	11451.2	829.8	343.14	10731.9	821.4	343.15	9846.3	810.2	343.15	8924.2	797.0
343.14	11439.2	829.7	343.14	10720.7	821.3	343.15	9834.2	810.0	343.15	8912.0	796.8
343.15	11425.6	829.5	343.15	10708.7	821.1	343.15	9823.4	809.9	343.15	8900.1	796.6
343.15	11413.7	829.4	343.14	10698.5	821.0	343.15	9810.1	809.7	343.15	8888.7	796.4
343.14	11399.9	829.3	343.14	10687.0	820.9	343.16	9797.6	809.5	343.15	8875.9	796.2
343.15	11386.9	829.1	343.14	10674.9	820.7	343.15	9786.0	809.4	343.15	8864.7	796.0
343.15	11374.5	829.0	343.14	10664.2	820.6	343.15	9774.3	809.2	343.15	8854.1	795.9
343.15	11361.4	828.8	343.14	10654.9	820.5	343.15	9761.2	809.0	343.15	8843.0	795.7
343.15	11349.3	828.7	343.14	10642.4	820.3	343.15	9749.0	808.8	343.15	8832.3	795.5
343.15	11337.3	828.6	343.14	10630.8	820.2	343.15	9737.1	808.7	343.15	8822.5	795.4
343.15	11324.6	828.4	343.14	10618.9	820.1	343.15	9725.2	808.5	343.15	8811.4	795.1
343.14	11312.9	828.3	343.14	10608.8	820.0	343.15	9713.1	808.4	343.15	8801.1	795.0

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
343.15	8790.6	794.8	343.15	7905.4	779.8	343.15	7022.9	761.7	343.15	6217.6	741.0
343.15	8778.0	794.6	343.15	7894.7	779.5	343.15	7011.7	761.5	343.15	6207.2	740.7
343.15	8766.3	794.5	343.15	7883.5	779.3	343.15	7001.5	761.2	343.15	6198.2	740.4
343.15	8753.8	794.3	343.16	7872.8	779.1	343.15	6989.9	761.0	343.15	6188.0	740.0
343.15	8741.9	794.1	343.16	7860.9	778.9	343.15	6979.4	760.7	343.15	6178.4	739.8
343.15	8729.8	793.9	343.15	7849.1	778.7	343.16	6968.8	760.5	343.15	6169.5	739.5
343.15	8717.8	793.7	343.15	7836.7	778.5	343.15	6958.1	760.2	343.15	6158.6	739.3
343.15	8704.8	793.5	343.15	7825.1	778.3	343.15	6947.6	760.0	343.15	6148.5	738.9
343.15	8693.5	793.3	343.15	7816.0	778.1	343.15	6936.4	759.7	343.15	6138.4	738.6
343.15	8681.0	793.1	343.15	7804.1	777.9	343.15	6925.3	759.5	343.15	6127.2	738.3
343.15	8670.3	793.0	343.15	7793.4	777.6	343.15	6915.3	759.3	343.15	6117.5	738.0
343.15	8659.3	792.8	343.15	7782.8	777.5	343.15	6905.6	759.0	343.15	6107.6	737.6
343.15	8647.1	792.6	343.15	7770.4	777.2	343.15	6895.1	758.8	343.15	6096.4	737.3
343.15	8635.7	792.4	343.15	7759.3	777.0	343.15	6885.1	758.5	343.15	6087.4	737.1
343.16	8625.5	792.2	343.15	7748.1	776.8	343.15	6875.4	758.3	343.15	6077.9	736.8
343.15	8613.2	792.0	343.15	7736.2	776.6	343.15	6866.4	758.1	343.15	6067.0	736.4
343.15	8602.7	791.8	343.15	7724.4	776.3	343.15	6856.0	757.8	343.15	6058.0	736.1
343.15	8591.7	791.6	343.15	7712.4	776.1	343.15	6845.7	757.6	343.15	6047.5	735.8
343.15	8579.3	791.5	343.15	7700.1	775.9	343.15	6836.3	757.3	343.15	6036.6	735.5
343.15	8568.9	791.3	343.15	7689.9	775.7	343.15	6825.1	757.1	343.15	6026.4	735.2
343.15	8558.7	791.1	343.15	7678.0	775.5	343.15	6814.9	756.8	343.15	6017.0	734.8
343.16	8546.0	790.9	343.15	7666.4	775.3	343.15	6805.0	756.6	343.15	6006.8	734.5
343.15	8535.3	790.7	343.15	7654.5	775.0	343.15	6794.3	756.4	343.15	5996.8	734.2
343.15	8524.2	790.6	343.15	7642.1	774.8	343.15	6783.6	756.1	343.15	5986.0	733.8
343.16	8512.5	790.3	343.15	7630.3	774.6	343.15	6774.8	755.8	343.15	5976.2	733.5
343.16	8501.1	790.1	343.15	7620.3	774.3	343.15	6763.4	755.6	343.15	5966.5	733.2
343.15	8489.9	790.0	343.15	7608.8	774.1	343.15	6753.4	755.4	343.15	5955.8	732.9
343.15	8478.3	789.8	343.15	7597.0	773.9	343.15	6742.7	755.2	343.15	5945.4	732.5
343.15	8467.8	789.6	343.15	7586.8	773.7	343.15	6732.5	754.8	343.15	5935.4	732.2
343.15	8456.6	789.4	343.15	7577.5	773.5	343.15	6721.6	754.6	343.15	5925.2	731.9
343.15	8445.4	789.2	343.15	7565.4	773.2	343.15	6710.2	754.3	343.15	5916.4	731.6
343.15	8434.9	789.1	343.15	7554.4	773.0	343.14	6699.8	754.1	343.15	5906.2	731.2
343.15	8423.5	788.9	343.15	7542.1	772.8	343.14	6688.4	753.8	343.15	5895.6	730.9
343.15	8411.4	788.7	343.15	7530.7	772.6	343.15	6677.6	753.5	343.15	5885.1	730.5
343.15	8400.5	788.5	343.15	7520.4	772.4	343.15	6667.0	753.2	343.15	5875.7	730.2
343.16	8389.0	788.3	343.15	7509.1	772.2	343.15	6656.3	753.0	343.15	5865.5	729.9
343.16	8377.1	788.1	343.15	7497.4	771.9	343.15	6645.6	752.7	343.15	5855.2	729.5
343.15	8365.7	787.9	343.15	7486.9	771.7	343.15	6635.4	752.4	343.15	5844.5	729.2
343.15	8354.3	787.7	343.15	7476.2	771.5	343.15	6625.2	752.2	343.15	5835.0	728.8
343.15	8342.5	787.5	343.16	7464.4	771.2	343.15	6615.0	751.9	343.15	5824.6	728.5
343.15	8331.2	787.3	343.15	7452.8	771.0	343.15	6604.3	751.6	343.15	5815.8	728.1
343.15	8319.8	787.1	343.15	7440.6	770.8	343.15	6594.6	751.4	343.15	5806.5	727.9
343.15	8308.4	787.0	343.15	7428.8	770.5	343.15	6584.9	751.1	343.15	5797.1	727.5
343.15	8297.7	786.8	343.15	7417.1	770.3	343.15	6574.9	750.9	343.15	5789.0	727.2
343.15	8286.6	786.6	343.15	7405.7	770.0	343.15	6564.7	750.6	343.15	5781.0	726.9
343.15	8275.3	786.4	343.15	7393.1	769.8	343.15	6555.2	750.3	343.14	5772.0	726.6
343.15	8264.0	786.2	343.15	7381.7	769.6	343.15	6545.2	750.1	343.14	5765.6	726.3
343.15	8251.8	786.0	343.15	7369.8	769.3	343.15	6534.6	749.8	343.14	5758.9	726.0
343.15	8242.5	785.8	343.15	7358.0	769.1	343.15	6525.0	749.6	343.15	5749.6	725.8
343.15	8230.9	785.6	343.15	7347.8	768.8	343.15	6515.1	749.3	343.15	5741.1	725.4
343.15	8220.4	785.4	343.15	7335.4	768.6	343.15	6503.7	749.0	343.15	5733.5	725.1
343.15	8209.5	785.2	343.15	7324.5	768.3	343.15	6493.1	748.7	343.15	5724.0	724.8
343.15	8196.9	785.0	343.15	7313.0	768.1	343.15	6482.1	748.4	343.15	5715.7	724.5
343.15	8186.7	784.9	343.15	7301.7	767.9	343.15	6470.9	748.1	343.15	5706.7	724.1
343.15	8176.5	784.7	343.15	7291.2	767.6	343.15	6461.2	747.9	343.15	5698.7	723.8
343.15	8165.0	784.5	343.15	7280.7	767.4	343.15	6451.0	747.6	343.15	5689.9	723.5
343.15	8155.0	784.3	343.15	7269.8	767.2	343.15	6439.9	747.3	343.15	5681.8	723.2
343.15	8145.0	784.1	343.15	7258.9	767.0	343.15	6430.6	747.1	343.15	5674.3	722.9
343.15	8132.4	783.9	343.15	7245.9	766.7	343.15	6419.9	746.8	343.15	5667.2	722.6
343.15	8121.2	783.7	343.16	7233.0	766.4	343.15	6409.8	746.5	343.15	5658.9	722.3
343.15	8108.7	783.5	343.15	7222.3	766.2	343.15	6401.2	746.2	343.15	5652.2	722.0
343.15	8096.3	783.2	343.15	7210.4	765.9	343.15	6391.0	745.9	343.16	5644.9	721.7
343.15	8085.4	783.1	343.16	7198.4	765.7	343.15	6381.1	745.7	343.15	5637.5	721.4
343.15	8074.5	782.8	343.15	7186.9	765.4	343.15	6370.6	745.4	343.15	5630.2	721.2
343.15	8062.8	782.7	343.15	7175.8	765.2	343.15	6360.1	745.1	343.15	5621.7	720.8
343.15	8051.8	782.4	343.15	7164.1	764.9	343.15	6349.7	744.8	343.15	5615.3	720.6
343.15	8040.7	782.2	343.15	7153.4	764.6	343.15	6339.7	744.5	343.15	5607.7	720.3
343.15	8029.7	782.0	343.15	7141.6	764.4	343.15	6329.3	744.2	343.15	5600.5	720.0
343.15	8017.9	781.8	343.15	7131.8	764.2	343.15	6319.1	743.9	343.15	5594.1	719.7
343.15	8006.4	781.6	343.15	7121.1	763.9	343.15	6309.6	743.7	343.15	5587.0	719.5
343.15	7994.8	781.4	343.15	7109.6	763.7	343.15	6298.5	743.4	343.15	5580.0	719.1
343.15	7983.2	781.2	343.15	7098.8	763.4	343.15	6288.5	743.1	343.15	5574.2	718.9
343.15	7972.7	781.0	343.15	7088.1	763.2	343.15	6279.0	742.8	343.16	5566.9	718.6
343.15	7961.1	780.7	343.15	7077.2	763.0	343.15	6268.6	742.5	343.16	5561.0	718.3
343.15	7949.4	780.6	343.15	7067.2	762.7	343.15	6259.1	742.2	343.16	5555.1	718.1
343.15	7940.3	780.4	343.15	7055.9	762.5	343.15	6248.6	741.8	343.16	5549.8	717.8
343.15	7927.7	780.2	343.15	7044.2	762.2	343.15	6237.8	741.6	343.15	5545.1	717.6
343.15	7916.3	780.0	343.15	7034.3	762.0	343.15	6228.3	741.3	343.15	5539.9	717.4

Valori della densità del fluido R32_*T*=70°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
343.15	5534.0	717.1	343.16	5476.2	714.4	343.17	5430.2	712.2	343.16	5396.1	710.6
343.15	5529.5	717.0	343.16	5472.6	714.3	343.17	5427.3	712.1	343.16	5394.7	710.5
343.16	5524.3	716.7	343.16	5469.5	714.1	343.17	5424.5	712.0	343.17	5392.6	710.4
343.16	5519.5	716.5	343.16	5465.2	713.9	343.16	5422.3	711.8	343.17	5389.5	710.3
343.16	5515.5	716.3	343.17	5462.0	713.8	343.16	5419.8	711.7	343.17	5386.5	710.1
343.16	5510.8	716.1	343.16	5458.1	713.6	343.16	5417.6	711.6	343.17	5383.4	709.9
343.16	5506.7	715.9	343.16	5453.9	713.4	343.16	5415.1	711.5	343.17	5378.4	709.8
343.16	5502.2	715.7	343.16	5450.5	713.2	343.16	5412.0	711.4	343.17	5374.3	709.6
343.16	5498.7	715.5	343.16	5447.5	713.1	343.17	5409.7	711.3	343.17	5368.4	709.4
343.16	5494.9	715.3	343.16	5443.7	713.0	343.17	5407.3	711.1	343.17	5363.2	709.2
343.16	5491.6	715.2	343.16	5440.9	712.8	343.17	5404.9	711.0	343.17	5358.2	708.9
343.16	5487.5	715.0	343.17	5438.4	712.6	343.17	5402.6	710.9	343.17	5356.4	708.8
343.16	5484.2	714.8	343.17	5435.4	712.5	343.17	5400.6	710.8	343.17	5355.4	708.7
343.16	5480.7	714.7	343.17	5432.8	712.4	343.16	5398.5	710.7			

Tabella D8: Valori della densità del fluido R32 per T = 353.15 K (80°C)

