**PropertiesofWaterandSteam**

**(**

**ThermodynamicPropertiesof**

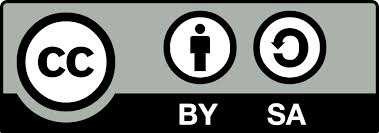
**OrdinaryWaterSubstance)**

**BasedontheNISTSteamTables**

**ForME209Thermodynamics**

**atIITBombay**

**IndianInstituteofTechnologyBombay**



ME209IITBombay

# July 2016 Introduction

These tables are created using the NIST Steam Tables.

Please see the link: http://www.nist.gov/srd/upload/NISTIR5078.htm (referred on 2014.02.06).

The reader should refer to the NIST Steam Tables for original data.

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# About These Tables

While preparing these tables, the following modifications were made:

The nomenclature is different, and so is the tabular format.

Density **(**ρ**)** is not tabulated, only specific volume **(**v**)** is tabulated.

Values of thermal (internal) energy **(**u **=** h−pv**)** are computed and tabulated.

Please note:

The tabulation is restricted to 1000 and 100 MPa.

Defined (and hence, exact) values are printed in boldface.

Some metastable states are tabulated for convenient interpolation. These are marked with an asterisk(\*) prefixed to the value in the first column. Please see Table 3, pressures upto 0.13 MPa.

# Nomenclature

h specific enthalpy kJ/kg p pressure MPa

s specific entropy kJ/kg K

T temperature u specific thermal (internal) energy kJ/kg v specific volume m**3**/kg

Subscripts

c critical point

1. saturated liquid

fg difference between saturated liquid and dry saturated vapour

1. dry saturated vapour

**sat** saturation tp triple point

# Table 1

**Saturation Line**

**Base: Temperature**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | psat  MPa | Volume, m**3**/kg | | Energy, kJ/kg | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg K) | | |
| vf | vg | uf | ug | hf | hg | hfg | sf | sg | sfg |
| **0.01** | 0.0006117 | 0.00100021 | 205.991 | **0** | 2374.9 | 0.00 | 2500.9 | 2500.9 | **0** | 9.1555 | 9.1555 |
| 1 | 0.0006571 | 0.00100015 | 192.439 | 4.18 | 2376.2 | 4.18 | 2502.7 | 2498.6 | 0.01526 | 9.1291 | 9.1138 |
| 2 | 0.0007060 | 0.00100011 | 179.758 | 8.39 | 2377.7 | 8.39 | 2504.6 | 2496.2 | 0.03061 | 9.1027 | 9.0720 |
| 3 | 0.0007581 | 0.00100008 | 168.008 | 12.60 | 2379.0 | 12.60 | 2506.4 | 2493.8 | 0.04589 | 9.0765 | 9.0306 |
| 4 | 0.0008135 | 0.00100007 | 157.116 | 16.81 | 2380.4 | 16.81 | 2508.2 | 2491.4 | 0.06110 | 9.0505 | 8.9894 |
| 5 | 0.0008726 | 0.00100008 | 147.011 | 21.02 | 2381.8 | 21.02 | 2510.1 | 2489.0 | 0.07625 | 9.0248 | 8.9486 |
| 6 | 0.0009354 | 0.00100011 | 137.633 | 25.22 | 2383.2 | 25.22 | 2511.9 | 2486.7 | 0.09134 | 8.9993 | 8.9080 |
| 7 | 0.0010021 | 0.00100014 | 128.923 | 29.43 | 2384.5 | 29.43 | 2513.7 | 2484.3 | 0.10637 | 8.9741 | 8.8677 |
| 8 | 0.0010730 | 0.00100020 | 120.829 | 33.63 | 2386.0 | 33.63 | 2515.6 | 2481.9 | 0.12133 | 8.9491 | 8.8278 |
| 9 | 0.0011483 | 0.00100026 | 113.304 | 37.82 | 2387.3 | 37.82 | 2517.4 | 2479.6 | 0.13624 | 8.9243 | 8.7881 |
| 10 | 0.0012282 | 0.00100035 | 106.303 | 42.02 | 2388.6 | 42.02 | 2519.2 | 2477.2 | 0.15109 | 8.8998 | 8.7487 |
| 11 | 0.0013130 | 0.00100044 | 99.787 | 46.22 | 2390.0 | 46.22 | 2521.0 | 2474.8 | 0.16587 | 8.8754 | 8.7096 |
| 12 | 0.0014028 | 0.00100055 | 93.719 | 50.41 | 2391.4 | 50.41 | 2522.9 | 2472.5 | 0.18061 | 8.8513 | 8.6707 |
| 13 | 0.0014981 | 0.00100067 | 88.064 | 54.60 | 2392.8 | 54.60 | 2524.7 | 2470.1 | 0.19528 | 8.8274 | 8.6321 |
| 14 | 0.0015990 | 0.00100080 | 82.793 | 58.79 | 2394.1 | 58.79 | 2526.5 | 2467.7 | 0.20990 | 8.8037 | 8.5938 |
| 15 | 0.0017058 | 0.00100094 | 77.875 | 62.98 | 2395.5 | 62.98 | 2528.3 | 2465.4 | 0.22446 | 8.7803 | 8.5558 |
| 16 | 0.0018188 | 0.00100110 | 73.286 | 67.17 | 2396.9 | 67.17 | 2530.2 | 2463.0 | 0.23897 | 8.7570 | 8.5180 |
| 17 | 0.0019384 | 0.00100127 | 69.001 | 71.36 | 2398.2 | 71.36 | 2532.0 | 2460.6 | 0.25343 | 8.7339 | 8.4805 |
| 18 | 0.0020647 | 0.00100145 | 64.998 | 75.54 | 2399.6 | 75.54 | 2533.8 | 2458.3 | 0.26783 | 8.7111 | 8.4433 |
| 19 | 0.0021983 | 0.00100164 | 61.256 | 79.73 | 2400.9 | 79.73 | 2535.6 | 2455.9 | 0.28218 | 8.6884 | 8.4063 |
| 20 | 0.0023393 | 0.00100184 | 57.757 | 83.91 | 2402.3 | 83.91 | 2537.4 | 2453.5 | 0.29648 | 8.6660 | 8.3695 |
| 21 | 0.0024882 | 0.00100205 | 54.483 | 88.10 | 2403.7 | 88.10 | 2539.3 | 2451.2 | 0.31073 | 8.6437 | 8.3330 |
| 22 | 0.0026453 | 0.00100228 | 51.418 | 92.28 | 2405.1 | 92.28 | 2541.1 | 2448.8 | 0.32493 | 8.6217 | 8.2967 |
| 23 | 0.0028111 | 0.00100251 | 48.548 | 96.46 | 2406.4 | 96.46 | 2542.9 | 2446.4 | 0.33908 | 8.5998 | 8.2607 |
| 24 | 0.0029858 | 0.00100275 | 45.858 | 100.65 | 2407.8 | 100.65 | 2544.7 | 2444.0 | 0.35318 | 8.5781 | 8.2250 |
| 25 | 0.0031699 | 0.00100301 | 43.337 | 104.83 | 2409.1 | 104.83 | 2546.5 | 2441.7 | 0.36722 | 8.5566 | 8.1894 |
| 26 | 0.0033639 | 0.00100327 | 40.973 | 109.01 | 2410.5 | 109.01 | 2548.3 | 2439.3 | 0.38123 | 8.5353 | 8.1541 |
| 27 | 0.0035681 | 0.00100354 | 38.754 | 113.19 | 2411.8 | 113.19 | 2550.1 | 2436.9 | 0.39518 | 8.5142 | 8.1191 |
| 28 | 0.0037831 | 0.00100382 | 36.672 | 117.37 | 2413.2 | 117.37 | 2551.9 | 2434.6 | 0.40908 | 8.4933 | 8.0842 |
| 29 | 0.0040092 | 0.00100411 | 34.716 | 121.55 | 2414.5 | 121.55 | 2553.7 | 2432.2 | 0.42294 | 8.4725 | 8.0496 |
| 30 | 0.0042470 | 0.00100441 | 32.878 | 125.73 | 2415.9 | 125.73 | 2555.5 | 2429.8 | 0.43675 | 8.4520 | 8.0152 |
| 31 | 0.0044969 | 0.00100472 | 31.151 | 129.91 | 2417.2 | 129.91 | 2557.3 | 2427.4 | 0.45052 | 8.4316 | 7.9810 |
| 32 | 0.0047596 | 0.00100504 | 29.526 | 134.09 | 2418.7 | 134.09 | 2559.2 | 2425.1 | 0.46424 | 8.4113 | 7.9471 |
| 33 | 0.0050354 | 0.00100537 | 27.998 | 138.26 | 2420.0 | 138.27 | 2561.0 | 2422.7 | 0.47792 | 8.3913 | 7.9134 |
| 34 | 0.0053251 | 0.00100570 | 26.560 | 142.44 | 2421.4 | 142.45 | 2562.8 | 2420.3 | 0.49155 | 8.3714 | 7.8799 |
| 35 | 0.0056290 | 0.00100605 | 25.205 | 146.62 | 2422.6 | 146.63 | 2564.5 | 2417.9 | 0.50513 | 8.3517 | 7.8466 |
| 36 | 0.0059479 | 0.00100640 | 23.929 | 150.80 | 2424.0 | 150.81 | 2566.3 | 2415.5 | 0.51867 | 8.3321 | 7.8135 |
| 37 | 0.0062823 | 0.00100676 | 22.727 | 154.98 | 2425.3 | 154.99 | 2568.1 | 2413.1 | 0.53217 | 8.3127 | 7.7806 |
| 38 | 0.0066328 | 0.00100713 | 21.593 | 159.16 | 2426.7 | 159.17 | 2569.9 | 2410.8 | 0.54562 | 8.2935 | 7.7479 |
| 39 | 0.0070002 | 0.00100750 | 20.524 | 163.34 | 2428.0 | 163.35 | 2571.7 | 2408.4 | 0.55903 | 8.2745 | 7.7154 |
| 40 | 0.0073849 | 0.00100789 | 19.515 | 167.52 | 2429.4 | 167.53 | 2573.5 | 2406.0 | 0.57240 | 8.2555 | 7.6831 |