T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]
353.15	34997.0	943.0	353.15	34240.6	939.9	353.15	33350.1	936.2	353.15	32498.8	932.5
353.15	34993.5	943.0	353.15	34228.0	939.8	353.15	33339.8	936.1	353.15	32488.8	932.4
353.15	34988.8	943.0	353.15	34216.0	939.8	353.15	33328.5	936.1	353.15	32480.0	932.4
353.15	34985.4	943.0	353.15	34203.6	939.7	353.15	33315.9	936.0	353.15	32469.8	932.3
353.15	34981.6	942.9	353.15	34191.7	939.7	353.15	33304.3	936.0	353.15	32459.2	932.3
353.15	34978.0	942.9	353.15	34181.4	939.7	353.15	33291.1	935.9	353.15	32447.9	932.2
353.15	34973.8	942.9	353.15	34169.5	939.6	353.15	33280.0	935.8	353.15	32437.3	932.2
353.15	34968.9	942.9	353.15	34158.3	939.6	353.14	33269.5	935.8	353.15	32426.2	932.1
353.15	34965.0	942.9	353.15	34147.8	939.5	353.14	33257.3	935.8	353.15	32415.2	932.1
353.15	34960.8	942.9	353.15	34135.1	939.5	353.15	33245.1	935.7	353.15	32403.4	932.0
353.15	34954.9	942.9	353.15	34123.3	939.5	353.15	33232.8	935.7	353.15	32392.7	932.0
353.15	34950.0	942.8	353.15	34112.0	939.3	353.15	33221.5	935.6	353.15	32381.4	931.9
353.15	34944.8	942.8	353.15	34099.8	939.3	353.15	33210.6	935.6	353.15	32368.9	931.9
353.15	34940.6	942.8	353.15	34087.2	939.3	353.15	33198.4	935.5	353.15	32358.4	931.8
353.15	34935.5	942.8	353.15	34075.5	939.2	353.15	33186.8	935.5	353.15	32345.8	931.8
353.15	34930.3	942.7	353.15	34063.8	939.2	353.15	33176.6	935.4	353.15	32334.9	931.7
353.15	34925.8	942.7	353.15	34051.8	939.2	353.15	33164.1	935.3	353.15	32324.9	931.7
353.15	34921.1	942.8	353.15	34040.7	939.1	353.15	33152.0	935.3	353.15	32311.9	931.6
353.15	34915.8	942.7	353.15	34029.0	939.0	353.15	33139.8	935.2	353.15	32301.2	931.6
353.15	34910.7	942.7	353.15	34016.7	938.9	353.15	33128.2	935.2	353.15	32290.5	931.5
353.15	34904.1	942.7	353.15	34004.5	938.9	353.15	33115.3	935.1	353.15	32278.5	931.5
353.15	34897.5	942.6	353.15	33991.9	938.9	353.15	33103.7	935.1	353.15	32267.4	931.4
353.15	34890.7	942.6	353.15	33980.0	938.8	353.15	33092.4	935.0	353.15	32256.4	931.4
353.15	34882.8	942.6	353.15	33966.3	938.8	353.15	33079.0	935.0	353.15	32245.7	931.3
353.15	34875.0	942.5	353.15	33954.2	938.7	353.15	33068.1	934.9	353.14	32234.4	931.3
353.15	34866.1	942.5	353.15	33942.4	938.7	353.15	33057.7	934.8	353.14	32222.8	931.2
353.15	34855.8	942.5	353.15	33929.9	938.6	353.15	33044.8	934.8	353.14	32211.4	931.2
353.15	34844.8	942.4	353.15	33919.6	938.6	353.14	33034.1	934.8	353.14	32201.0	931.1
353.15	34831.8	942.4	353.15	33907.8	938.5	353.15	33023.4	934.7	353.15	32189.3	931.0
353.15	34818.0	942.3	353.15	33895.9	938.5	353.15	33012.5	934.7	353.15	32179.3	931.0
353.15	34807.5	942.3	353.15	33884.9	938.4	353.15	33002.6	934.7	353.15	32168.3	931.0
353.15	34795.6	942.2	353.15	33872.0	938.4	353.15	32992.7	934.6	353.15	32156.2	930.9
353.15	34784.5	942.2	353.15	33859.3	938.3	353.15	32981.1	934.6	353.15	32144.4	930.9
353.15	34772.2	942.1	353.15	33847.2	938.3	353.15	32969.8	934.5	353.15	32134.1	930.8
353.15	34760.6	942.1	353.15	33835.3	938.2	353.15	32959.3	934.4	353.15	32122.7	930.8
353.15	34749.1	942.0	353.15	33825.7	938.2	353.15	32947.8	934.4	353.15	32112.3	930.7
353.15	34737.7	942.0	353.15	33814.1	938.1	353.15	32935.9	934.4	353.15	32102.1	930.7
353.15	34724.1	941.9	353.15	33801.8	938.1	353.15	32923.9	934.3	353.15	32090.8	930.6
353.15	34710.7	941.9	353.15	33790.5	938.0	353.15	32912.5	934.2	353.15	32080.5	930.6
353.15	34698.1	941.8	353.15	33779.6	937.9	353.15	32901.0	934.2	353.15	32070.8	930.5
353.15	34684.7	941.8	353.15	33767.3	937.9	353.15	32889.8	934.1	353.15	32060.7	930.5
353.15	34671.5	941.7	353.15	33755.5	937.9	353.15	32879.0	934.2	353.15	32049.7	930.4
353.15	34659.0	941.7	353.15	33743.8	937.8	353.15	32868.4	934.0	353.15	32038.1	930.4
353.15	34646.5	941.6	353.15	33730.7	937.8	353.15	32857.4	934.0	353.15	32029.3	930.4
353.15	34633.8	941.6	353.15	33716.8	937.7	353.15	32847.0	934.0	353.15	32018.7	930.3
353.15	34623.3	941.5	353.15	33705.4	937.6	353.15	32835.3	933.9	353.15	32007.6	930.3
353.15	34609.3	941.5	353.15	33693.9	937.6	353.15	32825.5	933.9	353.15	31998.0	930.2
353.15	34596.9	941.4	353.15	33682.0	937.5	353.15	32814.5	933.8	353.15	31986.4	930.1
353.15	34585.1	941.4	353.15	33670.3	937.5	353.15	32802.4	933.8	353.15	31975.3	930.1
353.15	34571.8	941.3	353.14	33657.6	937.4	353.15	32792.6	933.7	353.15	31965.5	930.1
353.15	34562.3	941.3	353.14	33646.7	937.4	353.15	32781.5	933.7	353.15	31954.2	930.0
353.15	34549.7	941.2	353.15	33634.1	937.4	353.15	32769.4	933.6	353.15	31942.5	930.0
353.15	34536.3	941.2	353.15	33622.4	937.3	353.15	32759.2	933.6	353.15	31931.2	929.9
353.15	34523.7	941.1	353.15	33611.5	937.3	353.15	32747.3	933.5	353.15	31919.3	929.9
353.15	34510.3	941.0	353.15	33599.0	937.2	353.15	32736.4	933.5	353.15	31909.0	929.8
353.15	34497.4	941.0	353.15	33587.3	937.1	353.15	32726.6	933.4	353.15	31898.3	929.8
353.15	34484.7	940.9	353.15	33575.5	937.1	353.15	32714.7	933.4	353.15	31886.9	929.7
353.15	34471.5	940.9	353.15	33564.3	937.1	353.15	32703.2	933.3	353.15	31875.8	929.7
353.15	34458.7	940.8	353.15	33553.0	937.0	353.15	32691.4	933.3	353.15	31862.9	929.6
353.15	34445.8	940.8	353.14	33540.9	937.0	353.15	32680.1	933.2	353.15	31851.4	929.6
353.15	34432.4	940.7	353.15	33528.3	936.9	353.15	32668.1	933.2	353.14	31841.5	929.5
353.15	34419.3	940.7	353.15	33516.7	936.9	353.15	32656.5	933.2	353.14	31829.5	929.5
353.15	34406.7	940.6	353.15	33505.4	936.8	353.15	32644.9	933.1	353.15	31818.1	929.4
353.15	34393.5	940.6	353.15	33492.0	936.8	353.15	32633.9	933.1	353.15	31807.1	929.4
353.15	34379.6	940.5	353.15	33479.5	936.7	353.15	32622.3	932.9	353.15	31795.8	929.3
353.15	34367.3	940.4	353.15	33468.5	936.6	353.15	32609.7	932.9	353.15	31785.5	929.3
353.15	34353.8	940.4	353.15	33455.4	936.6	353.15	32598.7	932.9	353.15	31775.9	929.2
353.15	34342.0	940.3	353.15	33444.5	936.5	353.14	32587.7	932.8	353.15	31763.2	929.2
353.15	34329.4	940.3	353.15	33433.6	936.5	353.14	32576.6	932.8	353.15	31752.8	929.1
353.15	34317.8	940.2	353.15	33421.1	936.5	353.14	32565.1	932.7	353.15	31741.1	929.1
353.15	34305.7	940.2	353.15	33411.0	936.4	353.14	32553.2	932.7	353.14	31730.3	929.0
353.15	34293.9	940.2	353.15	33397.6	936.4	353.14	32542.1	932.6	353.14	31718.9	929.0
353.15	34280.7	940.1	353.15	33385.8	936.3	353.15	32531.0	932.6	353.14	31707.8	928.9
353.15	34267.9	940.0	353.15	33374.5	936.2	353.15	32519.4	932.5	353.15	31696.1	928.9
353.15	34254.6	940.0	353.15	33363.0	936.2	353.15	32509.8	932.5	353.15	31685.2	928.8

Valori della densità del fluido R32_*T*=80°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
353.15	31673.9	928.8	353.15	30850.6	925.0	353.15	30038.8	921.2	353.15	29256.6	917.4
353.15	31662.7	928.7	353.15	30840.8	924.9	353.15	30027.6	921.1	353.15	29247.3	917.4
353.15	31651.8	928.7	353.15	30830.8	924.9	353.15	30018.4	921.1	353.15	29236.0	917.3
353.15	31639.9	928.6	353.15	30820.7	924.9	353.15	30008.5	921.0	353.15	29226.1	917.3
353.15	31629.7	928.6	353.15	30811.3	924.8	353.15	29998.1	921.0	353.15	29214.8	917.2
353.15	31619.8	928.5	353.15	30801.6	924.8	353.15	29988.4	921.0	353.15	29203.9	917.2
353.15	31609.2	928.5	353.14	30789.4	924.7	353.15	29978.1	920.9	353.15	29193.1	917.1
353.15	31598.2	928.4	353.14	30779.2	924.7	353.15	29968.6	920.9	353.15	29182.2	917.1
353.15	31587.6	928.4	353.15	30767.7	924.6	353.15	29959.1	920.8	353.15	29170.6	917.0
353.15	31576.8	928.3	353.15	30756.0	924.6	353.15	29947.5	920.8	353.15	29159.8	917.0
353.15	31566.0	928.3	353.15	30745.2	924.5	353.15	29936.8	920.7	353.15	29149.8	916.9
353.15	31556.9	928.3	353.15	30732.1	924.5	353.15	29927.0	920.7	353.15	29139.6	916.9
353.15	31546.0	928.2	353.15	30721.6	924.4	353.15	29916.8	920.6	353.15	29129.5	916.8
353.15	31536.0	928.1	353.15	30712.1	924.4	353.15	29907.1	920.6	353.15	29119.8	916.7
353.15	31524.6	928.1	353.15	30701.5	924.3	353.15	29897.3	920.5	353.15	29109.8	916.7
353.15	31515.5	928.1	353.15	30692.0	924.3	353.15	29886.9	920.5	353.15	29099.9	916.7
353.15	31507.9	928.0	353.15	30681.0	924.2	353.15	29876.9	920.5	353.15	29091.2	916.6
353.15	31497.0	928.0	353.15	30669.9	924.2	353.15	29866.3	920.4	353.15	29082.1	916.6
353.15	31487.7	927.9	353.15	30659.9	924.1	353.14	29856.3	920.4	353.15	29072.3	916.6
353.15	31477.0	927.9	353.15	30650.2	924.1	353.14	29846.0	920.3	353.15	29062.3	916.5
353.15	31466.1	927.8	353.15	30639.8	924.0	353.14	29835.2	920.2	353.15	29052.7	916.4
353.15	31455.2	927.8	353.15	30628.8	924.0	353.15	29824.4	920.2	353.15	29044.2	916.4
353.15	31444.0	927.7	353.15	30618.0	923.9	353.15	29813.6	920.2	353.15	29035.9	916.3
353.15	31433.1	927.7	353.15	30607.4	923.9	353.15	29801.8	920.1	353.15	29026.2	916.3
353.15	31423.9	927.7	353.15	30596.9	923.8	353.15	29792.9	920.0	353.15	29016.3	916.2
353.15	31412.6	927.6	353.15	30586.4	923.8	353.15	29782.9	920.0	353.15	29006.3	916.2
353.15	31401.4	927.5	353.15	30575.8	923.7	353.15	29772.7	919.9	353.15	28996.3	916.1
353.15	31391.5	927.5	353.15	30565.8	923.6	353.15	29763.2	919.9	353.15	28987.7	916.1
353.14	31381.0	927.4	353.15	30556.4	923.7	353.15	29752.5	919.8	353.15	28978.7	916.0
353.15	31370.3	927.4	353.15	30546.9	923.6	353.15	29741.7	919.8	353.15	28967.1	916.0
353.15	31360.4	927.4	353.15	30536.4	923.5	353.15	29731.9	919.7	353.15	28958.3	916.0
353.15	31349.8	927.3	353.15	30527.8	923.5	353.15	29722.9	919.7	353.15	28948.2	916.0
353.15	31339.5	927.3	353.15	30517.7	923.5	353.15	29711.5	919.6	353.15	28939.2	915.8
353.15	31328.4	927.2	353.15	30507.7	923.4	353.15	29702.6	919.6	353.15	28929.3	915.8
353.15	31317.9	927.1	353.15	30497.4	923.4	353.15	29692.5	919.5	353.15	28919.0	915.8
353.15	31306.6	927.1	353.15	30486.7	923.3	353.15	29681.6	919.5	353.15	28909.2	915.7
353.15	31296.1	927.0	353.15	30476.7	923.2	353.15	29672.4	919.4	353.15	28898.9	915.7
353.15	31284.9	927.0	353.15	30464.4	923.2	353.15	29661.7	919.4	353.15	28888.1	915.6
353.15	31273.7	927.0	353.15	30454.6	923.2	353.15	29650.8	919.4	353.15	28877.7	915.6
353.15	31263.6	926.9	353.15	30445.0	923.1	353.15	29642.0	919.3	353.15	28868.7	915.5
353.15	31252.9	926.9	353.15	30435.0	923.1	353.15	29631.1	919.3	353.15	28857.6	915.5
353.15	31243.1	926.8	353.15	30423.3	923.0	353.15	29621.7	919.2	353.15	28848.0	915.4
353.15	31232.8	926.8	353.15	30413.4	923.0	353.15	29612.8	919.2	353.14	28837.2	915.4
353.15	31221.9	926.7	353.15	30404.3	922.9	353.15	29602.0	919.1	353.14	28826.9	915.3
353.15	31212.2	926.7	353.15	30393.2	922.9	353.15	29592.1	919.1	353.14	28817.4	915.3
353.15	31201.6	926.6	353.15	30383.5	922.8	353.15	29583.1	919.0	353.15	28807.2	915.3
353.15	31189.8	926.6	353.15	30373.3	922.8	353.15	29572.9	919.0	353.15	28797.1	915.2
353.15	31180.5	926.5	353.15	30362.2	922.8	353.15	29562.4	918.9	353.15	28787.8	915.1
353.15	31169.7	926.5	353.15	30351.8	922.7	353.15	29552.7	918.9	353.15	28777.3	915.1
353.15	31158.8	926.4	353.15	30343.1	922.6	353.15	29542.5	918.8	353.15	28766.4	915.0
353.15	31149.2	926.4	353.15	30333.2	922.6	353.15	29532.7	918.8	353.15	28756.5	915.0
353.15	31138.8	926.3	353.15	30324.8	922.5	353.15	29522.7	918.7	353.15	28747.1	915.0
353.15	31128.2	926.3	353.15	30314.7	922.5	353.15	29512.9	918.7	353.15	28737.4	914.9
353.15	31117.2	926.2	353.15	30305.0	922.5	353.15	29502.7	918.6	353.15	28729.4	914.8
353.15	31106.6	926.2	353.15	30295.6	922.4	353.15	29492.6	918.6	353.14	28719.6	914.8
353.15	31096.8	926.1	353.15	30285.3	922.4	353.15	29481.2	918.5	353.15	28710.5	914.8
353.15	31086.8	926.1	353.15	30275.3	922.3	353.15	29472.1	918.5	353.15	28701.1	914.7
353.15	31075.7	926.1	353.15	30265.4	922.2	353.15	29462.0	918.4	353.15	28691.3	914.7
353.15	31065.7	926.0	353.15	30254.4	922.2	353.15	29452.2	918.4	353.15	28682.7	914.6
353.15	31054.7	925.9	353.15	30243.6	922.2	353.15	29443.0	918.3	353.15	28673.7	914.6
353.15	31043.4	925.9	353.15	30233.6	922.1	353.15	29432.6	918.3	353.15	28662.1	914.5
353.15	31033.3	925.8	353.15	30223.9	922.1	353.15	29422.5	918.2	353.15	28652.8	914.5
353.15	31021.6	925.8	353.15	30213.3	922.0	353.15	29413.0	918.2	353.15	28641.8	914.4
353.15	31011.5	925.8	353.15	30202.7	922.0	353.15	29402.3	918.1	353.15	28631.3	914.4
353.15	31001.0	925.7	353.15	30191.8	921.9	353.15	29391.2	918.1	353.15	28622.0	914.3
353.15	30989.7	925.7	353.15	30180.7	921.9	353.15	29381.2	918.0	353.15	28611.3	913.8
353.15	30979.6	925.6	353.15	30170.9	921.8	353.15	29372.1	918.0	353.15	28601.3	914.2
353.15	30968.3	925.5	353.15	30160.4	921.8	353.15	29362.9	917.9	353.15	28591.5	914.2
353.15	30956.3	925.5	353.15	30148.0	921.8	353.15	29353.2	917.9	353.15	28582.2	914.1
353.15	30945.8	925.5	353.15	30136.2	921.7	353.15	29342.8	917.8	353.15	28572.2	914.1
353.15	30934.3	925.4	353.15	30124.0	921.6	353.15	29333.6	917.8	353.15	28563.4	914.0
353.15	30924.7	925.3	353.15	30112.0	921.6	353.15	29322.9	917.7	353.15	28552.6	914.0
353.15	30914.4	925.3	353.15	30101.9	921.5	353.15	29314.2	917.7	353.15	28543.2	913.9
353.15	30902.7	925.2	353.15	30090.4	921.4	353.15	29305.3	917.7	353.15	28532.4	913.9
353.15	30893.0	925.2	353.15	30079.9	921.4	353.15	29295.0	917.6	353.15	28523.3	913.8
353.15	30882.3	925.1	353.15	30069.9	921.3	353.15	29285.7	917.5	353.15	28515.1	913.8
353.15	30872.2	925.1	353.15	30059.5	921.3	353.15	29275.4	917.5	353.15	28505.1	913.7
353.15	30861.2	925.0	353.15	30049.0	921.2	353.15	29265.5	917.4	353.15	28495.3	913.6

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
353.15	28485.7	913.6	353.15	27644.2	909.4	353.15	26780.8	904.8	353.14	25929.6	900.2
353.15	28475.4	913.6	353.15	27632.5	909.3	353.15	26769.3	904.8	353.15	25918.3	900.2
353.15	28466.8	913.5	353.15	27622.4	909.3	353.15	26758.9	904.7	353.15	25907.6	900.1
353.15	28456.2	913.5	353.15	27612.2	909.2	353.15	26748.8	904.7	353.15	25897.2	900.1
353.15	28447.6	913.4	353.15	27602.2	909.1	353.15	26737.2	904.6	353.15	25886.2	900.0
353.15	28437.7	913.4	353.15	27593.3	909.1	353.15	26725.6	904.5	353.15	25875.6	899.9
353.15	28427.5	913.3	353.15	27581.2	909.1	353.15	26714.5	904.5	353.15	25864.8	899.9
353.15	28417.1	913.3	353.15	27570.1	909.0	353.15	26703.3	904.4	353.15	25854.3	899.8
353.15	28407.1	913.2	353.15	27560.7	908.9	353.15	26692.2	904.4	353.15	25843.1	899.7
353.15	28396.8	913.2	353.14	27549.2	908.8	353.15	26680.2	904.3	353.15	25833.2	899.7
353.15	28387.5	913.1	353.14	27538.5	908.8	353.15	26668.1	904.3	353.15	25823.9	899.6
353.15	28375.7	913.0	353.14	27528.0	908.7	353.15	26656.2	904.2	353.15	25811.6	899.5
353.15	28363.6	913.0	353.14	27516.1	908.7	353.15	26644.3	904.1	353.15	25801.3	899.5
353.15	28352.2	913.0	353.14	27506.8	908.6	353.15	26633.6	904.0	353.15	25790.8	899.5
353.15	28339.8	912.9	353.14	27496.5	908.6	353.15	26622.1	904.0	353.15	25779.9	899.4
353.15	28330.0	912.8	353.14	27487.0	908.5	353.15	26611.9	903.9	353.15	25772.8	899.4
353.15	28320.7	912.8	353.15	27476.4	908.0	353.15	26602.2	903.9	353.15	25762.4	899.3
353.15	28310.9	912.7	353.15	27465.5	908.4	353.14	26590.5	903.8	353.15	25750.4	899.3
353.15	28300.4	912.7	353.15	27453.4	908.4	353.14	26577.8	903.8	353.15	25739.6	899.2
353.15	28290.9	912.6	353.15	27443.6	908.3	353.15	26566.6	903.7	353.15	25728.3	899.1
353.15	28279.7	912.6	353.15	27431.6	908.3	353.15	26555.2	903.6	353.15	25716.4	899.0
353.15	28269.2	912.5	353.15	27420.3	908.2	353.15	26544.3	903.6	353.15	25705.7	899.0
353.15	28258.4	912.5	353.15	27408.6	908.1	353.15	26534.7	903.5	353.15	25693.4	898.9
353.14	28247.1	912.4	353.15	27397.0	908.1	353.15	26524.9	903.5	353.15	25682.3	898.9
353.15	28238.9	912.4	353.15	27388.6	908.0	353.15	26513.5	903.4	353.15	25671.1	898.8
353.15	28230.2	912.3	353.15	27378.0	908.0	353.15	26502.0	903.3	353.15	25659.9	898.7
353.15	28220.1	912.3	353.15	27364.9	907.9	353.15	26490.5	903.3	353.15	25649.5	898.7
353.15	28210.1	912.2	353.15	27352.9	907.8	353.15	26480.9	903.2	353.15	25640.1	898.6
353.15	28199.1	912.2	353.15	27341.6	907.8	353.15	26469.7	903.1	353.15	25629.9	898.6
353.15	28187.9	912.1	353.15	27330.7	907.7	353.15	26457.8	903.1	353.15	25619.1	898.4
353.15	28178.5	912.1	353.15	27320.4	907.7	353.15	26447.4	903.0	353.15	25608.5	898.4
353.15	28168.5	912.0	353.15	27309.0	907.6	353.15	26435.5	903.0	353.15	25597.9	898.3
353.15	28157.8	912.0	353.15	27297.1	907.6	353.15	26424.7	902.9	353.15	25586.7	898.3
353.15	28147.5	911.9	353.15	27287.2	907.5	353.15	26415.0	902.8	353.15	25577.5	898.2
353.15	28136.1	911.9	353.15	27275.7	907.4	353.15	26403.6	902.8	353.15	25566.1	898.2
353.15	28125.0	911.8	353.15	27264.8	907.4	353.16	26392.3	902.7	353.15	25556.6	898.1
353.15	28114.8	911.8	353.15	27254.0	907.3	353.15	26381.3	902.7	353.15	25545.9	898.1
353.15	28103.1	911.7	353.15	27242.2	907.3	353.15	26371.8	902.6	353.15	25534.9	898.0
353.15	28091.1	911.6	353.15	27231.9	907.2	353.15	26361.3	902.6	353.15	25524.5	898.0
353.15	28081.1	911.6	353.15	27221.0	907.1	353.15	26349.8	902.5	353.15	25514.3	897.9
353.15	28069.0	911.5	353.15	27210.5	907.1	353.15	26339.2	902.4	353.15	25503.6	897.9
353.15	28058.9	911.5	353.15	27199.3	907.0	353.15	26328.2	902.4	353.15	25492.5	897.8
353.15	28047.9	911.4	353.15	27188.3	907.0	353.15	26314.7	902.3	353.15	25481.5	897.7
353.15	28035.9	911.3	353.15	27174.7	906.9	353.15	26303.8	902.3	353.15	25471.6	897.7
353.15	28025.0	911.3	353.16	27162.4	906.8	353.15	26293.1	902.2	353.15	25460.7	897.6
353.15	28014.8	911.3	353.15	27150.7	906.8	353.15	26282.5	902.2	353.15	25449.1	897.6
353.15	28003.0	911.2	353.15	27138.5	906.7	353.15	26273.8	902.1	353.15	25438.6	897.5
353.15	27991.7	911.2	353.15	27127.5	906.7	353.15	26263.7	902.1	353.16	25428.9	897.4
353.15	27980.7	911.1	353.15	27116.4	906.6	353.15	26253.5	902.0	353.15	25417.0	897.4
353.15	27969.3	911.0	353.15	27105.1	906.5	353.15	26244.8	902.0	353.15	25407.1	897.3
353.16	27958.8	910.9	353.15	27096.0	906.5	353.14	26234.6	901.8	353.15	25396.8	897.3
353.16	27946.6	910.9	353.15	27085.6	906.5	353.15	26224.1	901.8	353.15	25385.1	897.2
353.16	27935.3	910.9	353.15	27074.6	906.4	353.15	26213.5	901.8	353.15	25375.6	897.1
353.15	27923.2	910.8	353.16	27064.9	906.4	353.15	26203.9	901.7	353.15	25363.7	897.1
353.15	27911.0	910.7	353.16	27054.4	906.3	353.15	26193.3	901.7	353.15	25351.5	897.0
353.15	27900.7	910.7	353.16	27042.3	906.2	353.15	26183.3	901.6	353.15	25340.8	897.0
353.15	27890.0	910.6	353.16	27031.3	906.2	353.15	26172.6	901.6	353.15	25328.2	896.9
353.15	27879.4	910.6	353.15	27019.8	906.1	353.15	26163.2	901.5	353.15	25317.7	896.8
353.15	27867.7	910.5	353.15	27007.8	906.0	353.15	26151.1	901.4	353.16	25307.6	896.7
353.15	27856.9	910.5	353.15	26995.9	905.9	353.15	26140.5	901.4	353.15	25298.0	896.7
353.15	27846.2	910.4	353.15	26983.8	905.9	353.15	26129.9	901.3	353.15	25287.6	896.6
353.15	27835.1	910.3	353.15	26972.3	905.8	353.15	26118.5	901.3	353.15	25276.1	896.5
353.15	27823.1	910.3	353.15	26960.2	905.8	353.15	26106.2	901.2	353.15	25263.5	896.5
353.15	27811.7	910.2	353.15	26949.0	905.7	353.15	26095.6	901.1	353.15	25253.5	896.4
353.15	27800.2	910.2	353.15	26938.2	905.7	353.15	26083.7	901.1	353.15	25242.5	896.4
353.15	27789.5	910.1	353.15	26926.5	905.6	353.15	26073.5	901.0	353.15	25229.6	896.3
353.15	27779.2	910.0	353.15	26914.0	905.5	353.15	26063.6	901.0	353.15	25219.3	896.3
353.15	27767.3	910.0	353.15	26904.8	905.5	353.15	26051.8	900.9	353.15	25207.6	896.2
353.15	27755.8	909.9	353.15	26894.3	905.5	353.15	26041.7	900.9	353.15	25197.5	896.1
353.15	27745.6	909.9	353.15	26882.6	905.4	353.15	26032.0	900.8	353.15	25188.3	896.1
353.15	27734.7	909.8	353.15	26872.0	905.3	353.15	26021.0	900.7	353.15	25176.9	896.0
353.15	27724.0	909.8	353.15	26859.8	905.3	353.15	26010.3	900.7	353.15	25165.5	895.9
353.15	27713.3	909.7	353.15	26849.9	905.2	353.15	25998.6	900.6	353.15	25155.9	895.9
353.15	27701.9	909.7	353.15	26839.1	905.2	353.16	25987.7	900.6	353.15	25145.0	895.8
353.15	27689.5	909.6	353.15	26826.6	905.1	353.15	25976.5	900.5	353.15	25134.1	895.8
353.15	27678.5	909.5	353.15	26815.8	905.0	353.15	25963.8	900.4	353.15	25123.2	895.7
353.15	27666.6	909.5	353.15	26804.5	905.0	353.15	25952.7	900.4	353.15	25112.6	895.7
353.15	27655.4	909.4	353.15	26791.9	904.9	353.15	25940.8	900.3	353.15	25102.4	895.6