**Saturated Water and Steam (Temperature-based)**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | psat  MPa | Volume, m**3**/kg | | Energy, kJ/kg | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg K) | | |
| vf | vg | uf | ug | hf | hg | hfg | sf | sg | sfg |
| 40 | 0.0073849 | 0.00100789 | 19.515 | 167.52 | 2429.4 | 167.53 | 2573.5 | 2406.0 | 0.57240 | 8.2555 | 7.6831 |
| 41 | 0.0077878 | 0.00100828 | 18.563 | 171.70 | 2430.7 | 171.71 | 2575.3 | 2403.6 | 0.58573 | 8.2368 | 7.6511 |
| 42 | 0.0082096 | 0.00100868 | 17.664 | 175.88 | 2432.1 | 175.89 | 2577.1 | 2401.2 | 0.59901 | 8.2182 | 7.6192 |
| 43 | 0.0086508 | 0.00100909 | 16.814 | 180.06 | 2433.4 | 180.07 | 2578.9 | 2398.8 | 0.61225 | 8.1998 | 7.5875 |
| 44 | 0.0091124 | 0.00100950 | 16.011 | 184.24 | 2434.7 | 184.25 | 2580.6 | 2396.4 | 0.62545 | 8.1815 | 7.5560 |
| 45 | 0.0095950 | 0.00100992 | 15.252 | 188.42 | 2436.1 | 188.43 | 2582.4 | 2394.0 | 0.63861 | 8.1633 | 7.5247 |
| 46 | 0.010099 | 0.00101036 | 14.534 | 192.61 | 2437.4 | 192.62 | 2584.2 | 2391.6 | 0.65173 | 8.1453 | 7.4936 |
| 47 | 0.010627 | 0.00101079 | 13.855 | 196.79 | 2438.8 | 196.80 | 2586.0 | 2389.2 | 0.66481 | 8.1275 | 7.4627 |
| 48 | 0.011177 | 0.00101124 | 13.212 | 200.97 | 2440.1 | 200.98 | 2587.8 | 2386.8 | 0.67785 | 8.1098 | 7.4320 |
| 49 | 0.011752 | 0.00101169 | 12.603 | 205.15 | 2441.4 | 205.16 | 2589.5 | 2384.4 | 0.69085 | 8.0922 | 7.4014 |
| 50 | 0.012352 | 0.00101215 | 12.027 | 209.33 | 2442.7 | 209.34 | 2591.3 | 2381.9 | 0.70381 | 8.0748 | 7.3710 |
| 51 | 0.012978 | 0.00101262 | 11.481 | 213.51 | 2444.1 | 213.52 | 2593.1 | 2379.5 | 0.71673 | 8.0576 | 7.3408 |
| 52 | 0.013631 | 0.00101309 | 10.963 | 217.70 | 2445.4 | 217.71 | 2594.8 | 2377.1 | 0.72961 | 8.0404 | 7.3108 |
| 53 | 0.014312 | 0.00101357 | 10.472 | 221.88 | 2446.7 | 221.89 | 2596.6 | 2374.7 | 0.74245 | 8.0234 | 7.2810 |
| 54 | 0.015022 | 0.00101406 | 10.006 | 226.05 | 2448.0 | 226.07 | 2598.3 | 2372.3 | 0.75526 | 8.0066 | 7.2513 |
| 55 | 0.015762 | 0.00101455 | 9.5643 | 230.24 | 2449.3 | 230.26 | 2600.1 | 2369.8 | 0.76802 | 7.9898 | 7.2218 |
| 56 | 0.016533 | 0.00101505 | 9.1448 | 234.42 | 2450.6 | 234.44 | 2601.8 | 2367.4 | 0.78075 | 7.9732 | 7.1925 |
| 57 | 0.017336 | 0.00101556 | 8.7466 | 238.60 | 2452.0 | 238.62 | 2603.6 | 2365.0 | 0.79344 | 7.9568 | 7.1633 |
| 58 | 0.018171 | 0.00101608 | 8.3683 | 242.79 | 2453.2 | 242.81 | 2605.3 | 2362.5 | 0.80610 | 7.9404 | 7.1343 |
| 59 | 0.019041 | 0.00101660 | 8.0089 | 246.97 | 2454.6 | 246.99 | 2607.1 | 2360.1 | 0.81871 | 7.9242 | 7.1055 |
| 60 | 0.019946 | 0.00101713 | 7.6672 | 251.16 | 2455.9 | 251.18 | 2608.8 | 2357.7 | 0.83129 | 7.9081 | 7.0769 |
| 61 | 0.020888 | 0.00101766 | 7.3424 | 255.35 | 2457.2 | 255.37 | 2610.6 | 2355.2 | 0.84384 | 7.8922 | 7.0484 |
| 62 | 0.021867 | 0.00101821 | 7.0335 | 259.53 | 2458.5 | 259.55 | 2612.3 | 2352.8 | 0.85634 | 7.8764 | 7.0200 |
| 63 | 0.022885 | 0.00101875 | 6.7396 | 263.72 | 2459.8 | 263.74 | 2614.0 | 2350.3 | 0.86882 | 7.8607 | 6.9918 |
| 64 | 0.023943 | 0.00101931 | 6.4598 | 267.91 | 2461.1 | 267.93 | 2615.8 | 2347.8 | 0.88125 | 7.8451 | 6.9638 |
| 65 | 0.025042 | 0.00101987 | 6.1935 | 272.09 | 2462.4 | 272.12 | 2617.5 | 2345.4 | 0.89365 | 7.8296 | 6.9359 |
| 66 | 0.026183 | 0.00102044 | 5.9399 | 276.27 | 2463.7 | 276.30 | 2619.2 | 2342.9 | 0.90602 | 7.8142 | 6.9082 |
| 67 | 0.027368 | 0.00102101 | 5.6984 | 280.46 | 2465.0 | 280.49 | 2621.0 | 2340.5 | 0.91835 | 7.7990 | 6.8807 |
| 68 | 0.028599 | 0.00102159 | 5.4682 | 284.65 | 2466.3 | 284.68 | 2622.7 | 2338.0 | 0.93064 | 7.7839 | 6.8532 |
| 69 | 0.029876 | 0.00102218 | 5.2488 | 288.84 | 2467.6 | 288.87 | 2624.4 | 2335.5 | 0.94291 | 7.7689 | 6.8260 |
| 70 | 0.031201 | 0.00102277 | 5.0395 | 293.04 | 2468.9 | 293.07 | 2626.1 | 2333.0 | 0.95513 | 7.7540 | 6.7989 |
| 71 | 0.032575 | 0.00102337 | 4.8400 | 297.23 | 2470.1 | 297.26 | 2627.8 | 2330.5 | 0.96733 | 7.7392 | 6.7719 |
| 72 | 0.034000 | 0.00102398 | 4.6496 | 301.42 | 2471.4 | 301.45 | 2629.5 | 2328.1 | 0.97949 | 7.7246 | 6.7451 |
| 73 | 0.035478 | 0.00102459 | 4.4680 | 305.60 | 2472.7 | 305.64 | 2631.2 | 2325.6 | 0.99161 | 7.7100 | 6.7184 |
| 74 | 0.037009 | 0.00102521 | 4.2945 | 309.80 | 2474.0 | 309.84 | 2632.9 | 2323.1 | 1.0037 | 7.6955 | 6.6918 |
| 75 | 0.038595 | 0.00102584 | 4.1289 | 313.99 | 2475.2 | 314.03 | 2634.6 | 2320.6 | 1.0158 | 7.6812 | 6.6654 |
| 76 | 0.040239 | 0.00102647 | 3.9708 | 318.18 | 2476.5 | 318.22 | 2636.3 | 2318.1 | 1.0278 | 7.6670 | 6.6392 |
| 77 | 0.041941 | 0.00102710 | 3.8197 | 322.38 | 2477.8 | 322.42 | 2638.0 | 2315.6 | 1.0398 | 7.6528 | 6.6130 |
| 78 | 0.043703 | 0.00102775 | 3.6752 | 326.58 | 2479.1 | 326.62 | 2639.7 | 2313.0 | 1.0517 | 7.6388 | 6.5871 |
| 79 | 0.045527 | 0.00102840 | 3.5372 | 330.76 | 2480.3 | 330.81 | 2641.3 | 2310.5 | 1.0637 | 7.6249 | 6.5612 |
| 80 | 0.047414 | 0.00102905 | 3.4052 | 334.96 | 2481.5 | 335.01 | 2643.0 | 2308.0 | 1.0756 | 7.6111 | 6.5355 |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | psat  MPa | Volume, m**3**/kg | | Energy, kJ/kg | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg K) | | |
| vf | vg | uf | ug | hf | hg | hfg | sf | sg | sfg |
| 80 | 0.047414 | 0.00102905 | 3.4052 | 334.96 | 2481.5 | 335.01 | 2643.0 | 2308.0 | 1.0756 | 7.6111 | 6.5355 |
| 81 | 0.049367 | 0.00102972 | 3.2789 | 339.16 | 2482.8 | 339.21 | 2644.7 | 2305.5 | 1.0874 | 7.5973 | 6.5099 |
| 82 | 0.051387 | 0.00103038 | 3.1581 | 343.36 | 2484.1 | 343.41 | 2646.4 | 2302.9 | 1.0993 | 7.5837 | 6.4844 |
| 83 | 0.053476 | 0.00103106 | 3.0425 | 347.55 | 2485.3 | 347.61 | 2648.0 | 2300.4 | 1.1111 | 7.5702 | 6.4591 |
| 84 | 0.055635 | 0.00103174 | 2.9318 | 351.75 | 2486.6 | 351.81 | 2649.7 | 2297.9 | 1.1229 | 7.5567 | 6.4339 |
| 85 | 0.057867 | 0.00103243 | 2.8258 | 355.95 | 2487.8 | 356.01 | 2651.3 | 2295.3 | 1.1346 | 7.5434 | 6.4088 |
| 86 | 0.060173 | 0.00103312 | 2.7244 | 360.16 | 2489.1 | 360.22 | 2653.0 | 2292.8 | 1.1463 | 7.5302 | 6.3838 |
| 87 | 0.062556 | 0.00103382 | 2.6271 | 364.36 | 2490.3 | 364.42 | 2654.6 | 2290.2 | 1.1580 | 7.5170 | 6.3590 |
| 88 | 0.065017 | 0.00103452 | 2.5340 | 368.56 | 2491.5 | 368.63 | 2656.3 | 2287.6 | 1.1696 | 7.5040 | 6.3343 |
| 89 | 0.067558 | 0.00103524 | 2.4447 | 372.76 | 2492.7 | 372.83 | 2657.9 | 2285.1 | 1.1813 | 7.4910 | 6.3097 |
| 90 | 0.070182 | 0.00103595 | 2.3591 | 376.97 | 2493.9 | 377.04 | 2659.5 | 2282.5 | 1.1929 | 7.4781 | 6.2853 |
| 91 | 0.072890 | 0.00103668 | 2.2770 | 381.17 | 2495.2 | 381.25 | 2661.2 | 2279.9 | 1.2044 | 7.4653 | 6.2609 |
| 92 | 0.075684 | 0.00103741 | 2.1982 | 385.38 | 2496.4 | 385.46 | 2662.8 | 2277.3 | 1.2160 | 7.4526 | 6.2367 |
| 93 | 0.078568 | 0.00103814 | 2.1227 | 389.59 | 2497.6 | 389.67 | 2664.4 | 2274.7 | 1.2275 | 7.4400 | 6.2126 |
| 94 | 0.081541 | 0.00103888 | 2.0502 | 393.80 | 2498.8 | 393.88 | 2666.0 | 2272.1 | 1.2389 | 7.4275 | 6.1886 |
| 95 | 0.084608 | 0.00103963 | 1.9806 | 398.00 | 2500.0 | 398.09 | 2667.6 | 2269.5 | 1.2504 | 7.4151 | 6.1647 |
| 96 | 0.087771 | 0.00104038 | 1.9137 | 402.21 | 2501.2 | 402.30 | 2669.2 | 2266.9 | 1.2618 | 7.4027 | 6.1409 |
| 97 | 0.091030 | 0.00104114 | 1.8496 | 406.43 | 2502.4 | 406.52 | 2670.8 | 2264.3 | 1.2732 | 7.3904 | 6.1172 |
| 98 | 0.094390 | 0.00104191 | 1.7879 | 410.63 | 2503.6 | 410.73 | 2672.4 | 2261.7 | 1.2846 | 7.3783 | 6.0937 |
| 99 | 0.097852 | 0.00104268 | 1.7287 | 414.85 | 2504.8 | 414.95 | 2674.0 | 2259.0 | 1.2959 | 7.3661 | 6.0702 |
| 100 | 0.10142 | 0.00104346 | 1.6718 | 419.06 | 2506.0 | 419.17 | 2675.6 | 2256.4 | 1.3072 | 7.3541 | 6.0469 |
| 101 | 0.10509 | 0.00104425 | 1.6171 | 423.28 | 2507.2 | 423.39 | 2677.1 | 2253.8 | 1.3185 | 7.3422 | 6.0237 |
| 102 | 0.10887 | 0.00104504 | 1.5644 | 427.50 | 2508.4 | 427.61 | 2678.7 | 2251.1 | 1.3297 | 7.3303 | 6.0006 |
| 103 | 0.11277 | 0.00104583 | 1.5139 | 431.71 | 2509.6 | 431.83 | 2680.3 | 2248.5 | 1.3410 | 7.3185 | 5.9775 |
| 104 | 0.11678 | 0.00104664 | 1.4652 | 435.93 | 2510.7 | 436.05 | 2681.8 | 2245.8 | 1.3522 | 7.3068 | 5.9546 |
| 105 | 0.12090 | 0.00104744 | 1.4184 | 440.14 | 2511.9 | 440.27 | 2683.4 | 2243.1 | 1.3633 | 7.2952 | 5.9318 |
| 106 | 0.12515 | 0.00104826 | 1.3733 | 444.37 | 2513.0 | 444.50 | 2684.9 | 2240.4 | 1.3745 | 7.2836 | 5.9091 |
| 107 | 0.12952 | 0.00104908 | 1.3300 | 448.59 | 2514.2 | 448.73 | 2686.5 | 2237.7 | 1.3856 | 7.2721 | 5.8865 |
| 108 | 0.13401 | 0.00104991 | 1.2882 | 452.81 | 2515.4 | 452.95 | 2688.0 | 2235.1 | 1.3967 | 7.2607 | 5.8640 |
| 109 | 0.13863 | 0.00105074 | 1.2480 | 457.03 | 2516.5 | 457.18 | 2689.5 | 2232.4 | 1.4078 | 7.2493 | 5.8416 |
| 110 | 0.14338 | 0.00105158 | 1.2093 | 461.27 | 2517.7 | 461.42 | 2691.1 | 2229.6 | 1.4188 | 7.2381 | 5.8193 |
| 111 | 0.14826 | 0.00105243 | 1.1720 | 465.49 | 2518.8 | 465.65 | 2692.6 | 2226.9 | 1.4298 | 7.2269 | 5.7970 |
| 112 | 0.15328 | 0.00105328 | 1.1361 | 469.72 | 2520.0 | 469.88 | 2694.1 | 2224.2 | 1.4408 | 7.2157 | 5.7749 |
| 113 | 0.15844 | 0.00105414 | 1.1014 | 473.95 | 2521.1 | 474.12 | 2695.6 | 2221.5 | 1.4518 | 7.2047 | 5.7529 |
| 114 | 0.16374 | 0.00105500 | 1.0680 | 478.18 | 2522.2 | 478.35 | 2697.1 | 2218.7 | 1.4628 | 7.1937 | 5.7309 |
| 115 | 0.16918 | 0.00105588 | 1.0358 | 482.41 | 2523.4 | 482.59 | 2698.6 | 2216.0 | 1.4737 | 7.1828 | 5.7091 |
| 116 | 0.17477 | 0.00105675 | 0.99522 | 486.65 | 2526.2 | 486.83 | 2700.1 | 2213.2 | 1.4846 | 7.1719 | 5.6873 |
| 117 | 0.18052 | 0.00105764 | 0.97486 | 490.89 | 2525.5 | 491.08 | 2701.5 | 2210.5 | 1.4954 | 7.1611 | 5.6657 |
| 118 | 0.18641 | 0.00105853 | 0.94598 | 495.12 | 2526.7 | 495.32 | 2703.0 | 2207.7 | 1.5063 | 7.1504 | 5.6441 |
| 119 | 0.19246 | 0.00105942 | 0.91811 | 499.36 | 2527.8 | 499.56 | 2704.5 | 2204.9 | 1.5171 | 7.1397 | 5.6226 |
| 120 | 0.19867 | 0.00106033 | 0.89121 | 503.60 | 2528.8 | 503.81 | 2705.9 | 2202.1 | 1.5279 | 7.1291 | 5.6012 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | psat  MPa | Volume, m**3**/kg | | Energy, kJ/kg | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg K) | | |
| vf | vg | uf | ug | hf | hg | hfg | sf | sg | sfg |
| 120 | 0.19867 | 0.00106033 | 0.89121 | 503.60 | 2528.8 | 503.81 | 2705.9 | 2202.1 | 1.5279 | 7.1291 | 5.6012 |
| 121 | 0.20505 | 0.00106123 | 0.86525 | 507.84 | 2530.0 | 508.06 | 2707.4 | 2199.3 | 1.5387 | 7.1186 | 5.5799 |
| 122 | 0.21159 | 0.00106215 | 0.84019 | 512.09 | 2531.0 | 512.31 | 2708.8 | 2196.5 | 1.5494 | 7.1081 | 5.5587 |
| 123 | 0.21830 | 0.00106307 | 0.81598 | 516.33 | 2532.2 | 516.56 | 2710.3 | 2193.7 | 1.5602 | 7.0977 | 5.5375 |
| 124 | 0.22518 | 0.00106400 | 0.79261 | 520.58 | 2533.2 | 520.82 | 2711.7 | 2190.9 | 1.5709 | 7.0873 | 5.5165 |
| 125 | 0.23224 | 0.00106494 | 0.77003 | 524.82 | 2534.3 | 525.07 | 2713.1 | 2188.0 | 1.5816 | 7.0770 | 5.4955 |
| 126 | 0.23947 | 0.00106588 | 0.74821 | 529.07 | 2535.3 | 529.33 | 2714.5 | 2185.2 | 1.5922 | 7.0668 | 5.4746 |
| 127 | 0.24689 | 0.00106683 | 0.72713 | 533.33 | 2536.4 | 533.59 | 2715.9 | 2182.3 | 1.6029 | 7.0566 | 5.4538 |
| 128 | 0.25450 | 0.00106778 | 0.70675 | 537.58 | 2537.4 | 537.85 | 2717.3 | 2179.5 | 1.6135 | 7.0465 | 5.4330 |
| 129 | 0.26229 | 0.00106874 | 0.68705 | 541.84 | 2538.5 | 542.12 | 2718.7 | 2176.6 | 1.6241 | 7.0364 | 5.4124 |
| 130 | 0.27028 | 0.00106971 | 0.66800 | 546.09 | 2539.6 | 546.38 | 2720.1 | 2173.7 | 1.6346 | 7.0264 | 5.3918 |
| 131 | 0.27846 | 0.00107068 | 0.64959 | 550.35 | 2540.6 | 550.65 | 2721.5 | 2170.8 | 1.6452 | 7.0165 | 5.3713 |
| 132 | 0.28685 | 0.00107166 | 0.63177 | 554.61 | 2541.6 | 554.92 | 2722.8 | 2167.9 | 1.6557 | 7.0066 | 5.3509 |
| 133 | 0.29543 | 0.00107265 | 0.61454 | 558.87 | 2542.6 | 559.19 | 2724.2 | 2165.0 | 1.6662 | 6.9967 | 5.3305 |
| 134 | 0.30423 | 0.00107365 | 0.59786 | 563.14 | 2543.6 | 563.47 | 2725.5 | 2162.1 | 1.6767 | 6.9869 | 5.3102 |
| 135 | 0.31323 | 0.00107465 | 0.58173 | 567.40 | 2544.7 | 567.74 | 2726.9 | 2159.1 | 1.6872 | 6.9772 | 5.2900 |
| 136 | 0.32245 | 0.00107566 | 0.56611 | 571.67 | 2545.7 | 572.02 | 2728.2 | 2156.2 | 1.6976 | 6.9675 | 5.2699 |
| 137 | 0.33188 | 0.00107667 | 0.55099 | 575.94 | 2546.6 | 576.30 | 2729.5 | 2153.2 | 1.7081 | 6.9579 | 5.2498 |
| 138 | 0.34154 | 0.00107769 | 0.53636 | 580.22 | 2547.6 | 580.59 | 2730.8 | 2150.3 | 1.7185 | 6.9483 | 5.2298 |
| 139 | 0.35143 | 0.00107872 | 0.52218 | 584.49 | 2548.6 | 584.87 | 2732.1 | 2147.3 | 1.7289 | 6.9388 | 5.2099 |
| 140 | 0.36154 | 0.00107976 | 0.50845 | 588.77 | 2549.6 | 589.16 | 2733.4 | 2144.3 | 1.7392 | 6.9293 | 5.1901 |
| 141 | 0.37189 | 0.00108080 | 0.49516 | 593.05 | 2550.6 | 593.45 | 2734.7 | 2141.3 | 1.7496 | 6.9199 | 5.1703 |
| 142 | 0.38247 | 0.00108185 | 0.48227 | 597.33 | 2551.5 | 597.74 | 2736.0 | 2138.3 | 1.7599 | 6.9105 | 5.1506 |
| 143 | 0.39329 | 0.00108291 | 0.46979 | 601.61 | 2552.5 | 602.04 | 2737.3 | 2135.2 | 1.7702 | 6.9011 | 5.1309 |
| 144 | 0.40437 | 0.00108397 | 0.45769 | 605.90 | 2553.4 | 606.34 | 2738.5 | 2132.2 | 1.7805 | 6.8919 | 5.1114 |
| 145 | 0.41568 | 0.00108504 | 0.44596 | 610.19 | 2554.4 | 610.64 | 2739.8 | 2129.2 | 1.7907 | 6.8826 | 5.0919 |
| 146 | 0.42726 | 0.00108612 | 0.43459 | 614.48 | 2555.3 | 614.94 | 2741.0 | 2126.1 | 1.8010 | 6.8734 | 5.0724 |
| 147 | 0.43909 | 0.00108720 | 0.42357 | 618.77 | 2556.3 | 619.25 | 2742.3 | 2123.0 | 1.8112 | 6.8643 | 5.0530 |
| 148 | 0.45118 | 0.00108830 | 0.41288 | 623.07 | 2557.2 | 623.56 | 2743.5 | 2119.9 | 1.8214 | 6.8552 | 5.0337 |
| 149 | 0.46354 | 0.00108940 | 0.40251 | 627.37 | 2558.1 | 627.87 | 2744.7 | 2116.9 | 1.8316 | 6.8461 | 5.0145 |
| 150 | 0.47616 | 0.00109050 | 0.39245 | 631.66 | 2559.0 | 632.18 | 2745.9 | 2113.7 | 1.8418 | 6.8371 | 4.9953 |
| 151 | 0.48907 | 0.00109162 | 0.38269 | 635.97 | 2559.9 | 636.50 | 2747.1 | 2110.6 | 1.8520 | 6.8281 | 4.9761 |
| 152 | 0.50225 | 0.00109274 | 0.37323 | 640.26 | 2560.8 | 640.81 | 2748.3 | 2107.5 | 1.8621 | 6.8192 | 4.9571 |
| 153 | 0.51571 | 0.00109387 | 0.36404 | 644.58 | 2561.8 | 645.14 | 2749.5 | 2104.3 | 1.8722 | 6.8103 | 4.9380 |
| 154 | 0.52946 | 0.00109501 | 0.35512 | 648.88 | 2562.7 | 649.46 | 2750.7 | 2101.2 | 1.8823 | 6.8014 | 4.9191 |
| 155 | 0.54350 | 0.00109615 | 0.34646 | 653.19 | 2563.5 | 653.79 | 2751.8 | 2098.0 | 1.8924 | 6.7926 | 4.9002 |
| 156 | 0.55784 | 0.00109730 | 0.33805 | 657.51 | 2564.4 | 658.12 | 2753.0 | 2094.8 | 1.9025 | 6.7838 | 4.8814 |
| 157 | 0.57247 | 0.00109846 | 0.32989 | 661.82 | 2565.2 | 662.45 | 2754.1 | 2091.6 | 1.9125 | 6.7751 | 4.8626 |
| 158 | 0.58742 | 0.00109963 | 0.32196 | 666.14 | 2566.1 | 666.79 | 2755.2 | 2088.4 | 1.9225 | 6.7664 | 4.8439 |
| 159 | 0.60267 | 0.00110081 | 0.31426 | 670.47 | 2566.9 | 671.13 | 2756.3 | 2085.2 | 1.9326 | 6.7578 | 4.8252 |
| 160 | 0.61823 | 0.00110199 | 0.30678 | 674.79 | 2567.7 | 675.47 | 2757.4 | 2082.0 | 1.9426 | 6.7491 | 4.8066 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | psat  MPa | Volume, m**3**/kg | | Energy, kJ/kg | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg K) | | |
| vf | vg | uf | ug | hf | hg | hfg | sf | sg | sfg |
| 160 | 0.61823 | 0.00110199 | 0.30678 | 674.79 | 2567.7 | 675.47 | 2757.4 | 2082.0 | 1.9426 | 6.7491 | 4.8066 |
| 161 | 0.63412 | 0.00110318 | 0.29951 | 679.12 | 2568.6 | 679.82 | 2758.5 | 2078.7 | 1.9525 | 6.7406 | 4.7880 |
| 162 | 0.65033 | 0.00110438 | 0.29245 | 683.45 | 2569.4 | 684.17 | 2759.6 | 2075.5 | 1.9625 | 6.7320 | 4.7695 |
| 163 | 0.66686 | 0.00110559 | 0.28559 | 687.78 | 2570.3 | 688.52 | 2760.7 | 2072.2 | 1.9725 | 6.7235 | 4.7511 |
| 164 | 0.68373 | 0.00110680 | 0.27892 | 692.12 | 2571.1 | 692.88 | 2761.8 | 2068.9 | 1.9824 | 6.7150 | 4.7327 |
| 165 | 0.70093 | 0.00110803 | 0.27243 | 696.46 | 2571.8 | 697.24 | 2762.8 | 2065.6 | 1.9923 | 6.7066 | 4.7143 |
| 166 | 0.71848 | 0.00110926 | 0.26612 | 700.80 | 2572.7 | 701.60 | 2763.9 | 2062.3 | 2.0022 | 6.6982 | 4.6960 |
| 167 | 0.73638 | 0.00111050 | 0.25999 | 705.14 | 2573.4 | 705.96 | 2764.9 | 2058.9 | 2.0121 | 6.6898 | 4.6778 |
| 168 | 0.75462 | 0.00111175 | 0.25403 | 709.49 | 2574.2 | 710.33 | 2765.9 | 2055.6 | 2.0220 | 6.6815 | 4.6596 |
| 169 | 0.77322 | 0.00111300 | 0.24823 | 713.85 | 2575.0 | 714.71 | 2766.9 | 2052.2 | 2.0318 | 6.6732 | 4.6414 |
| 170 | 0.79219 | 0.00111427 | 0.24259 | 718.20 | 2575.7 | 719.08 | 2767.9 | 2048.8 | 2.0417 | 6.6650 | 4.6233 |
| 171 | 0.81152 | 0.00111554 | 0.23710 | 722.55 | 2576.5 | 723.46 | 2768.9 | 2045.4 | 2.0515 | 6.6567 | 4.6053 |
| 172 | 0.83122 | 0.00111682 | 0.23176 | 726.92 | 2577.3 | 727.85 | 2769.9 | 2042.0 | 2.0613 | 6.6485 | 4.5872 |
| 173 | 0.85130 | 0.00111811 | 0.22656 | 731.28 | 2577.9 | 732.23 | 2770.8 | 2038.6 | 2.0711 | 6.6404 | 4.5693 |
| 174 | 0.87176 | 0.00111941 | 0.22150 | 735.65 | 2578.7 | 736.63 | 2771.8 | 2035.1 | 2.0809 | 6.6322 | 4.5514 |
| 175 | 0.89260 | 0.00112072 | 0.21658 | 740.02 | 2579.4 | 741.02 | 2772.7 | 2031.7 | 2.0906 | 6.6241 | 4.5335 |
| 176 | 0.91384 | 0.00112204 | 0.21179 | 744.39 | 2580.1 | 745.42 | 2773.6 | 2028.2 | 2.1004 | 6.6161 | 4.5157 |
| 177 | 0.93547 | 0.00112336 | 0.20712 | 748.77 | 2580.7 | 749.82 | 2774.5 | 2024.7 | 2.1101 | 6.6080 | 4.4979 |
| 178 | 0.95751 | 0.00112470 | 0.20258 | 753.15 | 2581.4 | 754.23 | 2775.4 | 2021.2 | 2.1198 | 6.6000 | 4.4802 |
| 179 | 0.97995 | 0.00112604 | 0.19815 | 757.54 | 2582.1 | 758.64 | 2776.3 | 2017.7 | 2.1296 | 6.5920 | 4.4625 |
| 180 | 1.0028 | 0.00112740 | 0.19384 | 761.92 | 2582.8 | 763.05 | 2777.2 | 2014.2 | 2.1392 | 6.5840 | 4.4448 |
| 181 | 1.0261 | 0.00112876 | 0.18964 | 766.31 | 2583.5 | 767.47 | 2778.1 | 2010.6 | 2.1489 | 6.5761 | 4.4272 |
| 182 | 1.0498 | 0.00113013 | 0.18555 | 770.71 | 2584.1 | 771.90 | 2778.9 | 2007.0 | 2.1586 | 6.5682 | 4.4096 |
| 183 | 1.0739 | 0.00113151 | 0.18157 | 775.10 | 2584.8 | 776.32 | 2779.8 | 2003.4 | 2.1683 | 6.5603 | 4.3921 |
| 184 | 1.0985 | 0.00113290 | 0.17769 | 779.51 | 2585.4 | 780.75 | 2780.6 | 1999.8 | 2.1779 | 6.5525 | 4.3746 |
| 185 | 1.1235 | 0.00113430 | 0.17390 | 783.92 | 2586.0 | 785.19 | 2781.4 | 1996.2 | 2.1875 | 6.5447 | 4.3571 |
| 186 | 1.1489 | 0.00113571 | 0.17021 | 788.33 | 2586.6 | 789.63 | 2782.2 | 1992.6 | 2.1971 | 6.5369 | 4.3397 |
| 187 | 1.1748 | 0.00113713 | 0.16662 | 792.73 | 2587.3 | 794.07 | 2783.0 | 1988.9 | 2.2067 | 6.5291 | 4.3223 |
| 188 | 1.2011 | 0.00113856 | 0.16311 | 797.15 | 2587.9 | 798.52 | 2783.8 | 1985.3 | 2.2163 | 6.5213 | 4.3050 |
| 189 | 1.2280 | 0.00114000 | 0.15969 | 801.57 | 2588.4 | 802.97 | 2784.5 | 1981.6 | 2.2259 | 6.5136 | 4.2877 |
| 190 | 1.2552 | 0.00114145 | 0.15636 | 806.00 | 2589.0 | 807.43 | 2785.3 | 1977.9 | 2.2355 | 6.5059 | 4.2704 |
| 191 | 1.2830 | 0.00114291 | 0.15311 | 810.42 | 2589.6 | 811.89 | 2786.0 | 1974.1 | 2.2450 | 6.4982 | 4.2532 |
| 192 | 1.3112 | 0.00114438 | 0.14994 | 814.86 | 2590.1 | 816.36 | 2786.7 | 1970.4 | 2.2546 | 6.4906 | 4.2360 |
| 193 | 1.3399 | 0.00114586 | 0.14685 | 819.29 | 2590.6 | 820.83 | 2787.4 | 1966.6 | 2.2641 | 6.4830 | 4.2188 |
| 194 | 1.3691 | 0.00114736 | 0.14383 | 823.74 | 2591.2 | 825.31 | 2788.1 | 1962.8 | 2.2736 | 6.4754 | 4.2017 |
| 195 | 1.3988 | 0.00114886 | 0.14089 | 828.18 | 2591.7 | 829.79 | 2788.8 | 1959.0 | 2.2832 | 6.4678 | 4.1846 |
| 196 | 1.4290 | 0.00115037 | 0.13802 | 832.64 | 2592.3 | 834.28 | 2789.5 | 1955.2 | 2.2926 | 6.4602 | 4.1676 |
| 197 | 1.4597 | 0.00115189 | 0.13522 | 837.09 | 2592.7 | 838.77 | 2790.1 | 1951.4 | 2.3021 | 6.4527 | 4.1505 |
| 198 | 1.4909 | 0.00115343 | 0.13248 | 841.54 | 2593.3 | 843.26 | 2790.8 | 1947.5 | 2.3116 | 6.4451 | 4.1335 |
| 199 | 1.5227 | 0.00115497 | 0.12982 | 846.00 | 2593.7 | 847.76 | 2791.4 | 1943.6 | 2.3211 | 6.4376 | 4.1166 |
| 200 | 1.5549 | 0.00115653 | 0.12721 | 850.47 | 2594.2 | 852.27 | 2792.0 | 1939.7 | 2.3305 | 6.4302 | 4.0996 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | psat  MPa | Volume, m**3**/kg | | Energy, kJ/kg | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg K) | | |
| vf | vg | uf | ug | hf | hg | hfg | sf | sg | sfg |
| 200 | 1.5549 | 0.00115653 | 0.12721 | 850.47 | 2594.2 | 852.27 | 2792.0 | 1939.7 | 2.3305 | 6.4302 | 4.0996 |
| 201 | 1.5877 | 0.00115809 | 0.12467 | 854.94 | 2594.7 | 856.78 | 2792.6 | 1935.8 | 2.3400 | 6.4227 | 4.0827 |
| 202 | 1.6210 | 0.00115967 | 0.12218 | 859.42 | 2595.1 | 861.30 | 2793.2 | 1931.9 | 2.3494 | 6.4152 | 4.0658 |
| 203 | 1.6549 | 0.00116126 | 0.11976 | 863.90 | 2595.5 | 865.82 | 2793.7 | 1927.9 | 2.3588 | 6.4078 | 4.0490 |
| 204 | 1.6893 | 0.00116286 | 0.11739 | 868.39 | 2596.0 | 870.35 | 2794.3 | 1923.9 | 2.3683 | 6.4004 | 4.0322 |
| 205 | 1.7243 | 0.00116448 | 0.11508 | 872.87 | 2596.4 | 874.88 | 2794.8 | 1919.9 | 2.3777 | 6.3930 | 4.0154 |
| 206 | 1.7598 | 0.00116610 | 0.11282 | 877.37 | 2596.8 | 879.42 | 2795.3 | 1915.9 | 2.3871 | 6.3856 | 3.9986 |
| 207 | 1.7959 | 0.00116774 | 0.11061 | 881.86 | 2597.3 | 883.96 | 2795.9 | 1911.9 | 2.3964 | 6.3783 | 3.9819 |
| 208 | 1.8326 | 0.00116939 | 0.10846 | 886.37 | 2597.5 | 888.51 | 2796.3 | 1907.8 | 2.4058 | 6.3710 | 3.9651 |
| 209 | 1.8698 | 0.00117105 | 0.10635 | 890.88 | 2597.9 | 893.07 | 2796.8 | 1903.7 | 2.4152 | 6.3636 | 3.9484 |
| 210 | 1.9077 | 0.00117272 | 0.10429 | 895.39 | 2598.3 | 897.63 | 2797.3 | 1899.6 | 2.4245 | 6.3563 | 3.9318 |
| 211 | 1.9461 | 0.00117441 | 0.10228 | 899.91 | 2598.7 | 902.20 | 2797.7 | 1895.5 | 2.4339 | 6.3490 | 3.9151 |
| 212 | 1.9851 | 0.00117611 | 0.10031 | 904.44 | 2599.0 | 906.77 | 2798.1 | 1891.4 | 2.4432 | 6.3417 | 3.8985 |
| 213 | 2.0247 | 0.00117782 | 0.098394 | 908.97 | 2599.3 | 911.35 | 2798.5 | 1887.2 | 2.4526 | 6.3345 | 3.8819 |
| 214 | 2.0650 | 0.00117954 | 0.096516 | 913.50 | 2599.6 | 915.94 | 2798.9 | 1883.0 | 2.4619 | 6.3272 | 3.8653 |
| 215 | 2.1058 | 0.00118128 | 0.094679 | 918.04 | 2599.9 | 920.53 | 2799.3 | 1878.8 | 2.4712 | 6.3200 | 3.8488 |
| 216 | 2.1473 | 0.00118303 | 0.092884 | 922.58 | 2600.3 | 925.12 | 2799.7 | 1874.6 | 2.4805 | 6.3128 | 3.8323 |
| 217 | 2.1894 | 0.00118479 | 0.091129 | 927.14 | 2600.5 | 929.73 | 2800.0 | 1870.3 | 2.4898 | 6.3056 | 3.8158 |
| 218 | 2.2322 | 0.00118657 | 0.089413 | 931.69 | 2600.7 | 934.34 | 2800.3 | 1866.0 | 2.4991 | 6.2984 | 3.7993 |
| 219 | 2.2756 | 0.00118836 | 0.087734 | 936.26 | 2601.1 | 938.96 | 2800.7 | 1861.7 | 2.5084 | 6.2912 | 3.7828 |
| 220 | 2.3196 | 0.00119017 | 0.086092 | 940.82 | 2601.2 | 943.58 | 2800.9 | 1857.4 | 2.5177 | 6.2840 | 3.7663 |
| 221 | 2.3643 | 0.00119198 | 0.084486 | 945.39 | 2601.4 | 948.21 | 2801.2 | 1853.0 | 2.5269 | 6.2768 | 3.7499 |
| 222 | 2.4096 | 0.00119382 | 0.082916 | 949.97 | 2601.7 | 952.85 | 2801.5 | 1848.6 | 2.5362 | 6.2697 | 3.7335 |
| 223 | 2.4556 | 0.00119567 | 0.081379 | 954.55 | 2601.9 | 957.49 | 2801.7 | 1844.2 | 2.5455 | 6.2625 | 3.7171 |
| 224 | 2.5023 | 0.00119753 | 0.079875 | 959.14 | 2602.0 | 962.14 | 2801.9 | 1839.8 | 2.5547 | 6.2554 | 3.7007 |
| 225 | 2.5497 | 0.00119940 | 0.078403 | 963.74 | 2602.2 | 966.80 | 2802.1 | 1835.4 | 2.5640 | 6.2483 | 3.6843 |
| 226 | 2.5978 | 0.00120130 | 0.076964 | 968.34 | 2602.4 | 971.46 | 2802.3 | 1830.9 | 2.5732 | 6.2412 | 3.6680 |
| 227 | 2.6466 | 0.00120320 | 0.075554 | 972.95 | 2602.5 | 976.13 | 2802.5 | 1826.4 | 2.5824 | 6.2341 | 3.6516 |
| 228 | 2.6960 | 0.00120512 | 0.074175 | 977.56 | 2602.7 | 980.81 | 2802.7 | 1821.8 | 2.5917 | 6.2270 | 3.6353 |
| 229 | 2.7462 | 0.00120706 | 0.072825 | 982.19 | 2602.8 | 985.50 | 2802.8 | 1817.3 | 2.6009 | 6.2199 | 3.6190 |
| 230 | 2.7971 | 0.00120902 | 0.071503 | 986.81 | 2602.9 | 990.19 | 2802.9 | 1812.7 | 2.6101 | 6.2128 | 3.6027 |
| 231 | 2.8487 | 0.00121098 | 0.070210 | 991.44 | 2603.0 | 994.89 | 2803.0 | 1808.1 | 2.6193 | 6.2057 | 3.5864 |
| 232 | 2.9010 | 0.00121297 | 0.068943 | 996.08 | 2603.1 | 999.60 | 2803.1 | 1803.5 | 2.6285 | 6.1987 | 3.5702 |
| 233 | 2.9541 | 0.00121497 | 0.067702 | 1000.7 | 2603.1 | 1004.3 | 2803.1 | 1798.8 | 2.6377 | 6.1916 | 3.5539 |
| 234 | 3.0080 | 0.00121699 | 0.066488 | 1005.3 | 2603.2 | 1009.0 | 2803.2 | 1794.1 | 2.6469 | 6.1845 | 3.5376 |
| 235 | 3.0625 | 0.00121902 | 0.065298 | 1010.1 | 2603.2 | 1013.8 | 2803.2 | 1789.4 | 2.6561 | 6.1775 | 3.5214 |
| 236 | 3.1179 | 0.00122108 | 0.064133 | 1014.7 | 2603.2 | 1018.5 | 2803.2 | 1784.7 | 2.6653 | 6.1704 | 3.5052 |
| 237 | 3.1740 | 0.00122315 | 0.062991 | 1019.4 | 2603.2 | 1023.3 | 2803.1 | 1779.9 | 2.6745 | 6.1634 | 3.4890 |
| 238 | 3.2308 | 0.00122523 | 0.061873 | 1024.0 | 2603.2 | 1028.0 | 2803.1 | 1775.1 | 2.6836 | 6.1564 | 3.4727 |
| 239 | 3.2885 | 0.00122734 | 0.060778 | 1028.8 | 2603.1 | 1032.8 | 2803.0 | 1770.3 | 2.6928 | 6.1493 | 3.4565 |
| 240 | 3.3469 | 0.00122946 | 0.059705 | 1033.5 | 2603.2 | 1037.6 | 2803.0 | 1765.4 | 2.7020 | 6.1423 | 3.4403 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | psat  MPa | Volume, m**3**/kg | | Energy, kJ/kg | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg K) | | |
| vf | vg | uf | ug | hf | hg | hfg | sf | sg | sfg |
| 240 | 3.3469 | 0.00122946 | 0.059705 | 1033.5 | 2603.2 | 1037.6 | 2803.0 | 1765.4 | 2.7020 | 6.1423 | 3.4403 |
| 241 | 3.4062 | 0.00123160 | 0.058654 | 1038.1 | 2603.1 | 1042.3 | 2802.9 | 1760.5 | 2.7111 | 6.1353 | 3.4241 |
| 242 | 3.4662 | 0.00123376 | 0.057623 | 1042.8 | 2603.0 | 1047.1 | 2802.7 | 1755.6 | 2.7203 | 6.1282 | 3.4079 |
| 243 | 3.5270 | 0.00123594 | 0.056613 | 1047.5 | 2602.9 | 1051.9 | 2802.6 | 1750.7 | 2.7295 | 6.1212 | 3.3918 |
| 244 | 3.5887 | 0.00123813 | 0.055624 | 1052.3 | 2602.8 | 1056.7 | 2802.4 | 1745.7 | 2.7386 | 6.1142 | 3.3756 |
| 245 | 3.6512 | 0.00124035 | 0.054654 | 1057.0 | 2602.6 | 1061.5 | 2802.2 | 1740.7 | 2.7478 | 6.1072 | 3.3594 |
| 246 | 3.7145 | 0.00124259 | 0.053703 | 1061.8 | 2602.5 | 1066.4 | 2802.0 | 1735.6 | 2.7569 | 6.1002 | 3.3432 |
| 247 | 3.7786 | 0.00124484 | 0.052771 | 1066.5 | 2602.4 | 1071.2 | 2801.8 | 1730.6 | 2.7661 | 6.0931 | 3.3270 |
| 248 | 3.8436 | 0.00124712 | 0.051857 | 1071.3 | 2602.2 | 1076.1 | 2801.5 | 1725.5 | 2.7752 | 6.0861 | 3.3109 |
| 249 | 3.9095 | 0.00124941 | 0.050961 | 1076.0 | 2602.0 | 1080.9 | 2801.2 | 1720.3 | 2.7844 | 6.0791 | 3.2947 |
| 250 | 3.9762 | 0.00125173 | 0.050083 | 1080.8 | 2601.8 | 1085.8 | 2800.9 | 1715.2 | 2.7935 | 6.0721 | 3.2785 |
| 251 | 4.0438 | 0.00125407 | 0.049222 | 1085.5 | 2601.6 | 1090.6 | 2800.6 | 1710.0 | 2.8027 | 6.0650 | 3.2624 |
| 252 | 4.1122 | 0.00125643 | 0.048377 | 1090.3 | 2601.4 | 1095.5 | 2800.3 | 1704.7 | 2.8118 | 6.0580 | 3.2462 |
| 253 | 4.1815 | 0.00125881 | 0.047548 | 1095.1 | 2601.1 | 1100.4 | 2799.9 | 1699.5 | 2.8210 | 6.0510 | 3.2300 |
| 254 | 4.2518 | 0.00126121 | 0.046736 | 1099.9 | 2600.8 | 1105.3 | 2799.5 | 1694.2 | 2.8301 | 6.0439 | 3.2138 |
| 255 | 4.3229 | 0.00126364 | 0.045938 | 1104.7 | 2600.5 | 1110.2 | 2799.1 | 1688.8 | 2.8392 | 6.0369 | 3.1977 |
| 256 | 4.3949 | 0.00126609 | 0.045156 | 1109.6 | 2600.1 | 1115.2 | 2798.6 | 1683.5 | 2.8484 | 6.0298 | 3.1815 |
| 257 | 4.4679 | 0.00126856 | 0.044389 | 1114.4 | 2599.9 | 1120.1 | 2798.2 | 1678.1 | 2.8575 | 6.0228 | 3.1653 |
| 258 | 4.5417 | 0.00127106 | 0.043637 | 1119.2 | 2599.5 | 1125.0 | 2797.7 | 1672.6 | 2.8667 | 6.0157 | 3.1491 |
| 259 | 4.6165 | 0.00127358 | 0.042898 | 1124.1 | 2599.1 | 1130.0 | 2797.1 | 1667.2 | 2.8758 | 6.0087 | 3.1329 |
| 260 | 4.6923 | 0.00127612 | 0.042173 | 1129.0 | 2598.7 | 1135.0 | 2796.6 | 1661.6 | 2.8849 | 6.0016 | 3.1167 |
| 261 | 4.7689 | 0.00127869 | 0.041462 | 1133.8 | 2598.3 | 1139.9 | 2796.0 | 1656.1 | 2.8941 | 5.9945 | 3.1004 |
| 262 | 4.8466 | 0.00128128 | 0.040764 | 1138.7 | 2597.8 | 1144.9 | 2795.4 | 1650.5 | 2.9032 | 5.9874 | 3.0842 |
| 263 | 4.9252 | 0.00128390 | 0.040079 | 1143.6 | 2597.4 | 1149.9 | 2794.8 | 1644.9 | 2.9124 | 5.9804 | 3.0680 |
| 264 | 5.0047 | 0.00128655 | 0.039406 | 1148.5 | 2597.0 | 1154.9 | 2794.2 | 1639.2 | 2.9215 | 5.9732 | 3.0517 |
| 265 | 5.0853 | 0.00128922 | 0.038746 | 1153.4 | 2596.5 | 1160.0 | 2793.5 | 1633.5 | 2.9307 | 5.9661 | 3.0354 |
| 266 | 5.1668 | 0.00129192 | 0.038098 | 1158.3 | 2596.0 | 1165.0 | 2792.8 | 1627.8 | 2.9398 | 5.9590 | 3.0192 |
| 267 | 5.2494 | 0.00129465 | 0.037462 | 1163.2 | 2595.4 | 1170.0 | 2792.1 | 1622.0 | 2.9490 | 5.9519 | 3.0029 |
| 268 | 5.3329 | 0.00129740 | 0.036837 | 1168.2 | 2594.9 | 1175.1 | 2791.3 | 1616.2 | 2.9582 | 5.9447 | 2.9866 |
| 269 | 5.4174 | 0.00130019 | 0.036223 | 1173.2 | 2594.3 | 1180.2 | 2790.5 | 1610.3 | 2.9673 | 5.9376 | 2.9703 |
| 270 | 5.5030 | 0.00130300 | 0.035621 | 1178.1 | 2593.7 | 1185.3 | 2789.7 | 1604.4 | 2.9765 | 5.9304 | 2.9539 |
| 271 | 5.5896 | 0.00130584 | 0.035029 | 1183.1 | 2593.0 | 1190.4 | 2788.8 | 1598.5 | 2.9857 | 5.9232 | 2.9376 |
| 272 | 5.6772 | 0.00130871 | 0.034448 | 1188.1 | 2592.4 | 1195.5 | 2788.0 | 1592.5 | 2.9948 | 5.9160 | 2.9212 |
| 273 | 5.7659 | 0.00131161 | 0.033877 | 1193.0 | 2591.8 | 1200.6 | 2787.1 | 1586.5 | 3.0040 | 5.9088 | 2.9048 |
| 274 | 5.8556 | 0.00131455 | 0.033317 | 1198.0 | 2591.0 | 1205.7 | 2786.1 | 1580.4 | 3.0132 | 5.9016 | 2.8884 |
| 275 | 5.9464 | 0.00131751 | 0.032766 | 1203.1 | 2590.4 | 1210.9 | 2785.2 | 1574.3 | 3.0224 | 5.8944 | 2.8720 |
| 276 | 6.0383 | 0.00132051 | 0.032225 | 1208.1 | 2589.6 | 1216.1 | 2784.2 | 1568.1 | 3.0316 | 5.8871 | 2.8555 |
| 277 | 6.1312 | 0.00132354 | 0.031693 | 1213.2 | 2588.8 | 1221.3 | 2783.1 | 1561.9 | 3.0408 | 5.8798 | 2.8390 |
| 278 | 6.2252 | 0.00132661 | 0.031171 | 1218.1 | 2588.1 | 1226.4 | 2782.1 | 1555.6 | 3.0500 | 5.8725 | 2.8225 |
| 279 | 6.3203 | 0.00132971 | 0.030657 | 1223.3 | 2587.2 | 1231.7 | 2781.0 | 1549.3 | 3.0592 | 5.8652 | 2.8060 |
| 280 | 6.4166 | 0.00133284 | 0.030153 | 1228.3 | 2586.4 | 1236.9 | 2779.9 | 1543.0 | 3.0685 | 5.8579 | 2.7894 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | psat  MPa | Volume, m**3**/kg | | Energy, kJ/kg | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg K) | | |
| vf | vg | uf | ug | hf | hg | hfg | sf | sg | sfg |
| 280 | 6.4166 | 0.00133284 | 0.030153 | 1228.3 | 2586.4 | 1236.9 | 2779.9 | 1543.0 | 3.0685 | 5.8579 | 2.7894 |
| 281 | 6.5139 | 0.00133602 | 0.029657 | 1233.4 | 2585.5 | 1242.1 | 2778.7 | 1536.6 | 3.0777 | 5.8506 | 2.7729 |
| 282 | 6.6124 | 0.00133922 | 0.029169 | 1238.5 | 2584.6 | 1247.4 | 2777.5 | 1530.1 | 3.0869 | 5.8432 | 2.7563 |
| 283 | 6.7120 | 0.00134247 | 0.028690 | 1243.7 | 2583.7 | 1252.7 | 2776.3 | 1523.6 | 3.0962 | 5.8358 | 2.7396 |
| 284 | 6.8128 | 0.00134575 | 0.028219 | 1248.7 | 2582.7 | 1257.9 | 2775.0 | 1517.1 | 3.1054 | 5.8284 | 2.7229 |
| 285 | 6.9147 | 0.00134907 | 0.027756 | 1253.9 | 2581.8 | 1263.2 | 2773.7 | 1510.5 | 3.1147 | 5.8209 | 2.7062 |
| 286 | 7.0177 | 0.00135243 | 0.027301 | 1259.1 | 2580.8 | 1268.6 | 2772.4 | 1503.8 | 3.1240 | 5.8135 | 2.6895 |
| 287 | 7.1220 | 0.00135584 | 0.026853 | 1264.2 | 2579.8 | 1273.9 | 2771.0 | 1497.1 | 3.1333 | 5.8060 | 2.6727 |
| 288 | 7.2274 | 0.00135928 | 0.026413 | 1269.5 | 2578.7 | 1279.3 | 2769.6 | 1490.4 | 3.1426 | 5.7985 | 2.6559 |
| 289 | 7.3340 | 0.00136277 | 0.025981 | 1274.6 | 2577.7 | 1284.6 | 2768.2 | 1483.5 | 3.1519 | 5.7909 | 2.6390 |
| 290 | 7.4418 | 0.00136630 | 0.025555 | 1279.8 | 2576.5 | 1290.0 | 2766.7 | 1476.7 | 3.1612 | 5.7834 | 2.6222 |
| 291 | 7.5508 | 0.00136987 | 0.025136 | 1285.1 | 2575.4 | 1295.4 | 2765.2 | 1469.7 | 3.1705 | 5.7758 | 2.6052 |
| 292 | 7.6610 | 0.00137349 | 0.024724 | 1290.4 | 2574.2 | 1300.9 | 2763.6 | 1462.7 | 3.1799 | 5.7681 | 2.5883 |
| 293 | 7.7725 | 0.00137716 | 0.024319 | 1295.6 | 2573.0 | 1306.3 | 2762.0 | 1455.7 | 3.1892 | 5.7605 | 2.5712 |
| 294 | 7.8852 | 0.00138087 | 0.023921 | 1300.9 | 2571.8 | 1311.8 | 2760.4 | 1448.6 | 3.1986 | 5.7528 | 2.5542 |
| 295 | 7.9991 | 0.00138464 | 0.023529 | 1306.2 | 2570.5 | 1317.3 | 2758.7 | 1441.4 | 3.2080 | 5.7451 | 2.5371 |
| 296 | 8.1143 | 0.00138845 | 0.023143 | 1311.5 | 2569.2 | 1322.8 | 2757.0 | 1434.2 | 3.2174 | 5.7373 | 2.5199 |
| 297 | 8.2308 | 0.00139231 | 0.022763 | 1316.8 | 2567.8 | 1328.3 | 2755.2 | 1426.9 | 3.2268 | 5.7295 | 2.5027 |
| 298 | 8.3485 | 0.00139623 | 0.022390 | 1322.1 | 2566.5 | 1333.8 | 2753.4 | 1419.5 | 3.2362 | 5.7217 | 2.4854 |
| 299 | 8.4676 | 0.00140020 | 0.022022 | 1327.5 | 2565.0 | 1339.4 | 2751.5 | 1412.1 | 3.2457 | 5.7138 | 2.4681 |
| 300 | 8.5879 | 0.00140423 | 0.021660 | 1332.9 | 2563.6 | 1345.0 | 2749.6 | 1404.6 | 3.2552 | 5.7059 | 2.4507 |
| 301 | 8.7095 | 0.00140831 | 0.021304 | 1338.3 | 2562.2 | 1350.6 | 2747.7 | 1397.1 | 3.2647 | 5.6979 | 2.4333 |
| 302 | 8.8325 | 0.00141245 | 0.020953 | 1343.8 | 2560.6 | 1356.3 | 2745.7 | 1389.4 | 3.2742 | 5.6899 | 2.4158 |
| 303 | 8.9568 | 0.00141665 | 0.020608 | 1349.2 | 2559.1 | 1361.9 | 2743.7 | 1381.7 | 3.2837 | 5.6819 | 2.3982 |
| 304 | 9.0824 | 0.00142091 | 0.020268 | 1354.7 | 2557.5 | 1367.6 | 2741.6 | 1374.0 | 3.2932 | 5.6738 | 2.3806 |
| 305 | 9.2094 | 0.00142524 | 0.019933 | 1360.2 | 2555.8 | 1373.3 | 2739.4 | 1366.1 | 3.3028 | 5.6657 | 2.3629 |
| 306 | 9.3378 | 0.00142963 | 0.019604 | 1365.7 | 2554.1 | 1379.0 | 2737.2 | 1358.2 | 3.3124 | 5.6575 | 2.3452 |
| 307 | 9.4675 | 0.00143408 | 0.019279 | 1371.2 | 2552.5 | 1384.8 | 2735.0 | 1350.2 | 3.3220 | 5.6493 | 2.3273 |
| 308 | 9.5986 | 0.00143861 | 0.018960 | 1376.8 | 2550.7 | 1390.6 | 2732.7 | 1342.1 | 3.3316 | 5.6411 | 2.3094 |
| 309 | 9.7311 | 0.00144320 | 0.018645 | 1382.4 | 2549.0 | 1396.4 | 2730.4 | 1334.0 | 3.3413 | 5.6327 | 2.2915 |
| 310 | 9.8651 | 0.00144787 | 0.018335 | 1387.9 | 2547.0 | 1402.2 | 2727.9 | 1325.7 | 3.3510 | 5.6244 | 2.2734 |
| 311 | 10.000 | 0.00145261 | 0.018029 | 1393.6 | 2545.2 | 1408.1 | 2725.5 | 1317.4 | 3.3607 | 5.6159 | 2.2553 |
| 312 | 10.137 | 0.00145743 | 0.017728 | 1399.2 | 2543.3 | 1414.0 | 2723.0 | 1309.0 | 3.3704 | 5.6074 | 2.2370 |
| 313 | 10.275 | 0.00146232 | 0.017431 | 1404.9 | 2541.3 | 1419.9 | 2720.4 | 1300.5 | 3.3802 | 5.5989 | 2.2187 |
| 314 | 10.415 | 0.00146730 | 0.017139 | 1410.5 | 2539.3 | 1425.8 | 2717.8 | 1291.9 | 3.3900 | 5.5903 | 2.2003 |
| 315 | 10.556 | 0.00147236 | 0.016851 | 1416.3 | 2537.2 | 1431.8 | 2715.1 | 1283.2 | 3.3998 | 5.5816 | 2.1818 |
| 316 | 10.699 | 0.00147751 | 0.016567 | 1422.0 | 2535.0 | 1437.8 | 2712.3 | 1274.5 | 3.4097 | 5.5729 | 2.1632 |
| 317 | 10.843 | 0.00148275 | 0.016287 | 1427.8 | 2532.9 | 1443.9 | 2709.5 | 1265.6 | 3.4195 | 5.5641 | 2.1445 |
| 318 | 10.989 | 0.00148809 | 0.016011 | 1433.6 | 2530.7 | 1450.0 | 2706.6 | 1256.6 | 3.4295 | 5.5552 | 2.1257 |
| 319 | 11.136 | 0.00149351 | 0.015739 | 1439.5 | 2528.3 | 1456.1 | 2703.6 | 1247.5 | 3.4394 | 5.5462 | 2.1068 |
| 320 | 11.284 | 0.00149904 | 0.015471 | 1445.3 | 2526.0 | 1462.2 | 2700.6 | 1238.4 | 3.4494 | 5.5372 | 2.0878 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | psat  MPa | Volume, m**3**/kg | | Energy, kJ/kg | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg K) | | |
| vf | vg | uf | ug | hf | hg | hfg | sf | sg | sfg |
| 320 | 11.284 | 0.00149904 | 0.015471 | 1445.3 | 2526.0 | 1462.2 | 2700.6 | 1238.4 | 3.4494 | 5.5372 | 2.0878 |
| 321 | 11.434 | 0.00150467 | 0.015206 | 1451.2 | 2523.6 | 1468.4 | 2697.5 | 1229.1 | 3.4595 | 5.5281 | 2.0686 |
| 322 | 11.586 | 0.00151040 | 0.014945 | 1457.1 | 2521.1 | 1474.6 | 2694.3 | 1219.7 | 3.4695 | 5.5189 | 2.0494 |
| 323 | 11.740 | 0.00151625 | 0.014688 | 1463.1 | 2518.7 | 1480.9 | 2691.1 | 1210.2 | 3.4797 | 5.5096 | 2.0300 |
| 324 | 11.895 | 0.00152221 | 0.014434 | 1469.1 | 2516.0 | 1487.2 | 2687.7 | 1200.6 | 3.4898 | 5.5003 | 2.0105 |
| 325 | 12.051 | 0.00152829 | 0.014183 | 1475.1 | 2513.4 | 1493.5 | 2684.3 | 1190.8 | 3.5000 | 5.4908 | 1.9908 |
| 326 | 12.209 | 0.00153449 | 0.013936 | 1481.2 | 2510.7 | 1499.9 | 2680.8 | 1180.9 | 3.5103 | 5.4813 | 1.9710 |
| 327 | 12.369 | 0.00154081 | 0.013692 | 1487.2 | 2507.9 | 1506.3 | 2677.3 | 1170.9 | 3.5206 | 5.4717 | 1.9511 |
| 328 | 12.530 | 0.00154727 | 0.013451 | 1493.4 | 2505.1 | 1512.8 | 2673.6 | 1160.8 | 3.5309 | 5.4619 | 1.9310 |
| 329 | 12.693 | 0.00155387 | 0.013213 | 1499.6 | 2502.2 | 1519.3 | 2669.9 | 1150.6 | 3.5413 | 5.4521 | 1.9108 |
| 330 | 12.858 | 0.00156061 | 0.012979 | 1505.8 | 2499.1 | 1525.9 | 2666.0 | 1140.2 | 3.5518 | 5.4422 | 1.8903 |
| 331 | 13.024 | 0.00156751 | 0.012747 | 1512.1 | 2496.1 | 1532.5 | 2662.1 | 1129.6 | 3.5623 | 5.4321 | 1.8698 |
| 332 | 13.193 | 0.00157456 | 0.012518 | 1518.3 | 2493.0 | 1539.1 | 2658.1 | 1118.9 | 3.5729 | 5.4219 | 1.8490 |
| 333 | 13.362 | 0.00158177 | 0.012292 | 1524.8 | 2489.7 | 1545.9 | 2653.9 | 1108.1 | 3.5835 | 5.4116 | 1.8281 |
| 334 | 13.534 | 0.00158915 | 0.012068 | 1531.1 | 2486.4 | 1552.6 | 2649.7 | 1097.1 | 3.5943 | 5.4012 | 1.8069 |
| 335 | 13.707 | 0.00159671 | 0.011847 | 1537.6 | 2483.0 | 1559.5 | 2645.4 | 1085.9 | 3.6050 | 5.3906 | 1.7856 |
| 336 | 13.882 | 0.00160447 | 0.011629 | 1544.0 | 2479.5 | 1566.3 | 2640.9 | 1074.6 | 3.6159 | 5.3799 | 1.7640 |
| 337 | 14.059 | 0.00161241 | 0.011413 | 1550.6 | 2475.8 | 1573.3 | 2636.3 | 1063.0 | 3.6268 | 5.3691 | 1.7422 |
| 338 | 14.238 | 0.00162057 | 0.011200 | 1557.2 | 2472.1 | 1580.3 | 2631.6 | 1051.3 | 3.6378 | 5.3581 | 1.7202 |
| 339 | 14.418 | 0.00162895 | 0.010989 | 1563.9 | 2468.4 | 1587.4 | 2626.8 | 1039.4 | 3.6489 | 5.3469 | 1.6980 |
| 340 | 14.601 | 0.00163755 | 0.010781 | 1570.6 | 2464.4 | 1594.5 | 2621.8 | 1027.3 | 3.6601 | 5.3356 | 1.6755 |
| 341 | 14.785 | 0.00164640 | 0.010574 | 1577.5 | 2460.5 | 1601.8 | 2616.8 | 1015.0 | 3.6714 | 5.3241 | 1.6527 |
| 342 | 14.971 | 0.00165551 | 0.010370 | 1584.3 | 2456.3 | 1609.1 | 2611.5 | 1002.5 | 3.6828 | 5.3124 | 1.6296 |
| 343 | 15.159 | 0.00166490 | 0.010168 | 1591.2 | 2452.0 | 1616.4 | 2606.1 | 989.7 | 3.6943 | 5.3005 | 1.6063 |
| 344 | 15.349 | 0.00167457 | 0.0099674 | 1598.2 | 2447.6 | 1623.9 | 2600.6 | 976.7 | 3.7059 | 5.2885 | 1.5826 |
| 345 | 15.541 | 0.00168456 | 0.0097690 | 1605.3 | 2443.1 | 1631.5 | 2594.9 | 963.4 | 3.7176 | 5.2762 | 1.5586 |
| 346 | 15.734 | 0.00169488 | 0.0095724 | 1612.4 | 2438.4 | 1639.1 | 2589.0 | 949.9 | 3.7295 | 5.2636 | 1.5342 |
| 347 | 15.930 | 0.00170556 | 0.0093776 | 1619.7 | 2433.6 | 1646.9 | 2583.0 | 936.1 | 3.7414 | 5.2509 | 1.5094 |
| 348 | 16.128 | 0.00171662 | 0.0091844 | 1627.1 | 2428.6 | 1654.8 | 2576.7 | 922.0 | 3.7536 | 5.2379 | 1.4843 |
| 349 | 16.328 | 0.00172810 | 0.0089927 | 1634.6 | 2423.5 | 1662.8 | 2570.3 | 907.5 | 3.7659 | 5.2246 | 1.4587 |
| 350 | 16.529 | 0.00174002 | 0.0088024 | 1642.1 | 2418.1 | 1670.9 | 2563.6 | 892.7 | 3.7784 | 5.2110 | 1.4326 |
| 351 | 16.733 | 0.00175243 | 0.0086134 | 1649.8 | 2412.7 | 1679.1 | 2556.8 | 877.6 | 3.7910 | 5.1971 | 1.4061 |
| 352 | 16.939 | 0.00176536 | 0.0084257 | 1657.6 | 2406.9 | 1687.5 | 2549.6 | 862.1 | 3.8039 | 5.1829 | 1.3790 |
| 353 | 17.147 | 0.00177888 | 0.0082390 | 1665.6 | 2401.0 | 1696.1 | 2542.3 | 846.2 | 3.8170 | 5.1683 | 1.3514 |
| 354 | 17.358 | 0.00179302 | 0.0080533 | 1673.7 | 2394.8 | 1704.8 | 2534.6 | 829.8 | 3.8303 | 5.1534 | 1.3231 |
| 355 | 17.570 | 0.00180786 | 0.0078684 | 1681.9 | 2388.4 | 1713.7 | 2526.6 | 812.9 | 3.8439 | 5.1380 | 1.2942 |
| 356 | 17.785 | 0.00182347 | 0.0076841 | 1690.4 | 2381.7 | 1722.8 | 2518.4 | 795.5 | 3.8577 | 5.1222 | 1.2645 |
| 357 | 18.002 | 0.00183993 | 0.0075003 | 1699.1 | 2374.8 | 1732.2 | 2509.8 | 777.6 | 3.8719 | 5.1059 | 1.2340 |
| 358 | 18.221 | 0.00185733 | 0.0073168 | 1707.9 | 2367.5 | 1741.7 | 2500.8 | 759.0 | 3.8864 | 5.0891 | 1.2026 |
| 359 | 18.442 | 0.00187578 | 0.0071332 | 1716.9 | 2359.8 | 1751.5 | 2491.4 | 739.8 | 3.9014 | 5.0717 | 1.1703 |
| 360 | 18.666 | 0.00189541 | 0.0069493 | 1726.3 | 2351.8 | 1761.7 | 2481.5 | 719.8 | 3.9167 | 5.0536 | 1.1369 |

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| T | psat  MPa | Volume, m**3**/kg | | Energy, kJ/kg | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg K) | | |
| vf | vg | uf | ug | hf | hg | hfg | sf | sg | sfg |
| 360 | 18.666 | 0.00189541 | 0.0069493 | 1726.3 | 2351.8 | 1761.7 | 2481.5 | 719.8 | 3.9167 | 5.0536 | 1.1369 |
| 361 | 18.892 | 0.00191635 | 0.0067649 | 1735.9 | 2343.3 | 1772.1 | 2471.1 | 699.0 | 3.9325 | 5.0347 | 1.1023 |
| 362 | 19.121 | 0.00193879 | 0.0065795 | 1745.8 | 2334.4 | 1782.9 | 2460.2 | 677.3 | 3.9488 | 5.0151 | 1.0663 |
| 363 | 19.352 | 0.00196290 | 0.0063925 | 1756.1 | 2324.9 | 1794.1 | 2448.6 | 654.5 | 3.9656 | 4.9945 | 1.0288 |
| 364 | 19.585 | 0.00198894 | 0.0062035 | 1766.7 | 2314.7 | 1805.7 | 2436.2 | 630.5 | 3.9831 | 4.9727 | 0.9896 |
| 365 | 19.821 | 0.0020172 | 0.0060115 | 1777.8 | 2303.7 | 1817.8 | 2422.9 | 605.2 | 4.0014 | 4.9497 | 0.9483 |
| 366 | 20.060 | 0.0020480 | 0.0058157 | 1789.4 | 2292.0 | 1830.5 | 2408.7 | 578.2 | 4.0205 | 4.9251 | 0.9046 |
| 367 | 20.302 | 0.0020821 | 0.0056145 | 1801.5 | 2279.1 | 1843.8 | 2393.1 | 549.2 | 4.0406 | 4.8986 | 0.8580 |
| 368 | 20.546 | 0.0021201 | 0.0054061 | 1814.5 | 2264.8 | 1858.1 | 2375.9 | 517.8 | 4.0621 | 4.8697 | 0.8076 |
| 369 | 20.793 | 0.0021636 | 0.0051875 | 1828.5 | 2248.7 | 1873.5 | 2356.6 | 483.1 | 4.0853 | 4.8376 | 0.7523 |
| 370 | 21.044 | 0.0022152 | 0.0049544 | 1844.1 | 2230.2 | 1890.7 | 2334.5 | 443.8 | 4.1112 | 4.8012 | 0.6901 |
| 371 | 21.297 | 0.0022798 | 0.0046995 | 1862.0 | 2208.2 | 1910.6 | 2308.3 | 397.7 | 4.1412 | 4.7586 | 0.6175 |
| 372 | 21.554 | 0.0023682 | 0.0044084 | 1884.3 | 2180.5 | 1935.3 | 2275.5 | 340.3 | 4.1785 | 4.7059 | 0.5274 |
| 373  Tc | 21.814  22.064 | 0.0025083 | 0.0040450 | 1915.0 | 2141.6 | 1969.7 | 2229.8 | 260.1 **0** | 4.2308 | 4.6334 | 0.4026 **0** |
| 0.0031056 | | 2015.8 | | 2084.3 | | 4.4070 | |

Tc **=** 373.946

# Table 2

**Saturation Line**

**Base: Pressure**

**Saturated Water and Steam (Pressure-based)**

ptp **=** 611.657 Pa = 0.000611657 MPa

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| p  MPa | Tsat | Volume, m**3**/kg | | Energy, kJ/kg | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg K) | | |
| vf | vg | uf | ug | hf | hg | hfg | sf | sg | sfg |
| ptp | **0.01** | 0.00100021 | 205.991 | **0** | 2374.9 | 0.00 | 2500.9 | 2500.9 | **0** | 9.1555 | 9.1555 |
| 0.0007 | 1.881 | 0.00100011 | 181.217 | 7.89 | 2377.4 | 7.89 | 2504.3 | 2496.5 | 0.02878 | 9.1058 | 9.0770 |
| 0.0008 | 3.761 | 0.00100008 | 159.640 | 15.81 | 2380.1 | 15.81 | 2507.8 | 2492.0 | 0.05748 | 9.0567 | 8.9992 |
| 0.0009 | 5.444 | 0.00100009 | 142.757 | 22.89 | 2382.4 | 22.89 | 2510.9 | 2488.0 | 0.08297 | 9.0135 | 8.9305 |
| 0.0010 | 6.970 | 0.00100014 | 129.178 | 29.30 | 2384.5 | 29.30 | 2513.7 | 2484.4 | 0.10591 | 8.9749 | 8.8690 |
| 0.0012 | 9.654 | 0.00100032 | 108.670 | 40.57 | 2388.2 | 40.57 | 2518.6 | 2478.0 | 0.14595 | 8.9082 | 8.7623 |
| 0.0014 | 11.969 | 0.00100054 | 93.899 | 50.28 | 2391.3 | 50.28 | 2522.8 | 2472.5 | 0.18015 | 8.8521 | 8.6719 |
| 0.0016 | 14.010 | 0.00100080 | 82.743 | 58.83 | 2394.1 | 58.83 | 2526.5 | 2467.7 | 0.21004 | 8.8035 | 8.5935 |
| 0.0018 | 15.837 | 0.00100108 | 74.011 | 66.49 | 2396.7 | 66.49 | 2529.9 | 2463.4 | 0.23662 | 8.7608 | 8.5241 |
| 0.0020 | 17.495 | 0.00100136 | 66.987 | 73.43 | 2398.9 | 73.43 | 2532.9 | 2459.4 | 0.26056 | 8.7226 | 8.4620 |
| 0.0024 | 20.414 | 0.00100193 | 56.375 | 85.65 | 2402.9 | 85.65 | 2538.2 | 2452.5 | 0.30239 | 8.6567 | 8.3544 |
| 0.0028 | 22.935 | 0.00100249 | 48.729 | 96.19 | 2406.4 | 96.19 | 2542.8 | 2446.6 | 0.33816 | 8.6012 | 8.2631 |
| 0.0032 | 25.158 | 0.00100305 | 42.952 | 105.49 | 2409.4 | 105.49 | 2546.8 | 2441.3 | 0.36945 | 8.5533 | 8.1838 |
| 0.0036 | 27.152 | 0.00100358 | 38.430 | 113.83 | 2412.1 | 113.83 | 2550.4 | 2436.6 | 0.39729 | 8.5110 | 8.1138 |
| 0.0040 | 28.960 | 0.00100410 | 34.791 | 121.39 | 2414.5 | 121.39 | 2553.7 | 2432.3 | 0.42239 | 8.4734 | 8.0510 |
| 0.0045 | 31.012 | 0.00100473 | 31.131 | 129.96 | 2417.3 | 129.96 | 2557.4 | 2427.4 | 0.45069 | 8.4313 | 7.9806 |
| 0.0050 | 32.874 | 0.00100533 | 28.185 | 137.74 | 2419.8 | 137.75 | 2560.7 | 2423.0 | 0.47620 | 8.3938 | 7.9176 |
| 0.0055 | 34.581 | 0.00100590 | 25.762 | 144.87 | 2422.1 | 144.88 | 2563.8 | 2418.9 | 0.49945 | 8.3599 | 7.8605 |
| 0.0060 | 36.159 | 0.00100645 | 23.733 | 151.47 | 2424.2 | 151.48 | 2566.6 | 2415.2 | 0.52082 | 8.3290 | 7.8082 |
| 0.0065 | 37.627 | 0.00100699 | 22.009 | 157.60 | 2426.2 | 157.61 | 2569.3 | 2411.6 | 0.54060 | 8.3007 | 7.7601 |
| 0.0070 | 39.000 | 0.00100750 | 20.524 | 163.34 | 2428.0 | 163.35 | 2571.7 | 2408.4 | 0.55903 | 8.2745 | 7.7154 |
| 0.0075 | 40.290 | 0.00100800 | 19.233 | 168.74 | 2429.8 | 168.75 | 2574.0 | 2405.3 | 0.57627 | 8.2501 | 7.6738 |
| 0.0080 | 41.509 | 0.00100848 | 18.099 | 173.83 | 2431.4 | 173.84 | 2576.2 | 2402.4 | 0.59249 | 8.2273 | 7.6348 |
| 0.0085 | 42.663 | 0.00100895 | 17.095 | 178.66 | 2433.0 | 178.67 | 2578.3 | 2399.6 | 0.60780 | 8.2060 | 7.5982 |
| 0.0090 | 43.761 | 0.00100940 | 16.199 | 183.24 | 2434.4 | 183.25 | 2580.2 | 2397.0 | 0.62230 | 8.1858 | 7.5635 |
| 0.0095 | 44.807 | 0.00100984 | 15.396 | 187.62 | 2435.8 | 187.63 | 2582.1 | 2394.5 | 0.63607 | 8.1668 | 7.5308 |
| 0.010 | 45.806 | 0.00101027 | 14.670 | 191.80 | 2437.2 | 191.81 | 2583.9 | 2392.1 | 0.64920 | 8.1488 | 7.4996 |
| 0.011 | 47.683 | 0.00101110 | 13.412 | 199.64 | 2439.7 | 199.65 | 2587.2 | 2387.5 | 0.67372 | 8.1154 | 7.4417 |
| 0.012 | 49.419 | 0.00101188 | 12.358 | 206.90 | 2442.0 | 206.91 | 2590.3 | 2383.4 | 0.69628 | 8.0849 | 7.3887 |
| 0.013 | 51.034 | 0.00101263 | 11.462 | 213.66 | 2444.1 | 213.67 | 2593.1 | 2379.4 | 0.71717 | 8.0570 | 7.3398 |
| 0.014 | 52.547 | 0.00101335 | 10.691 | 219.98 | 2446.1 | 219.99 | 2595.8 | 2375.8 | 0.73664 | 8.0311 | 7.2945 |
| 0.016 | 55.313 | 0.00101471 | 9.4306 | 231.55 | 2449.7 | 231.57 | 2600.6 | 2369.1 | 0.77201 | 7.9846 | 7.2126 |
| 0.018 | 57.798 | 0.00101597 | 8.4431 | 241.94 | 2453.0 | 241.96 | 2605.0 | 2363.0 | 0.80355 | 7.9437 | 7.1402 |
| 0.020 | 60.058 | 0.00101716 | 7.6480 | 251.40 | 2455.9 | 251.42 | 2608.9 | 2357.5 | 0.83202 | 7.9072 | 7.0752 |
| 0.024 | 64.053 | 0.00101934 | 6.4453 | 268.13 | 2461.2 | 268.15 | 2615.9 | 2347.7 | 0.88191 | 7.8442 | 6.9623 |
| 0.028 | 67.518 | 0.00102131 | 5.5778 | 282.63 | 2465.6 | 282.66 | 2621.8 | 2339.2 | 0.92472 | 7.7912 | 6.8664 |
| 0.032 | 70.586 | 0.00102312 | 4.9215 | 295.49 | 2469.6 | 295.52 | 2627.1 | 2331.6 | 0.96228 | 7.7453 | 6.7830 |
| 0.036 | 73.345 | 0.00102480 | 4.4072 | 307.05 | 2473.1 | 307.09 | 2631.8 | 2324.7 | 0.99579 | 7.7050 | 6.7092 |
| 0.040 | 75.857 | 0.00102638 | 3.9930 | 317.58 | 2476.4 | 317.62 | 2636.1 | 2318.4 | 1.0261 | 7.6690 | 6.6429 |
| 0.045 | 78.715 | 0.00102821 | 3.5759 | 329.57 | 2480.0 | 329.62 | 2640.9 | 2311.2 | 1.0603 | 7.6288 | 6.5686 |
| 0.050 | 81.317 | 0.00102993 | 3.2400 | 340.49 | 2483.2 | 340.54 | 2645.2 | 2304.7 | 1.0912 | 7.5930 | 6.5018 |

**Continued ...**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| p  MPa | | Tsat | | Volume, m**3**/kg | | | | Energy, kJ/kg | | | | Enthalpy, kJ/kg | | | | | | Entropy, kJ/(kg K) | | | | | |
| vf | | vg | | uf | | ug | | hf | | hg | | hfg | | sf | | sg | | sfg | |
| 0.050 | | 81.317 | | 0.00102993 | | 3.2400 | | 340.49 | | 2483.2 | | 340.54 | | 2645.2 | | 2304.7 | | 1.0912 | | 7.5930 | | 6.5018 | |
| 0.055 | | 83.709 | | 0.00103154 | | 2.9635 | | 350.53 | | 2486.2 | | 350.59 | | 2649.2 | | 2298.6 | | 1.1194 | | 7.5606 | | 6.4412 | |
| 0.060 | | 85.926 | | 0.00103307 | | 2.7317 | | 359.85 | | 2489.0 | | 359.91 | | 2652.9 | | 2292.9 | | 1.1454 | | 7.5311 | | 6.3857 | |
| 0.065 | | 87.993 | | 0.00103452 | | 2.5346 | | 368.53 | | 2491.6 | | 368.60 | | 2656.3 | | 2287.7 | | 1.1696 | | 7.5040 | | 6.3345 | |
| 0.070 | | 89.932 | | 0.00103590 | | 2.3648 | | 376.68 | | 2493.9 | | 376.75 | | 2659.4 | | 2282.7 | | 1.1921 | | 7.4790 | | 6.2869 | |
| 0.075 | | 91.758 | | 0.00103723 | | 2.2170 | | 384.36 | | 2496.1 | | 384.44 | | 2662.4 | | 2277.9 | | 1.2132 | | 7.4557 | | 6.2425 | |
| 0.080 | | 93.486 | | 0.00103850 | | 2.0871 | | 391.63 | | 2498.2 | | 391.71 | | 2665.2 | | 2273.5 | | 1.2330 | | 7.4339 | | 6.2009 | |
| 0.085 | | 95.125 | | 0.00103972 | | 1.9720 | | 398.53 | | 2500.2 | | 398.62 | | 2667.8 | | 2269.2 | | 1.2518 | | 7.4135 | | 6.1617 | |
| 0.090 | | 96.687 | | 0.00104091 | | 1.8694 | | 405.11 | | 2502.1 | | 405.20 | | 2670.3 | | 2265.1 | | 1.2696 | | 7.3943 | | 6.1246 | |
| 0.095 | | 98.178 | | 0.00104205 | | 1.7772 | | 411.38 | | 2503.9 | | 411.48 | | 2672.7 | | 2261.2 | | 1.2866 | | 7.3761 | | 6.0895 | |
| 0.10 | | 99.606 | | 0.00104315 | | 1.6939 | | 417.40 | | 2505.5 | | 417.50 | | 2674.9 | | 2257.4 | | 1.3028 | | 7.3588 | | 6.0561 | |
| 0.11 | | 102.292 | | 0.00104527 | | 1.5495 | | 428.73 | | 2508.8 | | 428.84 | | 2679.2 | | 2250.3 | | 1.3330 | | 7.3269 | | 5.9938 | |
| 0.12 | | 104.784 | | 0.00104727 | | 1.4284 | | 439.23 | | 2511.7 | | 439.36 | | 2683.1 | | 2243.7 | | 1.3609 | | 7.2977 | | 5.9367 | |
| 0.13 | | 107.109 | | 0.00104917 | | 1.3253 | | 449.05 | | 2514.3 | | 449.19 | | 2686.6 | | 2237.5 | | 1.3868 | | 7.2709 | | 5.8840 | |
| 0.14 | | 109.292 | | 0.00105099 | | 1.2366 | | 458.27 | | 2516.9 | | 458.42 | | 2690.0 | | 2231.6 | | 1.4110 | | 7.2461 | | 5.8351 | |
| 0.15 | | 111.349 | | 0.00105273 | | 1.1593 | | 466.97 | | 2519.2 | | 467.13 | | 2693.1 | | 2226.0 | | 1.4337 | | 7.2230 | | 5.7893 | |
| 0.16 | | 113.297 | | 0.00105440 | | 1.0914 | | 475.21 | | 2521.4 | | 475.38 | | 2696.0 | | 2220.7 | | 1.4551 | | 7.2014 | | 5.7463 | |
| 0.17 | | 115.148 | | 0.00105600 | | 1.0312 | | 483.04 | | 2523.5 | | 483.22 | | 2698.8 | | 2215.6 | | 1.4753 | | 7.1812 | | 5.7059 | |
| 0.18 | | 116.911 | | 0.00105756 | | 0.97747 | | 490.51 | | 2525.5 | | 490.70 | | 2701.4 | | 2210.7 | | 1.4945 | | 7.1621 | | 5.6676 | |
| 0.19 | | 118.596 | | 0.00105906 | | 0.92924 | | 497.65 | | 2527.3 | | 497.85 | | 2703.9 | | 2206.0 | | 1.5127 | | 7.1440 | | 5.6313 | |
| 0.20 | | 120.210 | | 0.00106052 | | 0.88568 | | 504.49 | | 2529.1 | | 504.70 | | 2706.2 | | 2201.5 | | 1.5302 | | 7.1269 | | 5.5967 | |
| 0.21 | | 121.759 | | 0.00106193 | | 0.84614 | | 511.07 | | 2530.8 | | 511.29 | | 2708.5 | | 2197.2 | | 1.5469 | | 7.1106 | | 5.5638 | |
| 0.22 | | 123.250 | | 0.00106330 | | 0.81007 | | 517.40 | | 2532.4 | | 517.63 | | 2710.6 | | 2193.0 | | 1.5628 | | 7.0951 | | 5.5323 | |
| 0.23 | | 124.686 | | 0.00106464 | | 0.77704 | | 523.50 | | 2534.0 | | 523.74 | | 2712.7 | | 2188.9 | | 1.5782 | | 7.0803 | | 5.5021 | |
| 0.24 | | 126.072 | | 0.00106594 | | 0.74668 | | 529.38 | | 2535.4 | | 529.64 | | 2714.6 | | 2185.0 | | 1.5930 | | 7.0661 | | 5.4731 | |
| 0.25 | | 127.411 | | 0.00106722 | | 0.71866 | | 535.07 | | 2536.8 | | 535.34 | | 2716.5 | | 2181.1 | | 1.6072 | | 7.0524 | | 5.4452 | |
| 0.26 | | 128.708 | | 0.00106846 | | 0.69273 | | 540.59 | | 2538.2 | | 540.87 | | 2718.3 | | 2177.4 | | 1.6210 | | 7.0394 | | 5.4184 | |
| 0.27 | | 129.965 | | 0.00106968 | | 0.66865 | | 545.95 | | 2539.5 | | 546.24 | | 2720.0 | | 2173.8 | | 1.6343 | | 7.0268 | | 5.3925 | |
| 0.28 | | 131.185 | | 0.00107086 | | 0.64624 | | 551.14 | | 2540.8 | | 551.44 | | 2721.7 | | 2170.3 | | 1.6471 | | 7.0146 | | 5.3675 | |
| 0.29 | | 132.370 | | 0.00107203 | | 0.62533 | | 556.19 | | 2542.0 | | 556.50 | | 2723.3 | | 2166.8 | | 1.6596 | | 7.0029 | | 5.3433 | |
| 0.30 | | 133.522 | | 0.00107317 | | 0.60576 | | 561.11 | | 2543.2 | | 561.43 | | 2724.9 | | 2163.5 | | 1.6717 | | 6.9916 | | 5.3199 | |
| 0.31 | | 134.644 | | 0.00107429 | | 0.58741 | | 565.89 | | 2544.3 | | 566.22 | | 2726.4 | | 2160.2 | | 1.6835 | | 6.9807 | | 5.2972 | |
| 0.32 | | 135.737 | | 0.00107539 | | 0.57017 | | 570.56 | | 2545.3 | | 570.90 | | 2727.8 | | 2157.0 | | 1.6949 | | 6.9701 | | 5.2752 | |
| 0.33 | | 136.802 | | 0.00107647 | | 0.55395 | | 575.10 | | 2546.5 | | 575.46 | | 2729.3 | | 2153.8 | | 1.7060 | | 6.9598 | | 5.2538 | |
| 0.34 | | 137.842 | | 0.00107753 | | 0.53864 | | 579.54 | | 2547.5 | | 579.91 | | 2730.6 | | 2150.7 | | 1.7168 | | 6.9498 | | 5.2330 | |
| 0.35 | | 138.857 | | 0.00107857 | | 0.52418 | | 583.88 | | 2548.5 | | 584.26 | | 2732.0 | | 2147.7 | | 1.7274 | | 6.9401 | | 5.2128 | |
| 0.36 | | 139.849 | | 0.00107960 | | 0.51050 | | 588.13 | | 2549.4 | | 588.52 | | 2733.2 | | 2144.7 | | 1.7377 | | 6.9307 | | 5.1931 | |
| 0.37 | | 140.819 | | 0.00108061 | | 0.49753 | | 592.28 | | 2550.4 | | 592.68 | | 2734.5 | | 2141.8 | | 1.7477 | | 6.9216 | | 5.1739 | |
| 0.38 | | 141.769 | | 0.00108161 | | 0.48522 | | 596.34 | | 2551.3 | | 596.75 | | 2735.7 | | 2139.0 | | 1.7575 | | 6.9126 | | 5.1551 | |
| 0.39 | | 142.698 | | 0.00108259 | | 0.47352 | | 600.32 | | 2552.2 | | 600.74 | | 2736.9 | | 2136.2 | | 1.7671 | | 6.9040 | | 5.1369 | |
| 0.40 | | 143.608 | | 0.00108355 | | 0.46238 | | 604.22 | | 2553.1 | | 604.65 | | 2738.1 | | 2133.4 | | 1.7765 | | 6.8955 | | 5.1190 | |
| p  MPa | | Tsat | | Volume, m**3**/kg | | | | Energy, kJ/kg | | | | Enthalpy, kJ/kg | | | | | | Entropy, kJ/(kg K) | | | | | |
| vf | | vg | | uf | | ug | | hf | | hg | | hfg | | sf | | sg | | sfg | |
| 0.40 | | 143.608 | | 0.00108355 | | 0.46238 | | 604.22 | | 2553.1 | | 604.65 | | 2738.1 | | 2133.4 | | 1.7765 | | 6.8955 | | 5.1190 | |
| 0.42 | | 145.375 | | 0.00108544 | | 0.44165 | | 611.79 | | 2554.8 | | 612.25 | | 2740.3 | | 2128.0 | | 1.7946 | | 6.8791 | | 5.0846 | |
| 0.44 | | 147.076 | | 0.00108729 | | 0.42274 | | 619.10 | | 2556.4 | | 619.58 | | 2742.4 | | 2122.8 | | 1.8120 | | 6.8636 | | 5.0516 | |
| 0.46 | | 148.716 | | 0.00108908 | | 0.40542 | | 626.14 | | 2557.9 | | 626.64 | | 2744.4 | | 2117.7 | | 1.8287 | | 6.8487 | | 5.0199 | |
| 0.48 | | 150.300 | | 0.00109084 | | 0.38950 | | 632.95 | | 2559.3 | | 633.47 | | 2746.3 | | 2112.8 | | 1.8448 | | 6.8344 | | 4.9895 | |
| 0.50 | | 151.831 | | 0.00109255 | | 0.37481 | | 639.54 | | 2560.7 | | 640.09 | | 2748.1 | | 2108.0 | | 1.8604 | | 6.8207 | | 4.9603 | |
| 0.52 | | 153.314 | | 0.00109423 | | 0.36120 | | 645.93 | | 2562.1 | | 646.50 | | 2749.9 | | 2103.4 | | 1.8754 | | 6.8075 | | 4.9321 | |
| 0.54 | | 154.753 | | 0.00109587 | | 0.34858 | | 652.13 | | 2563.3 | | 652.72 | | 2751.5 | | 2098.8 | | 1.8899 | | 6.7948 | | 4.9049 | |
| 0.56 | | 156.149 | | 0.00109748 | | 0.33682 | | 658.16 | | 2564.5 | | 658.77 | | 2753.1 | | 2094.4 | | 1.9040 | | 6.7825 | | 4.8786 | |
| 0.58 | | 157.506 | | 0.00109905 | | 0.32585 | | 664.01 | | 2565.7 | | 664.65 | | 2754.7 | | 2090.0 | | 1.9176 | | 6.7707 | | 4.8531 | |
| 0.60 | | 158.826 | | 0.00110060 | | 0.31558 | | 669.72 | | 2566.8 | | 670.38 | | 2756.1 | | 2085.8 | | 1.9308 | | 6.7592 | | 4.8284 | |
| 0.62 | | 160.112 | | 0.00110212 | | 0.30596 | | 675.28 | | 2567.9 | | 675.96 | | 2757.6 | | 2081.6 | | 1.9437 | | 6.7482 | | 4.8045 | |
| 0.64 | | 161.365 | | 0.00110362 | | 0.29691 | | 680.70 | | 2568.9 | | 681.41 | | 2758.9 | | 2077.5 | | 1.9562 | | 6.7374 | | 4.7813 | |
| 0.66 | | 162.587 | | 0.00110509 | | 0.28840 | | 686.00 | | 2570.0 | | 686.73 | | 2760.3 | | 2073.5 | | 1.9684 | | 6.7270 | | 4.7587 | |
| 0.68 | | 163.781 | | 0.00110654 | | 0.28036 | | 691.17 | | 2570.9 | | 691.92 | | 2761.5 | | 2069.6 | | 1.9802 | | 6.7169 | | 4.7367 | |
| 0.70 | | 164.946 | | 0.00110796 | | 0.27277 | | 696.22 | | 2571.9 | | 697.00 | | 2762.8 | | 2065.8 | | 1.9918 | | 6.7071 | | 4.7153 | |
| 0.72 | | 166.086 | | 0.00110936 | | 0.26559 | | 701.17 | | 2572.7 | | 701.97 | | 2763.9 | | 2062.0 | | 2.0031 | | 6.6975 | | 4.6944 | |
| 0.74 | | 167.200 | | 0.00111075 | | 0.25879 | | 706.02 | | 2573.6 | | 706.84 | | 2765.1 | | 2058.2 | | 2.0141 | | 6.6882 | | 4.6741 | |
| 0.76 | | 168.291 | | 0.00111211 | | 0.25233 | | 710.76 | | 2574.4 | | 711.61 | | 2766.2 | | 2054.6 | | 2.0248 | | 6.6791 | | 4.6543 | |
| 0.78 | | 169.360 | | 0.00111346 | | 0.24618 | | 715.41 | | 2575.3 | | 716.28 | | 2767.3 | | 2051.0 | | 2.0354 | | 6.6703 | | 4.6349 | |
| 0.80 | | 170.406 | | 0.00111478 | | 0.24034 | | 719.97 | | 2576.0 | | 720.86 | | 2768.3 | | 2047.4 | | 2.0457 | | 6.6616 | | 4.6160 | |
| 0.82 | | 171.433 | | 0.00111609 | | 0.23477 | | 724.44 | | 2576.8 | | 725.36 | | 2769.3 | | 2043.9 | | 2.0557 | | 6.6532 | | 4.5975 | |
| 0.84 | | 172.440 | | 0.00111739 | | 0.22946 | | 728.84 | | 2577.6 | | 729.78 | | 2770.3 | | 2040.5 | | 2.0656 | | 6.6449 | | 4.5793 | |
| 0.86 | | 173.428 | | 0.00111867 | | 0.22438 | | 733.15 | | 2578.2 | | 734.11 | | 2771.2 | | 2037.1 | | 2.0753 | | 6.6369 | | 4.5616 | |
| 0.88 | | 174.398 | | 0.00111993 | | 0.21953 | | 737.38 | | 2578.9 | | 738.37 | | 2772.1 | | 2033.8 | | 2.0847 | | 6.6290 | | 4.5443 | |
| 0.90 | | 175.350 | | 0.00112118 | | 0.21489 | | 741.55 | | 2579.6 | | 742.56 | | 2773.0 | | 2030.5 | | 2.0940 | | 6.6213 | | 4.5272 | |
| 0.92 | | 176.287 | | 0.00112242 | | 0.21044 | | 745.65 | | 2580.3 | | 746.68 | | 2773.9 | | 2027.2 | | 2.1032 | | 6.6137 | | 4.5106 | |
| 0.94 | | 177.207 | | 0.00112364 | | 0.20617 | | 749.67 | | 2580.9 | | 750.73 | | 2774.7 | | 2024.0 | | 2.1121 | | 6.6063 | | 4.4942 | |
| 0.96 | | 178.112 | | 0.00112485 | | 0.20208 | | 753.64 | | 2581.5 | | 754.72 | | 2775.5 | | 2020.8 | | 2.1209 | | 6.5991 | | 4.4782 | |
| 0.98 | | 179.002 | | 0.00112605 | | 0.19814 | | 757.55 | | 2582.1 | | 758.65 | | 2776.3 | | 2017.7 | | 2.1296 | | 6.5920 | | 4.4624 | |
| 1.00 | | 179.878 | | 0.00112723 | | 0.19436 | | 761.39 | | 2582.7 | | 762.52 | | 2777.1 | | 2014.6 | | 2.1381 | | 6.5850 | | 4.4470 | |
| 1.05 | | 182.009 | | 0.00113014 | | 0.18552 | | 770.75 | | 2584.1 | | 771.94 | | 2778.9 | | 2007.0 | | 2.1587 | | 6.5681 | | 4.4095 | |
| 1.10 | | 184.062 | | 0.00113299 | | 0.17745 | | 779.78 | | 2585.4 | | 781.03 | | 2780.6 | | 1999.6 | | 2.1785 | | 6.5520 | | 4.3735 | |
| 1.15 | | 186.043 | | 0.00113577 | | 0.17006 | | 788.51 | | 2586.6 | | 789.82 | | 2782.2 | | 1992.4 | | 2.1976 | | 6.5365 | | 4.3390 | |
| 1.20 | | 187.957 | | 0.00113850 | | 0.16326 | | 796.96 | | 2587.8 | | 798.33 | | 2783.7 | | 1985.4 | | 2.2159 | | 6.5217 | | 4.3058 | |
| 1.25 | | 189.809 | | 0.00114118 | | 0.15699 | | 805.15 | | 2588.9 | | 806.58 | | 2785.1 | | 1978.6 | | 2.2337 | | 6.5074 | | 4.2737 | |
| 1.30 | | 191.605 | | 0.00114380 | | 0.15119 | | 813.11 | | 2590.0 | | 814.60 | | 2786.5 | | 1971.9 | | 2.2508 | | 6.4936 | | 4.2428 | |
| 1.35 | | 193.347 | | 0.00114638 | | 0.14580 | | 820.84 | | 2590.9 | | 822.39 | | 2787.7 | | 1965.3 | | 2.2674 | | 6.4803 | | 4.2129 | |
| 1.40 | | 195.039 | | 0.00114892 | | 0.14078 | | 828.36 | | 2591.7 | | 829.97 | | 2788.8 | | 1958.9 | | 2.2835 | | 6.4675 | | 4.1839 | |
| 1.45 | | 196.685 | | 0.00115141 | | 0.13609 | | 835.68 | | 2592.6 | | 837.35 | | 2789.9 | | 1952.6 | | 2.2992 | | 6.4550 | | 4.1559 | |
| 1.50 | | 198.287 | | 0.00115387 | | 0.13171 | | 842.83 | | 2593.4 | | 844.56 | | 2791.0 | | 1946.4 | | 2.3143 | | 6.4430 | | 4.1286 | |

**Continued ...**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| p  MPa | | Tsat | | Volume, m**3**/kg | | | | Energy, kJ/kg | | | | Enthalpy, kJ/kg | | | | | | Entropy, kJ/(kg K) | | | | | |
| vf | | vg | | uf | | ug | | hf | | hg | | hfg | | sf | | sg | | sfg | |
| 1.50 | | 198.287 | | 0.00115387 | | 0.13171 | | 842.83 | | 2593.4 | | 844.56 | | 2791.0 | | 1946.4 | | 2.3143 | | 6.4430 | | 4.1286 | |
| 1.55 | | 199.848 | | 0.00115629 | | 0.12760 | | 849.80 | | 2594.1 | | 851.59 | | 2791.9 | | 1940.3 | | 2.3291 | | 6.4313 | | 4.1022 | |
| 1.60 | | 201.370 | | 0.00115868 | | 0.12374 | | 856.61 | | 2594.8 | | 858.46 | | 2792.8 | | 1934.4 | | 2.3435 | | 6.4199 | | 4.0765 | |
| 1.65 | | 202.856 | | 0.00116103 | | 0.12010 | | 863.25 | | 2595.5 | | 865.17 | | 2793.7 | | 1928.5 | | 2.3575 | | 6.4089 | | 4.0514 | |
| 1.70 | | 204.307 | | 0.00116336 | | 0.11667 | | 869.76 | | 2596.2 | | 871.74 | | 2794.5 | | 1922.7 | | 2.3711 | | 6.3981 | | 4.0270 | |
| 1.75 | | 205.725 | | 0.00116565 | | 0.11343 | | 876.13 | | 2596.7 | | 878.17 | | 2795.2 | | 1917.0 | | 2.3845 | | 6.3877 | | 4.0032 | |
| 1.80 | | 207.112 | | 0.00116792 | | 0.11037 | | 882.37 | | 2597.2 | | 884.47 | | 2795.9 | | 1911.4 | | 2.3975 | | 6.3775 | | 3.9800 | |
| 1.85 | | 208.469 | | 0.00117016 | | 0.10746 | | 888.49 | | 2597.8 | | 890.65 | | 2796.6 | | 1905.9 | | 2.4102 | | 6.3675 | | 3.9573 | |
| 1.90 | | 209.798 | | 0.00117238 | | 0.10470 | | 894.48 | | 2598.3 | | 896.71 | | 2797.2 | | 1900.5 | | 2.4227 | | 6.3578 | | 3.9351 | |
| 1.95 | | 211.101 | | 0.00117458 | | 0.10208 | | 900.37 | | 2598.7 | | 902.66 | | 2797.8 | | 1895.1 | | 2.4348 | | 6.3483 | | 3.9135 | |
| 2.0 | | 212.377 | | 0.00117675 | | 0.099585 | | 906.15 | | 2599.1 | | 908.50 | | 2798.3 | | 1889.8 | | 2.4468 | | 6.3390 | | 3.8923 | |
| 2.1 | | 214.858 | | 0.00118103 | | 0.094938 | | 917.39 | | 2599.9 | | 919.87 | | 2799.3 | | 1879.4 | | 2.4699 | | 6.3210 | | 3.8511 | |
| 2.2 | | 217.249 | | 0.00118523 | | 0.090698 | | 928.26 | | 2600.6 | | 930.87 | | 2800.1 | | 1869.2 | | 2.4921 | | 6.3038 | | 3.8116 | |
| 2.3 | | 219.557 | | 0.00118936 | | 0.086815 | | 938.79 | | 2601.1 | | 941.53 | | 2800.8 | | 1859.3 | | 2.5136 | | 6.2872 | | 3.7736 | |
| 2.4 | | 221.789 | | 0.00119343 | | 0.083244 | | 949.01 | | 2601.6 | | 951.87 | | 2801.4 | | 1849.6 | | 2.5343 | | 6.2712 | | 3.7369 | |
| 2.5 | | 223.950 | | 0.00119743 | | 0.079949 | | 958.92 | | 2602.0 | | 961.91 | | 2801.9 | | 1840.0 | | 2.5543 | | 6.2558 | | 3.7015 | |
| 2.6 | | 226.046 | | 0.00120138 | | 0.076899 | | 968.55 | | 2602.4 | | 971.67 | | 2802.3 | | 1830.7 | | 2.5736 | | 6.2409 | | 3.6672 | |
| 2.7 | | 228.080 | | 0.00120528 | | 0.074066 | | 977.93 | | 2602.7 | | 981.18 | | 2802.7 | | 1821.5 | | 2.5924 | | 6.2264 | | 3.6340 | |
| 2.8 | | 230.057 | | 0.00120913 | | 0.071429 | | 987.07 | | 2602.9 | | 990.46 | | 2802.9 | | 1812.4 | | 2.6106 | | 6.2124 | | 3.6018 | |
| 2.9 | | 231.980 | | 0.00121293 | | 0.068968 | | 995.99 | | 2603.1 | | 999.51 | | 2803.1 | | 1803.6 | | 2.6283 | | 6.1988 | | 3.5705 | |
| 3.0 | | 233.853 | | 0.00121669 | | 0.066664 | | 1004.6 | | 2603.2 | | 1008.3 | | 2803.2 | | 1794.8 | | 2.6455 | | 6.1856 | | 3.5400 | |
| 3.1 | | 235.679 | | 0.00122042 | | 0.064504 | | 1013.2 | | 2603.2 | | 1017.0 | | 2803.2 | | 1786.2 | | 2.6623 | | 6.1727 | | 3.5104 | |
| 3.2 | | 237.459 | | 0.00122410 | | 0.062475 | | 1021.5 | | 2603.2 | | 1025.4 | | 2803.1 | | 1777.7 | | 2.6787 | | 6.1602 | | 3.4815 | |
| 3.3 | | 239.198 | | 0.00122776 | | 0.060564 | | 1029.6 | | 2603.1 | | 1033.7 | | 2803.0 | | 1769.3 | | 2.6946 | | 6.1479 | | 3.4533 | |
| 3.4 | | 240.897 | | 0.00123138 | | 0.058761 | | 1037.6 | | 2603.1 | | 1041.8 | | 2802.9 | | 1761.0 | | 2.7102 | | 6.1360 | | 3.4258 | |
| 3.5 | | 242.557 | | 0.00123497 | | 0.057058 | | 1045.5 | | 2602.9 | | 1049.8 | | 2802.6 | | 1752.8 | | 2.7254 | | 6.1243 | | 3.3989 | |
| 3.6 | | 244.182 | | 0.00123854 | | 0.055446 | | 1053.1 | | 2602.8 | | 1057.6 | | 2802.4 | | 1744.8 | | 2.7403 | | 6.1129 | | 3.3726 | |
| 3.7 | | 245.772 | | 0.00124208 | | 0.053918 | | 1060.7 | | 2602.6 | | 1065.3 | | 2802.1 | | 1736.8 | | 2.7549 | | 6.1018 | | 3.3469 | |
| 3.8 | | 247.330 | | 0.00124559 | | 0.052467 | | 1068.1 | | 2602.3 | | 1072.8 | | 2801.7 | | 1728.9 | | 2.7691 | | 6.0908 | | 3.3217 | |
| 3.9 | | 248.857 | | 0.00124908 | | 0.051089 | | 1075.3 | | 2602.1 | | 1080.2 | | 2801.3 | | 1721.1 | | 2.7831 | | 6.0801 | | 3.2970 | |
| 4.0 | | 250.354 | | 0.00125256 | | 0.049776 | | 1082.5 | | 2601.7 | | 1087.5 | | 2800.8 | | 1713.3 | | 2.7968 | | 6.0696 | | 3.2728 | |
| 4.1 | | 251.823 | | 0.00125601 | | 0.048525 | | 1089.6 | | 2601.3 | | 1094.7 | | 2800.3 | | 1705.7 | | 2.8102 | | 6.0592 | | 3.2491 | |
| 4.2 | | 253.264 | | 0.00125944 | | 0.047332 | | 1096.4 | | 2601.0 | | 1101.7 | | 2799.8 | | 1698.1 | | 2.8234 | | 6.0491 | | 3.2257 | |
| 4.3 | | 254.680 | | 0.00126286 | | 0.046192 | | 1103.3 | | 2600.6 | | 1108.7 | | 2799.2 | | 1690.6 | | 2.8363 | | 6.0391 | | 3.2028 | |
| 4.4 | | 256.070 | | 0.00126626 | | 0.045102 | | 1109.9 | | 2600.2 | | 1115.5 | | 2798.6 | | 1683.1 | | 2.8490 | | 6.0293 | | 3.1803 | |
| 4.5 | | 257.437 | | 0.00126965 | | 0.044059 | | 1116.5 | | 2599.6 | | 1122.2 | | 2797.9 | | 1675.7 | | 2.8615 | | 6.0197 | | 3.1582 | |
| 4.6 | | 258.780 | | 0.00127302 | | 0.043059 | | 1123.0 | | 2599.2 | | 1128.9 | | 2797.3 | | 1668.4 | | 2.8738 | | 6.0102 | | 3.1364 | |
| 4.7 | | 260.101 | | 0.00127638 | | 0.042100 | | 1129.5 | | 2598.6 | | 1135.5 | | 2796.5 | | 1661.1 | | 2.8859 | | 6.0009 | | 3.1150 | |
| 4.8 | | 261.402 | | 0.00127973 | | 0.041180 | | 1135.8 | | 2598.1 | | 1141.9 | | 2795.8 | | 1653.9 | | 2.8978 | | 5.9917 | | 3.0939 | |
| 4.9 | | 262.681 | | 0.00128306 | | 0.040296 | | 1142.0 | | 2597.5 | | 1148.3 | | 2795.0 | | 1646.7 | | 2.9095 | | 5.9826 | | 3.0731 | |
| 5.0 | | 263.941 | | 0.00128639 | | 0.039446 | | 1148.2 | | 2597.0 | | 1154.6 | | 2794.2 | | 1639.6 | | 2.9210 | | 5.9737 | | 3.0527 | |
| p  MPa | | Tsat | | Volume, m**3**/kg | | | | Energy, kJ/kg | | | | Enthalpy, kJ/kg | | | | | | Entropy, kJ/(kg K) | | | | | |
| vf | | vg | | uf | | ug | | hf | | hg | | hfg | | sf | | sg | | sfg | |
| 5.1 | | 265.181 | | 0.00128971 | | 0.038628 | | 1154.3 | | 2596.4 | | 1160.9 | | 2793.4 | | 1632.5 | | 2.9323 | | 5.9648 | | 3.0325 | |
| 5.2 | | 266.403 | | 0.00129302 | | 0.037840 | | 1160.3 | | 2595.7 | | 1167.0 | | 2792.5 | | 1625.5 | | 2.9435 | | 5.9561 | | 3.0126 | |
| 5.3 | | 267.608 | | 0.00129632 | | 0.037081 | | 1166.2 | | 2595.1 | | 1173.1 | | 2791.6 | | 1618.5 | | 2.9546 | | 5.9475 | | 2.9930 | |
| 5.4 | | 268.795 | | 0.00129961 | | 0.036348 | | 1172.1 | | 2594.4 | | 1179.1 | | 2790.7 | | 1611.5 | | 2.9654 | | 5.9391 | | 2.9736 | |
| 5.5 | | 269.965 | | 0.00130290 | | 0.035642 | | 1177.9 | | 2593.7 | | 1185.1 | | 2789.7 | | 1604.6 | | 2.9762 | | 5.9307 | | 2.9545 | |
| 5.6 | | 271.120 | | 0.00130618 | | 0.034959 | | 1183.7 | | 2592.9 | | 1191.0 | | 2788.7 | | 1597.8 | | 2.9868 | | 5.9224 | | 2.9356 | |
| 5.7 | | 272.258 | | 0.00130946 | | 0.034300 | | 1189.3 | | 2592.2 | | 1196.8 | | 2787.7 | | 1590.9 | | 2.9972 | | 5.9142 | | 2.9170 | |
| 5.8 | | 273.382 | | 0.00131273 | | 0.033662 | | 1195.0 | | 2591.5 | | 1202.6 | | 2786.7 | | 1584.1 | | 3.0075 | | 5.9061 | | 2.8985 | |
| 5.9 | | 274.490 | | 0.00131600 | | 0.033045 | | 1200.5 | | 2590.7 | | 1208.3 | | 2785.7 | | 1577.4 | | 3.0177 | | 5.8981 | | 2.8803 | |
| 6.0 | | 275.585 | | 0.00131926 | | 0.032448 | | 1206.0 | | 2589.9 | | 1213.9 | | 2784.6 | | 1570.7 | | 3.0278 | | 5.8901 | | 2.8623 | |
| 6.1 | | 276.666 | | 0.00132253 | | 0.031870 | | 1211.4 | | 2589.1 | | 1219.5 | | 2783.5 | | 1564.0 | | 3.0377 | | 5.8823 | | 2.8445 | |
| 6.2 | | 277.733 | | 0.00132579 | | 0.031309 | | 1216.9 | | 2588.3 | | 1225.1 | | 2782.4 | | 1557.3 | | 3.0476 | | 5.8745 | | 2.8269 | |
| 6.3 | | 278.787 | | 0.00132905 | | 0.030766 | | 1222.1 | | 2587.4 | | 1230.5 | | 2781.2 | | 1550.7 | | 3.0573 | | 5.8668 | | 2.8095 | |
| 6.4 | | 279.829 | | 0.00133230 | | 0.030238 | | 1227.5 | | 2586.6 | | 1236.0 | | 2780.1 | | 1544.1 | | 3.0669 | | 5.8592 | | 2.7923 | |
| 6.5 | | 280.858 | | 0.00133556 | | 0.029727 | | 1232.7 | | 2585.7 | | 1241.4 | | 2778.9 | | 1537.5 | | 3.0764 | | 5.8516 | | 2.7752 | |
| 6.6 | | 281.875 | | 0.00133882 | | 0.029230 | | 1237.9 | | 2584.8 | | 1246.7 | | 2777.7 | | 1530.9 | | 3.0858 | | 5.8441 | | 2.7583 | |
| 6.7 | | 282.880 | | 0.00134208 | | 0.028747 | | 1243.0 | | 2583.8 | | 1252.0 | | 2776.4 | | 1524.4 | | 3.0951 | | 5.8367 | | 2.7416 | |
| 6.8 | | 283.874 | | 0.00134533 | | 0.028278 | | 1248.2 | | 2582.9 | | 1257.3 | | 2775.2 | | 1517.9 | | 3.1043 | | 5.8293 | | 2.7250 | |
| 6.9 | | 284.857 | | 0.00134859 | | 0.027822 | | 1253.2 | | 2581.9 | | 1262.5 | | 2773.9 | | 1511.4 | | 3.1134 | | 5.8220 | | 2.7086 | |
| 7.0 | | 285.829 | | 0.00135186 | | 0.027378 | | 1258.2 | | 2581.0 | | 1267.7 | | 2772.6 | | 1505.0 | | 3.1224 | | 5.8148 | | 2.6924 | |
| 7.1 | | 286.790 | | 0.00135512 | | 0.026947 | | 1263.2 | | 2580.0 | | 1272.8 | | 2771.3 | | 1498.5 | | 3.1313 | | 5.8076 | | 2.6762 | |
| 7.2 | | 287.741 | | 0.00135839 | | 0.026526 | | 1268.1 | | 2579.0 | | 1277.9 | | 2770.0 | | 1492.1 | | 3.1402 | | 5.8004 | | 2.6603 | |
| 7.3 | | 288.682 | | 0.00136166 | | 0.026117 | | 1273.0 | | 2577.9 | | 1282.9 | | 2768.6 | | 1485.7 | | 3.1489 | | 5.7933 | | 2.6444 | |
| 7.4 | | 289.614 | | 0.00136493 | | 0.025718 | | 1277.8 | | 2577.0 | | 1287.9 | | 2767.3 | | 1479.3 | | 3.1576 | | 5.7863 | | 2.6287 | |
| 7.5 | | 290.535 | | 0.00136821 | | 0.025330 | | 1282.6 | | 2575.9 | | 1292.9 | | 2765.9 | | 1473.0 | | 3.1662 | | 5.7793 | | 2.6131 | |
| 7.6 | | 291.448 | | 0.00137149 | | 0.024951 | | 1287.5 | | 2574.9 | | 1297.9 | | 2764.5 | | 1466.6 | | 3.1747 | | 5.7723 | | 2.5976 | |
| 7.7 | | 292.351 | | 0.00137477 | | 0.024581 | | 1292.2 | | 2573.8 | | 1302.8 | | 2763.1 | | 1460.3 | | 3.1832 | | 5.7654 | | 2.5823 | |
| 7.8 | | 293.245 | | 0.00137806 | | 0.024221 | | 1297.0 | | 2572.7 | | 1307.7 | | 2761.6 | | 1454.0 | | 3.1915 | | 5.7586 | | 2.5671 | |
| 7.9 | | 294.131 | | 0.00138136 | | 0.023869 | | 1301.6 | | 2571.6 | | 1312.5 | | 2760.2 | | 1447.7 | | 3.1998 | | 5.7518 | | 2.5519 | |
| 8.0 | | 295.008 | | 0.00138467 | | 0.023526 | | 1306.2 | | 2570.5 | | 1317.3 | | 2758.7 | | 1441.4 | | 3.2081 | | 5.7450 | | 2.5369 | |
| 8.1 | | 295.876 | | 0.00138797 | | 0.023190 | | 1310.9 | | 2569.4 | | 1322.1 | | 2757.2 | | 1435.1 | | 3.2162 | | 5.7383 | | 2.5220 | |
| 8.2 | | 296.737 | | 0.00139129 | | 0.022863 | | 1315.4 | | 2568.2 | | 1326.8 | | 2755.7 | | 1428.8 | | 3.2243 | | 5.7316 | | 2.5072 | |
| 8.3 | | 297.589 | | 0.00139461 | | 0.022542 | | 1320.0 | | 2567.0 | | 1331.6 | | 2754.1 | | 1422.6 | | 3.2324 | | 5.7249 | | 2.4925 | |
| 8.4 | | 298.434 | | 0.00139795 | | 0.022229 | | 1324.6 | | 2565.9 | | 1336.3 | | 2752.6 | | 1416.3 | | 3.2403 | | 5.7183 | | 2.4779 | |
| 8.5 | | 299.271 | | 0.00140128 | | 0.021923 | | 1329.0 | | 2564.7 | | 1340.9 | | 2751.0 | | 1410.1 | | 3.2483 | | 5.7117 | | 2.4634 | |
| 8.6 | | 300.100 | | 0.00140463 | | 0.021624 | | 1333.5 | | 2563.4 | | 1345.6 | | 2749.4 | | 1403.9 | | 3.2561 | | 5.7051 | | 2.4490 | |
| 8.7 | | 300.922 | | 0.00140799 | | 0.021332 | | 1338.0 | | 2562.2 | | 1350.2 | | 2747.8 | | 1397.7 | | 3.2639 | | 5.6986 | | 2.4347 | |
| 8.8 | | 301.737 | | 0.00141135 | | 0.021045 | | 1342.4 | | 2561.0 | | 1354.8 | | 2746.2 | | 1391.5 | | 3.2717 | | 5.6921 | | 2.4204 | |
| 8.9 | | 302.544 | | 0.00141473 | | 0.020765 | | 1346.7 | | 2559.8 | | 1359.3 | | 2744.6 | | 1385.3 | | 3.2793 | | 5.6856 | | 2.4062 | |
| 9.0 | | 303.345 | | 0.00141811 | | 0.020490 | | 1351.1 | | 2558.5 | | 1363.9 | | 2742.9 | | 1379.1 | | 3.2870 | | 5.6791 | | 2.3922 | |