Valori della densità del fluido R32_*T*=80°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
353.15	25092.2	895.6	353.15	24275.1	890.8	353.15	23396.0	885.5	353.15	22495.1	879.9
353.15	25080.8	895.5	353.15	24263.2	890.8	353.15	23384.7	885.5	353.15	22483.2	879.8
353.15	25069.9	895.4	353.15	24251.6	890.6	353.15	23373.7	885.4	353.15	22473.0	879.7
353.15	25059.5	895.3	353.15	24239.4	890.6	353.15	23363.1	885.3	353.15	22461.9	879.7
353.15	25047.2	895.3	353.15	24230.0	890.5	353.15	23353.6	885.2	353.15	22449.2	879.6
353.15	25035.8	895.2	353.15	24218.9	890.5	353.15	23343.8	885.2	353.15	22438.0	879.5
353.15	25026.3	895.1	353.15	24208.8	890.4	353.15	23332.4	885.1	353.15	22425.0	879.4
353.15	25017.6	895.1	353.15	24198.3	890.3	353.15	23321.4	885.0	353.15	22413.8	879.4
353.15	25009.6	895.1	353.15	24187.4	890.3	353.15	23307.8	885.0	353.15	22402.5	879.3
353.15	24999.9	895.0	353.15	24176.2	890.2	353.15	23295.4	884.9	353.15	22389.6	879.2
353.15	24991.4	894.9	353.15	24164.7	890.1	353.15	23283.4	884.8	353.15	22378.0	879.1
353.15	24981.4	894.9	353.15	24154.0	890.1	353.15	23270.7	884.7	353.15	22367.0	879.0
353.15	24971.3	894.8	353.15	24142.2	890.0	353.15	23258.5	884.7	353.15	22354.7	879.0
353.15	24963.2	894.8	353.15	24131.2	889.9	353.15	23247.7	884.6	353.15	22343.3	878.9
353.15	24952.6	894.7	353.15	24120.6	889.9	353.15	23235.3	884.6	353.15	22333.6	878.9
353.15	24943.8	894.7	353.15	24108.7	889.8	353.15	23225.0	884.5	353.15	22322.5	878.8
353.15	24933.7	894.6	353.15	24097.4	889.7	353.15	23214.6	884.4	353.15	22311.9	878.7
353.15	24923.0	894.6	353.15	24085.7	889.7	353.15	23201.3	884.3	353.15	22301.3	878.6
353.15	24912.8	894.5	353.15	24073.9	889.6	353.15	23189.8	884.2	353.15	22290.1	878.6
353.15	24903.8	894.5	353.15	24063.5	889.5	353.15	23177.8	884.2	353.15	22279.8	878.5
353.15	24891.9	894.4	353.15	24051.3	889.5	353.15	23166.1	884.1	353.15	22268.0	878.4
353.15	24882.7	894.3	353.15	24040.3	889.4	353.15	23155.7	884.0	353.15	22257.3	878.3
353.15	24872.6	894.3	353.15	24028.2	889.3	353.15	23144.0	884.0	353.14	22246.8	878.3
353.15	24862.4	894.2	353.15	24016.7	889.2	353.15	23133.6	883.9	353.14	22234.6	878.2
353.15	24853.2	894.1	353.15	24006.2	889.2	353.15	23122.5	883.8	353.15	22224.6	878.1
353.15	24842.1	894.1	353.15	23995.5	889.1	353.15	23108.8	883.7	353.14	22213.5	878.1
353.15	24830.6	894.1	353.15	23984.5	889.1	353.15	23096.5	883.7	353.15	22200.6	878.0
353.15	24820.2	893.9	353.15	23972.4	889.0	353.15	23084.8	883.6	353.15	22188.8	877.9
353.15	24808.4	893.9	353.15	23960.4	888.9	353.15	23072.2	883.5	353.15	22177.8	877.8
353.15	24798.0	893.8	353.15	23947.4	888.9	353.15	23059.3	883.4	353.15	22165.6	877.8
353.16	24789.9	893.8	353.15	23935.7	888.8	353.15	23046.7	883.3	353.15	22154.3	877.6
353.16	24779.9	893.7	353.15	23922.7	888.7	353.15	23033.4	883.3	353.15	22143.2	877.6
353.16	24770.2	893.7	353.15	23911.0	888.7	353.15	23022.2	883.2	353.15	22131.7	877.5
353.15	24760.9	893.6	353.15	23900.5	888.6	353.15	23009.6	883.2	353.15	22119.9	877.5
353.15	24749.7	893.6	353.15	23889.4	888.5	353.15	22996.5	883.0	353.15	22107.3	877.4
353.15	24741.9	893.5	353.15	23878.2	888.4	353.15	22985.4	883.0	353.15	22093.6	877.3
353.15	24731.8	893.5	353.15	23869.2	888.4	353.15	22973.9	882.9	353.15	22081.6	877.2
353.14	24719.9	893.4	353.15	23857.0	888.3	353.15	22961.8	882.8	353.15	22068.4	877.1
353.14	24709.1	893.3	353.15	23845.6	888.3	353.15	22949.8	882.7	353.15	22060.3	877.1
353.14	24698.3	893.3	353.15	23833.3	888.2	353.15	22936.4	882.7	353.15	22050.5	877.0
353.14	24687.1	893.2	353.15	23821.4	888.1	353.15	22926.5	882.6	353.15	22039.9	876.9
353.14	24677.0	893.2	353.15	23811.3	888.0	353.15	22914.9	882.5	353.15	22030.2	876.9
353.15	24665.6	893.1	353.15	23800.1	888.0	353.15	22902.0	882.5	353.15	22020.3	876.8
353.15	24656.3	893.0	353.15	23786.6	887.9	353.15	22892.9	882.4	353.15	22009.2	876.7
353.15	24646.6	892.9	353.15	23775.7	887.8	353.15	22882.0	882.3	353.15	21999.0	876.7
353.15	24633.9	892.9	353.15	23763.3	887.8	353.15	22868.5	882.2	353.15	21988.0	876.6
353.15	24623.7	892.9	353.15	23752.2	887.7	353.15	22857.1	882.2	353.15	21976.5	876.5
353.15	24613.6	892.8	353.16	23740.3	887.6	353.15	22845.2	882.1	353.15	21966.4	876.5
353.15	24601.7	892.7	353.15	23728.8	887.5	353.15	22833.0	882.0	353.15	21955.9	876.4
353.15	24590.5	892.6	353.15	23718.2	887.5	353.15	22822.3	881.9	353.15	21944.0	876.3
353.15	24579.1	892.6	353.15	23709.2	887.4	353.15	22811.2	881.9	353.15	21934.4	876.2
353.15	24566.5	892.5	353.15	23698.6	887.4	353.15	22800.0	881.8	353.15	21922.7	876.1
353.15	24557.2	892.4	353.15	23686.4	887.3	353.15	22788.9	881.7	353.15	21910.9	876.1
353.15	24546.5	892.4	353.15	23676.4	887.3	353.15	22777.3	881.7	353.15	21898.5	876.0
353.15	24535.8	892.3	353.15	23663.8	887.1	353.15	22766.4	881.6	353.15	21885.7	875.9
353.15	24525.4	892.3	353.15	23652.2	887.1	353.15	22754.7	881.5	353.15	21874.0	875.8
353.15	24514.8	892.2	353.15	23641.5	887.0	353.15	22742.1	881.5	353.15	21863.4	875.8
353.15	24503.4	892.1	353.15	23627.9	887.0	353.15	22730.9	881.4	353.15	21852.4	875.7
353.14	24494.4	892.1	353.15	23617.3	886.9	353.15	22719.1	881.3	353.15	21840.9	875.7
353.14	24483.5	892.0	353.15	23607.0	886.9	353.15	22706.0	881.2	353.15	21831.0	875.5
353.14	24472.4	891.9	353.15	23597.3	886.7	353.15	22695.3	881.1	353.15	21818.8	875.4
353.14	24462.0	891.9	353.15	23588.2	886.7	353.15	22683.2	881.1	353.15	21807.9	875.4
353.15	24451.4	891.8	353.15	23577.1	886.6	353.15	22674.2	881.0	353.15	21796.4	875.3
353.15	24441.7	891.8	353.15	23567.1	886.6	353.15	22661.6	880.9	353.15	21784.4	875.2
353.15	24430.4	891.7	353.15	23556.4	886.5	353.15	22649.4	880.9	353.15	21774.0	875.2
353.15	24419.6	891.7	353.15	23545.8	886.5	353.15	22638.8	880.8	353.15	21763.6	875.1
353.15	24408.7	891.6	353.15	23535.9	886.4	353.15	22627.1	880.7	353.15	21752.5	875.1
353.15	24397.6	891.5	353.15	23525.8	886.3	353.15	22615.8	880.7	353.15	21742.3	875.0
353.15	24386.4	891.4	353.14	23513.8	886.2	353.16	22604.9	880.6	353.15	21731.9	874.9
353.15	24375.9	891.4	353.15	23502.1	886.2	353.16	22593.9	880.5	353.15	21720.1	874.9
353.15	24364.0	891.3	353.15	23490.8	886.1	353.16	22582.5	880.5	353.15	21709.1	874.7
353.15	24353.3	891.2	353.15	23477.4	886.0	353.15	22572.4	880.4	353.15	21697.6	874.7
353.15	24343.3	891.2	353.15	23465.6	886.0	353.15	22561.5	880.3	353.15	21684.9	874.6
353.15	24331.9	891.2	353.15	23454.7	885.9	353.15	22551.0	880.2	353.15	21671.4	874.5
353.15	24321.7	891.1	353.15	23443.4	885.8	353.15	22539.9	880.2	353.15	21659.9	874.4
353.15	24311.8	891.0	353.15	23431.8	885.7	353.15	22528.3	880.1	353.15	21646.8	874.3
353.15	24298.8	891.0	353.15	23418.5	885.7	353.15	22517.4	880.0	353.15	21635.4	874.3
353.15	24287.7	890.9	353.15	23407.5	885.6	353.15	22506.8	879.9	353.15	21623.8	874.2

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
353.15	21612.2	874.1	353.15	20717.3	868.0	353.15	19800.8	861.4	353.15	18882.1	854.5
353.15	21601.0	874.0	353.15	20706.7	867.9	353.15	19788.4	861.3	353.15	18869.6	854.3
353.15	21588.9	873.9	353.15	20696.2	867.9	353.15	19777.3	861.3	353.15	18857.9	854.3
353.15	21577.5	873.9	353.15	20683.8	867.8	353.15	19765.5	861.1	353.15	18845.7	854.1
353.15	21566.6	873.8	353.15	20672.5	867.7	353.15	19754.2	861.1	353.14	18833.6	854.1
353.15	21554.9	873.7	353.15	20660.1	867.6	353.15	19743.9	861.0	353.15	18821.6	854.0
353.15	21544.7	873.6	353.15	20647.5	867.5	353.15	19733.5	860.9	353.15	18809.5	853.9
353.15	21534.5	873.6	353.15	20637.8	867.4	353.15	19721.9	860.8	353.15	18797.6	853.8
353.15	21523.8	873.5	353.15	20625.9	867.4	353.15	19711.5	860.7	353.15	18785.2	853.7
353.15	21512.7	873.5	353.15	20614.6	867.3	353.15	19699.4	860.6	353.15	18773.1	853.6
353.15	21500.2	873.3	353.15	20602.8	867.2	353.15	19688.3	860.6	353.15	18761.9	853.5
353.15	21488.9	873.3	353.15	20591.1	867.1	353.15	19676.9	860.5	353.15	18750.1	853.4
353.15	21477.4	873.2	353.15	20580.5	867.0	353.15	19663.8	860.4	353.14	18737.6	853.4
353.15	21465.7	873.1	353.15	20569.8	866.9	353.15	19652.0	860.3	353.14	18725.2	853.2
353.15	21453.8	873.0	353.15	20558.7	866.9	353.15	19639.7	860.2	353.14	18713.5	853.1
353.15	21442.2	872.9	353.15	20546.7	866.8	353.15	19627.2	860.1	353.14	18701.7	853.1
353.15	21429.4	872.9	353.15	20535.4	866.7	353.15	19614.9	860.0	353.14	18689.7	853.0
353.15	21417.5	872.8	353.15	20522.9	866.6	353.15	19603.7	860.0	353.14	18679.4	852.9
353.15	21405.6	872.7	353.15	20512.4	866.5	353.15	19590.2	859.9	353.15	18668.0	852.8
353.15	21393.1	872.6	353.15	20500.7	866.5	353.15	19577.4	859.7	353.15	18654.3	852.7
353.15	21380.8	872.5	353.15	20488.6	866.3	353.14	19565.7	859.7	353.15	18642.2	852.6
353.15	21369.9	872.4	353.15	20478.4	866.3	353.14	19552.8	859.6	353.15	18630.9	852.5
353.15	21357.1	872.4	353.15	20466.0	866.2	353.14	19540.3	859.5	353.15	18618.1	852.4
353.15	21345.9	872.3	353.15	20454.1	866.2	353.15	19527.4	859.4	353.15	18606.5	852.3
353.15	21334.3	872.2	353.15	20443.4	866.0	353.15	19515.6	859.3	353.15	18595.4	852.2
353.15	21321.4	872.1	353.15	20430.2	866.0	353.15	19504.0	859.2	353.15	18583.6	852.1
353.15	21308.9	872.1	353.15	20418.7	865.9	353.15	19491.5	859.1	353.15	18572.0	852.0
353.15	21298.7	872.0	353.15	20406.3	865.8	353.15	19480.0	859.0	353.15	18560.1	852.0
353.15	21287.8	871.9	353.15	20394.6	865.7	353.15	19469.1	859.0	353.15	18546.2	851.8
353.15	21276.2	871.9	353.15	20384.3	865.6	353.15	19455.7	858.8	353.15	18534.1	851.7
353.15	21264.8	871.8	353.15	20373.1	865.6	353.15	19444.2	858.8	353.15	18521.7	851.6
353.15	21253.7	871.7	353.15	20360.0	865.5	353.14	19432.5	858.7	353.15	18510.7	851.5
353.15	21242.6	871.6	353.15	20348.9	865.4	353.15	19420.3	858.6	353.15	18499.4	851.5
353.15	21229.3	871.5	353.15	20336.9	865.3	353.15	19411.4	858.5	353.15	18487.3	851.4
353.15	21218.1	871.4	353.15	20324.5	865.2	353.15	19400.2	858.4	353.15	18475.8	851.2
353.15	21207.1	871.4	353.15	20312.4	865.1	353.15	19387.8	858.3	353.15	18464.2	851.1
353.15	21195.4	871.3	353.15	20299.8	865.0	353.15	19376.9	858.3	353.15	18451.5	851.1
353.15	21184.2	871.2	353.15	20287.4	864.9	353.15	19366.3	858.2	353.15	18440.0	851.0
353.15	21172.7	871.1	353.15	20275.1	864.9	353.15	19355.1	858.1	353.15	18428.9	850.9
353.15	21160.0	871.1	353.15	20263.5	864.7	353.15	19344.7	858.0	353.15	18415.7	850.8
353.15	21150.1	871.0	353.15	20251.7	864.7	353.15	19333.0	857.9	353.15	18403.7	850.7
353.15	21138.4	870.9	353.14	20239.7	864.6	353.15	19323.2	857.8	353.15	18392.0	850.6
353.15	21126.4	870.8	353.14	20226.4	864.5	353.15	19311.9	857.8	353.15	18380.5	850.5
353.15	21115.1	870.7	353.14	20214.3	864.4	353.15	19300.0	857.7	353.15	18368.9	850.4
353.15	21102.1	870.7	353.15	20203.1	864.3	353.15	19288.0	857.6	353.15	18358.3	850.3
353.15	21091.0	870.6	353.14	20190.8	864.2	353.15	19276.8	857.5	353.15	18345.9	850.2
353.15	21080.9	870.5	353.15	20178.3	864.1	353.15	19264.3	857.4	353.15	18335.7	850.1
353.15	21069.3	870.4	353.15	20166.2	864.1	353.15	19253.1	857.3	353.15	18323.6	850.0
353.15	21057.7	870.3	353.15	20153.9	864.0	353.15	19240.6	857.2	353.15	18312.0	849.9
353.15	21046.9	870.3	353.15	20142.0	863.9	353.15	19228.1	857.1	353.15	18300.9	849.9
353.15	21035.0	870.2	353.14	20129.6	863.8	353.15	19216.1	857.0	353.15	18288.7	849.7
353.15	21023.4	870.1	353.14	20118.0	863.7	353.15	19204.2	856.9	353.15	18277.3	849.7
353.15	21012.7	870.0	353.14	20106.2	863.6	353.15	19192.9	856.9	353.15	18265.0	849.6
353.14	21001.3	869.9	353.14	20093.2	863.6	353.15	19182.7	856.8	353.15	18253.0	849.5
353.14	20990.7	869.9	353.14	20080.7	863.4	353.15	19172.4	856.7	353.15	18241.5	849.4
353.15	20979.3	869.8	353.14	20069.8	863.3	353.15	19159.9	856.6	353.15	18229.1	849.3
353.14	20967.5	869.7	353.14	20058.0	863.3	353.15	19147.6	856.5	353.15	18217.5	849.2
353.15	20956.6	869.7	353.14	20045.2	863.2	353.15	19136.2	856.4	353.15	18206.4	849.1
353.15	20945.8	869.6	353.14	20034.0	863.1	353.15	19123.7	856.3	353.15	18194.3	849.0
353.15	20934.1	869.5	353.14	20020.8	863.1	353.15	19111.6	856.2	353.15	18183.3	848.9
353.15	20922.8	869.4	353.14	20009.1	862.9	353.14	19101.0	856.1	353.15	18171.7	848.8
353.15	20910.2	869.3	353.14	19997.0	862.8	353.14	19088.2	856.1	353.15	18159.7	848.7
353.14	20899.5	869.2	353.14	19985.0	862.8	353.14	19077.5	856.0	353.15	18148.4	848.6
353.14	20888.8	869.2	353.14	19974.4	862.7	353.14	19064.7	855.9	353.15	18136.1	848.5
353.14	20876.8	869.1	353.15	19963.2	862.6	353.14	19051.7	855.8	353.15	18124.9	848.4
353.14	20865.6	869.0	353.14	19952.4	862.5	353.14	19039.2	855.7	353.15	18113.0	848.3
353.15	20853.3	869.0	353.15	19941.7	862.5	353.15	19025.7	855.6	353.15	18101.2	848.2
353.15	20840.8	868.9	353.15	19928.6	862.3	353.15	19014.3	855.5	353.15	18088.4	848.1
353.15	20829.2	868.7	353.15	19917.3	862.3	353.15	19003.2	855.4	353.15	18077.0	848.0
353.15	20817.9	868.7	353.15	19907.6	862.2	353.15	18990.5	855.3	353.15	18065.3	847.9
353.15	20806.7	868.6	353.15	19895.6	862.1	353.15	18979.1	855.2	353.15	18054.2	847.8
353.15	20796.1	868.5	353.15	19885.0	862.0	353.15	18967.3	855.1	353.15	18042.8	847.8
353.15	20785.6	868.5	353.15	19873.7	861.9	353.15	18954.5	855.0	353.15	18030.8	847.7
353.14	20773.7	868.4	353.15	19860.8	861.8	353.15	18941.9	854.9	353.15	18021.2	847.6
353.15	20762.8	868.3	353.15	19850.1	861.8	353.15	18929.9	854.8	353.15	18008.8	847.5
353.14	20751.5	868.2	353.15	19837.3	861.7	353.15	18916.3	854.7	353.15	17999.0	847.4
353.14	20740.3	868.1	353.15	19824.3	861.6	353.15	18905.5	854.7	353.15	17987.7	847.3
353.14	20730.0	868.1	353.15	19812.3	861.5	353.15	18893.2	854.6	353.15	17978.8	847.2

Valori della densità del fluido R32_*T*=80°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
353.15	17967.5	847.1	353.15	17079.3	839.6	353.15	16220.3	831.8	353.15	15349.8	823.4
353.14	17955.6	847.0	353.15	17067.1	839.5	353.15	16209.5	831.7	353.15	15337.8	823.2
353.14	17943.6	846.9	353.15	17056.7	839.4	353.15	16199.6	831.6	353.15	15325.4	823.1
353.14	17933.0	846.8	353.15	17047.1	839.3	353.15	16186.7	831.5	353.15	15314.6	823.0
353.14	17920.4	846.7	353.15	17033.8	839.1	353.15	16174.9	831.4	353.15	15304.1	822.9
353.15	17908.4	846.7	353.15	17021.6	839.1	353.15	16162.9	831.3	353.15	15295.1	822.8
353.15	17895.6	846.5	353.15	17010.9	838.9	353.15	16150.6	831.1	353.15	15285.7	822.7
353.15	17883.6	846.5	353.15	16998.2	838.9	353.15	16139.8	831.1	353.15	15274.9	822.6
353.15	17871.7	846.3	353.15	16986.7	838.7	353.15	16128.6	830.9	353.15	15264.2	822.5
353.15	17859.6	846.3	353.15	16974.2	838.6	353.15	16117.0	830.8	353.15	15254.5	822.4
353.15	17848.9	846.1	353.15	16962.2	838.5	353.15	16105.7	830.7	353.15	15242.8	822.3
353.15	17838.7	846.1	353.15	16951.3	838.4	353.15	16093.2	830.6	353.15	15232.9	822.2
353.15	17827.9	846.0	353.15	16939.1	838.3	353.15	16082.1	830.5	353.15	15223.5	822.1
353.15	17816.1	845.9	353.15	16929.3	838.2	353.15	16069.7	830.4	353.15	15214.0	822.0
353.15	17804.8	845.8	353.14	16919.8	838.2	353.15	16057.1	830.3	353.15	15204.2	821.9
353.15	17793.9	845.7	353.15	16908.2	838.1	353.15	16044.2	830.1	353.15	15194.7	821.8
353.15	17783.6	845.6	353.15	16898.1	838.0	353.15	16030.9	830.0	353.15	15185.9	821.7
353.15	17772.4	845.5	353.15	16887.1	837.9	353.15	16020.4	829.9	353.15	15175.3	821.6
353.15	17762.6	845.4	353.15	16875.8	837.8	353.15	16011.2	829.8	353.15	15165.2	821.5
353.15	17751.4	845.3	353.15	16864.7	837.7	353.14	15999.8	829.7	353.15	15155.6	821.4
353.15	17740.8	845.2	353.15	16853.9	837.6	353.14	15989.2	829.6	353.15	15144.9	821.3
353.15	17729.4	845.1	353.15	16841.6	837.5	353.14	15979.3	829.5	353.14	15135.0	821.2
353.14	17718.8	845.1	353.15	16831.1	837.4	353.14	15970.0	829.4	353.14	15123.2	821.1
353.15	17705.3	845.0	353.15	16820.5	837.3	353.15	15960.3	829.4	353.14	15112.4	821.0
353.15	17694.5	844.8	353.15	16808.2	837.2	353.15	15948.8	829.3	353.14	15101.4	820.8
353.15	17682.1	844.8	353.15	16798.4	837.1	353.15	15937.8	829.2	353.14	15090.4	820.8
353.15	17669.1	844.6	353.15	16786.7	837.0	353.15	15927.9	829.0	353.15	15080.8	820.6
353.15	17657.8	844.6	353.15	16775.4	836.9	353.15	15917.1	828.9	353.15	15070.7	820.6
353.14	17646.8	844.5	353.14	16765.6	836.8	353.15	15905.6	828.8	353.15	15060.5	820.5
353.15	17633.2	844.4	353.15	16754.6	836.7	353.15	15894.5	828.7	353.15	15050.5	820.3
353.14	17620.5	844.2	353.14	16744.1	836.5	353.15	15882.3	828.6	353.15	15039.5	820.2
353.14	17608.2	844.1	353.15	16734.4	836.5	353.15	15871.4	828.5	353.15	15028.4	820.1
353.14	17594.9	844.1	353.14	16722.8	836.4	353.15	15862.1	828.4	353.15	15018.9	820.0
353.14	17583.3	844.0	353.15	16711.2	836.3	353.15	15850.6	828.3	353.15	15007.6	819.9
353.15	17571.6	843.8	353.15	16700.7	836.2	353.15	15840.0	828.2	353.15	14995.6	819.8
353.15	17559.1	843.7	353.15	16688.7	836.1	353.15	15830.5	828.1	353.15	14985.7	819.7
353.15	17549.6	843.7	353.15	16678.1	836.0	353.15	15818.1	828.0	353.15	14973.8	819.5
353.15	17537.8	843.6	353.15	16666.9	835.9	353.15	15806.5	827.9	353.15	14962.9	819.4
353.15	17526.9	843.5	353.15	16655.3	835.8	353.15	15795.5	827.7	353.15	14949.9	819.3
353.15	17516.5	843.4	353.15	16646.3	835.7	353.15	15783.9	827.7	353.15	14934.9	819.1
353.15	17503.7	843.3	353.15	16633.5	835.6	353.14	15772.9	827.5	353.15	14924.7	819.0
353.15	17492.6	843.2	353.15	16621.5	835.5	353.14	15761.4	827.4	353.15	14914.1	818.9
353.14	17481.3	843.0	353.15	16610.2	835.4	353.14	15750.3	827.3	353.15	14901.4	818.8
353.14	17469.3	843.0	353.14	16599.7	835.3	353.14	15739.1	827.2	353.15	14888.8	818.7
353.14	17458.7	842.8	353.14	16589.5	835.2	353.14	15728.4	827.1	353.15	14877.0	818.5
353.14	17447.1	842.8	353.14	16579.4	835.1	353.15	15716.4	827.0	353.15	14866.0	818.4
353.15	17435.4	842.7	353.14	16568.4	835.0	353.15	15706.8	826.9	353.15	14855.9	818.3
353.15	17425.2	842.6	353.14	16558.7	834.9	353.15	15695.1	826.8	353.15	14845.1	818.2
353.15	17413.0	842.5	353.14	16547.6	834.9	353.15	15683.6	826.7	353.14	14833.3	818.1
353.15	17402.1	842.4	353.14	16536.9	834.8	353.15	15672.7	826.6	353.14	14823.5	818.0
353.15	17391.0	842.3	353.15	16527.2	834.6	353.15	15661.2	826.4	353.14	14812.4	817.8
353.15	17378.9	842.2	353.15	16516.2	834.6	353.15	15650.2	826.4	353.14	14801.0	817.8
353.15	17367.8	842.1	353.15	16505.1	834.4	353.14	15640.6	826.2	353.14	14790.9	817.6
353.15	17356.6	842.0	353.15	16495.2	834.3	353.14	15629.5	826.1	353.14	14778.2	817.5
353.15	17343.2	841.9	353.15	16484.1	834.3	353.14	15618.5	826.0	353.15	14766.9	817.4
353.15	17332.3	841.8	353.15	16473.6	834.1	353.14	15608.1	825.9	353.15	14755.3	817.3
353.15	17322.5	841.7	353.15	16463.6	834.0	353.14	15596.2	825.8	353.15	14743.4	817.1
353.15	17311.3	841.6	353.15	16451.5	834.0	353.14	15584.5	825.7	353.15	14732.5	817.0
353.15	17299.2	841.5	353.15	16440.5	833.9	353.15	15573.8	825.6	353.15	14722.5	816.9
353.15	17288.5	841.4	353.15	16429.5	833.8	353.15	15562.0	825.5	353.15	14709.7	816.8
353.15	17275.0	841.3	353.15	16415.3	833.6	353.15	15551.0	825.4	353.15	14698.2	816.7
353.15	17264.9	841.2	353.15	16401.9	833.5	353.15	15539.4	825.3	353.14	14686.6	816.5
353.15	17254.0	841.1	353.15	16391.0	833.4	353.15	15527.7	825.1	353.14	14674.5	816.4
353.15	17242.3	841.0	353.15	16379.5	833.3	353.15	15518.0	825.1	353.14	14664.3	816.3
353.15	17231.9	840.9	353.15	16370.0	833.2	353.15	15507.9	824.9	353.14	14651.8	816.2
353.15	17220.4	840.8	353.15	16358.4	833.1	353.15	15496.1	824.8	353.14	14642.4	816.1
353.15	17210.0	840.7	353.14	16345.8	833.0	353.14	15486.0	824.7	353.14	14632.1	816.0
353.15	17200.1	840.7	353.14	16335.5	832.9	353.15	15475.0	824.7	353.15	14622.0	815.9
353.15	17189.8	840.5	353.15	16323.3	832.8	353.14	15464.2	824.5	353.14	14610.8	815.7
353.15	17178.8	840.4	353.15	16312.2	832.7	353.15	15453.8	824.4	353.14	14600.7	815.6
353.15	17168.9	840.4	353.15	16302.8	832.6	353.15	15442.7	824.3	353.14	14588.5	815.5
353.15	17158.6	840.3	353.15	16292.4	832.5	353.15	15431.7	824.2	353.15	14577.0	815.4
353.15	17147.9	840.2	353.15	16282.2	832.4	353.15	15419.9	824.1	353.15	14566.8	815.2
353.15	17137.4	840.1	353.15	16273.0	832.3	353.15	15408.9	824.0	353.15	14555.6	815.2
353.15	17125.1	840.0	353.15	16263.5	832.2	353.15	15396.2	823.8	353.15	14545.3	815.1
353.15	17113.7	839.9	353.15	16252.6	832.1	353.15	15384.5	823.7	353.15	14533.3	814.9
353.15	17102.6	839.8	353.15	16243.1	832.0	353.15	15372.2	823.6	353.14	14522.5	814.8
353.15	17090.9	839.7	353.15	16232.4	831.9	353.15	15360.9	823.5	353.15	14511.2	814.7