**Continued ...**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| p  MPa | Tsat | Volume, m**3**/kg | | Energy, kJ/kg | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg K) | | |
| vf | vg | uf | ug | hf | hg | hfg | sf | sg | sfg |
| 9.0 | 303.345 | 0.00141811 | 0.020490 | 1351.1 | 2558.5 | 1363.9 | 2742.9 | 1379.1 | 3.2870 | 5.6791 | 2.3922 |
| 9.1 | 304.139 | 0.00142151 | 0.020221 | 1355.5 | 2557.3 | 1368.4 | 2741.3 | 1372.9 | 3.2946 | 5.6727 | 2.3782 |
| 9.2 | 304.926 | 0.00142491 | 0.019958 | 1359.8 | 2556.0 | 1372.9 | 2739.6 | 1366.7 | 3.3021 | 5.6663 | 2.3642 |
| 9.3 | 305.707 | 0.00142833 | 0.019700 | 1364.1 | 2554.7 | 1377.4 | 2737.9 | 1360.5 | 3.3096 | 5.6599 | 2.3504 |
| 9.4 | 306.481 | 0.00143176 | 0.019447 | 1368.3 | 2553.4 | 1381.8 | 2736.2 | 1354.4 | 3.3170 | 5.6536 | 2.3366 |
| 9.5 | 307.249 | 0.00143520 | 0.019199 | 1372.6 | 2552.0 | 1386.2 | 2734.4 | 1348.2 | 3.3244 | 5.6473 | 2.3229 |
| 9.6 | 308.010 | 0.00143865 | 0.018956 | 1376.8 | 2550.7 | 1390.6 | 2732.7 | 1342.0 | 3.3317 | 5.6410 | 2.3092 |
| 9.7 | 308.766 | 0.00144212 | 0.018718 | 1381.0 | 2549.3 | 1395.0 | 2730.9 | 1335.9 | 3.3390 | 5.6347 | 2.2957 |
| 9.8 | 309.516 | 0.00144560 | 0.018484 | 1385.2 | 2548.0 | 1399.4 | 2729.1 | 1329.7 | 3.3463 | 5.6284 | 2.2822 |
| 9.9 | 310.259 | 0.00144909 | 0.018255 | 1389.4 | 2546.6 | 1403.7 | 2727.3 | 1323.6 | 3.3535 | 5.6222 | 2.2687 |
| 10.0 | 310.997 | 0.00145259 | 0.018030 | 1393.6 | 2545.2 | 1408.1 | 2725.5 | 1317.4 | 3.3606 | 5.6160 | 2.2553 |
| 10.2 | 312.456 | 0.00145965 | 0.017592 | 1401.8 | 2542.4 | 1416.7 | 2721.8 | 1305.1 | 3.3749 | 5.6035 | 2.2287 |
| 10.4 | 313.893 | 0.00146676 | 0.017170 | 1409.9 | 2539.4 | 1425.2 | 2718.0 | 1292.8 | 3.3889 | 5.5912 | 2.2023 |
| 10.6 | 315.308 | 0.00147394 | 0.016763 | 1418.1 | 2536.5 | 1433.7 | 2714.2 | 1280.5 | 3.4028 | 5.5789 | 2.1761 |
| 10.8 | 316.703 | 0.00148119 | 0.016370 | 1426.1 | 2533.5 | 1442.1 | 2710.3 | 1268.2 | 3.4166 | 5.5667 | 2.1501 |
| 11.0 | 318.079 | 0.00148851 | 0.015990 | 1434.0 | 2530.4 | 1450.4 | 2706.3 | 1255.9 | 3.4303 | 5.5545 | 2.1242 |
| 11.2 | 319.434 | 0.00149590 | 0.015622 | 1441.9 | 2527.3 | 1458.7 | 2702.3 | 1243.6 | 3.4438 | 5.5423 | 2.0985 |
| 11.4 | 320.771 | 0.00150337 | 0.015266 | 1449.9 | 2524.2 | 1467.0 | 2698.2 | 1231.2 | 3.4572 | 5.5302 | 2.0730 |
| 11.6 | 322.090 | 0.00151093 | 0.014922 | 1457.7 | 2520.9 | 1475.2 | 2694.0 | 1218.8 | 3.4705 | 5.5181 | 2.0476 |
| 11.8 | 323.391 | 0.00151857 | 0.014588 | 1465.4 | 2517.7 | 1483.3 | 2689.8 | 1206.4 | 3.4836 | 5.5060 | 2.0224 |
| 12.0 | 324.675 | 0.00152630 | 0.014264 | 1473.2 | 2514.2 | 1491.5 | 2685.4 | 1194.0 | 3.4967 | 5.4939 | 1.9972 |
| 12.2 | 325.942 | 0.00153413 | 0.013950 | 1480.8 | 2510.8 | 1499.5 | 2681.0 | 1181.5 | 3.5097 | 5.4819 | 1.9722 |
| 12.4 | 327.194 | 0.00154205 | 0.013645 | 1488.5 | 2507.4 | 1507.6 | 2676.6 | 1169.0 | 3.5226 | 5.4698 | 1.9472 |
| 12.6 | 328.429 | 0.00155009 | 0.013349 | 1496.1 | 2503.8 | 1515.6 | 2672.0 | 1156.4 | 3.5354 | 5.4577 | 1.9223 |
| 12.8 | 329.649 | 0.00155823 | 0.013061 | 1503.7 | 2500.2 | 1523.6 | 2667.4 | 1143.8 | 3.5481 | 5.4457 | 1.8975 |
| 13.0 | 330.854 | 0.00156649 | 0.012780 | 1511.1 | 2496.6 | 1531.5 | 2662.7 | 1131.2 | 3.5608 | 5.4336 | 1.8728 |
| 13.2 | 332.044 | 0.00157487 | 0.012508 | 1518.6 | 2492.8 | 1539.4 | 2657.9 | 1118.5 | 3.5734 | 5.4215 | 1.8481 |
| 13.4 | 333.220 | 0.00158338 | 0.012242 | 1526.1 | 2489.0 | 1547.3 | 2653.0 | 1105.7 | 3.5859 | 5.4093 | 1.8234 |
| 13.6 | 334.382 | 0.00159202 | 0.011983 | 1533.5 | 2485.0 | 1555.2 | 2648.0 | 1092.8 | 3.5984 | 5.3972 | 1.7988 |
| 13.8 | 335.531 | 0.00160081 | 0.011731 | 1541.0 | 2481.1 | 1563.1 | 2643.0 | 1079.9 | 3.6108 | 5.3850 | 1.7742 |
| 14.0 | 336.666 | 0.00160974 | 0.011485 | 1548.5 | 2477.1 | 1571.0 | 2637.9 | 1066.9 | 3.6232 | 5.3727 | 1.7495 |
| 14.2 | 337.789 | 0.00161883 | 0.011245 | 1555.8 | 2472.9 | 1578.8 | 2632.6 | 1053.8 | 3.6355 | 5.3604 | 1.7249 |
| 14.4 | 338.899 | 0.00162809 | 0.011011 | 1563.3 | 2468.7 | 1586.7 | 2627.3 | 1040.6 | 3.6478 | 5.3481 | 1.7002 |
| 14.6 | 339.996 | 0.00163752 | 0.010781 | 1570.6 | 2464.5 | 1594.5 | 2621.9 | 1027.4 | 3.6601 | 5.3356 | 1.6756 |
| 14.8 | 341.082 | 0.00164714 | 0.010557 | 1577.9 | 2460.1 | 1602.3 | 2616.3 | 1014.0 | 3.6723 | 5.3231 | 1.6508 |
| 15.0 | 342.155 | 0.00165695 | 0.010338 | 1585.3 | 2455.6 | 1610.2 | 2610.7 | 1000.5 | 3.6846 | 5.3106 | 1.6260 |
| 15.2 | 343.217 | 0.00166697 | 0.010124 | 1592.8 | 2451.1 | 1618.1 | 2605.0 | 986.9 | 3.6968 | 5.2979 | 1.6011 |
| 15.4 | 344.268 | 0.00167722 | 0.0099140 | 1600.1 | 2446.4 | 1625.9 | 2599.1 | 973.2 | 3.7090 | 5.2852 | 1.5762 |
| 15.6 | 345.308 | 0.00168770 | 0.0097083 | 1607.5 | 2441.7 | 1633.8 | 2593.1 | 959.3 | 3.7212 | 5.2723 | 1.5511 |
| 15.8 | 346.337 | 0.00169843 | 0.0095067 | 1614.9 | 2436.8 | 1641.7 | 2587.0 | 945.3 | 3.7335 | 5.2594 | 1.5259 |
| 16.0 | 347.355 | 0.00170944 | 0.0093088 | 1622.3 | 2431.9 | 1649.7 | 2580.8 | 931.1 | 3.7457 | 5.2463 | 1.5006 |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| p  MPa | Tsat | Volume, m**3**/kg | | Energy, kJ/kg | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg K) | | |
| vf | vg | uf | ug | hf | hg | hfg | sf | sg | sfg |
| 16.0 | 347.355 | 0.00170944 | 0.0093088 | 1622.3 | 2431.9 | 1649.7 | 2580.8 | 931.1 | 3.7457 | 5.2463 | 1.5006 |
| 16.2 | 348.362 | 0.00172073 | 0.0091147 | 1629.8 | 2426.7 | 1657.7 | 2574.4 | 916.8 | 3.7580 | 5.2331 | 1.4750 |
| 16.4 | 349.360 | 0.00173233 | 0.0089240 | 1637.3 | 2421.5 | 1665.7 | 2567.9 | 902.2 | 3.7704 | 5.2197 | 1.4494 |
| 16.6 | 350.347 | 0.00174427 | 0.0087366 | 1644.7 | 2416.3 | 1673.7 | 2561.3 | 887.5 | 3.7827 | 5.2062 | 1.4235 |
| 16.8 | 351.325 | 0.00175657 | 0.0085523 | 1652.4 | 2410.8 | 1681.9 | 2554.5 | 872.6 | 3.7952 | 5.1925 | 1.3974 |
| 17.0 | 352.293 | 0.00176926 | 0.0083709 | 1659.9 | 2405.2 | 1690.0 | 2547.5 | 857.5 | 3.8077 | 5.1787 | 1.3710 |
| 17.2 | 353.251 | 0.00178237 | 0.0081923 | 1667.6 | 2399.5 | 1698.3 | 2540.4 | 842.1 | 3.8203 | 5.1646 | 1.3443 |
| 17.4 | 354.200 | 0.00179593 | 0.0080163 | 1675.4 | 2393.5 | 1706.6 | 2533.0 | 826.5 | 3.8330 | 5.1504 | 1.3174 |
| 17.6 | 355.140 | 0.00181000 | 0.0078426 | 1683.1 | 2387.5 | 1715.0 | 2525.5 | 810.5 | 3.8458 | 5.1359 | 1.2901 |
| 17.8 | 356.071 | 0.00182460 | 0.0076712 | 1691.0 | 2381.3 | 1723.5 | 2517.8 | 794.3 | 3.8587 | 5.1211 | 1.2624 |
| 18.0 | 356.992 | 0.00183980 | 0.0075017 | 1699.0 | 2374.8 | 1732.1 | 2509.8 | 777.7 | 3.8718 | 5.1061 | 1.2342 |
| 18.2 | 357.906 | 0.00185564 | 0.0073341 | 1707.0 | 2368.1 | 1740.8 | 2501.6 | 760.8 | 3.8851 | 5.0907 | 1.2056 |
| 18.4 | 358.810 | 0.00187219 | 0.0071681 | 1715.3 | 2361.3 | 1749.7 | 2493.2 | 743.5 | 3.8985 | 5.0750 | 1.1765 |
| 18.6 | 359.706 | 0.00188951 | 0.0070034 | 1723.6 | 2354.1 | 1758.7 | 2484.4 | 725.8 | 3.9121 | 5.0590 | 1.1468 |
| 18.8 | 360.594 | 0.00190767 | 0.0068399 | 1731.9 | 2346.8 | 1767.8 | 2475.4 | 707.6 | 3.9260 | 5.0425 | 1.1165 |
| 19.0 | 361.473 | 0.00192677 | 0.0066773 | 1740.6 | 2339.1 | 1777.2 | 2466.0 | 688.9 | 3.9401 | 5.0256 | 1.0855 |
| 19.2 | 362.344 | 0.00194689 | 0.0065153 | 1749.3 | 2331.1 | 1786.7 | 2456.2 | 669.6 | 3.9545 | 5.0081 | 1.0536 |
| 19.4 | 363.208 | 0.00196814 | 0.0063535 | 1758.2 | 2322.8 | 1796.4 | 2446.1 | 649.6 | 3.9692 | 4.9901 | 1.0208 |
| 19.6 | 364.063 | 0.00199064 | 0.0061915 | 1767.4 | 2314.0 | 1806.4 | 2435.4 | 629.0 | 3.9843 | 4.9713 | 0.9871 |
| 19.8 | 364.910 | 0.0020145 | 0.0060290 | 1776.8 | 2304.8 | 1816.7 | 2424.2 | 607.5 | 3.9997 | 4.9518 | 0.9521 |
| 20.0 | 365.749 | 0.0020400 | 0.0058652 | 1786.4 | 2295.0 | 1827.2 | 2412.3 | 585.1 | 4.0156 | 4.9314 | 0.9158 |
| 20.2 | 366.581 | 0.0020674 | 0.0056996 | 1796.3 | 2284.7 | 1838.1 | 2399.8 | 561.7 | 4.0320 | 4.9100 | 0.8780 |
| 20.4 | 367.404 | 0.0020969 | 0.0055313 | 1806.7 | 2273.5 | 1849.5 | 2386.3 | 536.9 | 4.0491 | 4.8872 | 0.8381 |
| 20.6 | 368.220 | 0.0021291 | 0.0053590 | 1817.5 | 2261.5 | 1861.4 | 2371.9 | 510.5 | 4.0670 | 4.8629 | 0.7959 |
| 20.8 | 369.027 | 0.0021649 | 0.0051814 | 1829.0 | 2248.3 | 1874.0 | 2356.1 | 482.1 | 4.0860 | 4.8367 | 0.7507 |
| 21.0 | 369.827 | 0.0022055 | 0.0049961 | 1841.3 | 2233.7 | 1887.6 | 2338.6 | 451.0 | 4.1064 | 4.8079 | 0.7015 |
| 21.2 | 370.619 | 0.0022531 | 0.0048000 | 1854.8 | 2217.1 | 1902.6 | 2318.9 | 416.3 | 4.1291 | 4.7758 | 0.6467 |
| 21.4 | 371.402 | 0.0023115 | 0.0045880 | 1870.2 | 2197.9 | 1919.7 | 2296.1 | 376.4 | 4.1550 | 4.7390 | 0.5839 |
| 21.6 | 372.178 | 0.0023880 | 0.0043508 | 1888.8 | 2174.6 | 1940.4 | 2268.6 | 328.2 | 4.1864 | 4.6950 | 0.5086 |
| 21.8 | 372.946 | 0.0024983 | 0.0040680 | 1912.9 | 2144.2 | 1967.4 | 2232.9 | 265.5 | 4.2274 | 4.6383 | 0.4109 |
| 22.0  22.064 | 373.705  373.946 | 0.0027044 | 0.0036475 | 1951.8 | 2092.9 | 2011.3 | 2173.1 | 161.7  **0** | 4.2945 | 4.5446 | 0.2501  **0** |
| 0.0031056 | | 2015.8 | | 2084.3 | | 4.4070 | |

# Table 3

**Water (Subcooled) / Steam (Superheated)**

1. **MPa ( = 45**.**806**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| \*0 5  10  15  20  25  30  35  40  45  45.806 | 0.00100020  0.00100008 0.00100034 0.00100094 0.00100184 0.00100300 0.00100441 0.00100604 0.00100789 0.00100992  0.00101027 | -0.04  21.02 42.02 62.98  83.91  104.83  125.73  146.63  167.53  188.43  191.80 | -0.03  21.03 42.03 62.99  83.92  104.84  125.74  146.64  167.54  188.44  191.81 | -0.00015  0.07625 0.15109 0.22446 0.29648 0.36722 0.43675 0.50513 0.57240 0.63861  0.64920 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 25.060 25.522 25.984 26.446 26.907 27.369 27.831 28.293 28.755 29.216 29.678 30.140 30.601 31.063 31.525 31.986 32.448 32.910 33.371 33.833 34.295 34.756 35.218 35.680 36.603 37.526 38.449 39.372 40.296 41.219 42.142 43.065 43.988 44.911 45.834 46.758 47.681 48.604 49.527 50.450 51.373 52.296 53.219 54.142 55.065 55.989 56.912 57.835  58.758 | 2766.4  2781.6  2797.0  2812.2  2827.7  2843.2  2858.7  2874.4  2889.9  2905.7  2921.5  2937.4  2953.3  2969.3  2985.4  3001.5  3017.7  3033.9  3050.3  3066.7  3083.2  3099.6  3116.2  3132.9  3166.5  3200.2  3234.3  3268.7  3303.3  3338.2  3373.5  3409.0  3444.7  3480.8  3517.2  3553.7  3590.7  3627.9  3665.3  3703.1  3741.2  3779.4  3818.0  3856.9  3896.1  3935.4  3975.1  4015.0  4055.2 | 3017.0  3036.8  3056.8  3076.7  3096.8  3116.9  3137.0  3157.3  3177.5  3197.9  3218.3  3238.8  3259.3  3279.9  3300.6  3321.4  3342.2  3363.0  3384.0  3405.0  3426.1  3447.2  3468.4  3489.7  3532.5  3575.5  3618.8  3662.4  3706.3  3750.4  3794.9  3839.6  3884.6  3929.9  3975.5  4021.3  4067.5  4113.9  4160.6  4207.6  4254.9  4302.4  4350.2  4398.3  4446.7  4495.3  4544.2  4593.4  4642.8 | 9.1756 9.2118 9.2475 9.2827 9.3173 9.3515 9.3852 9.4185 9.4513 9.4837 9.5157 9.5473 9.5785 9.6094 9.6398 9.6700 9.6998 9.7293 9.7584 9.7873 9.8158 9.8441 9.8721 9.8998 9.9544 10.008 10.061 10.112 10.163 10.213 10.262 10.311 10.358 10.406 10.452 10.498 10.543 10.587 10.631 10.675 10.717 10.760 10.802 10.843 10.884 10.924 10.964 11.004  11.043 |
| 45.806  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 14.670 14.867 15.101 15.335 15.568 15.801 16.034 16.267 16.500 16.732 16.964 17.196 17.428 17.660 17.892 18.124 18.356 18.587 18.819 19.050 19.282 19.513 19.745 19.976 20.207 20.438 20.670 20.901 21.132 21.363 21.594 21.826 22.288 22.750 23.212 23.674 24.136 24.598  25.060 | 2437.2  2443.3  2450.6  2457.8  2465.0  2472.3  2479.5  2486.6  2493.9  2501.1  2508.3  2515.5  2522.7  2529.9  2537.2  2544.4  2551.6  2558.8  2566.1  2573.4  2580.6  2587.9  2595.2  2602.5  2609.8  2617.1  2624.5  2631.8  2639.2  2646.6  2654.0  2661.3  2676.2  2691.1  2706.0  2721.1  2736.0  2751.2  2766.4 | 2583.9  2592.0  2601.6  2611.2  2620.7  2630.3  2639.8  2649.3  2658.9  2668.4  2677.9  2687.5  2697.0  2706.5  2716.1  2725.6  2735.2  2744.7  2754.3  2763.9  2773.4  2783.0  2792.6  2802.3  2811.9  2821.5  2831.2  2840.8  2850.5  2860.2  2869.9  2879.6  2899.1  2918.6  2938.1  2957.8  2977.4  2997.2  3017.0 | 8.14880  8.1741 8.2036 8.2326 8.2611 8.2891 8.3167 8.3439 8.3707 8.3971 8.4232 8.4489 8.4742 8.4993 8.5240 8.5484 8.5726 8.5964 8.6200 8.6434 8.6664 8.6892 8.7118 8.7341 8.7562 8.7781 8.7997 8.8212 8.8424 8.8634 8.8843 8.9049 8.9456 8.9856 9.0248 9.0635 9.1015 9.1388  9.1756 |
|  | | | | |

1. **MPa ( = 60**.**058**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| \*0 5  10  15  20  25  30  35  40  45  50  55  60  60.058 | 0.00100020 0.00100007 0.00100034 0.00100094 0.00100183 0.00100300 0.00100441 0.00100604 0.00100788 0.00100992 0.00101215 0.00101455 0.00101713  0.00101716 | -0.04  21.02 42.02 62.98  83.91  104.82  125.73  146.63  167.52  188.42  209.33  230.24  251.16  251.40 | -0.02  21.04 42.04 63.00  83.93  104.84  125.75  146.65  167.54  188.44  209.35  230.26  251.18  251.42 | -0.00015  0.07625 0.15108 0.22446 0.29648 0.36722 0.43675 0.50513 0.57240 0.63861 0.70381 0.76802 0.83129  0.83202 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 12.526 12.757 12.989 13.220 13.451 13.682 13.913 14.144 14.375 14.606 14.837 15.068 15.299 15.530 15.760 15.991 16.222 16.453 16.684 16.915 17.146 17.377 17.608 17.838 18.300 18.762 19.224 19.685 20.147 20.609 21.070 21.532 21.993 22.455 22.917 23.378 23.840 24.301 24.763 25.225 25.686 26.148 26.609 27.071 27.532 27.994 28.456 28.917  29.379 | 2766.2  2781.5  2796.7  2812.1  2827.5  2843.1  2858.5  2874.2  2889.9  2905.6  2921.4  2937.2  2953.2  2969.2  2985.3  3001.4  3017.6  3033.8  3050.2  3066.6  3083.0  3099.6  3116.1  3132.8  3166.4  3200.2  3234.2  3268.6  3303.3  3338.2  3373.4  3408.9  3444.6  3480.7  3517.1  3553.7  3590.6  3627.9  3665.3  3703.1  3741.1  3779.4  3818.0  3856.9  3896.1  3935.4  3975.1  4015.1  4055.2 | 3016.7  3036.6  3056.5  3076.5  3096.5  3116.7  3136.8  3157.1  3177.4  3197.7  3218.1  3238.6  3259.2  3279.8  3300.5  3321.2  3342.0  3362.9  3383.9  3404.9  3425.9  3447.1  3468.3  3489.6  3532.4  3575.4  3618.7  3662.3  3706.2  3750.4  3794.8  3839.5  3884.5  3929.8  3975.4  4021.3  4067.4  4113.9  4160.6  4207.6  4254.8  4302.4  4350.2  4398.3  4446.7  4495.3  4544.2  4593.4  4642.8 | 8.8553 8.8916 8.9273 8.9625 8.9972 9.0314 9.0651 9.0983 9.1312 9.1636 9.1956 9.2272 9.2584 9.2893 9.3198 9.3499 9.3797 9.4092 9.4384 9.4672 9.4958 9.5241 9.5520 9.5798 9.6344 9.6880 9.7406 9.7923 9.8431 9.8932 9.9424 9.9908 10.039 10.086 10.132 10.178 10.223 10.267 10.311 10.355 10.397 10.440 10.482 10.523 10.564 10.604 10.644 10.684  10.723 |
| 60.058  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 7.6480 7.7648 7.8826 8.0002 8.1176 8.2348 8.3518 8.4687 8.5855 8.7022 8.8187 8.9352 9.0516 9.1679 9.2841 9.4003 9.5164 9.6325 9.7486 9.8646 9.9805 10.096 10.212 10.328 10.444 10.560 10.676 10.791 10.907 11.139 11.370 11.601 11.833 12.064 12.295  12.526 | 2455.9  2463.3  2470.6  2478.0  2485.3  2492.7  2500.0  2507.2  2514.5  2521.8  2529.0  2536.3  2543.6  2550.8  2558.2  2565.5  2572.8  2580.1  2587.3  2594.7  2602.0  2609.4  2616.7  2624.0  2631.4  2638.8  2646.2  2653.6  2661.0  2675.8  2690.8  2705.8  2720.7  2735.8  2751.0  2766.2 | 2608.9  2618.6  2628.3  2638.0  2647.7  2657.4  2667.0  2676.6  2686.2  2695.8  2705.4  2715.0  2724.6  2734.2  2743.9  2753.5  2763.1  2772.7  2782.3  2792.0  2801.6  2811.3  2820.9  2830.6  2840.3  2850.0  2859.7  2869.4  2879.1  2898.6  2918.2  2937.8  2957.4  2977.1  2996.9  3016.7 | 7.90720  7.9360 7.9646 7.9927 8.0202 8.0474 8.0741 8.1004 8.1263 8.1519 8.1771 8.2020 8.2266 8.2509 8.2749 8.2986 8.3220 8.3451 8.3680 8.3907 8.4131 8.4352 8.4572 8.4789 8.5004 8.5216 8.5427 8.5636 8.5843 8.6250 8.6651 8.7044 8.7431 8.7811 8.8185  8.8553 |
|  | | | | |

1. **MPa ( = 69**.**095**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| \*0 5  10  15  20  25  30  35  40  45  50  55  60  65  69.095 | 0.00100019  0.00100007 0.00100033 0.00100093 0.00100183 0.00100299 0.00100440 0.00100603 0.00100788 0.00100992 0.00101214 0.00101455 0.00101712 0.00101987  0.00102224 | -0.04  21.02 42.02 62.98  83.91  104.82  125.73  146.63  167.52  188.42  209.33  230.24  251.16  272.09  289.24 | -0.01  21.05 42.05 63.01  83.94  104.85  125.76  146.66  167.55  188.45  209.36  230.27  251.19  272.12  289.27 | -0.00015  0.07625 0.15108 0.22446 0.29648 0.36722 0.43675 0.50512 0.57239 0.63861 0.70380 0.76802 0.83129 0.89365  0.94407 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 8.3484 8.5026 8.6568 8.8110 8.9651 9.1192 9.2733 9.4274 9.5815 9.7356 9.8896 10.044 10.198 10.352 10.506 10.660 10.814 10.968 11.122 11.276 11.430 11.584 11.737 11.891 12.199 12.507 12.815 13.123 13.431 13.738 14.046 14.354 14.662 14.970 15.277 15.585 15.893 16.201 16.508 16.816 17.124 17.432 17.739 18.047 18.355 18.663 18.970 19.278  19.586 | 2765.9  2781.2  2796.5  2811.9  2827.3  2842.8  2858.4  2874.1  2889.8  2905.4  2921.3  2937.2  2953.1  2969.0  2985.1  3001.3  3017.5  3033.8  3050.0  3066.4  3082.9  3099.5  3116.1  3132.8  3166.3  3200.1  3234.2  3268.5  3303.2  3338.2  3373.3  3408.9  3444.6  3480.7  3517.1  3553.6  3590.6  3627.8  3665.3  3703.0  3741.1  3779.3  3818.0  3856.9  3896.0  3935.4  3975.1  4015.0  4055.2 | 3016.4  3036.3  3056.2  3076.2  3096.3  3116.4  3136.6  3156.9  3177.2  3197.5  3218.0  3238.5  3259.0  3279.6  3300.3  3321.1  3341.9  3362.8  3383.7  3404.7  3425.8  3447.0  3468.2  3489.5  3532.3  3575.3  3618.6  3662.2  3706.1  3750.3  3794.7  3839.5  3884.5  3929.8  3975.4  4021.2  4067.4  4113.8  4160.5  4207.5  4254.8  4302.3  4350.2  4398.3  4446.6  4495.3  4544.2  4593.3  4642.8 | 8.6678 8.7041 8.7398 8.7750 8.8097 8.8439 8.8777 8.9110 8.9438 8.9763 9.0083 9.0399 9.0711 9.1020 9.1325 9.1627 9.1925 9.2220 9.2511 9.2800 9.3086 9.3368 9.3648 9.3925 9.4471 9.5007 9.5534 9.6051 9.6559 9.7060 9.7552 9.8036 9.8514 9.8984 9.9448 9.9905 10.036 10.080 10.124 10.167 10.210 10.253 10.294 10.336 10.377 10.417 10.457 10.497  10.536 |
| 69.095  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 5.2284 5.2428 5.3220 5.4010 5.4797 5.5583 5.6368 5.7151 5.7933 5.8714 5.9495 6.0274 6.1053 6.1830 6.2608 6.3385 6.4161 6.4937 6.5712 6.6487 6.7262 6.8036 6.8811 6.9584 7.0358 7.1131 7.1905 7.2677 7.4223 7.5768 7.7312 7.8855 8.0399 8.1941  8.3484 | 2467.6  2469.0  2476.5  2484.0  2491.4  2498.8  2506.2  2513.5  2520.9  2528.2  2535.5  2542.9  2550.1  2557.5  2564.8  2572.1  2579.5  2586.8  2594.2  2601.5  2608.9  2616.3  2623.7  2631.0  2638.4  2645.8  2653.2  2660.7  2675.5  2690.5  2705.5  2720.5  2735.6  2750.8  2765.9 | 2624.5  2626.3  2636.2  2646.0  2655.8  2665.5  2675.3  2685.0  2694.7  2704.3  2714.0  2723.7  2733.3  2743.0  2752.6  2762.3  2772.0  2781.6  2791.3  2801.0  2810.7  2820.4  2830.1  2839.8  2849.5  2859.2  2868.9  2878.7  2898.2  2917.8  2937.4  2957.1  2976.8  2996.6  3016.4 | 7.76750  7.7727 7.8013 7.8292 7.8567 7.8837 7.9103 7.9365 7.9623 7.9877 8.0128 8.0375 8.0620 8.0861 8.1099 8.1334 8.1566 8.1796 8.2023 8.2248 8.2470 8.2690 8.2908 8.3123 8.3337 8.3548 8.3757 8.3964 8.4372 8.4773 8.5167 8.5554 8.5935 8.6309  8.6678 |
|  | | | | |