T	p	ρ	T	p	ρ	T	p	ρ	T	p	ρ
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
353.14	14499.0	814.6	353.15	13662.4	805.1	353.14	12818.8	794.8	353.14	12015.2	783.9
353.14	14487.2	814.4	353.15	13650.5	805.0	353.14	12807.8	794.6	353.14	12004.8	783.7
353.14	14476.3	814.3	353.15	13639.7	804.9	353.14	12797.1	794.5	353.14	11993.9	783.6
353.14	14465.4	814.2	353.15	13628.7	804.7	353.14	12786.0	794.3	353.14	11983.1	783.4
353.14	14454.6	814.0	353.15	13616.8	804.5	353.14	12775.7	794.2	353.14	11973.7	783.3
353.15	14444.5	813.9	353.15	13606.3	804.4	353.14	12764.5	794.0	353.14	11964.3	783.1
353.15	14433.6	813.8	353.15	13594.1	804.3	353.14	12754.4	793.9	353.14	11953.0	783.0
353.15	14423.4	813.7	353.14	13584.1	804.2	353.14	12744.9	793.8	353.14	11942.5	782.8
353.15	14412.9	813.6	353.15	13572.6	804.0	353.14	12734.8	793.6	353.14	11932.4	782.7
353.15	14401.6	813.5	353.15	13562.0	803.9	353.14	12725.3	793.5	353.14	11922.1	782.5
353.15	14391.6	813.4	353.14	13550.2	803.8	353.14	12714.7	793.4	353.14	11911.6	782.4
353.14	14380.0	813.3	353.14	13539.7	803.6	353.15	12703.7	793.2	353.14	11901.6	782.2
353.14	14369.7	813.1	353.15	13527.4	803.5	353.15	12693.6	793.1	353.14	11891.6	782.1
353.15	14357.8	813.0	353.15	13516.5	803.4	353.15	12682.7	793.0	353.14	11882.9	782.0
353.14	14346.5	812.9	353.15	13505.9	803.2	353.15	12671.9	792.8	353.14	11871.8	781.8
353.15	14336.4	812.7	353.15	13494.7	803.1	353.15	12660.9	792.7	353.14	11861.4	781.6
353.15	14324.6	812.6	353.15	13484.4	803.0	353.15	12650.5	792.5	353.14	11850.5	781.5
353.15	14313.9	812.5	353.15	13473.6	802.9	353.15	12639.8	792.4	353.14	11839.3	781.3
353.15	14303.0	812.4	353.15	13461.4	802.7	353.14	12628.6	792.2	353.14	11828.5	781.2
353.15	14291.8	812.2	353.15	13450.6	802.6	353.14	12618.5	792.1	353.14	11818.2	781.0
353.15	14280.6	812.1	353.15	13440.8	802.5	353.14	12608.2	792.0	353.14	11806.0	780.8
353.14	14269.8	812.0	353.15	13429.7	802.3	353.14	12597.7	791.8	353.14	11794.8	780.7
353.14	14259.0	811.9	353.15	13418.0	802.2	353.14	12587.9	791.7	353.14	11784.1	780.5
353.14	14248.2	811.8	353.15	13408.0	802.1	353.15	12577.1	791.5	353.14	11773.5	780.4
353.14	14236.0	811.7	353.15	13397.0	802.0	353.15	12567.0	791.5	353.14	11763.9	780.2
353.15	14226.1	811.5	353.15	13387.4	801.8	353.15	12557.7	791.3	353.14	11751.0	780.1
353.15	14215.5	811.4	353.15	13376.6	801.7	353.15	12548.3	791.2	353.15	11740.4	779.9
353.15	14204.1	811.3	353.15	13365.1	801.5	353.15	12538.6	791.1	353.15	11730.1	779.8
353.15	14193.2	811.1	353.15	13354.6	801.5	353.15	12528.1	790.9	353.15	11719.2	779.6
353.14	14182.3	811.1	353.15	13344.7	801.3	353.15	12518.1	790.8	353.15	11709.3	779.4
353.14	14170.4	810.9	353.15	13335.8	801.2	353.15	12508.9	790.6	353.15	11699.0	779.3
353.14	14159.2	810.8	353.15	13324.6	801.0	353.15	12498.8	790.5	353.15	11688.2	779.1
353.14	14147.5	810.7	353.14	13313.6	800.9	353.14	12489.3	790.4	353.14	11677.5	778.9
353.14	14138.3	810.5	353.14	13302.6	800.8	353.15	12479.0	790.2	353.14	11666.2	778.8
353.14	14128.3	810.4	353.14	13290.8	800.6	353.15	12469.0	790.1	353.14	11654.7	778.6
353.14	14117.5	810.3	353.14	13280.8	800.6	353.14	12459.2	790.0	353.14	11644.0	778.5
353.14	14107.7	810.2	353.14	13269.6	800.4	353.14	12448.7	789.9	353.14	11633.5	778.3
353.14	14096.9	810.1	353.15	13259.2	800.3	353.14	12438.6	789.7	353.14	11623.4	778.2
353.15	14086.8	809.9	353.15	13248.7	800.1	353.15	12428.5	789.6	353.15	11612.2	778.0
353.15	14077.4	809.9	353.15	13238.0	800.0	353.15	12418.1	789.4	353.14	11600.2	777.8
353.15	14066.4	809.8	353.15	13226.0	799.9	353.15	12407.5	789.3	353.15	11589.8	777.7
353.14	14056.2	809.7	353.15	13215.2	799.7	353.15	12398.2	789.2	353.14	11578.8	777.5
353.15	14044.7	809.5	353.15	13204.0	799.6	353.15	12387.7	789.1	353.14	11567.5	777.3
353.15	14033.8	809.4	353.15	13192.6	799.4	353.15	12377.9	788.8	353.14	11557.8	777.1
353.15	14022.4	809.2	353.15	13182.1	799.3	353.15	12367.4	788.8	353.14	11546.1	777.0
353.15	14011.6	809.1	353.15	13170.7	799.2	353.15	12356.5	788.6	353.14	11536.2	776.9
353.15	14000.6	809.0	353.15	13160.8	799.0	353.15	12347.8	788.5	353.14	11527.4	776.7
353.15	13990.4	808.9	353.14	13150.1	798.9	353.15	12338.2	788.4	353.14	11516.7	776.5
353.15	13979.2	808.7	353.14	13139.5	798.8	353.15	12327.4	788.2	353.14	11506.9	776.4
353.15	13968.7	808.6	353.15	13129.2	798.6	353.15	12317.8	788.1	353.14	11497.0	776.2
353.15	13958.8	808.5	353.15	13118.3	798.5	353.15	12306.3	787.9	353.14	11486.3	776.1
353.14	13946.8	808.4	353.15	13106.8	798.3	353.15	12295.6	787.7	353.14	11477.2	775.9
353.14	13936.5	808.3	353.15	13096.4	798.3	353.15	12284.9	787.6	353.14	11467.2	775.8
353.14	13925.0	808.2	353.15	13085.2	798.1	353.15	12273.1	787.4	353.14	11457.4	775.6
353.15	13913.3	808.0	353.15	13073.7	797.9	353.15	12262.8	787.3	353.14	11448.6	775.5
353.15	13902.0	807.9	353.15	13062.9	797.8	353.14	12251.6	787.2	353.14	11438.5	775.3
353.15	13889.3	807.7	353.14	13052.8	797.7	353.14	12240.9	787.0	353.14	11429.0	775.1
353.15	13877.4	807.6	353.14	13042.9	797.5	353.14	12231.7	786.9	353.14	11419.2	775.1
353.14	13866.5	807.5	353.14	13032.8	797.4	353.14	12220.5	786.7	353.14	11408.2	774.9
353.14	13855.6	807.4	353.14	13022.0	797.3	353.15	12209.4	786.6	353.15	11398.2	774.7
353.14	13846.4	807.2	353.15	13012.5	797.2	353.15	12199.5	786.4	353.14	11387.9	774.5
353.14	13836.8	807.1	353.15	13002.6	797.1	353.15	12188.9	786.3	353.15	11376.6	774.3
353.14	13826.0	807.0	353.15	12990.8	796.9	353.15	12179.7	786.1	353.15	11365.0	774.2
353.14	13816.0	806.9	353.15	12980.4	796.8	353.15	12170.5	786.0	353.14	11354.4	774.0
353.14	13805.9	806.8	353.15	12969.9	796.7	353.14	12159.1	785.8	353.15	11343.7	773.8
353.15	13794.9	806.7	353.15	12958.3	796.5	353.14	12150.0	785.7	353.15	11335.1	773.7
353.15	13785.8	806.6	353.15	12948.8	796.4	353.14	12142.1	785.6	353.14	11325.6	773.5
353.15	13775.3	806.4	353.14	12938.4	796.2	353.14	12131.1	785.5	353.15	11314.1	773.3
353.14	13764.7	806.3	353.15	12926.5	796.0	353.14	12120.5	785.3	353.14	11305.0	773.2
353.14	13754.7	806.2	353.15	12915.5	796.0	353.14	12111.0	785.2	353.14	11294.3	773.1
353.14	13743.8	806.1	353.15	12904.8	795.8	353.15	12099.5	785.0	353.14	11282.3	772.8
353.14	13734.3	805.9	353.15	12893.8	795.6	353.15	12089.7	784.8	353.14	11272.6	772.7
353.14	13724.5	805.8	353.15	12883.2	795.5	353.15	12078.0	784.7	353.14	11259.6	772.5
353.14	13713.0	805.7	353.15	12872.0	794.8	353.14	12066.7	784.6	353.14	11246.7	772.3
353.14	13705.0	805.6	353.15	12861.1	795.3	353.14	12057.4	784.4	353.14	11237.6	772.2
353.14	13694.7	805.5	353.15	12850.0	795.1	353.14	12046.9	784.3	353.14	11226.5	772.0
353.15	13683.6	805.4	353.14	12839.9	795.0	353.14	12036.1	784.1	353.14	11215.4	771.8
353.15	13674.1	805.2	353.14	12829.3	794.9	353.14	12026.6	784.0	353.14	11206.1	771.6