1. **MPa ( = 75**.**857**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| \*0 5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  75.857 | 0.00100019 0.00100006 0.00100033 0.00100093 0.00100182 0.00100299 0.00100440 0.00100603 0.00100787 0.00100991 0.00101214 0.00101454 0.00101712 0.00101986 0.00102277 0.00102584  0.00102638 | -0.04  21.02 42.02 62.98  83.91  104.82  125.73  146.62  167.52  188.42  209.33  230.24  251.16  272.09  293.03  313.99  317.58 | 0.00  21.06 42.06 63.02  83.95  104.86  125.77  146.66  167.56  188.46  209.37  230.28  251.20  272.13  293.07  314.03  317.62 | -0.00015  0.07625 0.15108 0.22446 0.29648 0.36722 0.43674 0.50512 0.57239 0.63860 0.70380 0.76801 0.83128 0.89364  0.95513  1.0158  1.0261 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 6.2594 6.3752 6.4909 6.6066 6.7223 6.8380 6.9536 7.0693 7.1849 7.3005 7.4161 7.5316 7.6472 7.7628 7.8783 7.9938 8.1094 8.2249 8.3404 8.4559 8.5714 8.6869 8.8024 8.9179 9.1488 9.3798 9.6107 9.8416 10.073 10.303 10.534 10.765 10.996 11.227 11.458 11.689 11.919 12.150 12.381 12.612 12.843 13.074 13.304 13.535 13.766 13.997 14.228 14.458  14.689 | 2765.7  2781.0  2796.4  2811.7  2827.2  2842.7  2858.3  2873.9  2889.6  2905.4  2921.2  2937.0  2953.0  2969.0  2985.1  3001.1  3017.4  3033.6  3050.0  3066.4  3082.8  3099.4  3116.0  3132.7  3166.2  3200.0  3234.1  3268.5  3303.1  3338.1  3373.3  3408.8  3444.6  3480.6  3517.0  3553.6  3590.5  3627.8  3665.3  3703.0  3741.1  3779.3  3817.9  3856.8  3896.0  3935.3  3975.0  4015.0  4055.1 | 3016.1  3036.0  3056.0  3076.0  3096.1  3116.2  3136.4  3156.7  3177.0  3197.4  3217.8  3238.3  3258.9  3279.5  3300.2  3320.9  3341.8  3362.6  3383.6  3404.6  3425.7  3446.9  3468.1  3489.4  3532.2  3575.2  3618.5  3662.2  3706.0  3750.2  3794.7  3839.4  3884.4  3929.7  3975.3  4021.2  4067.3  4113.8  4160.5  4207.5  4254.8  4302.3  4350.1  4398.2  4446.6  4495.2  4544.1  4593.3  4642.7 | 8.5346 8.5709 8.6067 8.6419 8.6767 8.7109 8.7447 8.7780 8.8108 8.8433 8.8753 8.9069 8.9382 8.9691 8.9996 9.0297 9.0596 9.0891 9.1182 9.1471 9.1757 9.2039 9.2319 9.2596 9.3143 9.3679 9.4205 9.4723 9.5231 9.5731 9.6223 9.6708 9.7185 9.7656 9.8119 9.8577 9.9028 9.9473 9.9912 10.035 10.077 10.120 10.162 10.203 10.244 10.284 10.324 10.364  10.403 |
| 75.857  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 3.9930 4.0425 4.1021 4.1615 4.2208 4.2799 4.3389 4.3978 4.4566 4.5153 4.5739 4.6325 4.6910 4.7495 4.8079 4.8662 4.9245 4.9828 5.0411 5.0993 5.1575 5.2156 5.2737 5.3319 5.3899 5.4480 5.5641 5.6801 5.7961 5.9120 6.0278 6.1437  6.2594 | 2476.4  2482.6  2490.1  2497.6  2505.1  2512.5  2519.9  2527.3  2534.7  2542.1  2549.4  2556.8  2564.2  2571.5  2578.9  2586.3  2593.6  2601.0  2608.5  2615.8  2623.2  2630.6  2638.1  2645.4  2652.9  2660.3  2675.2  2690.2  2705.2  2720.2  2735.4  2750.6  2765.7 | 2636.1  2644.3  2654.2  2664.1  2673.9  2683.7  2693.5  2703.2  2713.0  2722.7  2732.4  2742.1  2751.8  2761.5  2771.2  2780.9  2790.6  2800.3  2810.1  2819.8  2829.5  2839.2  2849.0  2858.7  2868.5  2878.2  2897.8  2917.4  2937.0  2956.7  2976.5  2996.3  3016.1 | 7.6690 7.6925 7.7204 7.7477 7.7746 7.8010 7.8270 7.8527 7.8779 7.9028 7.9274 7.9516 7.9755 7.9992 8.0225 8.0456 8.0684 8.0909 8.1132 8.1353 8.1571 8.1787 8.2000 8.2212 8.2421 8.2629 8.3038 8.3440 8.3834 8.4222 8.4603 8.4977  8.5346 |
|  | | | | |

1. **MPa ( = 81**.**317**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| \*0 5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  81.317 | 0.00100018  0.00100006 0.00100032 0.00100092 0.00100182 0.00100298 0.00100439 0.00100603 0.00100787 0.00100991 0.00101213 0.00101454 0.00101711 0.00101986 0.00102276 0.00102583 0.00102905  0.00102993 | -0.04  21.02 42.02 62.98  83.91  104.82  125.73  146.62  167.52  188.42  209.32  230.24  251.16  272.09  293.03  313.99  334.96  340.49 | 0.01  21.07 42.07 63.03  83.96  104.87  125.78  146.67  167.57  188.47  209.37  230.29  251.21  272.14  293.08  314.04  335.01  340.54 | -0.00015  0.07625 0.15108 0.22446 0.29647 0.36721 0.43674 0.50511 0.57239 0.63860 0.70379 0.76801 0.83128 0.89364  0.95512  1.0158 1.0756  1.0912 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 5.0061 5.0988 5.1914 5.2840 5.3767 5.4692 5.5618 5.6544 5.7469 5.8394 5.9319 6.0244 6.1169 6.2094 6.3019 6.3943 6.4868 6.5792 6.6717 6.7641 6.8565 6.9489 7.0414 7.1338 7.3186 7.5034 7.6881 7.8729 8.0576 8.2424 8.4271 8.6118 8.7965 8.9812 9.1659 9.3506 9.5353 9.7200 9.9047 10.089 10.274 10.459 10.643 10.828 11.013 11.197 11.382 11.567  11.751 | 2765.5  2780.9  2796.1  2811.6  2827.0  2842.5  2858.1  2873.8  2889.5  2905.2  2921.0  2936.9  2952.9  2968.8  2984.9  3001.1  3017.3  3033.5  3049.9  3066.3  3082.8  3099.3  3115.9  3132.6  3166.2  3199.9  3234.1  3268.5  3303.1  3338.0  3373.2  3408.7  3444.6  3480.6  3517.0  3553.6  3590.5  3627.7  3665.2  3702.9  3741.0  3779.3  3818.0  3856.8  3896.0  3935.4  3975.0  4014.9  4055.2 | 3015.8  3035.8  3055.7  3075.8  3095.8  3116.0  3136.2  3156.5  3176.8  3197.2  3217.6  3238.1  3258.7  3279.3  3300.0  3320.8  3341.6  3362.5  3383.5  3404.5  3425.6  3446.7  3468.0  3489.3  3532.1  3575.1  3618.5  3662.1  3706.0  3750.1  3794.6  3839.3  3884.4  3929.7  3975.3  4021.1  4067.3  4113.7  4160.4  4207.4  4254.7  4302.3  4350.1  4398.2  4446.6  4495.2  4544.1  4593.3  4642.7 | 8.4313 8.4676 8.5034 8.5386 8.5734 8.6076 8.6414 8.6747 8.7076 8.7401 8.7721 8.8038 8.8350 8.8659 8.8964 8.9266 8.9564 8.9859 9.0151 9.0440 9.0726 9.1008 9.1288 9.1566 9.2112 9.2648 9.3175 9.3692 9.4201 9.4701 9.5193 9.5678 9.6155 9.6625 9.7089 9.7546 9.7998 9.8443 9.8882 9.9316 9.9745 10.017 10.059 10.100 10.141 10.181 10.221 10.261  10.300 |
| 81.317  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 3.2400 3.2754 3.3233 3.3711 3.4187 3.4661 3.5135 3.5608 3.6080 3.6551 3.7021 3.7491 3.7960 3.8429 3.8897 3.9365 3.9833 4.0300 4.0766 4.1233 4.1699 4.2165 4.2631 4.3096 4.3562 4.4492 4.5421 4.6350 4.7278 4.8206 4.9134  5.0061 | 2483.2  2488.8  2496.4  2503.9  2511.5  2519.0  2526.4  2533.9  2541.3  2548.7  2556.1  2563.5  2570.9  2578.4  2585.7  2593.2  2600.5  2607.9  2615.4  2622.7  2630.2  2637.6  2645.0  2652.5  2660.0  2674.9  2689.9  2704.9  2720.0  2735.1  2750.3  2765.5 | 2645.2  2652.6  2662.6  2672.5  2682.4  2692.3  2702.1  2711.9  2721.7  2731.5  2741.2  2751.0  2760.7  2770.5  2780.2  2790.0  2799.7  2809.4  2819.2  2828.9  2838.7  2848.4  2858.2  2868.0  2877.8  2897.4  2917.0  2936.7  2956.4  2976.1  2996.0  3015.8 | 7.5930 7.6138 7.6415 7.6686 7.6953 7.7215 7.7474 7.7728 7.7978 7.8225 7.8469 7.8710 7.8947 7.9181 7.9413 7.9642 7.9868 8.0091 8.0312 8.0531 8.0748 8.0962 8.1174 8.1384 8.1592 8.2001 8.2404 8.2799 8.3187 8.3568 8.3943  8.4313 |
|  | | | | |

1. **MPa ( = 85**.**926**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| \*0 5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  85.926 | 0.00100018 0.00100005 0.00100032 0.00100092 0.00100182 0.00100298 0.00100439 0.00100602 0.00100786 0.00100990 0.00101213 0.00101453 0.00101711 0.00101985 0.00102276 0.00102583 0.00102905 0.00103243  0.00103307 | -0.04  21.02 42.02 62.98  83.91  104.82  125.72  146.62  167.52  188.42  209.32  230.23  251.15  272.08  293.03  313.99  334.96  355.96  359.85 | 0.02  21.08 42.08 63.04  83.97  104.88  125.78  146.68  167.58  188.48  209.38  230.29  251.21  272.14  293.09  314.05  335.02  356.02  359.91 | -0.00015  0.07625 0.15108 0.22445 0.29647 0.36721 0.43674 0.50511 0.57238 0.63859 0.70379 0.76800 0.83127 0.89363  0.95512  1.0158 1.0756 1.1346  1.1454 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 4.1705 4.2478 4.3251 4.4023 4.4795 4.5567 4.6339 4.7111 4.7883 4.8654 4.9425 5.0196 5.0967 5.1738 5.2509 5.3280 5.4051 5.4821 5.5592 5.6362 5.7133 5.7903 5.8673 5.9444 6.0984 6.2524 6.4064 6.5604 6.7144 6.8684 7.0223 7.1763 7.3302 7.4841 7.6381 7.7920 7.9459 8.0998 8.2537 8.4076 8.5615 8.7154 8.8693 9.0232 9.1771 9.3310 9.4849 9.6388  9.7927 | 2765.3  2780.6  2796.0  2811.4  2826.8  2842.4  2858.0  2873.6  2889.3  2905.1  2920.8  2936.8  2952.7  2968.8  2984.8  3001.0  3017.2  3033.5  3049.7  3066.2  3082.7  3099.2  3115.9  3132.5  3166.1  3199.9  3234.0  3268.4  3303.0  3338.0  3373.2  3408.7  3444.5  3480.6  3516.9  3553.6  3590.4  3627.7  3665.2  3702.9  3741.0  3779.3  3817.9  3856.8  3895.9  3935.3  3975.0  4014.9  4055.1 | 3015.5  3035.5  3055.5  3075.5  3095.6  3115.8  3136.0  3156.3  3176.6  3197.0  3217.4  3238.0  3258.5  3279.2  3299.9  3320.7  3341.5  3362.4  3383.3  3404.4  3425.5  3446.6  3467.9  3489.2  3532.0  3575.0  3618.4  3662.0  3705.9  3750.1  3794.5  3839.3  3884.3  3929.6  3975.2  4021.1  4067.2  4113.7  4160.4  4207.4  4254.7  4302.2  4350.1  4398.2  4446.5  4495.2  4544.1  4593.2  4642.7 | 8.3467 8.3831 8.4189 8.4542 8.4889 8.5232 8.5570 8.5904 8.6232 8.6557 8.6878 8.7194 8.7507 8.7816 8.8121 8.8423 8.8721 8.9017 8.9308 8.9597 8.9883 9.0166 9.0446 9.0723 9.1270 9.1806 9.2332 9.2850 9.3358 9.3859 9.4351 9.4836 9.5313 9.5784 9.6247 9.6705 9.7156 9.7601 9.8040 9.8474 9.8903 9.9326 9.9745 10.016 10.057 10.097 10.137 10.177  10.216 |
| 85.926  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 2.7317 2.7645 2.8046 2.8445 2.8843 2.9240 2.9636 3.0031 3.0425 3.0819 3.1212 3.1604 3.1996 3.2387 3.2778 3.3169 3.3559 3.3949 3.4338 3.4728 3.5117 3.5506 3.5894 3.6283 3.7059 3.7834 3.8609 3.9384 4.0158 4.0932  4.1705 | 2489.0  2495.2  2502.8  2510.4  2518.0  2525.6  2533.1  2540.5  2547.9  2555.4  2562.8  2570.3  2577.7  2585.2  2592.6  2600.0  2607.4  2614.9  2622.4  2629.7  2637.2  2644.7  2652.1  2659.6  2674.5  2689.6  2704.6  2719.7  2734.9  2750.1  2765.3 | 2652.9  2661.1  2671.1  2681.1  2691.1  2701.0  2710.9  2720.7  2730.5  2740.3  2750.1  2759.9  2769.7  2779.5  2789.3  2799.0  2808.8  2818.6  2828.4  2838.1  2847.9  2857.7  2867.5  2877.3  2896.9  2916.6  2936.3  2956.0  2975.8  2995.7  3015.5 | 7.5311 7.5540 7.5814 7.6084 7.6348 7.6609 7.6865 7.7117 7.7365 7.7610 7.7852 7.8090 7.8326 7.8558 7.8788 7.9015 7.9239 7.9461 7.9680 7.9897 8.0112 8.0324 8.0535 8.0743 8.1153 8.1556 8.1952 8.2340 8.2722 8.3098  8.3467 |
|  | | | | |

1. **MPa ( = 89**.**932**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| \*0 5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  89.932 | 0.00100017  0.00100005 0.00100031 0.00100091 0.00100181 0.00100298 0.00100438 0.00100602 0.00100786 0.00100990 0.00101212 0.00101453 0.00101711 0.00101985 0.00102276 0.00102582 0.00102904 0.00103242  0.00103590 | -0.04  21.02 42.02 62.98  83.91  104.82  125.72  146.62  167.52  188.42  209.32  230.23  251.15  272.08  293.03  313.99  334.96  355.95  376.68 | 0.03  21.09 42.09 63.05  83.98  104.89  125.79  146.69  167.59  188.49  209.39  230.30  251.22  272.15  293.10  314.06  335.03  356.02  376.75 | -0.00015  0.07625 0.15108 0.22445 0.29647 0.36721 0.43673 0.50511 0.57238 0.63859 0.70378 0.76800 0.83127 0.89363  0.95511  1.0157 1.0756 1.1346  1.1921 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 3.5736 3.6400 3.7062 3.7725 3.8387 3.9050 3.9712 4.0373 4.1035 4.1697 4.2358 4.3019 4.3680 4.4341 4.5002 4.5663 4.6324 4.6985 4.7645 4.8306 4.8966 4.9627 5.0287 5.0948 5.2268 5.3589 5.4909 5.6229 5.7549 5.8869 6.0189 6.1509 6.2828 6.4148 6.5467 6.6787 6.8106 6.9426 7.0745 7.2064 7.3384 7.4703 7.6022 7.7341 7.8660 7.9979 8.1298 8.2617  8.3937 | 2765.1  2780.4  2795.8  2811.2  2826.7  2842.3  2857.8  2873.5  2889.2  2904.9  2920.8  2936.7  2952.6  2968.6  2984.7  3000.9  3017.0  3033.4  3049.7  3066.2  3082.6  3099.1  3115.8  3132.5  3166.0  3199.8  3233.9  3268.3  3303.0  3337.9  3373.2  3408.6  3444.4  3480.5  3516.8  3553.5  3590.5  3627.6  3665.1  3702.9  3740.9  3779.3  3817.8  3856.7  3895.9  3935.2  3974.9  4014.9  4055.0 | 3015.3  3035.2  3055.2  3075.3  3095.4  3115.6  3135.8  3156.1  3176.4  3196.8  3217.3  3237.8  3258.4  3279.0  3299.7  3320.5  3341.3  3362.3  3383.2  3404.3  3425.4  3446.5  3467.8  3489.1  3531.9  3574.9  3618.3  3661.9  3705.8  3750.0  3794.5  3839.2  3884.2  3929.5  3975.1  4021.0  4067.2  4113.6  4160.3  4207.3  4254.6  4302.2  4350.0  4398.1  4446.5  4495.1  4544.0  4593.2  4642.6 | 8.2752 8.3116 8.3474 8.3827 8.4175 8.4518 8.4856 8.5190 8.5519 8.5844 8.6164 8.6481 8.6794 8.7103 8.7408 8.7710 8.8009 8.8304 8.8596 8.8885 8.9170 8.9453 8.9733 9.0011 9.0557 9.1094 9.1620 9.2138 9.2646 9.3147 9.3639 9.4124 9.4601 9.5072 9.5535 9.5993 9.6444 9.6889 9.7329 9.7763 9.8191 9.8615 9.9033 9.9447 9.9855 10.026 10.066 10.106  10.145 |
| 89.932  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 2.3648 2.3653 2.3999 2.4343 2.4687 2.5029 2.5370 2.5710 2.6049 2.6388 2.6726 2.7064 2.7401 2.7737 2.8073 2.8409 2.8744 2.9079 2.9414 2.9748 3.0082 3.0416 3.0750 3.1083 3.1750 3.2415 3.3080 3.3745 3.4409 3.5073  3.5736 | 2493.9  2494.0  2501.7  2509.4  2517.0  2524.6  2532.2  2539.7  2547.3  2554.8  2562.2  2569.7  2577.2  2584.6  2592.1  2599.5  2607.0  2614.4  2621.9  2629.4  2636.8  2644.3  2651.8  2659.2  2674.3  2689.3  2704.3  2719.5  2734.6  2749.9  2765.1 | 2659.4  2659.6  2669.7  2679.8  2689.8  2699.8  2709.8  2719.7  2729.6  2739.5  2749.3  2759.1  2769.0  2778.8  2788.6  2798.4  2808.2  2818.0  2827.8  2837.6  2847.4  2857.2  2867.0  2876.8  2896.5  2916.2  2935.9  2955.7  2975.5  2995.4  3015.3 | 7.4790 7.4794 7.5072 7.5344 7.5611 7.5874 7.6132 7.6385 7.6635 7.6882 7.7124 7.7364 7.7600 7.7834 7.8064 7.8292 7.8517 7.8739 7.8959 7.9177 7.9392 7.9605 7.9815 8.0024 8.0435 8.0839 8.1235 8.1624 8.2006 8.2382  8.2752 |
|  | | | | |

1. **MPa ( = 93**.**486**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| \*0 5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  93.486 | 0.00100017 0.00100004 0.00100031 0.00100091 0.00100181 0.00100297 0.00100438 0.00100601 0.00100785 0.00100989 0.00101212 0.00101452 0.00101710 0.00101984 0.00102275 0.00102582 0.00102904 0.00103242 0.00103595  0.00103850 | -0.04  21.02 42.02 62.98  83.91  104.82  125.72  146.62  167.52  188.42  209.32  230.23  251.15  272.08  293.03  313.98  334.96  355.95  376.97  391.63 | 0.04  21.10 42.10 63.06  83.99  104.90  125.80  146.70  167.60  188.50  209.40  230.31  251.23  272.16  293.11  314.06  335.04  356.03  377.05  391.71 | -0.00015  0.07625 0.15108 0.22445 0.29647 0.36721 0.43673 0.50510 0.57237 0.63858 0.70378 0.76799 0.83126 0.89362  0.95510  1.0157 1.0756 1.1346 1.1929  1.2330 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 3.1260 3.1841 3.2421 3.3001 3.3581 3.4161 3.4741 3.5320 3.5899 3.6478 3.7057 3.7636 3.8215 3.8794 3.9372 3.9951 4.0529 4.1107 4.1686 4.2264 4.2842 4.3420 4.3998 4.4576 4.5732 4.6887 4.8043 4.9198 5.0353 5.1508 5.2663 5.3818 5.4973 5.6128 5.7283 5.8437 5.9592 6.0746 6.1901 6.3055 6.4210 6.5364 6.6518 6.7673 6.8827 6.9981 7.1136 7.2290  7.3444 | 2764.9  2780.2  2795.6  2811.0  2826.5  2842.0  2857.7  2873.3  2889.0  2904.8  2920.6  2936.5  2952.5  2968.5  2984.6  3000.8  3017.0  3033.2  3049.6  3066.0  3082.5  3099.0  3115.6  3132.3  3165.9  3199.7  3233.9  3268.2  3302.9  3337.8  3373.1  3408.6  3444.4  3480.5  3516.8  3553.5  3590.4  3627.6  3665.1  3702.9  3740.9  3779.2  3817.9  3856.7  3895.9  3935.3  3974.9  4014.9  4055.0 | 3015.0  3034.9  3055.0  3075.0  3095.1  3115.3  3135.6  3155.9  3176.2  3196.6  3217.1  3237.6  3258.2  3278.9  3299.6  3320.4  3341.2  3362.1  3383.1  3404.1  3425.2  3446.4  3467.6  3488.9  3531.8  3574.8  3618.2  3661.8  3705.7  3749.9  3794.4  3839.1  3884.2  3929.5  3975.1  4021.0  4067.1  4113.6  4160.3  4207.3  4254.6  4302.1  4350.0  4398.1  4446.5  4495.1  4544.0  4593.2  4642.6 | 8.2131 8.2496 8.2854 8.3208 8.3556 8.3899 8.4237 8.4571 8.4900 8.5225 8.5546 8.5863 8.6176 8.6485 8.6790 8.7092 8.7391 8.7686 8.7978 8.8267 8.8553 8.8836 8.9116 8.9393 8.9940 9.0476 9.1003 9.1521 9.2029 9.2530 9.3022 9.3507 9.3984 9.4455 9.4919 9.5376 9.5827 9.6273 9.6712 9.7146 9.7575 9.7998 9.8416 9.8830 9.9239 9.9643 10.004 10.044  10.083 |
| 93.486  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 2.0871 2.0963 2.1267 2.1569 2.1870 2.2170 2.2469 2.2768 2.3065 2.3362 2.3658 2.3954 2.4249 2.4544 2.4839 2.5133 2.5427 2.5720 2.6013 2.6306 2.6599 2.6891 2.7184 2.7768 2.8351 2.8934 2.9516 3.0098 3.0679  3.1260 | 2498.2  2500.6  2508.4  2516.0  2523.7  2531.3  2538.9  2546.5  2554.1  2561.6  2569.0  2576.6  2584.1  2591.5  2599.0  2606.5  2614.0  2621.4  2629.0  2636.5  2643.9  2651.4  2658.9  2674.0  2689.0  2704.0  2719.2  2734.4  2749.6  2764.9 | 2665.2  2668.3  2678.5  2688.6  2698.7  2708.7  2718.7  2728.6  2738.6  2748.5  2758.3  2768.2  2778.1  2787.9  2797.7  2807.6  2817.4  2827.2  2837.1  2846.9  2856.7  2866.5  2876.4  2896.1  2915.8  2935.5  2955.3  2975.2  2995.0  3015.0 | 7.4339 7.4424 7.4699 7.4969 7.5233 7.5493 7.5749 7.6000 7.6248 7.6492 7.6733 7.6970 7.7204 7.7435 7.7664 7.7889 7.8113 7.8333 7.8551 7.8767 7.8980 7.9191 7.9400 7.9812 8.0216 8.0613 8.1002 8.1385 8.1761  8.2131 |
|  | | | | |

1. **MPa ( = 96**.**687**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| \*0 5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  96.687 | 0.00100016  0.00100004 0.00100030 0.00100090 0.00100180 0.00100297 0.00100437 0.00100601 0.00100785 0.00100989 0.00101211 0.00101452 0.00101710 0.00101984 0.00102275 0.00102581 0.00102903 0.00103241 0.00103594 0.00103963  0.00104091 | -0.04  21.02 42.02 62.98  83.91  104.82  125.72  146.62  167.52  188.42  209.32  230.23  251.15  272.08  293.02  313.98  334.96  355.95  376.96  398.00  405.11 | 0.05  21.11 42.11 63.07  84.00  104.91  125.81  146.71  167.61  188.51  209.41  230.32  251.24  272.17  293.11  314.07  335.05  356.04  377.05  398.09  405.20 | -0.00015  0.07625 0.15108 0.22445 0.29647 0.36720 0.43673 0.50510 0.57237 0.63858 0.70377 0.76799 0.83126 0.89362  0.95510  1.0157 1.0756 1.1346 1.1929 1.2504  1.2696 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 2.7779 2.8295 2.8811 2.9328 2.9843 3.0359 3.0875 3.1390 3.1905 3.2420 3.2935 3.3450 3.3964 3.4479 3.4993 3.5508 3.6022 3.6536 3.7050 3.7564 3.8078 3.8592 3.9106 3.9620 4.0648 4.1675 4.2702 4.3729 4.4756 4.5783 4.6810 4.7837 4.8863 4.9890 5.0916 5.1943 5.2969 5.3996 5.5022 5.6048 5.7074 5.8101 5.9127 6.0153 6.1179 6.2205 6.3231 6.4257  6.5283 | 2764.7  2780.0  2795.4  2810.8  2826.3  2841.9  2857.5  2873.2  2888.9  2904.6  2920.5  2936.4  2952.4  2968.4  2984.5  3000.6  3016.9  3033.2  3049.6  3065.9  3082.4  3099.0  3115.5  3132.2  3165.9  3199.6  3233.8  3268.1  3302.9  3337.8  3373.0  3408.6  3444.3  3480.4  3516.8  3553.4  3590.4  3627.5  3665.1  3702.9  3740.8  3779.2  3817.8  3856.6  3895.8  3935.3  3974.9  4014.9  4055.1 | 3014.7  3034.7  3054.7  3074.8  3094.9  3115.1  3135.4  3155.7  3176.0  3196.4  3216.9  3237.5  3258.1  3278.7  3299.4  3320.2  3341.1  3362.0  3383.0  3404.0  3425.1  3446.3  3467.5  3488.8  3531.7  3574.7  3618.1  3661.7  3705.7  3749.8  3794.3  3839.1  3884.1  3929.4  3975.0  4020.9  4067.1  4113.5  4160.3  4207.3  4254.5  4302.1  4349.9  4398.0  4446.4  4495.1  4544.0  4593.2  4642.6 | 8.1584 8.1949 8.2307 8.2661 8.3009 8.3353 8.3691 8.4025 8.4354 8.4679 8.5000 8.5317 8.5630 8.5939 8.6245 8.6547 8.6846 8.7141 8.7433 8.7722 8.8008 8.8291 8.8571 8.8849 8.9396 8.9932 9.0459 9.0976 9.1485 9.1986 9.2478 9.2963 9.3440 9.3911 9.4375 9.4832 9.5283 9.5729 9.6168 9.6602 9.7031 9.7454 9.7873 9.8286 9.8695 9.9099 9.9499 9.9895  10.029 |
| 96.687  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 1.8694 1.8874 1.9144 1.9413 1.9681 1.9948 2.0215 2.0480 2.0745 2.1010 2.1273 2.1537 2.1800 2.2062 2.2324 2.2586 2.2847 2.3109 2.3369 2.3630 2.3891 2.4151 2.4671 2.5190 2.5708 2.6227 2.6744 2.7262  2.7779 | 2502.1  2507.2  2515.1  2522.8  2530.5  2538.2  2545.8  2553.4  2560.9  2568.4  2575.9  2583.5  2591.0  2598.5  2606.0  2613.5  2621.1  2628.5  2636.1  2643.5  2651.1  2658.5  2673.6  2688.7  2703.8  2719.0  2734.1  2749.3  2764.7 | 2670.3  2677.1  2687.4  2697.5  2707.6  2717.7  2727.7  2737.7  2747.6  2757.5  2767.4  2777.3  2787.2  2797.1  2806.9  2816.8  2826.7  2836.5  2846.4  2856.2  2866.1  2875.9  2895.6  2915.4  2935.2  2955.0  2974.8  2994.7  3014.7 | 7.3943 7.4126 7.4399 7.4665 7.4927 7.5185 7.5438 7.5687 7.5932 7.6174 7.6412 7.6647 7.6879 7.7108 7.7335 7.7559 7.7780 7.7998 7.8214 7.8428 7.8640 7.8849 7.9262 7.9667 8.0064 8.0454 8.0837 8.1213  8.1584 |
|  | | | | |

1. **MPa ( = 99**.**606**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| \*0 5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  99.606 | 0.00100016 0.00100003 0.00100030 0.00100090 0.00100180 0.00100296 0.00100437 0.00100600 0.00100785 0.00100988 0.00101211 0.00101452 0.00101709 0.00101984 0.00102274 0.00102581 0.00102903 0.00103241 0.00103594 0.00103962  0.00104315 | -0.04  21.02 42.02 62.98  83.91  104.82  125.72  146.62  167.52  188.41  209.32  230.23  251.15  272.08  293.02  313.98  334.95  355.95  376.96  398.00  417.40 | 0.06  21.12 42.12 63.08  84.01  104.92  125.82  146.72  167.62  188.51  209.42  230.33  251.25  272.18  293.12  314.08  335.05  356.05  377.06  398.10  417.50 | -0.00015  0.07625 0.15108 0.22445 0.29646 0.36720 0.43673 0.50510 0.57237 0.63858 0.70377 0.76798 0.83125 0.89361  0.95509  1.0157 1.0755 1.1346 1.1928 1.2504  1.3028 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 2.4993 2.5459 2.5924 2.6388 2.6853 2.7317 2.7782 2.8246 2.8710 2.9173 2.9637 3.0100 3.0564 3.1027 3.1490 3.1953 3.2416 3.2879 3.3342 3.3805 3.4267 3.4730 3.5193 3.5655 3.6580 3.7505 3.8430 3.9354 4.0279 4.1203 4.2127 4.3052 4.3976 4.4900 4.5824 4.6747 4.7671 4.8595 4.9519 5.0443 5.1366 5.2290 5.3213 5.4137 5.5061 5.5984 5.6908 5.7831  5.8754 | 2764.5  2779.8  2795.2  2810.6  2826.2  2841.7  2857.3  2873.0  2888.7  2904.6  2920.3  2936.3  2952.3  2968.3  2984.4  3000.6  3016.7  3033.1  3049.4  3065.8  3082.3  3098.9  3115.5  3132.1  3165.8  3199.6  3233.7  3268.2  3302.8  3337.8  3373.0  3408.5  3444.2  3480.4  3516.8  3553.4  3590.3  3627.6  3665.0  3702.8  3740.8  3779.2  3817.8  3856.6  3895.8  3935.2  3974.8  4014.8  4055.1 | 3014.4  3034.4  3054.4  3074.5  3094.7  3114.9  3135.1  3155.5  3175.8  3196.3  3216.7  3237.3  3257.9  3278.6  3299.3  3320.1  3340.9  3361.9  3382.8  3403.9  3425.0  3446.2  3467.4  3488.7  3531.6  3574.7  3618.0  3661.7  3705.6  3749.8  3794.3  3839.0  3884.0  3929.4  3975.0  4020.9  4067.0  4113.5  4160.2  4207.2  4254.5  4302.1  4349.9  4398.0  4446.4  4495.0  4543.9  4593.1  4642.6 | 8.1094 8.1459 8.1818 8.2172 8.2520 8.2864 8.3202 8.3536 8.3866 8.4191 8.4512 8.4829 8.5142 8.5452 8.5757 8.6059 8.6358 8.6653 8.6946 8.7235 8.7521 8.7804 8.8084 8.8361 8.8908 8.9445 8.9972 9.0489 9.0998 9.1499 9.1991 9.2476 9.2954 9.3424 9.3888 9.4345 9.4797 9.5242 9.5681 9.6115 9.6544 9.6968 9.7386 9.7800 9.8209 9.8613 9.9013 9.9408  9.9800 |
| 99.606  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 1.6939 1.6959 1.7204 1.7447 1.7690 1.7932 1.8172 1.8412 1.8652 1.8891 1.9129 1.9367 1.9604 1.9841 2.0077 2.0313 2.0549 2.0785 2.1020 2.1255 2.1490 2.1724 2.2193 2.2661 2.3128 2.3595 2.4062 2.4528  2.4993 | 2505.5  2506.2  2514.1  2521.8  2529.6  2537.3  2545.0  2552.6  2560.2  2567.8  2575.4  2582.9  2590.5  2598.0  2605.5  2613.1  2620.6  2628.1  2635.6  2643.1  2650.7  2658.3  2673.3  2688.4  2703.5  2718.7  2733.9  2749.1  2764.5 | 2674.9  2675.8  2686.1  2696.3  2706.5  2716.6  2726.7  2736.7  2746.7  2756.7  2766.7  2776.6  2786.5  2796.4  2806.3  2816.2  2826.1  2836.0  2845.8  2855.7  2865.6  2875.5  2895.2  2915.0  2934.8  2954.6  2974.5  2994.4  3014.4 | 7.3588 7.3610 7.3885 7.4155 7.4418 7.4678 7.4932 7.5183 7.5429 7.5672 7.5911 7.6148 7.6380 7.6610 7.6838 7.7062 7.7284 7.7503 7.7719 7.7934 7.8146 7.8356 7.8769 7.9174 7.9572 7.9962 8.0346 8.0723  8.1094 |
|  | | | | |

1. **MPa ( = 102**.**292**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| \*0 5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  102.292 | 0.00100015 0.00100003 0.00100029 0.00100089 0.00100179 0.00100296 0.00100437 0.00100600 0.00100784 0.00100988 0.00101211 0.00101451 0.00101709 0.00101983 0.00102274 0.00102580 0.00102902 0.00103240 0.00103593 0.00103962 0.00104346  0.00104527 | -0.04  21.02 42.02 62.98  83.91  104.82  125.72  146.62  167.51  188.41  209.32  230.23  251.15  272.08  293.02  313.98  334.95  355.95  376.96  398.00  419.06  428.73 | 0.07  21.13 42.13 63.09  84.02  104.93  125.83  146.73  167.62  188.52  209.43  230.34  251.26  272.19  293.13  314.09  335.06  356.06  377.07  398.11  419.17  428.84 | -0.00015  0.07625 0.15108 0.22445 0.29646 0.36720 0.43672 0.50509 0.57236 0.63857 0.70376 0.76798 0.83125 0.89360  0.95509  1.0157 1.0755 1.1346 1.1928  1.2504  1.3072  1.3330 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 2.2714 2.3138 2.3561 2.3984 2.4406 2.4829 2.5251 2.5673 2.6095 2.6517 2.6938 2.7360 2.7781 2.8203 2.8624 2.9045 2.9466 2.9887 3.0308 3.0729 3.1149 3.1570 3.1991 3.2411 3.3253 3.4093 3.4934 3.5775 3.6615 3.7456 3.8296 3.9136 3.9977 4.0817 4.1657 4.2497 4.3337 4.4177 4.5016 4.5856 4.6696 4.7536 4.8375 4.9215 5.0055 5.0894 5.1734 5.2573  5.3413 | 2764.2  2779.6  2795.0  2810.5  2826.0  2841.6  2857.1  2872.9  2888.6  2904.4  2920.3  2936.1  2952.1  2968.2  2984.2  3000.4  3016.7  3032.9  3049.3  3065.8  3082.3  3098.8  3115.4  3132.1  3165.7  3199.6  3233.6  3268.1  3302.7  3337.7  3372.9  3408.4  3444.3  3480.3  3516.7  3553.3  3590.3  3627.5  3665.0  3702.8  3740.8  3779.1  3817.8  3856.6  3895.8  3935.2  3974.8  4014.8  4055.0 | 3014.1  3034.1  3054.2  3074.3  3094.5  3114.7  3134.9  3155.3  3175.6  3196.1  3216.6  3237.1  3257.7  3278.4  3299.1  3319.9  3340.8  3361.7  3382.7  3403.8  3424.9  3446.1  3467.3  3488.6  3531.5  3574.6  3617.9  3661.6  3705.5  3749.7  3794.2  3838.9  3884.0  3929.3  3974.9  4020.8  4067.0  4113.4  4160.2  4207.2  4254.5  4302.0  4349.9  4398.0  4446.4  4495.0  4543.9  4593.1  4642.5 | 8.0650 8.1015 8.1374 8.1729 8.2077 8.2421 8.2760 8.3094 8.3424 8.3749 8.4070 8.4387 8.4701 8.5010 8.5316 8.5618 8.5917 8.6212 8.6504 8.6794 8.7080 8.7363 8.7643 8.7921 8.8467 8.9004 8.9531 9.0049 9.0558 9.1058 9.1551 9.2036 9.2513 9.2984 9.3448 9.3905 9.4356 9.4802 9.5241 9.5675 9.6104 9.6527 9.6946 9.7360 9.7768 9.8173 9.8573 9.8968  9.9360 |
| 102.292  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 1.5495 1.5616 1.5839 1.6061 1.6281 1.6501 1.6720 1.6939 1.7157 1.7374 1.7591 1.7807 1.8023 1.8239 1.8454 1.8669 1.8883 1.9098 1.9312 1.9525 1.9739 2.0166 2.0592 2.1017 2.1442 2.1867 2.2291  2.2714 | 2508.8  2513.0  2521.0  2528.7  2536.5  2544.2  2551.9  2559.6  2567.2  2574.8  2582.4  2589.9  2597.5  2605.1  2612.6  2620.1  2627.7  2635.2  2642.8  2650.3  2657.9  2673.0  2688.1  2703.2  2718.4  2733.7  2748.9  2764.2 | 2679.2  2684.8  2695.2  2705.4  2715.6  2725.7  2735.8  2745.9  2755.9  2765.9  2775.9  2785.8  2795.8  2805.7  2815.6  2825.5  2835.4  2845.3  2855.2  2865.1  2875.0  2894.8  2914.6  2934.4  2954.3  2974.2  2994.1  3014.1 | 7.3269 7.3418 7.3690 7.3956 7.4217 7.4473 7.4725 7.4973 7.5217 7.5457 7.5694 7.5928 7.6159 7.6387 7.6612 7.6834 7.7054 7.7271 7.7486 7.7698 7.7908 7.8322 7.8728 7.9126 7.9517 7.9901 8.0279  8.0650 |
|  | | | | |