Valori della densità del fluido R32_*T*=80°C

T	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*	*T*	*p*	*ρ*
[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]	[K]	[kPa]	[kg/m^3]
353.14	11195.6	771.5	353.14	10303.6	756.2	353.14	9447.6	738.9	353.14	8633.1	718.8
353.14	11186.6	771.4	353.14	10293.4	756.0	353.14	9437.5	738.6	353.14	8623.3	718.5
353.14	11177.6	771.2	353.14	10281.4	755.8	353.14	9425.1	738.3	353.14	8615.0	718.3
353.14	11168.4	771.1	353.14	10269.5	755.6	353.14	9413.5	738.1	353.14	8606.2	718.1
353.14	11159.4	770.9	353.14	10258.3	755.3	353.14	9403.6	737.9	353.14	8596.0	717.8
353.14	11149.1	770.7	353.14	10245.6	755.1	353.14	9391.6	737.7	353.14	8586.7	717.5
353.14	11137.2	770.6	353.14	10233.1	754.9	353.14	9382.1	737.4	353.14	8577.2	717.3
353.14	11127.6	770.4	353.14	10221.1	754.6	353.14	9372.4	737.2	353.14	8569.0	717.0
353.14	11115.9	770.2	353.14	10208.7	754.4	353.14	9360.4	736.9	353.14	8561.4	716.8
353.14	11104.4	770.0	353.14	10197.4	754.2	353.14	9350.0	736.7	353.14	8550.9	716.5
353.14	11094.7	769.9	353.14	10185.8	754.0	353.14	9338.4	736.4	353.14	8541.5	716.3
353.14	11085.6	769.7	353.14	10175.1	753.8	353.14	9326.7	736.1	353.14	8531.6	716.0
353.14	11073.8	769.6	353.14	10164.3	753.6	353.14	9316.2	735.9	353.14	8522.1	715.7
353.14	11062.7	769.4	353.14	10151.9	753.4	353.14	9304.6	735.6	353.14	8512.6	715.5
353.14	11049.5	769.2	353.14	10142.4	753.2	353.14	9292.9	735.4	353.14	8500.7	715.1
353.14	11036.8	769.0	353.14	10131.4	753.0	353.14	9282.7	735.1	353.14	8490.0	714.8
353.14	11025.6	768.8	353.14	10119.7	752.7	353.14	9272.0	734.9	353.14	8480.6	714.5
353.14	11013.4	768.5	353.14	10108.1	752.5	353.14	9260.5	734.7	353.14	8469.6	714.2
353.14	10999.9	768.4	353.14	10097.3	752.3	353.14	9249.8	734.4	353.14	8461.3	713.9
353.14	10988.4	768.2	353.14	10085.1	752.1	353.14	9239.1	734.1	353.14	8451.7	713.7
353.14	10976.4	768.0	353.14	10075.3	751.9	353.14	9227.7	733.9	353.14	8441.3	713.4
353.14	10964.6	767.8	353.14	10062.9	751.6	353.14	9216.5	733.6	353.14	8432.9	713.1
353.14	10953.3	767.6	353.14	10051.0	751.4	353.14	9205.7	733.3	353.14	8422.9	712.8
353.14	10942.3	767.4	353.14	10038.9	751.2	353.14	9194.5	733.1	353.14	8411.8	712.5
353.14	10931.1	767.2	353.14	10025.5	750.9	353.14	9184.5	732.8	353.14	8402.3	712.2
353.14	10920.1	767.1	353.14	10012.7	750.7	353.14	9174.1	732.6	353.14	8391.8	711.9
353.14	10908.1	766.8	353.14	10001.9	750.4	353.14	9164.5	732.4	353.13	8381.3	711.6
353.14	10897.9	766.7	353.14	9989.8	750.2	353.14	9154.0	732.1	353.14	8371.1	711.4
353.14	10886.0	766.5	353.14	9980.7	750.0	353.14	9143.6	731.8	353.14	8361.3	711.0
353.14	10873.8	766.3	353.14	9969.8	749.8	353.14	9134.5	731.7	353.14	8351.5	710.7
353.14	10863.6	766.1	353.14	9958.3	749.6	353.14	9123.8	731.4	353.14	8342.2	710.5
353.14	10851.2	765.9	353.14	9949.5	749.4	353.14	9113.8	731.2	353.14	8330.6	710.0
353.14	10838.9	765.7	353.14	9939.9	749.2	353.14	9103.6	730.9	353.14	8321.5	709.8
353.14	10828.4	765.5	353.14	9929.2	749.0	353.14	9091.6	730.6	353.14	8311.4	709.4
353.14	10816.1	765.3	353.14	9919.7	748.8	353.14	9081.8	730.4	353.14	8300.2	709.2
353.14	10804.9	765.1	353.14	9909.0	748.6	353.14	9072.6	730.2	353.14	8289.9	708.9
353.14	10793.4	764.9	353.14	9899.7	748.4	353.14	9061.2	729.9	353.14	8279.2	708.5
353.14	10780.3	764.7	353.14	9888.7	748.2	353.14	9052.6	729.7	353.14	8268.7	708.2
353.14	10768.8	764.5	353.14	9877.4	748.0	353.14	9042.4	729.4	353.14	8258.7	707.9
353.14	10758.5	764.3	353.14	9867.5	747.8	353.14	9032.4	729.2	353.14	8247.8	707.6
353.14	10746.3	764.1	353.14	9856.5	747.5	353.14	9024.2	728.9	353.14	8237.4	707.3
353.14	10735.8	763.9	353.14	9844.8	747.3	353.14	9014.2	728.7	353.14	8226.2	706.9
353.14	10724.6	763.7	353.14	9835.9	747.2	353.14	9003.8	728.5	353.14	8216.2	706.5
353.14	10713.1	763.5	353.14	9825.6	746.9	353.14	8994.4	728.2	353.14	8207.1	706.3
353.14	10700.6	763.3	353.14	9814.9	746.7	353.14	8984.0	728.0	353.14	8196.2	706.0
353.14	10688.9	763.1	353.14	9805.9	746.5	353.14	8974.0	727.7	353.14	8186.2	705.7
353.14	10677.2	763.0	353.14	9795.6	746.3	353.14	8965.0	727.5	353.14	8177.2	705.4
353.14	10665.6	762.7	353.14	9785.1	746.1	353.14	8954.2	727.3	353.14	8166.0	705.0
353.14	10655.2	762.5	353.14	9776.1	745.9	353.14	8944.5	727.0	353.14	8155.8	704.7
353.15	10643.1	762.4	353.14	9764.2	745.6	353.14	8934.9	726.8	353.14	8147.1	704.4
353.15	10632.1	762.2	353.14	9754.2	745.4	353.14	8924.5	726.5	353.14	8135.1	704.0
353.14	10619.9	761.9	353.14	9744.1	745.3	353.14	8914.7	726.2	353.14	8125.3	703.7
353.14	10607.3	761.7	353.14	9733.4	745.0	353.14	8904.9	725.9	353.14	8116.9	703.4
353.14	10595.4	761.5	353.14	9723.2	744.8	353.14	8895.2	725.7	353.13	8107.0	703.1
353.14	10583.5	761.3	353.14	9712.4	744.6	353.14	8884.0	725.4	353.14	8097.3	702.8
353.14	10569.3	761.0	353.14	9701.5	744.3	353.14	8874.6	725.2	353.14	8088.7	702.5
353.14	10558.2	760.8	353.14	9690.3	744.1	353.14	8863.5	724.9	353.14	8077.7	702.1
353.14	10544.0	760.6	353.14	9680.1	743.9	353.14	8851.4	724.7	353.14	8068.0	701.8
353.14	10530.7	760.4	353.14	9668.0	743.6	353.14	8840.6	724.4	353.15	8058.2	701.5
353.14	10520.4	760.1	353.14	9657.2	743.4	353.14	8830.1	724.1	353.15	8048.7	701.1
353.14	10507.6	760.0	353.14	9645.3	743.2	353.14	8818.8	723.8	353.15	8038.3	700.8
353.14	10495.6	759.7	353.14	9633.9	742.9	353.14	8807.5	723.5	353.14	8027.8	700.4
353.14	10485.1	759.6	353.14	9624.8	742.7	353.14	8796.3	723.2	353.14	8018.7	700.1
353.14	10472.2	759.3	353.14	9612.2	742.4	353.14	8786.1	723.0	353.14	8009.0	699.8
353.14	10461.1	759.1	353.14	9600.7	742.2	353.14	8775.7	722.7	353.14	7998.3	699.4
353.14	10449.3	758.9	353.14	9590.7	742.0	353.14	8766.1	722.4	353.14	7988.3	699.1
353.14	10437.6	758.7	353.14	9578.8	741.7	353.14	8756.9	722.1	353.14	7977.8	698.7
353.14	10428.2	758.5	353.14	9568.1	741.5	353.14	8746.6	721.9	353.14	7967.5	698.4
353.14	10417.4	758.3	353.14	9556.5	741.3	353.14	8736.1	721.7	353.14	7956.1	698.0
353.15	10405.4	758.1	353.14	9545.2	741.0	353.14	8725.9	721.3	353.14	7947.8	697.7
353.15	10394.5	757.9	353.14	9534.3	740.7	353.14	8715.5	721.1	353.14	7939.7	697.4
353.14	10383.5	757.6	353.14	9522.4	740.5	353.14	8704.7	720.8	353.14	7929.7	697.1
353.14	10371.1	757.5	353.14	9511.6	740.3	353.14	8693.8	720.5	353.14	7922.6	696.8
353.14	10361.1	757.3	353.14	9500.9	740.0	353.14	8682.6	720.2	353.14	7912.4	696.4
353.14	10350.1	757.0	353.14	9489.0	739.8	353.14	8672.3	719.9	353.14	7901.7	696.1
353.14	10338.7	756.9	353.14	9478.8	739.6	353.14	8662.6	719.6	353.14	7893.1	695.7
353.14	10327.7	756.6	353.14	9469.4	739.3	353.14	8652.6	719.3	353.14	7882.0	695.4
353.14	10315.0	756.4	353.14	9458.0	739.1	353.14	8642.3	719.1	353.14	7870.8	695.0

T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]	T [K]	p [kPa]	ρ [kg/m^3]
353.14	7861.5	694.7	353.14	7474.2	679.2	353.14	7134.9	662.7	353.16	6849.9	645.2
353.14	7851.0	694.3	353.14	7465.7	678.9	353.14	7126.9	662.3	353.16	6843.7	644.9
353.15	7841.0	693.9	353.14	7458.8	678.6	353.14	7119.5	661.9	353.15	6836.2	644.3
353.14	7832.2	693.5	353.14	7448.1	678.1	353.14	7113.6	661.5	353.15	6830.4	644.0
353.14	7821.8	693.2	353.14	7439.7	677.8	353.14	7106.0	661.1	353.15	6824.0	643.4
353.14	7813.5	692.9	353.14	7432.2	677.3	353.14	7098.8	660.7	353.15	6816.4	642.9
353.14	7806.3	692.6	353.14	7422.7	677.0	353.14	7092.7	660.4	353.16	6811.0	642.6
353.13	7796.6	692.2	353.14	7414.1	676.6	353.14	7086.0	659.9	353.16	6804.5	642.0
353.14	7787.3	691.9	353.14	7405.6	676.2	353.14	7077.6	659.5	353.16	6797.7	641.6
353.14	7777.8	691.6	353.14	7396.1	675.8	353.14	7071.5	659.1	353.16	6792.2	641.1
353.14	7767.0	691.2	353.14	7388.7	675.4	353.14	7063.2	658.7	353.16	6785.0	640.6
353.14	7759.0	690.8	353.14	7379.7	675.0	353.15	7056.1	658.3	353.16	6778.9	640.2
353.14	7749.0	690.4	353.14	7370.9	674.6	353.15	7050.1	657.9	353.16	6773.7	639.8
353.14	7738.5	690.1	353.14	7363.3	674.2	353.15	7043.0	657.5	353.16	6767.0	639.3
353.14	7729.5	689.7	353.14	7354.2	673.8	353.15	7035.4	657.0	353.16	6762.0	638.9
353.14	7719.3	689.4	353.14	7346.2	673.4	353.15	7028.3	656.6	353.16	6757.1	638.5
353.14	7710.2	689.0	353.14	7340.4	673.1	353.15	7019.7	656.1	353.16	6750.2	638.1
353.14	7700.5	688.6	353.14	7331.6	672.6	353.15	7013.5	655.8	353.16	6744.9	637.5
353.14	7690.5	688.2	353.14	7321.0	672.2	353.15	7005.5	655.3	353.16	6738.8	637.1
353.14	7680.6	687.8	353.14	7313.3	671.8	353.15	6998.3	654.8	353.16	6732.6	636.6
353.14	7672.7	687.4	353.14	7304.1	671.4	353.14	6992.4	654.5	353.16	6727.8	636.3
353.14	7662.3	687.1	353.14	7294.6	671.0	353.15	6984.3	654.0	353.16	6723.1	635.8
353.14	7652.5	686.7	353.14	7287.7	670.6	353.15	6977.4	653.6	353.16	6718.1	635.4
353.14	7643.9	686.3	353.14	7278.2	670.1	353.15	6970.7	653.2	353.17	6713.2	635.0
353.14	7633.4	686.0	353.14	7269.2	669.8	353.15	6963.0	652.7	353.17	6706.7	634.5
353.14	7624.0	685.6	353.14	7262.9	669.4	353.15	6957.0	652.3	353.17	6702.7	634.2
353.14	7614.5	685.2	353.14	7252.7	668.9	353.15	6949.7	651.9	353.17	6698.2	633.8
353.14	7603.8	684.8	353.14	7244.9	668.5	353.15	6943.0	651.5	353.17	6691.8	633.3
353.14	7594.8	684.4	353.14	7237.5	668.1	353.15	6935.6	651.0	353.17	6687.0	632.9
353.14	7585.2	684.1	353.14	7228.6	667.6	353.15	6927.5	650.5	353.17	6681.8	632.5
353.13	7573.8	683.5	353.14	7220.7	667.3	353.15	6921.4	650.0	353.17	6676.1	632.0
353.14	7564.0	683.1	353.14	7213.1	666.9	353.15	6914.2	649.5	353.17	6670.6	631.5
353.13	7554.1	682.7	353.13	7204.7	666.4	353.15	6906.6	649.1	353.17	6664.7	631.1
353.14	7544.3	682.3	353.14	7198.6	666.1	353.15	6900.9	648.7	353.17	6658.7	630.6
353.13	7537.4	682.0	353.14	7190.0	665.7	353.15	6893.9	648.3			
353.14	7528.9	681.6	353.14	7182.2	665.3	353.15	6887.4	647.8			
353.14	7517.9	681.2	353.15	7173.4	664.8	353.15	6881.7	647.5			
353.14	7510.4	680.9	353.15	7164.9	664.4	353.16	6874.8	647.0			
353.14	7502.2	680.4	353.15	7157.0	663.9	353.16	6868.7	646.6			
353.14	7493.2	680.1	353.14	7149.4	663.6	353.16	6862.7	646.1			
353.14	7484.4	679.7	353.14	7140.7	663.1	353.16	6855.6	645.7			

Appendice E

Scheda di sicurezza R1243zf

In questa appendice viene riportata la scheda di sicurezza del fluido R1243zf fornita dal produttore.

SAFETY DATA SHEET

Mexichem. FLUOR

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY / UNDERTAKING

Product Name **HFO 1243 zf**

Manufacturer

Mexichem UK Limited
The Heath Business & Technical Park
Runcorn
Cheshire
WA7 4QX
United Kingdom
Tel: +44(0) 1928 511192
Fax: +44(0) 1928 517592
E-Mail: info@mexichem.com

Emergency Phone No.

IN AN EMERGENCY DIAL 999 (UK Only)
For specialist advice in an emergency telephone +44(0) 1928 572000

Use

Subject to Member State regulations, applicable uses are: refrigerant

2. HAZARDS IDENTIFICATION

This material is for research purposes only. Caution - Product not yet fully tested.

Extremely flammable liquefied gas.
Low acute toxicity. Very high atmospheric concentrations may cause an abnormal heart rhythm, anaesthetic effects and asphyxiation.
Liquid splashes or spray may cause freeze burns to skin and eyes.

EC Classification EXTREMELY FLAMMABLE

3. COMPOSITION / INFORMATION ON INGREDIENTS

Alternative names

3,3,3-Trifluoropropene
R 1243 zf
Hydrofluoroolefin (HFO) 1243 zf
Hydrofluorocarbon (HFC) 1243 zf

HAZARDOUS INGREDIENT(S)

Hazardous ingredient(s)	%(w/w)	CAS No.	EC No.	EC Classification
HFO 1243 zf (3,3,3-Trifluoropropene)	100	000677-21-4	211-637-0	F+ R12

4. FIRST AID MEASURES

The first aid advice given for skin contact, eye contact, and ingestion is applicable following exposures to the liquid or spray. See also section 11.

Inhalation

Remove patient from exposure, keep warm and at rest. Administer oxygen if necessary. Apply artificial respiration if breathing has ceased or shows signs of failing. In the event of cardiac arrest apply external cardiac massage. Obtain immediate medical attention.

Skin Contact	Thaw affected areas with water. Remove contaminated clothing. Caution: clothing may adhere to the skin in the case of freeze burns. After contact with skin, wash immediately with plenty of warm water. If irritation or blistering occur obtain medical attention.
Eye Contact	Immediately irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 10 minutes. Obtain immediate medical attention.
Ingestion	Unlikely route of exposure. Do not induce vomiting. Provided the patient is conscious, wash out mouth with water and give 200-300 ml (half a pint) of water to drink. Obtain immediate medical attention.
Further Medical Treatment	Symptomatic treatment and supportive therapy as indicated. Adrenaline and similar sympathomimetic drugs should be avoided following exposure as cardiac arrhythmia may result with possible subsequent cardiac arrest.