1. **MPa ( = 104**.**784**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| \*0 5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  104.784 | 0.00100015 0.00100002 0.00100029 0.00100089 0.00100179 0.00100295 0.00100436 0.00100599 0.00100784 0.00100988 0.00101210 0.00101451 0.00101708 0.00101983 0.00102273 0.00102580 0.00102902 0.00103240 0.00103593 0.00103961 0.00104345  0.00104727 | -0.04  21.02 42.02 62.97  83.90  104.82  125.72  146.62  167.51  188.41  209.31  230.22  251.14  272.07  293.02  313.98  334.95  355.94  376.96  398.00  419.05  439.23 | 0.08  21.14 42.14 63.09  84.02  104.94  125.84  146.74  167.63  188.53  209.43  230.34  251.26  272.19  293.14  314.10  335.07  356.06  377.08  398.12  419.18  439.36 | -0.00015  0.07625 0.15108 0.22445 0.29646 0.36719 0.43672 0.50509 0.57236 0.63857 0.70376 0.76797 0.83124 0.89360  0.95508  1.0157 1.0755 1.1346 1.1928 1.2504 1.3072  1.3609 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 2.0815 2.1204 2.1592 2.1980 2.2367 2.2755 2.3142 2.3529 2.3916 2.4303 2.4690 2.5076 2.5463 2.5849 2.6235 2.6621 2.7008 2.7394 2.7779 2.8165 2.8551 2.8937 2.9323 2.9708 3.0479 3.1250 3.2021 3.2792 3.3563 3.4333 3.5104 3.5874 3.6644 3.7414 3.8184 3.8954 3.9724 4.0494 4.1264 4.2034 4.2804 4.3574 4.4343 4.5113 4.5883 4.6653 4.7422 4.8192  4.8961 | 2764.0  2779.4  2794.8  2810.2  2825.8  2841.3  2857.0  2872.8  2888.4  2904.3  2920.1  2936.1  2952.0  2968.1  2984.2  3000.3  3016.6  3032.9  3049.3  3065.6  3082.2  3098.8  3115.3  3132.0  3165.7  3199.5  3233.5  3268.0  3302.6  3337.6  3372.9  3408.4  3444.2  3480.3  3516.7  3553.4  3590.2  3627.5  3664.9  3702.7  3740.8  3779.1  3817.7  3856.5  3895.7  3935.2  3974.8  4014.8  4055.0 | 3013.8  3033.8  3053.9  3074.0  3094.2  3114.4  3134.7  3155.1  3175.4  3195.9  3216.4  3237.0  3257.6  3278.3  3299.0  3319.8  3340.7  3361.6  3382.6  3403.6  3424.8  3446.0  3467.2  3488.5  3531.4  3574.5  3617.8  3661.5  3705.4  3749.6  3794.1  3838.9  3883.9  3929.3  3974.9  4020.8  4066.9  4113.4  4160.1  4207.1  4254.4  4302.0  4349.8  4397.9  4446.3  4495.0  4543.9  4593.1  4642.5 | 8.0244 8.0610 8.0970 8.1324 8.1673 8.2017 8.2356 8.2690 8.3020 8.3345 8.3667 8.3984 8.4297 8.4607 8.4913 8.5215 8.5514 8.5809 8.6102 8.6391 8.6677 8.6960 8.7240 8.7518 8.8065 8.8602 8.9129 8.9646 9.0155 9.0656 9.1149 9.1633 9.2111 9.2582 9.3046 9.3503 9.3954 9.4400 9.4839 9.5273 9.5702 9.6126 9.6544 9.6958 9.7367 9.7771 9.8171 9.8567  9.8958 |
| 104.784  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 1.4284 1.4293 1.4498 1.4703 1.4906 1.5109 1.5310 1.5511 1.5712 1.5912 1.6111 1.6310 1.6508 1.6706 1.6904 1.7102 1.7299 1.7496 1.7692 1.7888 1.8085 1.8476 1.8867 1.9258 1.9648 2.0037 2.0427  2.0815 | 2511.7  2512.0  2519.9  2527.9  2535.7  2543.5  2551.2  2558.9  2566.6  2574.2  2581.8  2589.4  2597.0  2604.5  2612.2  2619.7  2627.3  2634.8  2642.4  2649.9  2657.5  2672.6  2687.8  2703.0  2718.1  2733.5  2748.7  2764.0 | 2683.1  2683.5  2693.9  2704.3  2714.6  2724.8  2734.9  2745.0  2755.1  2765.1  2775.1  2785.1  2795.1  2805.0  2815.0  2824.9  2834.9  2844.8  2854.7  2864.6  2874.5  2894.3  2914.2  2934.1  2953.9  2973.9  2993.8  3013.8 | 7.2977 7.2989 7.3263 7.3531 7.3794 7.4052 7.4305 7.4554 7.4800 7.5041 7.5279 7.5514 7.5745 7.5974 7.6199 7.6422 7.6643 7.6860 7.7076 7.7289 7.7499 7.7914 7.8320 7.8719 7.9111 7.9495 7.9873  8.0244 |
|  | | | | |

1. **MPa ( = 107**.**109**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| \*0 5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  107.109 | 0.00100014 0.00100002 0.00100028 0.00100088 0.00100178 0.00100295 0.00100436 0.00100599 0.00100783 0.00100987 0.00101210 0.00101450 0.00101708 0.00101982 0.00102273 0.00102579 0.00102901 0.00103239 0.00103592 0.00103961 0.00104345 0.00104744  0.00104917 | -0.04  21.02 42.02 62.97  83.90  104.82  125.72  146.62  167.51  188.41  209.31  230.22  251.14  272.07  293.02  313.97  334.95  355.94  376.96  397.98  419.05  440.14  449.05 | 0.09  21.15 42.15 63.10  84.03  104.95  125.85  146.75  167.64  188.54  209.44  230.35  251.27  272.20  293.15  314.10  335.08  356.07  377.09  398.12  419.19  440.28  449.19 | -0.00015  0.07625 0.15107 0.22444 0.29646 0.36719 0.43672 0.50509 0.57235 0.63856 0.70375 0.76797 0.83123 0.89359  0.95507  1.0157 1.0755 1.1346 1.1928  1.2504 1.3072  1.3633  1.3868 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 1.9208 1.9567 1.9926 2.0284 2.0642 2.1000 2.1358 2.1715 2.2073 2.2430 2.2787 2.3144 2.3501 2.3858 2.4214 2.4571 2.4927 2.5284 2.5640 2.5996 2.6353 2.6709 2.7065 2.7421 2.8133 2.8845 2.9556 3.0268 3.0979 3.1691 3.2402 3.3113 3.3824 3.4535 3.5246 3.5957 3.6668 3.7379 3.8089 3.8800 3.9511 4.0221 4.0932 4.1642 4.2353 4.3064 4.3774 4.4484  4.5195 | 2763.8  2779.2  2794.7  2810.1  2825.7  2841.2  2856.8  2872.6  2888.4  2904.1  2920.0  2935.9  2951.9  2967.9  2984.0  3000.3  3016.4  3032.8  3049.2  3065.6  3082.0  3098.6  3115.3  3131.9  3165.6  3199.4  3233.6  3267.9  3302.6  3337.6  3372.8  3408.3  3444.2  3480.2  3516.6  3553.3  3590.2  3627.4  3664.9  3702.7  3740.8  3779.0  3817.7  3856.6  3895.7  3935.1  3974.8  4014.7  4055.0 | 3013.5  3033.6  3053.7  3073.8  3094.0  3114.2  3134.5  3154.9  3175.3  3195.7  3216.2  3236.8  3257.4  3278.1  3298.8  3319.7  3340.5  3361.5  3382.5  3403.5  3424.6  3445.8  3467.1  3488.4  3531.3  3574.4  3617.8  3661.4  3705.3  3749.6  3794.0  3838.8  3883.9  3929.2  3974.8  4020.7  4066.9  4113.3  4160.1  4207.1  4254.4  4301.9  4349.8  4397.9  4446.3  4494.9  4543.9  4593.0  4642.5 | 7.9871 8.0237 8.0597 8.0951 8.1300 8.1644 8.1984 8.2318 8.2648 8.2974 8.3295 8.3613 8.3926 8.4236 8.4542 8.4844 8.5143 8.5439 8.5731 8.6020 8.6306 8.6590 8.6870 8.7148 8.7695 8.8231 8.8759 8.9276 8.9785 9.0286 9.0779 9.1264 9.1741 9.2212 9.2676 9.3133 9.3585 9.4030 9.4470 9.4904 9.5332 9.5756 9.6174 9.6588 9.6997 9.7401 9.7801 9.8197  9.8588 |
| 107.109  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 1.3253 1.3364 1.3553 1.3742 1.3930 1.4117 1.4303 1.4489 1.4674 1.4859 1.5043 1.5227 1.5410 1.5593 1.5776 1.5958 1.6140 1.6322 1.6503 1.6685 1.7047 1.7408 1.7769 1.8130 1.8490 1.8849  1.9208 | 2514.3  2519.0  2527.0  2534.9  2542.7  2550.5  2558.2  2565.9  2573.5  2581.2  2588.8  2596.4  2604.1  2611.7  2619.2  2626.8  2634.4  2642.0  2649.6  2657.1  2672.3  2687.5  2702.7  2717.9  2733.1  2748.5  2763.8 | 2686.6  2692.7  2703.2  2713.5  2723.8  2734.0  2744.1  2754.3  2764.3  2774.4  2784.4  2794.4  2804.4  2814.4  2824.3  2834.3  2844.2  2854.2  2864.1  2874.0  2893.9  2913.8  2933.7  2953.6  2973.5  2993.5  3013.5 | 7.2709 7.2868 7.3138 7.3403 7.3663 7.3917 7.4168 7.4414 7.4657 7.4896 7.5132 7.5364 7.5593 7.5819 7.6043 7.6264 7.6482 7.6698 7.6911 7.7122 7.7538 7.7945 7.8344 7.8736 7.9121 7.9499  7.9871 |
|  | | | | |

1. **MPa ( = 109**.**292**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  109.292 | 0.00100014 0.00100001 0.00100028 0.00100088 0.00100178 0.00100294 0.00100435 0.00100599 0.00100783 0.00100987 0.00101209 0.00101450 0.00101707 0.00101982 0.00102272 0.00102579 0.00102901 0.00103239 0.00103592 0.00103960 0.00104344 0.00104743  0.00105099 | -0.04  21.02 42.02 62.97  83.90  104.82  125.72  146.61  167.51  188.41  209.31  230.22  251.14  272.07  293.01  313.97  334.95  355.94  376.94  397.98  419.05  440.14  458.27 | 0.10  21.16 42.16 63.11  84.04  104.96  125.86  146.75  167.65  188.55  209.45  230.36  251.28  272.21  293.15  314.11  335.09  356.08  377.09  398.13  419.20  440.29  458.42 | -0.00015  0.07625 0.15107 0.22444 0.29645 0.36719 0.43671 0.50508 0.57235 0.63856 0.70375 0.76796 0.83123 0.89359  0.95507  1.0157 1.0755 1.1345 1.1928 1.2504 1.3072 1.3633  1.4110 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 1.7831 1.8164 1.8498 1.8831 1.9163 1.9496 1.9828 2.0160 2.0492 2.0824 2.1156 2.1488 2.1819 2.2151 2.2482 2.2813 2.3144 2.3475 2.3806 2.4137 2.4468 2.4799 2.5130 2.5460 2.6122 2.6783 2.7444 2.8105 2.8765 2.9426 3.0086 3.0747 3.1407 3.2067 3.2728 3.3388 3.4048 3.4708 3.5368 3.6028 3.6688 3.7348 3.8008 3.8668 3.9327 3.9987 4.0647 4.1307  4.1966 | 2763.6  2779.0  2794.4  2809.9  2825.4  2841.1  2856.7  2872.5  2888.2  2904.0  2919.8  2935.8  2951.8  2967.8  2984.0  3000.1  3016.4  3032.6  3049.0  3065.5  3081.9  3098.5  3115.2  3131.9  3165.5  3199.3  3233.5  3267.8  3302.6  3337.5  3372.8  3408.2  3444.1  3480.2  3516.6  3553.2  3590.1  3627.4  3664.8  3702.6  3740.7  3779.0  3817.6  3856.5  3895.6  3935.1  3974.7  4014.7  4054.9 | 3013.2  3033.3  3053.4  3073.5  3093.7  3114.0  3134.3  3154.7  3175.1  3195.5  3216.0  3236.6  3257.3  3277.9  3298.7  3319.5  3340.4  3361.3  3382.3  3403.4  3424.5  3445.7  3467.0  3488.3  3531.2  3574.3  3617.7  3661.3  3705.3  3749.5  3794.0  3838.7  3883.8  3929.1  3974.8  4020.6  4066.8  4113.3  4160.0  4207.0  4254.3  4301.9  4349.7  4397.9  4446.2  4494.9  4543.8  4593.0  4642.4 | 7.9525 7.9891 8.0251 8.0606 8.0955 8.1300 8.1639 8.1974 8.2304 8.2630 8.2951 8.3269 8.3582 8.3892 8.4198 8.4500 8.4799 8.5095 8.5388 8.5677 8.5963 8.6246 8.6527 8.6804 8.7352 8.7889 8.8416 8.8934 8.9443 8.9943 9.0436 9.0921 9.1399 9.1869 9.2333 9.2791 9.3242 9.3688 9.4127 9.4561 9.4990 9.5414 9.5832 9.6246 9.6655 9.7059 9.7459 9.7855  9.8246 |
| 109.292  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 1.2366 1.2391 1.2568 1.2745 1.2920 1.3094 1.3268 1.3441 1.3613 1.3785 1.3957 1.4128 1.4299 1.4469 1.4639 1.4809 1.4978 1.5147 1.5316 1.5485 1.5822 1.6158 1.6493 1.6828 1.7163 1.7497  1.7831 | 2516.9  2518.0  2526.0  2534.0  2541.9  2549.7  2557.5  2565.2  2573.0  2580.6  2588.3  2596.0  2603.6  2611.2  2618.9  2626.4  2634.0  2641.6  2649.2  2656.8  2672.0  2687.2  2702.4  2717.6  2732.9  2748.2  2763.6 | 2690.0  2691.5  2702.0  2712.4  2722.8  2733.0  2743.3  2753.4  2763.6  2773.6  2783.7  2793.8  2803.8  2813.8  2823.8  2833.7  2843.7  2853.7  2863.6  2873.6  2893.5  2913.4  2933.3  2953.2  2973.2  2993.2  3013.2 | 7.2461 7.2500 7.2773 7.3039 7.3301 7.3557 7.3809 7.4057 7.4300 7.4540 7.4777 7.5010 7.5240 7.5467 7.5691 7.5912 7.6131 7.6347 7.6561 7.6773 7.7189 7.7597 7.7996 7.8389 7.8774 7.9153  7.9525 |
|  | | | | |

1. **MPa ( = 111**.**349**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  111.349 | 0.00100013 0.00100001 0.00100027 0.00100088 0.00100177 0.00100294 0.00100435 0.00100598 0.00100782 0.00100986 0.00101209 0.00101449 0.00101707 0.00101981 0.00102272 0.00102578 0.00102901 0.00103238 0.00103591 0.00103960 0.00104344 0.00104743 0.00105158  0.00105273 | -0.04  21.02 42.02 62.97  83.90  104.82  125.72  146.61  167.51  188.41  209.31  230.22  251.14  272.07  293.01  313.97  334.94  355.94  376.94  397.98  419.04  440.14  461.26  466.97 | 0.11  21.17 42.17 63.12  84.05  104.97  125.87  146.76  167.66  188.56  209.46  230.37  251.29  272.22  293.16  314.12  335.09  356.09  377.10  398.14  419.20  440.30  461.42  467.13 | -0.00014  0.07625 0.15107 0.22444 0.29645 0.36719 0.43671 0.50508 0.57235 0.63855 0.70374 0.76796 0.83122 0.89358  0.95506  1.0157 1.0755 1.1345 1.1928  1.2503 1.3072 1.3633  1.4188  1.4337 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 1.6637 1.6949 1.7260 1.7571 1.7882 1.8192 1.8503 1.8813 1.9123 1.9433 1.9743 2.0052 2.0362 2.0671 2.0981 2.1290 2.1599 2.1908 2.2217 2.2526 2.2835 2.3144 2.3453 2.3761 2.4379 2.4996 2.5613 2.6230 2.6846 2.7463 2.8080 2.8696 2.9312 2.9929 3.0545 3.1161 3.1777 3.2394 3.3010 3.3626 3.4242 3.4858 3.5473 3.6089 3.6705 3.7321 3.7937 3.8553  3.9168 | 2763.3  2778.8  2794.2  2809.7  2825.3  2840.9  2856.6  2872.3  2888.1  2903.8  2919.8  2935.6  2951.7  2967.7  2983.8  3000.0  3016.3  3032.6  3048.9  3065.4  3081.9  3098.4  3115.1  3131.8  3165.4  3199.3  3233.4  3267.8  3302.5  3337.5  3372.7  3408.3  3444.0  3480.2  3516.5  3553.2  3590.1  3627.3  3664.9  3702.6  3740.7  3779.0  3817.6  3856.5  3895.6  3935.1  3974.7  4014.7  4054.9 | 3012.9  3033.0  3053.1  3073.3  3093.5  3113.8  3134.1  3154.5  3174.9  3195.3  3215.9  3236.4  3257.1  3277.8  3298.5  3319.4  3340.3  3361.2  3382.2  3403.3  3424.4  3445.6  3466.9  3488.2  3531.1  3574.2  3617.6  3661.2  3705.2  3749.4  3793.9  3838.7  3883.7  3929.1  3974.7  4020.6  4066.8  4113.2  4160.0  4207.0  4254.3  4301.9  4349.7  4397.8  4446.2  4494.9  4543.8  4593.0  4642.4 | 7.9202 7.9569 7.9929 8.0284 8.0634 8.0978 8.1318 8.1653 8.1983 8.2309 8.2631 8.2948 8.3262 8.3572 8.3878 8.4180 8.4480 8.4775 8.5068 8.5357 8.5644 8.5927 8.6207 8.6485 8.7032 8.7569 8.8096 8.8614 8.9124 8.9624 9.0117 9.0602 9.1080 9.1550 9.2014 9.2472 9.2923 9.3369 9.3808 9.4243 9.4671 9.5095 9.5513 9.5927 9.6336 9.6740 9.7140 9.7536  9.7927 |
| 111.349  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 1.1593 1.1714 1.1880 1.2044 1.2208 1.2370 1.2533 1.2694 1.2855 1.3016 1.3176 1.3335 1.3495 1.3654 1.3813 1.3971 1.4129 1.4287 1.4445 1.4760 1.5074 1.5388 1.5701 1.6013 1.6325  1.6637 | 2519.2  2525.1  2533.2  2541.1  2549.0  2556.8  2564.6  2572.4  2580.1  2587.8  2595.5  2603.1  2610.8  2618.4  2626.0  2633.6  2641.3  2648.8  2656.4  2671.6  2686.9  2702.1  2717.4  2732.7  2748.0  2763.3 | 2693.1  2700.8  2711.4  2721.8  2732.1  2742.4  2752.6  2762.8  2772.9  2783.0  2793.1  2803.1  2813.2  2823.2  2833.2  2843.2  2853.2  2863.1  2873.1  2893.0  2913.0  2932.9  2952.9  2972.9  2992.9  3012.9 | 7.2230 7.2430 7.2699 7.2962 7.3220 7.3473 7.3722 7.3967 7.4208 7.4445 7.4679 7.4910 7.5138 7.5363 7.5585 7.5804 7.6021 7.6235 7.6447 7.6864 7.7272 7.7672 7.8065 7.8451 7.8830  7.9202 |
|  | | | | |

1. **MPa ( = 113**.**297**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  113.297 | 0.00100012 0.00100000 0.00100027 0.00100087 0.00100177 0.00100293 0.00100434 0.00100598 0.00100782 0.00100986 0.00101208 0.00101449 0.00101706 0.00101981 0.00102271 0.00102578 0.00102900 0.00103238 0.00103591 0.00103959 0.00104343 0.00104742 0.00105157  0.00105440 | -0.04  21.02 42.02 62.97  83.90  104.81  125.72  146.61  167.51  188.41  209.31  230.22  251.14  272.07  293.01  313.97  334.94  355.92  376.94  397.98  419.04  440.13  461.26  475.21 | 0.12  21.18 42.18 63.13  84.06  104.97  125.88  146.77  167.67  188.57  209.47  230.38  251.30  272.23  293.17  314.13  335.10  356.09  377.11  398.15  419.21  440.30  461.43  475.38 | -0.00014  0.07625 0.15107 0.22444 0.29645 0.36718 0.43671 0.50508 0.57234 0.63855 0.70374 0.76795 0.83122 0.89358  0.95506  1.0157 1.0755 1.1345 1.1928 1.2503 1.3072 1.3633 1.4188  1.4551 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 1.5593 1.5885 1.6177 1.6469 1.6760 1.7052 1.7343 1.7634 1.7925 1.8215 1.8506 1.8796 1.9087 1.9377 1.9667 1.9957 2.0247 2.0537 2.0826 2.1116 2.1406 2.1695 2.1985 2.2274 2.2853 2.3432 2.4011 2.4589 2.5167 2.5745 2.6324 2.6902 2.7480 2.8057 2.8635 2.9213 2.9791 3.0368 3.0946 3.1523 3.2101 3.2679 3.3256 3.3833 3.4411 3.4988 3.5566 3.6143  3.6720 | 2763.1  2778.5  2794.1  2809.6  2825.1  2840.8  2856.4  2872.1  2887.9  2903.8  2919.6  2935.6  2951.5  2967.6  2983.7  2999.9  3016.1  3032.5  3048.9  3065.3  3081.8  3098.4  3115.0  3131.7  3165.4  3199.2  3233.3  3267.8  3302.4  3337.4  3372.6  3408.2  3444.0  3480.1  3516.4  3553.1  3590.0  3627.3  3664.8  3702.6  3740.7  3778.9  3817.6  3856.5  3895.6  3935.0  3974.7  4014.6  4054.9 | 3012.6  3032.7  3052.9  3073.1  3093.3  3113.6  3133.9  3154.2  3174.7  3195.2  3215.7  3236.3  3256.9  3277.6  3298.4  3319.2  3340.1  3361.1  3382.1  3403.2  3424.3  3445.5  3466.8  3488.1  3531.0  3574.1  3617.5  3661.2  3705.1  3749.3  3793.8  3838.6  3883.7  3929.0  3974.6  4020.5  4066.7  4113.2  4159.9  4207.0  4254.3  4301.8  4349.7  4397.8  4446.2  4494.8  4543.8  4592.9  4642.4 | 7.8901 7.9267 7.9628 7.9983 8.0333 8.0678 8.1018 8.1353 8.1683 8.2009 8.2331 8.2649 8.2962 8.3272 8.3578 8.3881 8.4180 8.4476 8.4769 8.5058 8.5344 8.5628 8.5908 8.6186 8.6734 8.7271 8.7798 8.8316 8.8825 8.9326 8.9819 9.0304 9.0781 9.1252 9.1716 9.2174 9.2625 9.3071 9.3510 9.3944 9.4373 9.4797 9.5215 9.5629 9.6038 9.6442 9.6842 9.7238  9.7629 |
| 113.297  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 1.0914 1.0967 1.1123 1.1278 1.1432 1.1585 1.1738 1.1890 1.2041 1.2192 1.2343 1.2493 1.2642 1.2792 1.2941 1.3090 1.3238 1.3387 1.3535 1.3831 1.4126 1.4420 1.4714 1.5007 1.5300  1.5593 | 2521.4  2524.2  2532.3  2540.3  2548.2  2556.1  2563.9  2571.8  2579.4  2587.2  2594.9  2602.6  2610.2  2617.9  2625.5  2633.2  2640.8  2648.4  2656.0  2671.3  2686.6  2701.8  2717.1  2732.4  2747.8  2763.1 | 2696.0  2699.7  2710.3  2720.7  2731.1  2741.5  2751.7  2762.0  2772.1  2782.3  2792.4  2802.5  2812.5  2822.6  2832.6  2842.6  2852.6  2862.6  2872.6  2892.6  2912.6  2932.5  2952.5  2972.5  2992.6  3012.6 | 7.2014 7.2108 7.2379 7.2644 7.2904 7.3158 7.3408 7.3654 7.3896 7.4135 7.4369 7.4601 7.4829 7.5055 7.5277 7.5497 7.5714 7.5929 7.6141 7.6559 7.6968 7.7369 7.7762 7.8148 7.8528  7.8901 |
|  | | | | |

**18 MPa ( = 116**.**911**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  116.911 | 0.00100012 0.00099999 0.00100026 0.00100086 0.00100176 0.00100293 0.00100433 0.00100597 0.00100781 0.00100985 0.00101207 0.00101448 0.00101706 0.00101980 0.00102270 0.00102577 0.00102899 0.00103237 0.00103590 0.00103958 0.00104342 0.00104741 0.00105156 0.00105587  0.00105756 | -0.04  21.02 42.02 62.97  83.90  104.81  125.71  146.61  167.51  188.40  209.31  230.22  251.13  272.06  293.01  313.96  334.93  355.92  376.93  397.97  419.04  440.13  461.25  482.41  490.51 | 0.14  21.20 42.20 63.15  84.08  104.99  125.89  146.79  167.69  188.58  209.49  230.40  251.31  272.24  293.19  314.14  335.12  356.11  377.12  398.16  419.23  440.32  461.44  482.60  490.70 | -0.00014  0.07625 0.15107 0.22444 0.29645 0.36718 0.43670 0.50507 0.57233 0.63854 0.70373 0.76794 0.83121 0.89356  0.95504  1.0157 1.0755 1.1345 1.1928  1.2503 1.3071 1.3633 1.4188  1.4737  1.4945 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 1.3852 1.4112 1.4372 1.4632 1.4891 1.5151 1.5410 1.5669 1.5927 1.6186 1.6445 1.6703 1.6961 1.7219 1.7477 1.7735 1.7993 1.8251 1.8509 1.8766 1.9024 1.9282 1.9539 1.9797 2.0311 2.0826 2.1340 2.1855 2.2369 2.2883 2.3397 2.3911 2.4425 2.4938 2.5452 2.5966 2.6479 2.6993 2.7506 2.8020 2.8533 2.9047 2.9560 3.0073 3.0587 3.1100 3.1613 3.2127  3.2640 | 2762.8  2778.2  2793.7  2809.2  2824.8  2840.4  2856.1  2871.8  2887.6  2903.5  2919.3  2935.2  2951.3  2967.4  2983.5  2999.7  3015.9  3032.3  3048.6  3065.1  3081.7  3098.2  3114.8  3131.6  3165.2  3199.0  3233.2  3267.6  3302.4  3337.3  3372.6  3408.1  3444.0  3480.0  3516.4  3553.0  3590.0  3627.2  3664.7  3702.5  3740.6  3778.9  3817.5  3856.4  3895.5  3935.0  3974.7  4014.6  4054.8 | 3012.1  3032.2  3052.4  3072.6  3092.8  3113.1  3133.5  3153.8  3174.3  3194.8  3215.3  3235.9  3256.6  3277.3  3298.1  3318.9  3339.8  3360.8  3381.8  3402.9  3424.1  3445.3  3466.5  3487.9  3530.8  3573.9  3617.3  3661.0  3705.0  3749.2  3793.7  3838.5  3883.6  3928.9  3974.5  4020.4  4066.6  4113.1  4159.8  4206.9  4254.2  4301.7  4349.6  4397.7  4446.1  4494.8  4543.7  4592.9  4642.3 | 7.8349 7.8716 7.9078 7.9433 7.9784 8.0129 8.0469 8.0804 8.1135 8.1461 8.1783 8.2101 8.2415 8.2725 8.3032 8.3334 8.3634 8.3930 8.4222 8.4512 8.4799 8.5082 8.5363 8.5641 8.6188 8.6725 8.7253 8.7771 8.8280 8.8781 8.9274 8.9759 9.0237 9.0708 9.1172 9.1629 9.2081 9.2526 9.2966 9.3400 9.3829 9.4253 9.4671 9.5085 9.5494 9.5898 9.6298 9.6694  9.7085 |
| 116.911  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.97747  0.98612  1.0000 1.0139 1.0276 1.0413 1.0549 1.0684 1.0819 1.0954 1.1088 1.1222 1.1355 1.1488 1.1621 1.1754 1.1886 1.2018 1.2282 1.2545 1.2807 1.3069 1.3330 1.3591  1.3852 | 2525.5  2530.5  2538.7  2546.7  2554.7  2562.6  2570.5  2578.3  2586.2  2593.8  2601.6  2609.3  2617.0  2624.7  2632.4  2640.0  2647.8  2655.4  2670.6  2686.0  2701.3  2716.6  2732.0  2747.3  2762.8 | 2701.4  2708.0  2718.7  2729.2  2739.7  2750.0  2760.4  2770.6  2780.9  2791.0  2801.2  2811.3  2821.4  2831.5  2841.6  2851.6  2861.7  2871.7  2891.7  2911.8  2931.8  2951.8  2971.9  2991.9  3012.1 | 7.1621 7.1790 7.2059 7.2322 7.2580 7.2832 7.3081 7.3325 7.3565 7.3801 7.4034 7.4264 7.4491 7.4714 7.4935 7.5154 7.5369 7.5582 7.6002 7.6412 7.6814 7.7208 7.7595 7.7975  7.8349 |
|  | | | | |

**20 MPa ( = 120**.**210**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  120.210 | 0.00100011 0.00099998 0.00100025 0.00100085 0.00100175 0.00100292 0.00100433 0.00100596 0.00100780 0.00100984 0.00101207 0.00101447 0.00101705 0.00101979 0.00102270 0.00102576 0.00102898 0.00103236 0.00103589 0.00103957 0.00104341 0.00104740 0.00105155 0.00105586 0.00106032  0.00106052 | -0.04  21.02 42.02 62.97  83.90  104.81  125.71  146.61  167.50  188.40  209.30  230.21  251.13  272.06  293.00  313.95  334.92  355.92  376.93  397.97  419.03  440.12  461.25  482.41  503.60  504.49 | 0.16  21.22 42.22 63.17  84.10  105.01  125.91  146.81  167.70  188.60  209.50  230.41  251.33  272.26  293.20  314.16  335.13  356.13  377.14  398.18  419.24  440.33  461.46  482.62  503.81  504.70 | -0.00014  0.07625 0.15107 0.22443 0.29644 0.36717 0.43670 0.50506 0.57233 0.63853 0.70372 0.76793 0.83120 0.89355  0.95503  1.0157 1.0755 1.1345 1.1928 1.2503 1.3071 1.3633 1.4188 1.4736 1.5279  1.5302 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 1.2459 1.2694 1.2928 1.3162 1.3396 1.3630 1.3863 1.4097 1.4330 1.4563 1.4795 1.5028 1.5261 1.5493 1.5726 1.5958 1.6190 1.6422 1.6655 1.6887 1.7119 1.7351 1.7582 1.7814 1.8278 1.8741 1.9204 1.9667 2.0130 2.0593 2.1056 2.1518 2.1981 2.2443 2.2906 2.3368 2.3830 2.4293 2.4755 2.5217 2.5679 2.6141 2.6603 2.7066 2.7528 2.7990 2.8451 2.8913  2.9375 | 2762.3  2777.7  2793.2  2808.9  2824.4  2840.1  2855.7  2871.5  2887.3  2903.1  2919.1  2935.0  2951.1  2967.1  2983.3  2999.5  3015.8  3032.1  3048.5  3065.0  3081.4  3098.0  3114.7  3131.4  3165.0  3198.9  3233.0  3267.5  3302.2  3337.1  3372.5  3408.0  3443.8  3479.9  3516.3  3552.9  3589.9  3627.1  3664.7  3702.5  3740.5  3778.9  3817.4  3856.3  3895.4  3934.9  3974.6  4014.5  4054.8 | 3011.5  3031.6  3051.8  3072.1  3092.3  3112.7  3133.0  3153.4  3173.9  3194.4  3215.0  3235.6  3256.3  3277.0  3297.8  3318.7  3339.6  3360.5  3381.6  3402.7  3423.8  3445.0  3466.3  3487.7  3530.6  3573.7  3617.1  3660.8  3704.8  3749.0  3793.6  3838.4  3883.4  3928.8  3974.4  4020.3  4066.5  4113.0  4159.8  4206.8  4254.1  4301.7  4349.5  4397.6  4446.0  4494.7  4543.6  4592.8  4642.3 | 7.7855 7.8223 7.8584 7.8941 7.9291 7.9637 7.9977 8.0313 8.0644 8.0971 8.1293 8.1611 8.1925 8.2236 8.2542 8.2845 8.3145 8.3441 8.3734 8.4023 8.4310 8.4594 8.4874 8.5152 8.5700 8.6237 8.6765 8.7283 8.7792 8.8293 8.8786 8.9272 8.9750 9.0220 9.0685 9.1142 9.1594 9.2039 9.2479 9.2913 9.3342 9.3766 9.4184 9.4598 9.5007 9.5412 9.5812 9.6207  9.6599 |
| 120.210  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.88568 0.89781 0.91037 0.92284 0.93524 0.94758 0.95986 0.97208 0.98426 0.99640  1.0085 1.0206 1.0326 1.0446 1.0566 1.0685 1.0805 1.1043 1.1280 1.1517 1.1753 1.1989 1.2224  1.2459 | 2529.1  2537.0  2545.2  2553.2  2561.3  2569.2  2577.1  2585.0  2592.8  2600.6  2608.4  2616.1  2623.9  2631.6  2639.3  2647.0  2654.6  2669.9  2685.3  2700.7  2716.0  2731.4  2746.8  2762.3 | 2706.2  2716.6  2727.3  2737.8  2748.3  2758.7  2769.1  2779.4  2789.7  2799.9  2810.1  2820.2  2830.4  2840.5  2850.6  2860.7  2870.7  2890.8  2910.9  2931.0  2951.1  2971.2  2991.3  3011.5 | 7.1269 7.1531 7.1797 7.2058 7.2313 7.2564 7.2810 7.3052 7.3290 7.3525 7.3756 7.3984 7.4209 7.4431 7.4650 7.4867 7.5081 7.5501 7.5913 7.6316 7.6712 7.7100 7.7480  7.7855 |
|  | | | | |

**22 MPa ( = 123**.**250**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  123.250 | 0.00100010 0.00099998 0.00100024 0.00100084 0.00100174 0.00100291 0.00100432 0.00100595 0.00100779 0.00100983 0.00101206 0.00101446 0.00101704 0.00101978 0.00102269 0.00102575 0.00102897 0.00103235 0.00103588 0.00103956 0.00104340 0.00104739 0.00105154 0.00105585 0.00106031  0.00106330 | -0.04  21.02 42.01 62.97  83.90  104.81  125.71  146.61  167.50  188.40  209.30  230.21  251.13  272.06  292.99  313.95  334.92  355.91  376.93  397.96  419.03  440.12  461.24  482.40  503.60  517.40 | 0.18  21.24 42.23 63.19  84.12  105.03  125.93  146.83  167.72  188.62  209.52  230.43  251.35  272.28  293.22  314.18  335.15  356.14  377.16  398.19  419.26  440.35  461.47  482.63  503.83  517.63 | -0.00014  0.07625 0.15107 0.22443 0.29644 0.36717 0.43669 0.50506 0.57232 0.63852 0.70371 0.76792 0.83119 0.89354  0.95502  1.0157 1.0755 1.1345 1.1928  1.2503 1.3071 1.3633 1.4188 1.4736  1.5279  1.5628 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 1.1320 1.1533 1.1747 1.1960 1.2173 1.2385 1.2598 1.2810 1.3022 1.3234 1.3446 1.3658 1.3870 1.4081 1.4293 1.4504 1.4715 1.4926 1.5138 1.5349 1.5560 1.5771 1.5981 1.6192 1.6614 1.7035 1.7456 1.7877 1.8298 1.8719 1.9140 1.9561 1.9981 2.0402 2.0822 2.1243 2.1663 2.2083 2.2504 2.2924 2.3344 2.3764 2.4184 2.4604 2.5025 2.5445 2.5865 2.6285  2.6705 | 2761.9  2777.4  2792.9  2808.5  2824.1  2839.7  2855.4  2871.2  2887.0  2902.9  2918.8  2934.8  2950.9  2966.9  2983.1  2999.3  3015.6  3031.9  3048.3  3064.7  3081.3  3097.8  3114.5  3131.3  3164.9  3198.7  3233.0  3267.4  3302.0  3337.1  3372.3  3407.9  3443.7  3479.9  3516.2  3552.9  3589.8  3627.1  3664.6  3702.4  3740.4  3778.8  3817.4  3856.3  3895.4  3934.8  3974.6  4014.5  4054.7 | 3010.9  3031.1  3051.3  3071.6  3091.9  3112.2  3132.6  3153.0  3173.5  3194.0  3214.6  3235.3  3256.0  3276.7  3297.5  3318.4  3339.3  3360.3  3381.3  3402.4  3423.6  3444.8  3466.1  3487.5  3530.4  3573.5  3617.0  3660.7  3704.6  3748.9  3793.4  3838.2  3883.3  3928.7  3974.3  4020.2  4066.4  4112.9  4159.7  4206.7  4254.0  4301.6  4349.4  4397.6  4446.0  4494.6  4543.6  4592.8  4642.2 | 7.7407 7.7775 7.8138 7.8494 7.8845 7.9191 7.9532 7.9868 8.0200 8.0526 8.0849 8.1167 8.1482 8.1792 8.2099 8.2402 8.2702 8.2998 8.3291 8.3581 8.3868 8.4151 8.4432 8.4710 8.5258 8.5796 8.6323 8.6842 8.7351 8.7852 8.8345 8.8831 8.9309 8.9780 9.0244 9.0702 9.1153 9.1599 9.2039 9.2473 9.2902 9.3325 9.3744 9.4158 9.4567 9.4971 9.5371 9.5767  9.6159 |
| 123.250  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.81007 0.81414 0.82567 0.83712 0.84848 0.85978 0.87102 0.88220 0.89334 0.90444 0.91550 0.92652 0.93751 0.94847 0.95941 0.97032  0.98120  1.0029 1.0246 1.0461 1.0677 1.0891 1.1106  1.1320 | 2532.4  2535.3  2543.7  2551.8  2559.9  2567.9  2576.0  2583.8  2591.8  2599.6  2607.4  2615.2  2622.9  2630.7  2638.4  2646.2  2653.9  2669.4  2684.7  2700.2  2715.5  2730.9  2746.4  2761.9 | 2710.6  2714.4  2725.3  2736.0  2746.6  2757.1  2767.6  2777.9  2788.3  2798.6  2808.8  2819.0  2829.2  2839.4  2849.5  2859.7  2869.8  2890.0  2910.1  2930.3  2950.4  2970.5  2990.7  3010.9 | 7.0951 7.1047 7.1318 7.1582 7.1840 7.2093 7.2341 7.2585 7.2825 7.3062 7.3294 7.3524 7.3750 7.3973 7.4193 7.4411 7.4625 7.5048 7.5461 7.5865 7.6261 7.6650 7.7032  7.7407 |
|  | | | | |