5. FIRE-FIGHTING MEASURES

General	Extremely flammable. Certain mixtures of HFOs and chlorine may be flammable or reactive under certain conditions. Combustion or thermal decomposition will evolve very toxic and corrosive vapours. (hydrogen fluoride) Containers may burst if overheated.
Extinguishing media	Allow gas fires to burn until exhausted. Keep fire exposed containers cool by spraying with water.
Fire Fighting Protective Equipment	A self contained breathing apparatus and full protective clothing must be worn in fire conditions. See Also Section 8

6. ACCIDENTAL RELEASE MEASURES

Personal Protection	Ensure suitable personal protection (including respiratory protection) during removal of spillages. See Also Section 8
General	Eliminate sources of ignition. Provided it is safe to do so, isolate the source of the leak. Allow small spillages to evaporate provided there is adequate ventilation. Large spillages: Ventilate area. Contain spillages with sand, earth or any suitable adsorbent material. Prevent liquid from entering drains, sewers, basements and workpits since the vapour may create an explosive or suffocating atmosphere.

7. HANDLING AND STORAGE

Handling	Keep away from sources of ignition - No Smoking. Take precautionary measures against static discharges. Avoid inhalation of high concentrations of vapours. Atmospheric levels should be controlled in compliance with the occupational exposure limit. The vapour is heavier than air, high concentrations may be produced at low levels where general ventilation is poor, in such cases provide adequate ventilation or wear suitable respiratory protective equipment with positive air supply. Avoid contact between the liquid and skin and eyes.
Process Hazards	Liquid refrigerant transfers between refrigerant containers and to and from systems can result in static generation. Ensure adequate earthing. Certain mixtures of HFOs and chlorine may be flammable or reactive under certain conditions. Care must be taken to mitigate the risk of developing high pressures in systems caused by a temperature rise when liquid is trapped between closed valves or in cases where containers have been overfilled.

Storage

Keep in a well ventilated place away from fire risk and avoid sources of heat such as electric or steam radiators.
Avoid storing near to the intake of air conditioning units, boiler units and open drains.

Specific use

Subject to Member State regulations, applicable uses are: refrigerant

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General

Wear suitable protective clothing, gloves and eye/face protection. Wear thermal insulating gloves when handling liquefied gases.
In cases of insufficient ventilation, where exposure to high concentrations of vapour is possible, suitable respiratory protective equipment with positive air supply should be used.

Eye Protection

Gloves

Occupational Exposure Limits

Occupational Exposure Limits	CAS No.	LTEL (8 hr TWA ppm)	LTEL 8 hr TWA mg/m³	STEL (ppm)	STEL mg/m³	Note:
HFO 1243 zf (3,3,3-Trifluoropropene)	000677-21-4	10				COM (provisional)

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	liquefied gas
Colour	colourless
Odour	slight ethereal
Solubility (Water)	slightly soluble
Solubility (Other)	soluble in: alcohols , chlorinated solvents , esters
Boiling Point (°C)	- 25.3
Vapour Density (Air=1)	3.33 at 20 °C
Vapour Pressure (mm Hg)	3901 at 20 °C
Specific Gravity	1.00 at 20 °C
Flammable Limits (Upper) (%v/v)	16
Flammable Limits (Lower) (%v/v)	4.5

10. STABILITY AND REACTIVITY

Hazardous Reactions

Certain mixtures of HFOs and chlorine may be flammable or reactive under certain conditions.
Incompatible materials: finely divided metals , magnesium and alloys containing more than 2% magnesium . Can react violently if in contact with alkali metals and alkaline earth metals - sodium , potassium , barium . May react violently with oxidising agents.

Hazardous Decomposition Product(s)

hydrogen fluoride by thermal decomposition and hydrolysis.

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11. TOXICOLOGICAL INFORMATION

This material is for research purposes only. Caution - Product not yet fully tested.

Inhalation	Very high atmospheric concentrations may cause an abnormal heart rhythm, anaesthetic effects and asphyxiation.
Skin Contact	Liquid splashes or spray may cause freeze burns. Unlikely to be hazardous by skin absorption.
Eye Contact	Liquid splashes or spray may cause freeze burns.
Ingestion	Highly unlikely - but should this occur freeze burns will result.
Long Term Exposure	Rats exposed to 1000ppm HFO 1243 zf 6 hours / day for 2 weeks showed no adverse effects. Short term predictive tests have shown it to be non-mutagenic in bacteria and in human lymphocytes both with and without metabolic activation.

12. ECOLOGICAL INFORMATION

Environmental Fate and Distribution	Vapour
Persistence and Degradation	Decomposed rapidly in the lower atmosphere (troposphere). May influence photochemical smog (i.e. may be a VOC under the terms of the UNECE agreement). Does not deplete ozone.
Effect on Effluent Treatment	Discharges of the product will enter the atmosphere and will not result in long term aqueous contamination.

13. DISPOSAL CONSIDERATIONS

Recommended:	Best to recover and recycle. If this is not possible, destruction is to be in an approved facility which is equipped to absorb and neutralise acid gases and other toxic processing products.

14. TRANSPORT INFORMATION

Forbidden for transport by passenger aircraft.
Hazard Label

Road/Rail	
UN No.	3161
ADR/RID Class	2.1
ADR/RID Proper Shipping Name	LIQUEFIED GAS, FLAMMABLE, N.O.S. (3,3,3-TRIFLUOROPROPENE)
SEA	
IMDG Class	2.1
Marine Pollutant	Not classified as a Marine Pollutant
AIR	
ICAO/IATA	2.1

SAFETY DATA SHEET

Mexichem. FLUOR

15. REGULATORY INFORMATION

European Regulations

Hazard Symbol	F+
EC Label	
Risk Phrases	R12 Extremely flammable.
Safety Phrases	S9 Keep container in a well ventilated place. S16 Keep away from sources of ignition - No Smoking. S33 Take precautionary measures against static discharges.
EC Classification	EXTREMELY FLAMMABLE

16. OTHER INFORMATION

This data sheet was prepared in accordance with Regulation (EC) No. 1907/2006.

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Glossary

WEL: Workplace Exposure Limit (UK HSE EH40)
COM: The company aims to control exposure in its workplace to this limit
TLV: The company aims to control exposure in its workplace to the ACGIH limit
TLV-C: The company aims to control exposure in its workplace to the ACGIH Ceiling limit
MAK: The company aims to control exposure in its workplace to the German limit
Sk: Can be absorbed through skin
Sen: Capable of causing respiratory sensitisation
Bmgv: Biological monitoring guidance value (UK HSE EH40)

Risk Phrases

R12 Extremely flammable.

Appendice F

Scheda di sicurezza R32

In questa appendice viene riportata la scheda di sicurezza del fluido R32 fornita dal produttore.

AIR LIQUIDE

Difluoromethane

CH_2F_2

Difluoromethane or methylene fluoride is a gas in normal atmospheric conditions (15 °C and 760 mmHg).
It is delivered as a liquefied gas under its own vapor pressure.
It is a slightly toxic, anesthetic gas.
Commercial brands bear the designation R32.

Physical properties

Formula: CH_2F_2
Molecular weight: 52.024 $g.mole^{-1}$

Boiling point [1-3]
(1 atm)

Temperature (K)	Temperature (°C)	Latent heat ($kcal.kg^{-1}$)	Gas density ($kg.m^{-3}$)
221.50	-51.65	86.1	1213 (*)

(*) extrapolated value
1 liter of liquid liberates 551 liters of gas (expanded to 15 °C. 1 atm)

Critical point [1-2]

Temperature (K)	Temperature (°C)	Pressure (bar)	Density ($kg.m^{-3}$)
351.55	78.4	58.30	430

AIR LIQUIDE

Density [1]

Temperature (°C)	Pressure (bar)	Liquid ($kg.m^{-3}$)	Gas ($kg.m^{-3}$)
0 (*)	8.1	1052	21.87
15 (*)	12.7	998	34.60
50 (*)	31.4	840	97.83

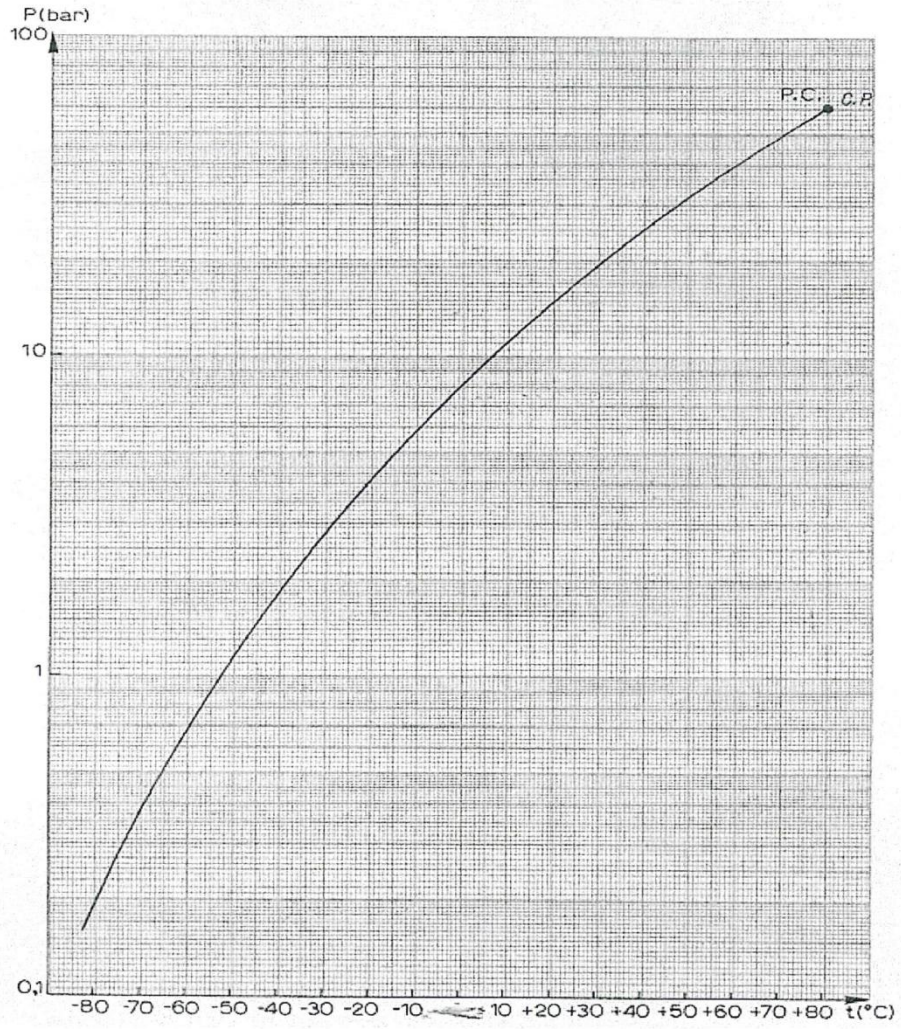
(*) liquid-gas equilibrium

Compressibility factor [1]

	P(bar)	1	2	5	10	15	20	25	30
T(°C)									
15		0.9863	0.9723	0.9284	0.8471				
50		0.9910	0.9819	0.9539	0.9048	0.8517	0.7933	0.7271	0.6477

AIR LIQUIDE

Vapor pressure [1]



AIR LIQUIDE

Heat capacity [4]

C_p = 0.197 kcal.kg^{-1}.K^{-1} for the perfect gas at 25 °C.

Viscosity [6]

(1 atm)
(multiply these values by 10^{-5} to obtain poises)

Temperature (°C)	Viscosity
0	11.10
15	11.73
50	13.15
100	15.18

Thermal conductivity [6]
(1 atm)

(multiply these values by 10^{-5} to obtain cal.cm^{-1}.s^{-1}.K^{-1})

Temperature (°C)	Conductivity
0	2.98
15	3.22
50	3.80
100	4.73

Refractive index [7]

(sodium D line)
n = 1.190 for the liquid at 20 °C, P ~ P_{sat}.

Solubility

Difluoromethane is soluble in ethyl alcohol.

AIR LIQUIDE

Flammability

The literature does not contain any data relative to the flammability limits and autoignition temperature in air.

Biological properties [8]

Difluoromethane has anesthetic properties. However, it should be noted that fluoromethanes do not exhibit any toxic effects after repeated exposure.
Difluoromethane acts as an asphyxiant by displacing the oxygen in the air.
Furthermore, "it is necessary to avoid excessive contact of the skin with liquid fluorocarbides, in order to prevent the solution of lipids and the risk of cutaneous absorption".
(Médecine, hygiène et sécurité du travail - B. I. T.)

Precautions in handling and storage

CAUTION: DIFLUOROMETHANE IS A GAS WHICH IS HEAVIER THAN AIR.
NEVER USE IT WITHOUT REFERRING TO CHAPTER III.

Leak detection and analysis [5]

Difluoromethane is colorless and practically odorless. Before using equipment containing pressurized difluoromethane, test the assembly with a leak detector.

Leaks may be detected as follows:
- by the application of a surface-active substance to suspected points.
- by means of a halide lamp (injection of gas into a flame in the presence of copper, producing a green color).

Low concentrations in air may be determined quickly by the following means:
- adsorption of the vapors on activated charcoal or silica gel and gravimetric determination.
- combustion in a microburner and determination by titrimetry and conductimetry.

Difluoromethane may be analyze by the following means:
- gas phase chromatography (with an electron capture detector).
- infrared absorption.
- mass spectrometry.

AIR LIQUIDE

Materials of construction [7]

Metals

Difluoromethane is noncorrosive and may be employed with all commonly used metals at normal temperatures.
At elevated temperatures, difluoromethane decomposes to produce fluorides, which are corrosive, especially in the presence of moisture.

Plastics and elastomers

Difluoromethane is compatible with:
- Teflon ®
- Viton ®
- Kel-F ® (swelling in liquid phase)
- polyvinyl chloride.

For other substances, it is advisable to proceed with suitable tests prior to use.

Uses

Difluoromethane is employed as a refrigerant
Together with chloropentafluoroethane, difluoromethane forms an azeotrope, which is also employed as a refrigerant.

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