**24 MPa ( = 126**.**072**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  126.072 | 0.00100009 0.00099997 0.00100023 0.00100083 0.00100173 0.00100290 0.00100431 0.00100594 0.00100778 0.00100982 0.00101205 0.00101445 0.00101703 0.00101977 0.00102268 0.00102574 0.00102896 0.00103234 0.00103587 0.00103955 0.00104339 0.00104738 0.00105153 0.00105584 0.00106030 0.00106493  0.00106594 | -0.04  21.02 42.01 62.97  83.90  104.81  125.71  146.60  167.50  188.40  209.30  230.21  251.13  272.05  292.99  313.94  334.92  355.91  376.92  397.96  419.02  440.11  461.24  482.39  503.59  524.82  529.38 | 0.20  21.26 42.25 63.21  84.14  105.05  125.95  146.84  167.74  188.64  209.54  230.45  251.37  272.29  293.24  314.19  335.17  356.16  377.17  398.21  419.27  440.36  461.49  482.64  503.84  525.08  529.64 | -0.00014  0.07625 0.15106 0.22443 0.29643 0.36716 0.43668 0.50505 0.57231 0.63852 0.70370 0.76791 0.83118 0.89353  0.95501  1.0156 1.0755 1.1345 1.1927 1.2503 1.3071 1.3633 1.4187 1.4736 1.5279 1.5816  1.5930 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 1.0370 1.0566 1.0762 1.0958 1.1153 1.1348 1.1543 1.1738 1.1933 1.2128 1.2322 1.2516 1.2710 1.2904 1.3098 1.3292 1.3486 1.3680 1.3873 1.4067 1.4260 1.4454 1.4647 1.4841 1.5227 1.5614 1.6000 1.6386 1.6772 1.7158 1.7544 1.7929 1.8315 1.8701 1.9086 1.9472 1.9857 2.0242 2.0628 2.1013 2.1398 2.1783 2.2168 2.2554 2.2939 2.3324 2.3709 2.4094  2.4479 | 2761.4  2776.9  2792.5  2808.1  2823.7  2839.4  2855.2  2870.9  2886.7  2902.6  2918.6  2934.5  2950.6  2966.7  2982.8  2999.1  3015.3  3031.7  3048.1  3064.6  3081.1  3097.7  3114.4  3131.0  3164.8  3198.6  3232.8  3267.2  3302.0  3336.9  3372.2  3407.8  3443.6  3479.7  3516.1  3552.8  3589.7  3627.0  3664.5  3702.3  3740.3  3778.7  3817.4  3856.2  3895.4  3934.8  3974.5  4014.4  4054.7 | 3010.3  3030.5  3050.8  3071.1  3091.4  3111.8  3132.2  3152.6  3173.1  3193.7  3214.3  3234.9  3255.6  3276.4  3297.2  3318.1  3339.0  3360.0  3381.1  3402.2  3423.3  3444.6  3465.9  3487.2  3530.2  3573.3  3616.8  3660.5  3704.5  3748.7  3793.3  3838.1  3883.2  3928.5  3974.2  4020.1  4066.3  4112.8  4159.6  4206.6  4253.9  4301.5  4349.4  4397.5  4445.9  4494.6  4543.5  4592.7  4642.2 | 7.6997 7.7366 7.7729 7.8086 7.8438 7.8784 7.9125 7.9462 7.9793 8.0121 8.0443 8.0762 8.1077 8.1387 8.1694 8.1998 8.2297 8.2594 8.2887 8.3177 8.3464 8.3748 8.4029 8.4307 8.4855 8.5392 8.5920 8.6439 8.6948 8.7449 8.7943 8.8428 8.8906 8.9377 8.9841 9.0299 9.0751 9.1196 9.1636 9.2071 9.2499 9.2923 9.3342 9.3756 9.4165 9.4569 9.4969 9.5365  9.5757 |
| 126.072  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.74668 0.75507 0.76566 0.77616 0.78660 0.79697 0.80729 0.81757 0.82779 0.83798 0.84814 0.85826 0.86835 0.87841 0.88845 0.89847 0.91843 0.93833 0.95816 0.97794  0.99767  1.0174  1.0370 | 2535.4  2542.0  2550.3  2558.5  2566.6  2574.7  2582.8  2590.7  2598.5  2606.5  2614.2  2622.1  2629.9  2637.7  2645.5  2653.2  2668.7  2684.1  2699.5  2715.0  2730.5  2745.9  2761.4 | 2714.6  2723.2  2734.1  2744.8  2755.4  2766.0  2776.5  2786.9  2797.2  2807.6  2817.8  2828.1  2838.3  2848.5  2858.7  2868.8  2889.1  2909.3  2929.5  2949.7  2969.9  2990.1  3010.3 | 7.0661 7.0876 7.1143 7.1405 7.1660 7.1911 7.2157 7.2399 7.2636 7.2871 7.3101 7.3329 7.3553 7.3774 7.3993 7.4208 7.4632 7.5046 7.5452 7.5849 7.6239 7.6621  7.6997 |
|  | | | | |

**26 MPa ( = 128**.**708**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  128.708 | 0.00100008 0.00099996 0.00100022 0.00100082 0.00100172 0.00100289 0.00100430 0.00100593 0.00100777 0.00100981 0.00101204 0.00101444 0.00101702 0.00101976 0.00102267 0.00102573 0.00102895 0.00103233 0.00103586 0.00103954 0.00104338 0.00104737 0.00105152 0.00105583 0.00106029 0.00106492  0.00106846 | -0.04  21.02 42.01 62.97  83.90  104.81  125.71  146.60  167.50  188.39  209.30  230.20  251.12  272.04  292.98  313.94  334.91  355.90  376.92  397.95  419.02  440.11  461.23  482.39  503.57  524.81  540.59 | 0.22  21.28 42.27 63.23  84.16  105.07  125.97  146.86  167.76  188.65  209.56  230.46  251.38  272.31  293.25  314.21  335.18  356.17  377.19  398.22  419.29  440.38  461.50  482.66  503.85  525.09  540.87 | -0.00014  0.07625 0.15106 0.22442 0.29643 0.36716 0.43668 0.50504 0.57230 0.63851 0.70369 0.76790 0.83117 0.89352  0.95500  1.0156 1.0754 1.1345 1.1927  1.2503 1.3071 1.3632 1.4187 1.4736 1.5279  1.5815  1.6210 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.95666 0.97481  0.99292  1.0110 1.0291 1.0471 1.0651 1.0831 1.1011 1.1191 1.1371 1.1550 1.1729 1.1909 1.2088 1.2267 1.2446 1.2625 1.2804 1.2982 1.3161 1.3340 1.3518 1.3697 1.4054 1.4411 1.4767 1.5124 1.5480 1.5837 1.6193 1.6549 1.6905 1.7261 1.7617 1.7973 1.8329 1.8684 1.9040 1.9396 1.9752 2.0107 2.0463 2.0818 2.1174 2.1529 2.1885 2.2240  2.2596 | 2761.0  2776.5  2792.1  2807.7  2823.3  2839.1  2854.9  2870.6  2886.4  2902.3  2918.3  2934.3  2950.3  2966.5  2982.6  2998.9  3015.1  3031.4  3047.9  3064.4  3080.9  3097.6  3114.2  3130.9  3164.6  3198.5  3232.7  3267.1  3301.8  3336.8  3372.1  3407.7  3443.6  3479.6  3516.1  3552.7  3589.6  3626.9  3664.5  3702.2  3740.2  3778.6  3817.3  3856.1  3895.3  3934.7  3974.4  4014.4  4054.6 | 3009.7  3030.0  3050.3  3070.6  3090.9  3111.3  3131.8  3152.2  3172.7  3193.3  3213.9  3234.6  3255.3  3276.1  3296.9  3317.8  3338.7  3359.7  3380.8  3401.9  3423.1  3444.4  3465.7  3487.0  3530.0  3573.2  3616.6  3660.3  3704.3  3748.6  3793.1  3838.0  3883.1  3928.4  3974.1  4020.0  4066.2  4112.7  4159.5  4206.5  4253.8  4301.4  4349.3  4397.4  4445.8  4494.5  4543.4  4592.6  4642.1 | 7.6619 7.6989 7.7353 7.7710 7.8063 7.8409 7.8751 7.9087 7.9419 7.9747 8.0070 8.0389 8.0704 8.1014 8.1322 8.1625 8.1925 8.2222 8.2515 8.2805 8.3092 8.3376 8.3657 8.3935 8.4483 8.5021 8.5549 8.6068 8.6578 8.7079 8.7572 8.8057 8.8536 8.9007 8.9471 8.9929 9.0381 9.0826 9.1266 9.1700 9.2129 9.2553 9.2972 9.3386 9.3795 9.4199 9.4599 9.4995  9.5387 |
| 128.708  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.69273 0.69530 0.70517 0.71495 0.72466 0.73431 0.74390 0.75344 0.76293 0.77239 0.78181 0.79119 0.80055 0.80987 0.81917 0.82845 0.84695 0.86537 0.88372 0.90203 0.92028 0.93849  0.95666 | 2538.2  2540.4  2548.9  2557.1  2565.4  2573.5  2581.6  2589.6  2597.5  2605.5  2613.3  2621.2  2629.1  2636.8  2644.6  2652.4  2668.0  2683.5  2698.9  2714.5  2729.9  2745.4  2761.0 | 2718.3  2721.2  2732.2  2743.0  2753.8  2764.4  2775.0  2785.5  2795.9  2806.3  2816.6  2826.9  2837.2  2847.4  2857.6  2867.8  2888.2  2908.5  2928.7  2949.0  2969.2  2989.4  3009.7 | 7.0394 7.0465 7.0736 7.1001 7.1259 7.1512 7.1760 7.2004 7.2243 7.2479 7.2711 7.2940 7.3165 7.3387 7.3607 7.3823 7.4249 7.4664 7.5071 7.5469 7.5860 7.6243  7.6619 |
|  | | | | |

**28 MPa ( = 131**.**185**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  131.185 | 0.00100007 0.00099995 0.00100021 0.00100081 0.00100171 0.00100288 0.00100429 0.00100592 0.00100777 0.00100980 0.00101203 0.00101443 0.00101701 0.00101975 0.00102266 0.00102572 0.00102894 0.00103232 0.00103585 0.00103953 0.00104337 0.00104736 0.00105151 0.00105581 0.00106028 0.00106491 0.00106970  0.00107086 | -0.04  21.02 42.01 62.97  83.90  104.81  125.71  146.60  167.49  188.39  209.29  230.20  251.12  272.04  292.98  313.93  334.91  355.90  376.91  397.95  419.01  440.10  461.22  482.37  503.57  524.81  546.09  551.14 | 0.24  21.30 42.29 63.25  84.18  105.09  125.99  146.88  167.77  188.67  209.57  230.48  251.40  272.33  293.27  314.22  335.20  356.19  377.20  398.24  419.30  440.39  461.51  482.67  503.87  525.11  546.39  551.44 | -0.00014  0.07625 0.15106 0.22442 0.29643 0.36715 0.43667 0.50503 0.57230 0.63850 0.70368 0.76789 0.83115 0.89351  0.95498  1.0156 1.0754 1.1344 1.1927 1.2502 1.3071 1.3632 1.4187 1.4736 1.5278 1.5815 1.6346  1.6471 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.88779 0.90467 0.92151 0.93833 0.95512 0.97190  0.98865  1.0054 1.0221 1.0388 1.0555 1.0722 1.0889 1.1055 1.1222 1.1388 1.1554 1.1721 1.1887 1.2053 1.2219 1.2385 1.2551 1.2717 1.3048 1.3380 1.3711 1.4042 1.4373 1.4704 1.5035 1.5366 1.5697 1.6027 1.6358 1.6688 1.7019 1.7349 1.7680 1.8010 1.8340 1.8670 1.9001 1.9331 1.9661 1.9991 2.0321 2.0651  2.0981 | 2760.5  2776.1  2791.7  2807.4  2823.1  2838.8  2854.5  2870.3  2886.2  2902.0  2918.1  2934.1  2950.1  2966.3  2982.4  2998.6  3015.0  3031.3  3047.7  3064.2  3080.8  3097.3  3114.0  3130.7  3164.5  3198.4  3232.5  3267.0  3301.8  3336.8  3372.0  3407.6  3443.4  3479.5  3516.0  3552.6  3589.6  3626.8  3664.4  3702.1  3740.3  3778.5  3817.2  3856.1  3895.3  3934.7  3974.4  4014.4  4054.5 | 3009.1  3029.4  3049.7  3070.1  3090.5  3110.9  3131.3  3151.8  3172.4  3192.9  3213.6  3234.3  3255.0  3275.8  3296.6  3317.5  3338.5  3359.5  3380.5  3401.7  3422.9  3444.1  3465.4  3486.8  3529.8  3573.0  3616.4  3660.2  3704.2  3748.5  3793.0  3837.8  3882.9  3928.3  3974.0  4019.9  4066.1  4112.6  4159.4  4206.4  4253.8  4301.3  4349.2  4397.4  4445.8  4494.4  4543.4  4592.6  4642.0 | 7.6269 7.6640 7.7004 7.7362 7.7714 7.8062  7.8404 7.8741 7.9073 7.9400 7.9724 8.0043 8.0358 8.0669 8.0976 8.1280 8.1580 8.1877 8.2170 8.2460 8.2748 8.3032 8.3313 8.3591 8.4140 8.4677 8.5206 8.5724 8.6234 8.6736 8.7229 8.7714 8.8193 8.8664 8.9128 8.9586 9.0038 9.0484 9.0923 9.1358 9.1787 9.2211 9.2629 9.3043 9.3452 9.3857 9.4257 9.4653  9.5044 |
| 131.185  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.64624 0.65330 0.66247 0.67156 0.68059 0.68955 0.69846 0.70733 0.71616 0.72494 0.73370 0.74242 0.75112 0.75979 0.76844 0.78567 0.80282 0.81992 0.83695 0.85394 0.87088  0.88779 | 2540.8  2547.3  2555.7  2564.1  2572.2  2580.4  2588.4  2596.4  2604.5  2612.4  2620.4  2628.2  2636.1  2643.9  2651.7  2667.3  2682.8  2698.4  2714.0  2729.4  2745.0  2760.5 | 2721.7  2730.2  2741.2  2752.1  2762.8  2773.5  2784.0  2794.5  2805.0  2815.4  2825.8  2836.1  2846.4  2856.6  2866.9  2887.3  2907.6  2928.0  2948.3  2968.5  2988.8  3009.1 | 7.0146 7.0356 7.0624 7.0885 7.1140 7.1390 7.1636 7.1877 7.2114 7.2348 7.2578 7.2804 7.3028 7.3248 7.3465 7.3893 7.4310 7.4717 7.5117 7.5508 7.5892  7.6269 |
|  | | | | |

**30 MPa ( = 133**.**522**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  133.522 | 0.00100006 0.00099994 0.00100020 0.00100081 0.00100170 0.00100287 0.00100428 0.00100591 0.00100776 0.00100980 0.00101202 0.00101443 0.00101700 0.00101974 0.00102265 0.00102571 0.00102893 0.00103231 0.00103584 0.00103952 0.00104336 0.00104735 0.00105150 0.00105580 0.00106027 0.00106490 0.00106969  0.00107317 | -0.04  21.02 42.01 62.97  83.89  104.80  125.70  146.60  167.49  188.39  209.29  230.20  251.11  272.03  292.98  313.93  334.90  355.89  376.91  397.94  419.01  440.10  461.21  482.37  503.56  524.80  546.08  561.11 | 0.26  21.32 42.31 63.27  84.19  105.10  126.00  146.90  167.79  188.69  209.59  230.50  251.42  272.34  293.29  314.24  335.21  356.20  377.22  398.25  419.32  440.41  461.53  482.69  503.88  525.12  546.40  561.43 | -0.00013  0.07625 0.15106 0.22442 0.29642 0.36715 0.43666 0.50503 0.57229 0.63849 0.70368 0.76788 0.83114 0.89350  0.95497  1.0156 1.0754 1.1344 1.1927  1.2502 1.3071 1.3632 1.4187 1.4736 1.5278 1.5815  1.6346  1.6717 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.82810 0.84388 0.85962 0.87534 0.89104 0.90672 0.92237 0.93801 0.95363 0.96924  0.98483  1.0004 1.0160 1.0315 1.0471 1.0626 1.0782 1.0937 1.1092 1.1247 1.1402 1.1557 1.1712 1.1867 1.2177 1.2486 1.2796 1.3105 1.3414 1.3723 1.4032 1.4341 1.4649 1.4958 1.5266 1.5575 1.5884 1.6192 1.6500 1.6809 1.7117 1.7425 1.7733 1.8042 1.8350 1.8658 1.8966 1.9274  1.9582 | 2760.1  2775.6  2791.3  2807.0  2822.7  2838.4  2854.2  2870.0  2885.9  2901.8  2917.8  2933.8  2949.9  2966.1  2982.2  2998.4  3014.7  3031.1  3047.5  3064.0  3080.5  3097.2  3113.8  3130.6  3164.3  3198.2  3232.4  3266.9  3301.6  3336.6  3371.9  3407.5  3443.3  3479.5  3515.9  3552.6  3589.5  3626.7  3664.3  3702.0  3740.2  3778.5  3817.1  3856.0  3895.2  3934.7  3974.3  4014.3  4054.5 | 3008.5  3028.8  3049.2  3069.6  3090.0  3110.4  3130.9  3151.4  3172.0  3192.6  3213.2  3233.9  3254.7  3275.5  3296.3  3317.2  3338.2  3359.2  3380.3  3401.4  3422.6  3443.9  3465.2  3486.6  3529.6  3572.8  3616.3  3660.0  3704.0  3748.3  3792.9  3837.7  3882.8  3928.2  3973.9  4019.8  4066.0  4112.5  4159.3  4206.3  4253.7  4301.3  4349.1  4397.3  4445.7  4494.4  4543.3  4592.5  4642.0 | 7.5943 7.6314 7.6678 7.7037 7.7390 7.7738 7.8080 7.8417 7.8750 7.9078 7.9401 7.9721 8.0036 8.0347 8.0655 8.0959 8.1259 8.1556 8.1849 8.2140 8.2427 8.2711 8.2992 8.3271 8.3819 8.4357 8.4886 8.5404 8.5914 8.6416 8.6909 8.7395 8.7873 8.8344 8.8809 8.9267 8.9719 9.0164 9.0604 9.1039 9.1468 9.1892 9.2310 9.2724 9.3133 9.3538 9.3938 9.4334  9.4726 |
| 133.522  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.60576 0.60833 0.61697 0.62553 0.63401 0.64244 0.65081 0.65913 0.66742 0.67566 0.68387 0.69205 0.70020 0.70832 0.71642 0.73256 0.74862 0.76461 0.78055 0.79644 0.81229  0.82810 | 2543.2  2545.7  2554.3  2562.6  2571.0  2579.2  2587.4  2595.5  2603.5  2611.5  2619.4  2627.4  2635.2  2643.1  2651.0  2666.6  2682.2  2697.8  2713.3  2729.0  2744.5  2760.1 | 2724.9  2728.2  2739.4  2750.3  2761.2  2771.9  2782.6  2793.2  2803.7  2814.2  2824.6  2835.0  2845.3  2855.6  2865.9  2886.4  2906.8  2927.2  2947.5  2967.9  2988.2  3008.5 | 6.9916 6.9998 7.0269 7.0533 7.0791 7.1044 7.1291 7.1534 7.1773 7.2008 7.2239 7.2467 7.2691 7.2913 7.3131 7.3560 7.3978 7.4387 7.4788 7.5180 7.5565  7.5943 |
|  | | | | |

**35 MPa ( = 138**.**857**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  138.857 | 0.00100003 0.00099991 0.00100018 0.00100078 0.00100168 0.00100285 0.00100426 0.00100589 0.00100773 0.00100977 0.00101200 0.00101440 0.00101698 0.00101972 0.00102263 0.00102569 0.00102891 0.00103229 0.00103581 0.00103950 0.00104333 0.00104732 0.00105147 0.00105578 0.00106024 0.00106487 0.00106966 0.00107463  0.00107857 | -0.04  21.02 42.01 62.96  83.89  104.80  125.70  146.59  167.49  188.38  209.28  230.18  251.10  272.03  292.97  313.92  334.89  355.88  376.90  397.93  418.98  440.07  461.20  482.35  503.55  524.79  546.07  567.39  583.88 | 0.31  21.37 42.36 63.31  84.24  105.15  126.05  146.94  167.84  188.73  209.63  230.54  251.46  272.39  293.33  314.28  335.25  356.24  377.26  398.29  419.35  440.44  461.57  482.72  503.92  525.16  546.44  567.77  584.26 | -0.00013  0.07625 0.15106 0.22441 0.29641 0.36714 0.43665 0.50501 0.57227 0.63847 0.70365 0.76786 0.83112 0.89347  0.95494  1.0156 1.0754 1.1344 1.1927 1.2502 1.3070 1.3632 1.4187 1.4735 1.5278 1.5814 1.6346 1.6872  1.7274 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.70872 0.72230 0.73585 0.74937 0.76287 0.77635 0.78981 0.80325 0.81668 0.83009 0.84348 0.85687 0.87024 0.88360 0.89695 0.91030 0.92363 0.93696 0.95028 0.96360 0.97690  0.99021  1.0035 1.0168 1.0434 1.0699 1.0965 1.1230 1.1495 1.1760 1.2025 1.2290 1.2555 1.2819 1.3084 1.3348 1.3613 1.3877 1.4142 1.4406 1.4671 1.4935 1.5199 1.5463 1.5728 1.5992 1.6256 1.6520  1.6784 | 2758.9  2774.6  2790.4  2806.0  2821.8  2837.6  2853.4  2869.3  2885.2  2901.1  2917.1  2933.2  2949.3  2965.4  2981.7  2997.9  3014.2  3030.7  3047.1  3063.5  3080.1  3096.7  3113.5  3130.2  3163.9  3197.8  3232.0  3266.6  3301.3  3336.3  3371.6  3407.3  3443.1  3479.2  3515.7  3552.3  3589.3  3626.6  3664.1  3701.9  3740.0  3778.4  3817.0  3855.9  3895.0  3934.5  3974.2  4014.2  4054.4 | 3007.0  3027.4  3047.9  3068.3  3088.8  3109.3  3129.8  3150.4  3171.0  3191.6  3212.3  3233.1  3253.9  3274.7  3295.6  3316.5  3337.5  3358.6  3379.7  3400.8  3422.0  3443.3  3464.7  3486.1  3529.1  3572.3  3615.8  3659.6  3703.6  3747.9  3792.5  3837.4  3882.5  3927.9  3973.6  4019.5  4065.8  4112.3  4159.1  4206.1  4253.5  4301.1  4349.0  4397.1  4445.5  4494.2  4543.2  4592.4  4641.8 | 7.5211 7.5583 7.5949 7.6309 7.6664 7.7012 7.7355 7.7693 7.8027 7.8355 7.8680 7.9000 7.9315 7.9627 7.9935 8.0239 8.0540 8.0837 8.1131 8.1422 8.1709  8.1994 8.2275 8.2554 8.3103 8.3642 8.4170 8.4689 8.5200 8.5701 8.6195 8.6681 8.7159 8.7631 8.8095 8.8553 8.9005 8.9451 8.9891 9.0326 9.0755 9.1179 9.1598 9.2012 9.2421 9.2825 9.3226 9.3621  9.4013 |
| 138.857  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.52418 0.52591 0.53341 0.54083 0.54818 0.55547 0.56272 0.56991 0.57707 0.58419 0.59128 0.59834 0.60537 0.61238 0.62633 0.64020 0.65400 0.66775 0.68145 0.69510  0.70872 | 2548.5  2550.5  2559.2  2567.8  2576.2  2584.5  2592.7  2600.9  2609.1  2617.1  2625.2  2633.2  2641.1  2649.1  2664.9  2680.6  2696.3  2712.0  2727.7  2743.3  2758.9 | 2732.0  2734.6  2745.9  2757.1  2768.1  2778.9  2789.7  2800.4  2811.1  2821.6  2832.1  2842.6  2853.0  2863.4  2884.1  2904.7  2925.2  2945.7  2966.2  2986.6  3007.0 | 6.9401 6.9465 6.9738 7.0003 7.0261 7.0514 7.0761 7.1004 7.1243 7.1477 7.1708 7.1935 7.2159 7.2380 7.2813 7.3235 7.3647 7.4050 7.4444 7.4831  7.5211 |
|  | | | | |

**40 MPa ( = 143**.**608**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  143.608 | 0.00100001 0.00099989 0.00100015 0.00100076 0.00100166 0.00100283 0.00100424 0.00100587 0.00100771 0.00100975 0.00101198 0.00101438 0.00101696 0.00101970 0.00102260 0.00102567 0.00102889 0.00103226 0.00103579 0.00103947 0.00104331 0.00104730 0.00105144 0.00105575 0.00106021 0.00106484 0.00106963 0.00107459 0.00107973  0.00108355 | -0.03  21.02 42.01 62.96  83.89  104.80  125.69  146.59  167.48  188.38  209.28  230.17  251.09  272.02  292.96  313.91  334.88  355.87  376.88  397.91  418.97  440.06  461.18  482.34  503.53  524.76  546.04  567.37  588.76  604.22 | 0.37  21.42 42.41 63.36  84.29  105.20  126.09  146.99  167.88  188.78  209.68  230.58  251.50  272.43  293.37  314.32  335.29  356.28  377.29  398.33  419.39  440.48  461.60  482.76  503.95  525.19  546.47  567.80  589.19  604.65 | -0.00013  0.07625 0.15105 0.22440 0.29640 0.36712 0.43663 0.50499 0.57225 0.63845 0.70363 0.76783 0.83109 0.89344  0.95491  1.0155 1.0753 1.1344 1.1926  1.2502 1.3070 1.3631 1.4186 1.4735 1.5277 1.5814 1.6345 1.6871  1.7392  1.7765 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.61917 0.63111 0.64301 0.65489 0.66674 0.67858 0.69039 0.70218 0.71396 0.72572 0.73747 0.74921 0.76093 0.77264 0.78435 0.79605 0.80773 0.81941 0.83109 0.84275 0.85441 0.86607 0.87771 0.88936 0.91263 0.93589 0.95913  0.98236  1.0056 1.0288 1.0520 1.0752 1.0983 1.1215 1.1447 1.1678 1.1910 1.2142 1.2373 1.2604 1.2836 1.3067 1.3298 1.3530 1.3761 1.3992 1.4223 1.4455  1.4686 | 2757.8  2773.6  2789.4  2805.1  2820.9  2836.8  2852.6  2868.5  2884.4  2900.4  2916.5  2932.5  2948.6  2964.8  2981.1  2997.4  3013.7  3030.1  3046.6  3063.1  3079.6  3096.4  3113.0  3129.8  3163.5  3197.5  3231.7  3266.3  3301.0  3336.1  3371.4  3406.9  3442.9  3479.0  3515.4  3552.2  3589.1  3626.3  3663.9  3701.7  3739.9  3778.2  3816.9  3855.7  3894.9  3934.3  3974.1  4014.0  4054.3 | 3005.5  3026.0  3046.6  3067.1  3087.6  3108.2  3128.8  3149.4  3170.0  3190.7  3211.5  3232.2  3253.0  3273.9  3294.8  3315.8  3336.8  3357.9  3379.0  3400.2  3421.4  3442.8  3464.1  3485.5  3528.6  3571.9  3615.4  3659.2  3703.2  3747.6  3792.2  3837.0  3882.2  3927.6  3973.3  4019.3  4065.5  4112.0  4158.8  4205.9  4253.3  4300.9  4348.8  4396.9  4445.3  4494.0  4543.0  4592.2  4641.7 | 7.4574 7.4948 7.5316 7.5677 7.6032 7.6382 7.6726 7.7065 7.7399 7.7728 7.8053 7.8374 7.8690 7.9002 7.9311 7.9615 7.9917 8.0214 8.0508 8.0799 8.1087 8.1372 8.1654 8.1933 8.2482 8.3021 8.3550 8.4069 8.4580 8.5082 8.5576 8.6062 8.6540 8.7012 8.7477 8.7935 8.8387 8.8833 8.9273 8.9708 9.0137 9.0561 9.0980 9.1394 9.1803 9.2208 9.2608 9.3004  9.3396 |
| 143.608  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.46238 0.46425 0.47088 0.47744 0.48393 0.49037 0.49676 0.50310 0.50941 0.51569 0.52193 0.52814 0.53433 0.54665 0.55888 0.57104 0.58314 0.59520 0.60720  0.61917 | 2553.1  2555.6  2564.4  2573.1  2581.6  2590.1  2598.4  2606.7  2614.8  2623.0  2631.1  2639.1  2647.2  2663.1  2679.0  2694.9  2710.6  2726.4  2742.1  2757.8 | 2738.1  2741.3  2752.8  2764.1  2775.2  2786.2  2797.1  2807.9  2818.6  2829.3  2839.9  2850.4  2860.9  2881.8  2902.6  2923.3  2943.9  2964.5  2985.0  3005.5 | 6.8955 6.9033 6.9306 6.9571 6.9829 7.0081 7.0329 7.0571 7.0809 7.1043 7.1273 7.1500 7.1723 7.2160 7.2586 7.3001 7.3407 7.3804 7.4193  7.4574 |
|  | | | | |

**45 MPa ( = 147**.**903**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  147.903 | 0.00099998 0.00099986 0.00100013 0.00100074 0.00100164 0.00100280 0.00100421 0.00100585 0.00100769 0.00100973 0.00101195 0.00101436 0.00101693 0.00101968 0.00102258 0.00102564 0.00102886 0.00103224 0.00103577 0.00103945 0.00104328 0.00104727 0.00105142 0.00105572 0.00106018 0.00106481 0.00106960 0.00107456 0.00107970 0.00108502  0.00108819 | -0.03  21.02 42.01 62.96  83.89  104.79  125.69  146.58  167.48  188.37  209.26  230.17  251.08  272.01  292.95  313.90  334.87  355.86  376.86  397.90  418.96  440.05  461.17  482.31  503.51  524.74  546.03  567.36  588.73  610.17  622.65 | 0.42  21.47 42.46 63.41  84.34  105.24  126.14  147.03  167.93  188.82  209.72  230.63  251.54  272.47  293.41  314.36  335.33  356.32  377.33  398.37  419.43  440.52  461.64  482.79  503.99  525.22  546.51  567.84  589.22  610.66  623.14 | -0.00012  0.07625 0.15105 0.22440 0.29639 0.36711 0.43662 0.50498 0.57223 0.63843 0.70361 0.76781 0.83106 0.89341  0.95488  1.0155 1.0753 1.1343 1.1926 1.2501 1.3069 1.3631 1.4186 1.4734 1.5277 1.5814 1.6345 1.6871 1.7391 1.7907  1.8205 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.54953 0.56018 0.57081 0.58140 0.59198 0.60253 0.61306 0.62357 0.63407 0.64455 0.65501 0.66547 0.67591 0.68634 0.69677 0.70718 0.71759 0.72799 0.73838 0.74876 0.75914 0.76951 0.77988 0.79024 0.81095 0.83164 0.85232 0.87298 0.89364 0.91428 0.93491 0.95554 0.97615 0.99676  1.0174 1.0380 1.0586 1.0791 1.0997 1.1203 1.1409 1.1614 1.1820 1.2026 1.2231 1.2437 1.2643 1.2848  1.3054 | 2756.7  2772.5  2788.3  2804.2  2820.0  2835.9  2851.8  2867.8  2883.8  2899.8  2915.8  2931.9  2948.0  2964.2  2980.6  2996.9  3013.2  3029.6  3046.1  3062.7  3079.3  3095.9  3112.7  3129.4  3163.2  3197.2  3231.4  3266.0  3300.8  3335.8  3371.1  3406.7  3442.6  3478.8  3515.2  3551.9  3588.9  3626.2  3663.7  3701.6  3739.6  3778.1  3816.7  3855.5  3894.8  3934.2  3973.9  4013.9  4054.1 | 3004.0  3024.6  3045.2  3065.8  3086.4  3107.0  3127.7  3148.4  3169.1  3189.8  3210.6  3231.4  3252.2  3273.1  3294.1  3315.1  3336.1  3357.2  3378.4  3399.6  3420.9  3442.2  3463.6  3485.0  3528.1  3571.4  3614.9  3658.8  3702.9  3747.2  3791.8  3836.7  3881.9  3927.3  3973.0  4019.0  4065.3  4111.8  4158.6  4205.7  4253.0  4300.7  4348.6  4396.7  4445.2  4493.9  4542.8  4592.1  4641.5 | 7.4010 7.4385 7.4754 7.5117 7.5473 7.5824 7.6169 7.6509 7.6844 7.7174 7.7499 7.7820 7.8137 7.8450 7.8759 7.9064 7.9366 7.9664 7.9958 8.0250 8.0538 8.0823 8.1105 8.1384 8.1934 8.2473 8.3002 8.3522 8.4033 8.4535 8.5029 8.5515 8.5994 8.6466 8.6931 8.7389 8.7842 8.8288 8.8728 8.9163 8.9592 9.0016 9.0435 9.0849 9.1258 9.1663 9.2064 9.2460  9.2851 |
| 147.903  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.41390 0.41642 0.42237 0.42825 0.43406 0.43983 0.44555 0.45123 0.45687 0.46248 0.46806 0.47362 0.48466 0.49561 0.50650 0.51733 0.52811 0.53884  0.54953 | 2557.1  2560.9  2569.8  2578.6  2587.3  2595.8  2604.2  2612.4  2620.8  2629.0  2637.2  2645.3  2661.4  2677.5  2693.4  2709.3  2725.2  2740.9  2756.7 | 2743.4  2748.3  2759.9  2771.3  2782.6  2793.7  2804.7  2815.5  2826.4  2837.1  2847.8  2858.4  2879.5  2900.5  2921.3  2942.1  2962.8  2983.4  3004.0 | 6.8560 6.8678 6.8950 6.9215 6.9473 6.9725 6.9971 7.0213 7.0450 7.0683 7.0913 7.1138 7.1580 7.2009 7.2428 7.2836 7.3235 7.3626  7.4010 |
|  | | | | |

**50 MPa ( = 151**.**831**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  151.831 | 0.00099995 0.00099984 0.00100011 0.00100071 0.00100161 0.00100278 0.00100419 0.00100582 0.00100767 0.00100971 0.00101193 0.00101434 0.00101691 0.00101965 0.00102256 0.00102562 0.00102884 0.00103221 0.00103574 0.00103942 0.00104326 0.00104725 0.00105139 0.00105569 0.00106016 0.00106478 0.00106957 0.00107453 0.00107967 0.00108499 0.00109049  0.00109255 | -0.03  21.02 42.01 62.96  83.88  104.79  125.69  146.58  167.47  188.36  209.25  230.16  251.07  272.00  292.94  313.89  334.86  355.84  376.85  397.89  418.95  440.03  461.14  482.30  503.49  524.73  546.01  567.33  588.71  610.15  631.64  639.54 | 0.47  21.52 42.51 63.46  84.38  105.29  126.19  147.08  167.97  188.86  209.76  230.67  251.58  272.51  293.45  314.40  335.37  356.36  377.37  398.41  419.47  440.55  461.67  482.83  504.02  525.26  546.54  567.87  589.25  610.69  632.19  640.09 | -0.00012  0.07625 0.15104 0.22439 0.29638 0.36710 0.43660 0.50496 0.57221 0.63840 0.70358 0.76778 0.83104 0.89338  0.95485  1.0155 1.0753 1.1343 1.1926  1.2501 1.3069 1.3630 1.4185 1.4734 1.5276 1.5813 1.6344 1.6870 1.7391 1.7907  1.8418  1.8604 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.49380 0.50344 0.51304 0.52261 0.53216 0.54169 0.55119 0.56068 0.57015 0.57961 0.58905 0.59848 0.60790 0.61730 0.62670 0.63609 0.64547 0.65484 0.66421 0.67357 0.68292 0.69227 0.70161 0.71094 0.72960 0.74824 0.76687 0.78548 0.80409 0.82268 0.84126 0.85983 0.87840 0.89696 0.91551 0.93405 0.95259 0.97113  0.98966  1.0082 1.0267 1.0452 1.0637 1.0823 1.1008 1.1193 1.1378 1.1563  1.1748 | 2755.6  2771.5  2787.4  2803.3  2819.1  2835.1  2851.0  2867.0  2883.0  2899.1  2915.2  2931.3  2947.4  2963.7  2979.9  2996.4  3012.7  3029.2  3045.6  3062.2  3078.8  3095.5  3112.2  3129.0  3162.8  3196.8  3231.1  3265.7  3300.5  3335.5  3370.9  3406.5  3442.4  3478.5  3514.9  3551.7  3588.7  3626.0  3663.6  3701.4  3739.4  3777.9  3816.5  3855.5  3894.6  3934.1  3973.8  4013.8  4054.0 | 3002.5  3023.2  3043.9  3064.6  3085.2  3105.9  3126.6  3147.3  3168.1  3188.9  3209.7  3230.5  3251.4  3272.3  3293.3  3314.4  3335.4  3356.6  3377.7  3399.0  3420.3  3441.6  3463.0  3484.5  3527.6  3570.9  3614.5  3658.4  3702.5  3746.8  3791.5  3836.4  3881.6  3927.0  3972.7  4018.7  4065.0  4111.6  4158.4  4205.5  4252.8  4300.5  4348.4  4396.6  4445.0  4493.7  4542.7  4591.9  4641.4 | 7.3502 7.3880 7.4250 7.4614 7.4972 7.5323 7.5669 7.6010 7.6346 7.6677 7.7003 7.7325 7.7642 7.7955 7.8265 7.8570 7.8872 7.9170 7.9465 7.9757 8.0045 8.0331 8.0613 8.0892 8.1443 8.1983 8.2512 8.3032 8.3543 8.4046 8.4540 8.5027 8.5506 8.5977 8.6443 8.6901 8.7353 8.7800 8.8240 8.8675 8.9104 8.9528 8.9947 9.0362 9.0771 9.1176 9.1576 9.1972  9.2364 |
| 151.831  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.37481 0.37827 0.38366 0.38899 0.39426 0.39948 0.40466 0.40980 0.41491 0.41998 0.42503 0.43506 0.44500 0.45487 0.46467 0.47443 0.48414  0.49380 | 2560.7  2566.6  2575.6  2584.4  2593.1  2601.7  2610.1  2618.5  2626.8  2635.1  2643.3  2659.7  2675.8  2691.9  2707.9  2723.8  2739.7  2755.6 | 2748.1  2755.7  2767.4  2778.9  2790.2  2801.4  2812.4  2823.4  2834.3  2845.1  2855.8  2877.2  2898.3  2919.3  2940.2  2961.0  2981.8  3002.5 | 6.8207 6.8384 6.8656 6.8919 6.9176 6.9427 6.9673 6.9913 7.0150 7.0382 7.0610 7.1056 7.1489 7.1911 7.2322 7.2724 7.3117  7.3502 |
|  | | | | |

**55 MPa ( = 155**.**456**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  155.456 | 0.00099993 0.00099981 0.00100008 0.00100069 0.00100159 0.00100276 0.00100417 0.00100580 0.00100764 0.00100968 0.00101191 0.00101431 0.00101689 0.00101963 0.00102253 0.00102560 0.00102882 0.00103219 0.00103572 0.00103940 0.00104323 0.00104722 0.00105136 0.00105567 0.00106013 0.00106475 0.00106954 0.00107450 0.00107964 0.00108495 0.00109045 0.00109615  0.00109668 | -0.03  21.02 42.01 62.96  83.88  104.79  125.68  146.57  167.46  188.35  209.25  230.15  251.07  271.99  292.93  313.88  334.84  355.83  376.84  397.87  418.93  440.01  461.13  482.29  503.48  524.70  545.98  567.31  588.69  610.12  631.62  653.19  655.16 | 0.52  21.57 42.56 63.51  84.43  105.34  126.23  147.12  168.01  188.91  209.81  230.71  251.63  272.55  293.49  314.44  335.41  356.40  377.41  398.44  419.50  440.59  461.71  482.87  504.06  525.29  546.57  567.90  589.28  610.72  632.22  653.79  655.76 | -0.00012  0.07624 0.15104 0.22438 0.29637 0.36708 0.43659 0.50494 0.57219 0.63838 0.70356 0.76776 0.83101 0.89336  0.95482  1.0154 1.0752 1.1343 1.1925 1.2500 1.3069 1.3630 1.4185 1.4733 1.5276 1.5813 1.6344 1.6870 1.7390 1.7906 1.8417 1.8924  1.8970 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.44821 0.45701 0.46577 0.47451 0.48322 0.49191 0.50057 0.50922 0.51786 0.52647 0.53508 0.54367 0.55225 0.56082 0.56937 0.57792 0.58647 0.59500 0.60353 0.61205 0.62056 0.62907 0.63757 0.64607 0.66305 0.68001 0.69696 0.71389 0.73082 0.74773 0.76463 0.78153 0.79842 0.81530 0.83217 0.84904 0.86590 0.88276 0.89961 0.91646 0.93330 0.95015 0.96698  0.98382  1.0007 1.0175 1.0343 1.0511  1.0680 | 2754.5  2770.4  2786.3  2802.3  2818.2  2834.2  2850.2  2866.2  2882.3  2898.3  2914.5  2930.7  2946.9  2963.1  2979.4  2995.7  3012.1  3028.6  3045.2  3061.8  3078.4  3095.0  3111.8  3128.6  3162.4  3196.4  3230.8  3265.3  3300.1  3335.2  3370.6  3406.3  3442.2  3478.3  3514.8  3551.5  3588.6  3625.8  3663.4  3701.2  3739.3  3777.7  3816.4  3855.3  3894.4  3933.9  3973.6  4013.7  4053.9 | 3001.0  3021.8  3042.5  3063.3  3084.0  3104.8  3125.5  3146.3  3167.1  3187.9  3208.8  3229.7  3250.6  3271.6  3292.6  3313.6  3334.7  3355.9  3377.1  3398.4  3419.7  3441.0  3462.5  3483.9  3527.1  3570.4  3614.1  3657.9  3702.1  3746.5  3791.1  3836.1  3881.3  3926.7  3972.5  4018.5  4064.8  4111.3  4158.2  4205.3  4252.6  4300.3  4348.2  4396.4  4444.8  4493.5  4542.5  4591.8  4641.3 | 7.3041 7.3421 7.3793 7.4158 7.4517 7.4869 7.5216 7.5558 7.5894 7.6226 7.6553 7.6875 7.7193 7.7507 7.7817 7.8123 7.8425 7.8724 7.9019 7.9311 7.9600 7.9885 8.0168 8.0447 8.0998 8.1538 8.2068 8.2589 8.3100 8.3603 8.4097 8.4584 8.5063 8.5535 8.6000 8.6459 8.6912 8.7358 8.7798 8.8233 8.8663 8.9087 8.9506  8.9920 9.0330 9.0735 9.1135 9.1531  9.1923 |
| 155.456  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.34260 0.34715 0.35208 0.35695 0.36177 0.36654 0.37127 0.37597 0.38063 0.38527 0.39447 0.40358 0.41261 0.42159 0.43051 0.43938  0.44821 | 2563.9  2572.4  2581.5  2590.3  2599.0  2607.7  2616.2  2624.6  2633.1  2641.3  2657.8  2674.1  2690.4  2706.4  2722.5  2738.5  2754.5 | 2752.3  2763.3  2775.1  2786.6  2798.0  2809.3  2820.4  2831.4  2842.4  2853.2  2874.8  2896.1  2917.3  2938.3  2959.3  2980.2  3001.0 | 6.7886 6.8140 6.8410 6.8673 6.8928 6.9178 6.9422 6.9662 6.9897 7.0128 7.0579 7.1016 7.1441 7.1855 7.2259 7.2655  7.3041 |
|  | | | | |

**60 MPa ( = 158**.**826**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  158.826 | 0.00099990 0.00099979 0.00100006 0.00100067 0.00100157 0.00100273 0.00100415 0.00100578 0.00100762 0.00100966 0.00101189 0.00101429 0.00101687 0.00101961 0.00102251 0.00102557 0.00102879 0.00103217 0.00103569 0.00103937 0.00104321 0.00104719 0.00105134 0.00105564 0.00106010 0.00106472 0.00106951 0.00107447 0.00107961 0.00108492 0.00109042 0.00109611  0.00110060 | -0.03  21.02 42.01 62.95  83.88  104.78  125.68  146.57  167.46  188.34  209.24  230.14  251.06  271.98  292.92  313.86  334.83  355.82  376.83  397.86  418.91  440.00  461.12  482.27  503.45  524.69  545.97  567.29  588.67  610.11  631.61  653.16  669.72 | 0.57  21.62 42.61 63.55  84.48  105.38  126.28  147.17  168.06  188.95  209.85  230.75  251.67  272.59  293.53  314.48  335.45  356.44  377.45  398.48  419.54  440.63  461.75  482.90  504.09  525.33  546.61  567.93  589.32  610.76  632.26  653.82  670.38 | -0.00011  0.07624 0.15103 0.22437 0.29636 0.36707 0.43657 0.50492 0.57217 0.63836 0.70354 0.76773 0.83098 0.89333  0.95479  1.0154 1.0752 1.1342 1.1925  1.2500 1.3068 1.3630 1.4184 1.4733 1.5275 1.5812 1.6343 1.6869 1.7390 1.7905 1.8417  1.8923  1.9308 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.41021 0.41831 0.42638 0.43442 0.44243 0.45042 0.45839 0.46634 0.47427 0.48219 0.49010 0.49799 0.50587 0.51374 0.52160 0.52945 0.53729 0.54513 0.55296 0.56078 0.56859 0.57640 0.58420 0.59200 0.60758 0.62315 0.63870 0.65424 0.66976 0.68528 0.70078 0.71628 0.73176 0.74725 0.76272 0.77819 0.79365 0.80911 0.82457 0.84002 0.85547 0.87091 0.88635 0.90178 0.91722 0.93265 0.94808 0.96351  0.97893 | 2753.4  2769.3  2785.4  2801.3  2817.3  2833.3  2849.4  2865.5  2881.5  2897.7  2913.8  2930.0  2946.3  2962.6  2978.8  2995.2  3011.6  3028.1  3044.7  3061.2  3077.9  3094.7  3111.4  3128.2  3162.1  3196.1  3230.4  3265.0  3299.8  3334.9  3370.3  3405.9  3441.8  3478.0  3514.6  3551.3  3588.3  3625.6  3663.2  3701.0  3739.1  3777.6  3816.2  3855.1  3894.4  3933.8  3973.6  4013.5  4053.7 | 2999.5  3020.3  3041.2  3062.0  3082.8  3103.6  3124.4  3145.3  3166.1  3187.0  3207.9  3228.8  3249.8  3270.8  3291.8  3312.9  3334.0  3355.2  3376.5  3397.7  3419.1  3440.5  3461.9  3483.4  3526.6  3570.0  3613.6  3657.5  3701.7  3746.1  3790.8  3835.7  3880.9  3926.4  3972.2  4018.2  4064.5  4111.1  4157.9  4205.0  4252.4  4300.1  4348.0  4396.2  4444.7  4493.4  4542.4  4591.6  4641.1 | 7.2619 7.3000 7.3373 7.3740 7.4100 7.4453 7.4801 7.5144 7.5481 7.5813 7.6141 7.6464 7.6782 7.7097 7.7407 7.7713 7.8016 7.8315 7.8611 7.8903 7.9192 7.9478 7.9761 8.0041 8.0592 8.1132 8.1663 8.2183 8.2695 8.3198 8.3693 8.4180 8.4659 8.5131 8.5597 8.6056 8.6508 8.6954 8.7395 8.7830 8.8260 8.8684 8.9103 8.9518 8.9927 9.0332 9.0733 9.1129  9.1521 |
| 158.826  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.31558 0.31668 0.32129 0.32583 0.33032 0.33475 0.33915 0.34350 0.34783 0.35212 0.36063 0.36905 0.37740 0.38568 0.39390 0.40208  0.41021 | 2566.8  2569.0  2578.3  2587.5  2596.4  2605.1  2613.8  2622.4  2630.9  2639.3  2656.0  2672.5  2688.9  2705.1  2721.3  2737.3  2753.4 | 2756.1  2759.0  2771.1  2783.0  2794.6  2806.0  2817.3  2828.5  2839.6  2850.6  2872.4  2893.9  2915.3  2936.5  2957.6  2978.5  2999.5 | 6.7592 6.7659 6.7937 6.8206 6.8466 6.8720 6.8968 6.9211 6.9449 6.9683 7.0139 7.0580 7.1008 7.1426 7.1832 7.2230  7.2619 |
|  | | | | |

**65 MPa ( = 161**.**980**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  161.980 | 0.00099988 0.00099976 0.00100004 0.00100064 0.00100154 0.00100271 0.00100412 0.00100576 0.00100760 0.00100964 0.00101186 0.00101427 0.00101684 0.00101958 0.00102249 0.00102555 0.00102877 0.00103214 0.00103567 0.00103935 0.00104318 0.00104717 0.00105131 0.00105561 0.00106007 0.00106469 0.00106948 0.00107444 0.00107957 0.00108489 0.00109039 0.00109608 0.00110197  0.00110436 | -0.03  21.02 42.00 62.95  83.87  104.78  125.67  146.56  167.45  188.33  209.23  230.14  251.05  271.97  292.91  313.85  334.82  355.81  376.82  397.84  418.90  439.99  461.10  482.25  503.44  524.67  545.94  567.27  588.65  610.08  631.58  653.14  674.77  683.36 | 0.62  21.67 42.65 63.60  84.52  105.43  126.32  147.21  168.10  188.99  209.89  230.80  251.71  272.63  293.57  314.52  335.49  356.48  377.49  398.52  419.58  440.67  461.78  482.94  504.13  525.36  546.64  567.97  589.35  610.79  632.29  653.85  675.49  684.08 | -0.00011  0.07624 0.15103 0.22437 0.29635 0.36706 0.43656 0.50491 0.57215 0.63834 0.70351 0.76771 0.83096 0.89330  0.95476  1.0154 1.0752 1.1342 1.1924 1.2500 1.3068 1.3629 1.4184 1.4733 1.5275 1.5812 1.6343 1.6869 1.7389 1.7905 1.8416 1.8923 1.9425  1.9623 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.37806 0.38557 0.39305 0.40049 0.40792 0.41532 0.42270 0.43006 0.43740 0.44473 0.45204 0.45934 0.46663 0.47391 0.48118 0.48844 0.49569 0.50293 0.51017 0.51740 0.52462 0.53184 0.53905 0.54625 0.56065 0.57503 0.58940 0.60376 0.61810 0.63243 0.64675 0.66106 0.67537 0.68967 0.70396 0.71824 0.73252 0.74680 0.76107 0.77534 0.78960 0.80386 0.81812 0.83237 0.84662 0.86087 0.87512 0.88936  0.90360 | 2752.2  2768.3  2784.3  2800.4  2816.5  2832.5  2848.6  2864.7  2880.8  2897.0  2913.2  2929.4  2945.7  2962.0  2978.3  2994.7  3011.2  3027.7  3044.2  3060.8  3077.5  3094.2  3110.9  3127.8  3161.7  3195.7  3230.1  3264.7  3299.5  3334.6  3370.0  3405.7  3441.6  3477.8  3514.3  3551.0  3588.2  3625.4  3663.0  3700.8  3739.0  3777.4  3816.0  3855.0  3894.2  3933.6  3973.4  4013.4  4053.7 | 2997.9  3018.9  3039.8  3060.7  3081.6  3102.5  3123.4  3144.2  3165.1  3186.1  3207.0  3228.0  3249.0  3270.0  3291.1  3312.2  3333.4  3354.6  3375.8  3397.1  3418.5  3439.9  3461.3  3482.9  3526.1  3569.5  3613.2  3657.1  3701.3  3745.7  3790.4  3835.4  3880.6  3926.1  3971.9  4017.9  4064.3  4110.8  4157.7  4204.8  4252.2  4299.9  4347.8  4396.0  4444.5  4493.2  4542.2  4591.5  4641.0 | 7.2228 7.2611 7.2986 7.3353 7.3715 7.4070 7.4419 7.4762 7.5100 7.5433 7.5761 7.6085 7.6404 7.6719 7.7029 7.7336 7.7639 7.7939 7.8235 7.8527 7.8817 7.9103 7.9386 7.9666 8.0218 8.0759 8.1289 8.1810 8.2322 8.2825 8.3320 8.3808 8.4287 8.4760 8.5225 8.5684 8.6137 8.6583 8.7024 8.7459 8.7889 8.8313 8.8732 8.9147 8.9556 8.9962 9.0362  9.0758  9.1150 |
| 161.980  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.29259 0.29521 0.29948 0.30369 0.30784 0.31195 0.31602 0.32006 0.32406 0.33199 0.33983 0.34759 0.35528 0.36292 0.37051  0.37806 | 2569.4  2575.2  2584.5  2593.7  2602.6  2611.4  2620.2  2628.8  2637.4  2654.2  2670.8  2687.3  2703.7  2719.9  2736.1  2752.2 | 2759.6  2767.1  2779.2  2791.1  2802.7  2814.2  2825.6  2836.8  2848.0  2870.0  2891.7  2913.2  2934.6  2955.8  2976.9  2997.9 | 6.7322 6.7494 6.7769 6.8035 6.8293 6.8546 6.8792 6.9033 6.9270 6.9731 7.0176 7.0608 7.1028 7.1437 7.1837  7.2228 |
|  | | | | |

**70 MPa ( = 164**.**946**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  164.946 | 0.00099985 0.00099974 0.00100001 0.00100062 0.00100152 0.00100269 0.00100410 0.00100574 0.00100758 0.00100962 0.00101184 0.00101425 0.00101682 0.00101956 0.00102246 0.00102553 0.00102874 0.00103212 0.00103564 0.00103932 0.00104316 0.00104714 0.00105128 0.00105558 0.00106004 0.00106467 0.00106945 0.00107441 0.00107954 0.00108485 0.00109035 0.00109604 0.00110193  0.00110796 | -0.03  21.02 42.00 62.95  83.87  104.77  125.67  146.56  167.44  188.33  209.22  230.13  251.04  271.97  292.89  313.84  334.81  355.80  376.81  397.83  418.89  439.97  461.08  482.23  503.42  524.65  545.92  567.25  588.62  610.06  631.56  653.11  674.75  696.22 | 0.67  21.72 42.70 63.65  84.57  105.47  126.37  147.26  168.15  189.04  209.93  230.84  251.75  272.68  293.61  314.56  335.53  356.52  377.53  398.56  419.62  440.70  461.82  482.97  504.16  525.40  546.67  568.00  589.38  610.82  632.32  653.88  675.52  697.00 | -0.00011  0.07624 0.15102 0.22436 0.29634 0.36704 0.43654 0.50489 0.57213 0.63832 0.70349 0.76768 0.83093 0.89327  0.95473  1.0153 1.0751 1.1342 1.1924  1.2499 1.3067 1.3629 1.4184 1.4732 1.5275 1.5811 1.6342 1.6868 1.7389 1.7904 1.8416 1.8922 1.9425  1.9918 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.35050 0.35750 0.36447 0.37142 0.37833 0.38523 0.39210 0.39895 0.40579 0.41261 0.41942 0.42621 0.43299 0.43977 0.44653 0.45328 0.46003 0.46676 0.47349 0.48021 0.48693 0.49364 0.50034 0.50704 0.52043 0.53379 0.54715 0.56049 0.57381 0.58713 0.60044 0.61374 0.62703 0.64031 0.65359 0.66686 0.68013 0.69339 0.70664 0.71990 0.73315 0.74639 0.75963 0.77287 0.78611 0.79934 0.81257 0.82580  0.83903 | 2751.0  2767.3  2783.4  2799.4  2815.6  2831.6  2847.8  2863.9  2880.1  2896.3  2912.5  2928.8  2945.0  2961.4  2977.7  2994.2  3010.7  3027.2  3043.8  3060.4  3077.0  3093.8  3110.6  3127.4  3161.3  3195.3  3229.8  3264.4  3299.2  3334.4  3369.8  3405.5  3441.4  3477.6  3514.1  3550.9  3587.9  3625.2  3662.9  3700.7  3738.8  3777.2  3815.9  3854.8  3894.0  3933.5  3973.2  4013.2  4053.5 | 2996.4  3017.5  3038.5  3059.4  3080.4  3101.3  3122.3  3143.2  3164.2  3185.1  3206.1  3227.1  3248.1  3269.2  3290.3  3311.5  3332.7  3353.9  3375.2  3396.5  3417.9  3439.3  3460.8  3482.3  3525.6  3569.0  3612.8  3656.7  3700.9  3745.4  3790.1  3835.1  3880.3  3925.8  3971.6  4017.7  4064.0  4110.6  4157.5  4204.6  4252.0  4299.7  4347.6  4395.8  4444.3  4493.0  4542.0  4591.3  4640.8 | 7.1865 7.2249 7.2625 7.2995 7.3357 7.3713 7.4063 7.4407 7.4746 7.5080 7.5409 7.5733 7.6053 7.6368 7.6679 7.6986 7.7290 7.7590 7.7886 7.8179 7.8469 7.8755 7.9038 7.9319 7.9871 8.0412 8.0943 8.1465 8.1977 8.2480 8.2976 8.3463 8.3943 8.4415 8.4881 8.5340 8.5793 8.6239 8.6680 8.7115 8.7545 8.7970 8.8389 8.8804 8.9213 8.9618 9.0019 9.0415  9.0807 |
| 164.946  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.27277 0.27282 0.27687 0.28084 0.28476 0.28863 0.29245 0.29624 0.30000 0.30744 0.31478 0.32204 0.32923 0.33637 0.34345  0.35050 | 2571.9  2571.9  2581.6  2590.9  2600.1  2609.1  2617.9  2626.6  2635.3  2652.3  2669.2  2685.8  2702.2  2718.5  2734.8  2751.0 | 2762.8  2762.9  2775.4  2787.5  2799.4  2811.1  2822.6  2834.0  2845.3  2867.5  2889.5  2911.2  2932.7  2954.0  2975.2  2996.4 | 6.7071 6.7074 6.7357 6.7629 6.7893 6.8149 6.8399 6.8644 6.8884 6.9349 6.9799 7.0234 7.0658 7.1070 7.1472  7.1865 |
|  | | | | |

**75 MPa ( = 167**.**749**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  167.749 | 0.00099983 0.00099971 0.00099999 0.00100060 0.00100150 0.00100267 0.00100408 0.00100571 0.00100756 0.00100959 0.00101182 0.00101422 0.00101680 0.00101954 0.00102244 0.00102550 0.00102872 0.00103209 0.00103562 0.00103930 0.00104313 0.00104712 0.00105126 0.00105556 0.00106002 0.00106464 0.00106942 0.00107438 0.00107951 0.00108482 0.00109032 0.00109601 0.00110189 0.00110799  0.00111143 | -0.03  21.02 42.00 62.95  83.87  104.77  125.66  146.55  167.43  188.32  209.22  230.12  251.03  271.96  292.88  313.83  334.80  355.79  376.79  397.82  418.87  439.95  461.07  482.22  503.40  524.63  545.91  567.22  588.60  610.04  631.53  653.09  674.72  696.43  708.41 | 0.72  21.77 42.75 63.70  84.62  105.52  126.41  147.30  168.19  189.08  209.98  230.88  251.79  272.72  293.65  314.60  335.57  356.56  377.57  398.60  419.65  440.74  461.86  483.01  504.20  525.43  546.71  568.03  589.41  610.85  632.35  653.91  675.55  697.26  709.24 | -0.00010  0.07624 0.15102 0.22435 0.29633 0.36703 0.43653 0.50487 0.57211 0.63830 0.70347 0.76766 0.83090 0.89324  0.95470  1.0153 1.0751 1.1341 1.1924 1.2499 1.3067 1.3628 1.4183 1.4732 1.5274 1.5811 1.6342 1.6868 1.7388 1.7904 1.8415 1.8922 1.9424 1.9922  2.0195 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.32661 0.33317 0.33971 0.34621 0.35269 0.35915 0.36558 0.37200 0.37839 0.38478 0.39115 0.39750 0.40384 0.41018 0.41650 0.42281 0.42912 0.43541 0.44170 0.44799 0.45426 0.46053 0.46680 0.47306 0.48556 0.49805 0.51053 0.52299 0.53543 0.54787 0.56030 0.57272 0.58513 0.59754 0.60994 0.62233 0.63472 0.64710 0.65948 0.67185 0.68422 0.69659 0.70895 0.72131 0.73367 0.74602 0.75837 0.77072  0.78307 | 2749.8  2766.1  2782.3  2798.5  2814.7  2830.8  2847.0  2863.2  2879.4  2895.6  2911.8  2928.1  2944.4  2960.8  2977.2  2993.6  3010.2  3026.6  3043.2  3059.9  3076.6  3093.3  3110.1  3127.0  3160.9  3195.1  3229.4  3264.1  3298.9  3334.1  3369.6  3405.3  3441.2  3477.3  3513.8  3550.7  3587.8  3625.1  3662.6  3700.5  3738.6  3777.1  3815.7  3854.7  3893.8  3933.4  3973.1  4013.2  4053.4 | 2994.8  3016.0  3037.1  3058.2  3079.2  3100.2  3121.2  3142.2  3163.2  3184.2  3205.2  3226.2  3247.3  3268.4  3289.6  3310.7  3332.0  3353.2  3374.5  3395.9  3417.3  3438.7  3460.2  3481.8  3525.1  3568.6  3612.3  3656.3  3700.5  3745.0  3789.8  3834.8  3880.0  3925.5  3971.3  4017.4  4063.8  4110.4  4157.2  4204.4  4251.8  4299.5  4347.4  4395.7  4444.1  4492.9  4541.9  4591.2  4640.7 | 7.1525 7.1911 7.2289 7.2659 7.3023 7.3380 7.3731 7.4076 7.4416 7.4750 7.5080 7.5405 7.5725 7.6041 7.6353 7.6660 7.6964 7.7264 7.7561 7.7854 7.8144 7.8431 7.8715 7.8995 7.9548 8.0090 8.0621 8.1143 8.1655 8.2159 8.2654 8.3142 8.3622 8.4094 8.4560 8.5019 8.5472 8.5919 8.6360 8.6795 8.7225 8.7650 8.8069 8.8484 8.8894 8.9299 8.9699  9.0096  9.0488 |
| 167.749  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.25551 0.25724 0.26102 0.26474 0.26840 0.27202 0.27560 0.27914 0.28615 0.29306 0.29989 0.30665 0.31335 0.32000  0.32661 | 2574.0  2578.5  2588.0  2597.3  2606.5  2615.5  2624.4  2633.1  2650.4  2667.4  2684.2  2700.7  2717.2  2733.6  2749.8 | 2765.6  2771.4  2783.8  2795.9  2807.8  2819.5  2831.1  2842.5  2865.0  2887.2  2909.1  2930.7  2952.2  2973.6  2994.8 | 6.6836 6.6966 6.7245 6.7514 6.7775 6.8029 6.8277 6.8520 6.8991 6.9445 6.9884 7.0311 7.0725 7.1130  7.1525 |
|  | | | | |

**80 MPa ( = 170**.**406**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  170.406 | 0.00099980 0.00099969 0.00099996 0.00100057 0.00100148 0.00100264 0.00100406 0.00100569 0.00100753 0.00100957 0.00101180 0.00101420 0.00101678 0.00101952 0.00102242 0.00102548 0.00102870 0.00103207 0.00103559 0.00103927 0.00104310 0.00104709 0.00105123 0.00105553 0.00105999 0.00106461 0.00106939 0.00107435 0.00107948 0.00108479 0.00109028 0.00109597 0.00110186 0.00110795 0.00111426  0.00111478 | -0.03  21.02 42.00 62.95  83.86  104.77  125.66  146.55  167.43  188.32  209.21  230.11  251.03  271.94  292.87  313.82  334.79  355.77  376.77  397.80  418.86  439.94  461.05  482.20  503.38  524.62  545.88  567.21  588.59  610.01  631.51  653.06  674.70  696.40  718.20  719.97 | 0.77  21.82 42.80 63.75  84.66  105.57  126.46  147.35  168.24  189.13  210.02  230.92  251.84  272.76  293.69  314.64  335.61  356.60  377.60  398.63  419.69  440.78  461.89  483.04  504.23  525.47  546.74  568.07  589.45  610.88  632.38  653.94  675.58  697.29  719.09  720.86 | -0.00010  0.07624 0.15101 0.22434 0.29632 0.36702 0.43651 0.50485 0.57209 0.63828 0.70344 0.76763 0.83088 0.89321  0.95467  1.0153 1.0751 1.1341 1.1923  1.2499 1.3067 1.3628 1.4183 1.4731 1.5274 1.5810 1.6341 1.6867 1.7388 1.7903 1.8414 1.8921 1.9423 1.9922 2.0416  2.0457 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.30570 0.31189 0.31804 0.32416 0.33026 0.33633 0.34238 0.34841 0.35442 0.36042 0.36641 0.37238 0.37834 0.38428 0.39022 0.39615 0.40207 0.40798 0.41389 0.41979 0.42568 0.43157 0.43745 0.44332 0.45506 0.46678 0.47848 0.49017 0.50185 0.51352 0.52518 0.53683 0.54847 0.56011 0.57174 0.58336 0.59498 0.60659 0.61820 0.62981 0.64141 0.65300 0.66460 0.67619 0.68778 0.69936 0.71095 0.72253  0.73411 | 2748.7  2765.0  2781.3  2797.6  2813.8  2829.9  2846.2  2862.4  2878.7  2894.9  2911.2  2927.5  2943.8  2960.2  2976.6  2993.1  3009.6  3026.2  3042.8  3059.5  3076.2  3092.9  3109.7  3126.6  3160.6  3194.7  3229.1  3263.8  3298.6  3333.8  3369.3  3404.9  3440.9  3477.2  3513.7  3550.5  3587.5  3624.8  3662.4  3700.4  3738.5  3776.9  3815.5  3854.5  3893.8  3933.2  3972.9  4013.0  4053.2 | 2993.3  3014.5  3035.7  3056.9  3078.0  3099.0  3120.1  3141.1  3162.2  3183.2  3204.3  3225.4  3246.5  3267.6  3288.8  3310.0  3331.3  3352.6  3373.9  3395.3  3416.7  3438.2  3459.7  3481.3  3524.6  3568.1  3611.9  3655.9  3700.1  3744.6  3789.4  3834.4  3879.7  3925.3  3971.1  4017.2  4063.5  4110.1  4157.0  4204.2  4251.6  4299.3  4347.2  4395.5  4444.0  4492.7  4541.7  4591.0  4640.5 | 7.1205 7.1593 7.1973 7.2345 7.2710 7.3068 7.3420 7.3766 7.4106 7.4441 7.4772 7.5097 7.5418 7.5734 7.6046 7.6355 7.6659 7.6960 7.7257 7.7550 7.7840 7.8127 7.8411 7.8692 7.9245 7.9787 8.0319 8.0841 8.1354 8.1858 8.2353 8.2841 8.3321 8.3794 8.4260 8.4720 8.5173 8.5619 8.6061 8.6496 8.6926 8.7351 8.7770 8.8185 8.8595 8.9000 8.9400 8.9797  9.0189 |
| 170.406  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.24034 0.24366 0.24720 0.25068 0.25412 0.25752 0.26088 0.26752 0.27405 0.28050 0.28688 0.29320 0.29947  0.30570 | 2576.0  2585.1  2594.6  2604.1  2613.2  2622.2  2631.0  2648.5  2665.7  2682.6  2699.3  2715.8  2732.3  2748.7 | 2768.3  2780.0  2792.4  2804.6  2816.5  2828.2  2839.7  2862.5  2884.9  2907.0  2928.8  2950.4  2971.9  2993.3 | 6.6616 6.6879 6.7154 6.7420 6.7679 6.7930 6.8176 6.8653 6.9111 6.9554 6.9984 7.0401 7.0808  7.1205 |
|  | | | | |

**9 MPa ( = 175**.**350**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  175.350 | 0.00099975 0.00099964 0.00099992 0.00100053 0.00100143 0.00100260 0.00100401 0.00100565 0.00100749 0.00100953 0.00101175 0.00101416 0.00101673 0.00101947 0.00102237 0.00102543 0.00102865 0.00103202 0.00103555 0.00103922 0.00104305 0.00104704 0.00105118 0.00105547 0.00105993 0.00106455 0.00106933 0.00107429 0.00107942 0.00108472 0.00109022 0.00109590 0.00110179 0.00110788 0.00111418 0.00112072  0.00112118 | -0.03  21.01 42.00 62.94  83.86  104.76  125.65  146.53  167.41  188.30  209.20  230.10  251.00  271.92  292.86  313.80  334.76  355.75  376.75  397.77  418.83  439.91  461.02  482.17  503.35  524.57  545.85  567.16  588.54  609.96  631.46  653.01  674.65  696.35  718.14  740.01  741.55 | 0.87  21.91 42.90 63.84  84.76  105.66  126.55  147.44  168.32  189.21  210.11  231.01  251.92  272.84  293.78  314.72  335.69  356.68  377.68  398.71  419.77  440.85  461.97  483.12  504.30  525.53  546.81  568.13  589.51  610.94  632.44  654.00  675.64  697.35  719.14  741.02  742.56 | -0.00009  0.07624 0.15101 0.22433 0.29630 0.36699 0.43648 0.50482 0.57205 0.63823 0.70340 0.76758 0.83082 0.89316  0.95461  1.0152 1.0750 1.1340 1.1923 1.2498 1.3066 1.3627 1.4182 1.4730 1.5273 1.5809 1.6340 1.6866 1.7387 1.7902 1.8413 1.8920 1.9422 1.9921 2.0415 2.0906  2.0940 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.27085 0.27640 0.28192 0.28740 0.29286 0.29829 0.30370 0.30909 0.31447 0.31983 0.32517 0.33050 0.33582 0.34113 0.34643 0.35172 0.35700 0.36227 0.36753 0.37279 0.37804 0.38329 0.38853 0.39376 0.40422 0.41465 0.42508 0.43549 0.44588 0.45627 0.46665 0.47702 0.48738 0.49773 0.50808 0.51842 0.52876 0.53909 0.54941 0.55974 0.57005 0.58037 0.59068 0.60099 0.61130 0.62160 0.63190 0.64220  0.65250 | 2746.3  2762.8  2779.3  2795.6  2811.9  2828.2  2844.6  2860.8  2877.2  2893.5  2909.8  2926.3  2942.6  2959.1  2975.5  2992.1  3008.6  3025.2  3041.8  3058.5  3075.3  3092.0  3108.9  3125.8  3159.8  3194.0  3228.4  3263.2  3298.1  3333.3  3368.7  3404.5  3440.5  3476.7  3513.2  3550.0  3587.1  3624.4  3662.1  3699.9  3738.2  3776.6  3815.3  3854.2  3893.4  3933.0  3972.7  4012.7  4053.0 | 2990.1  3011.6  3033.0  3054.3  3075.5  3096.7  3117.9  3139.0  3160.2  3181.3  3202.5  3223.7  3244.8  3266.1  3287.3  3308.6  3329.9  3351.2  3372.6  3394.0  3415.5  3437.0  3458.6  3480.2  3523.6  3567.2  3611.0  3655.1  3699.4  3743.9  3788.7  3833.8  3879.1  3924.7  3970.5  4016.6  4063.0  4109.6  4156.6  4203.7  4251.2  4298.9  4346.9  4395.1  4443.6  4492.4  4541.4  4590.7  4640.2 | 7.0618 7.1009 7.1392 7.1767 7.2134 7.2495 7.2849 7.3197 7.3539 7.3876 7.4207 7.4534 7.4856 7.5173 7.5486 7.5795 7.6101 7.6402 7.6700 7.6994 7.7285 7.7572 7.7857 7.8138 7.8692 7.9235 7.9768 8.0290 8.0803 8.1308 8.1804 8.2292 8.2773 8.3246 8.3712 8.4172 8.4625 8.5072 8.5514 8.5949 8.6379 8.6804 8.7224 8.7639 8.8049 8.8454 8.8855  8.9251  8.9643 |
| 175.350  180  185  190  195  200  210  220  230  240  250  260  270 | 0.21489 0.21792 0.22112 0.22426 0.22736 0.23042 0.23644 0.24236 0.24818 0.25393 0.25962 0.26526  0.27085 | 2579.6  2589.1  2598.8  2608.3  2617.6  2626.7  2644.6  2662.2  2679.3  2696.4  2713.1  2729.8  2746.3 | 2773.0  2785.2  2797.8  2810.1  2822.2  2834.1  2857.4  2880.3  2902.7  2924.9  2946.8  2968.5  2990.1 | 6.6213 6.6482 6.6759 6.7027 6.7286 6.7539 6.8027 6.8495 6.8946 6.9382 6.9805 7.0216  7.0618 |
|  | | | | |

1. **MPa ( = 179**.**878**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  179.878 | 0.00099970 0.00099959 0.00099987 0.00100048 0.00100138 0.00100255 0.00100397 0.00100560 0.00100744 0.00100948 0.00101171 0.00101411 0.00101669 0.00101943 0.00102233 0.00102539 0.00102860 0.00103197 0.00103550 0.00103917 0.00104300 0.00104699 0.00105112 0.00105542 0.00105987 0.00106449 0.00106927 0.00107423 0.00107935 0.00108466 0.00109015 0.00109583 0.00110171 0.00110780 0.00111410 0.00112063  0.00112723 | -0.02  21.01 41.99 62.94  83.85  104.75  125.64  146.52  167.40  188.29  209.18  230.08  250.98  271.90  292.84  313.78  334.74  355.72  376.72  397.75  418.80  439.87  460.99  482.13  503.32  524.54  545.81  567.13  588.50  609.93  631.41  652.96  674.60  696.30  718.09  739.96  761.39 | 0.98  22.01 42.99 63.94  84.85  105.75  126.64  147.53  168.41  189.30  210.19  231.09  252.00  272.92  293.86  314.81  335.77  356.75  377.76  398.79  419.84  440.92  462.04  483.19  504.38  525.60  546.88  568.20  589.58  611.01  632.50  654.06  675.70  697.41  719.20  741.08  762.52 | -0.00009  0.07624 0.15100 0.22431 0.29628 0.36697 0.43645 0.50478 0.57202 0.63819 0.70335 0.76753 0.83077 0.89310  0.95455  1.0152 1.0750 1.1340 1.1922  1.2497 1.3065 1.3626 1.4181 1.4729 1.5272 1.5808 1.6339 1.6865 1.7386 1.7901 1.8412 1.8919 1.9421 1.9919 2.0414 2.0905  2.1381 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.24296 0.24801 0.25301 0.25799 0.26294 0.26786 0.27276 0.27764 0.28250 0.28735 0.29218 0.29700 0.30181 0.30661 0.31139 0.31617 0.32094 0.32569 0.33045 0.33519 0.33993 0.34466 0.34939 0.35411 0.36354 0.37295 0.38235 0.39174 0.40111 0.41047 0.41982 0.42916 0.43850 0.44783 0.45715 0.46647 0.47578 0.48508 0.49438 0.50368 0.51297 0.52226 0.53155 0.54083 0.55011 0.55939 0.56867 0.57794  0.58721 | 2743.9  2760.6  2777.2  2793.6  2810.1  2826.5  2842.9  2859.3  2875.7  2892.0  2908.5  2924.9  2941.4  2957.9  2974.4  2990.9  3007.6  3024.2  3040.9  3057.6  3074.4  3091.1  3108.0  3125.0  3159.1  3193.3  3227.8  3262.5  3297.5  3332.7  3368.2  3403.9  3440.0  3476.3  3512.9  3549.6  3586.7  3624.1  3661.7  3699.6  3737.8  3776.2  3814.9  3854.0  3893.2  3932.7  3972.4  4012.5  4052.7 | 2986.9  3008.6  3030.2  3051.6  3073.0  3094.4  3115.7  3136.9  3158.2  3179.4  3200.7  3221.9  3243.2  3264.5  3285.8  3307.1  3328.5  3349.9  3371.3  3392.8  3414.3  3435.8  3457.4  3479.1  3522.6  3566.2  3610.1  3654.2  3698.6  3743.2  3788.0  3833.1  3878.5  3924.1  3970.0  4016.1  4062.5  4109.2  4156.1  4203.3  4250.8  4298.5  4346.5  4394.8  4443.3  4492.1  4541.1  4590.4  4639.9 | 7.0087 7.0482 7.0868 7.1246 7.1616 7.1979 7.2335 7.2685 7.3029 7.3367 7.3700 7.4028 7.4351 7.4669 7.4984 7.5294 7.5600 7.5902 7.6200 7.6495 7.6786 7.7075 7.7360 7.7641 7.8196 7.8740 7.9273 7.9796 8.0310 8.0815 8.1312 8.1800 8.2281 8.2755 8.3221 8.3681 8.4135 8.4582 8.5024 8.5460 8.5890 8.6315 8.6735 8.7150 8.7560 8.7965 8.8366 8.8763  8.9155 |
| 179.878  180  185  190  195  200  210  220  230  240  250  260  270 | 0.19436 0.19444 0.19742 0.20034 0.20320 0.20602 0.21156 0.21698 0.22231 0.22756 0.23275 0.23788  0.24296 | 2582.7  2583.0  2593.3  2603.2  2612.8  2622.3  2640.6  2658.5  2676.1  2693.3  2710.4  2727.2  2743.9 | 2777.1  2777.4  2790.7  2803.5  2816.0  2828.3  2852.2  2875.5  2898.4  2920.9  2943.1  2965.1  2986.9 | 6.5850 6.5857 6.6148 6.6427 6.6695 6.6955 6.7456 6.7934 6.8393 6.8836 6.9265 6.9681  7.0087 |
|  | | | | |

1. **MPa ( = 184**.**062**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  184.062 | 0.00099965 0.00099954 0.00099982 0.00100043 0.00100134 0.00100251 0.00100392 0.00100556 0.00100740 0.00100944 0.00101166 0.00101407 0.00101664 0.00101938 0.00102228 0.00102534 0.00102856 0.00103192 0.00103545 0.00103912 0.00104295 0.00104693 0.00105107 0.00105537 0.00105982 0.00106443 0.00106922 0.00107417 0.00107929 0.00108459 0.00109008 0.00109576 0.00110164 0.00110773 0.00111403 0.00112055 0.00112731  0.00113299 | -0.02  21.01 41.99 62.93  83.85  104.74  125.63  146.51  167.39  188.28  209.17  230.06  250.97  271.89  292.82  313.76  334.72  355.69  376.70  397.72  418.77  439.85  460.95  482.10  503.28  524.50  545.77  567.09  588.45  609.88  631.36  652.91  674.54  696.24  718.02  739.90  761.86  779.78 | 1.08  22.11 43.09 64.03  84.95  105.84  126.73  147.62  168.50  189.39  210.28  231.18  252.09  273.01  293.94  314.89  335.85  356.83  377.84  398.86  419.92  441.00  462.11  483.26  504.45  525.67  546.95  568.27  589.64  611.07  632.56  654.12  675.75  697.46  719.25  741.13  763.10  781.03 | -0.00008  0.07623 0.15099 0.22430 0.29626 0.36694 0.43642 0.50475 0.57198 0.63815 0.70330 0.76748 0.83072 0.89305  0.95449  1.0151 1.0749 1.1339 1.1921 1.2496 1.3064 1.3626 1.4180 1.4729 1.5271 1.5807 1.6338 1.6864 1.7384 1.7900 1.8411 1.8918 1.9420 1.9918 2.0413 2.0904 2.1391  2.1785 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.22014 0.22477 0.22936 0.23392 0.23845 0.24296 0.24744 0.25190 0.25635 0.26078 0.26519 0.26959 0.27398 0.27836 0.28272 0.28708 0.29143 0.29577 0.30010 0.30443 0.30875 0.31306 0.31737 0.32167 0.33026 0.33884 0.34740 0.35594 0.36447 0.37300 0.38151 0.39001 0.39851 0.40700 0.41548 0.42396 0.43243 0.44090 0.44936 0.45781 0.46627 0.47472 0.48317 0.49161 0.50005 0.50849 0.51693 0.52536  0.53379 | 2741.5  2758.4  2775.1  2791.7  2808.2  2824.7  2841.2  2857.7  2874.2  2890.6  2907.2  2923.7  2940.1  2956.7  2973.3  2989.8  3006.5  3023.2  3039.9  3056.6  3073.5  3090.3  3107.2  3124.2  3158.2  3192.6  3227.1  3261.9  3296.9  3332.1  3367.6  3403.5  3439.4  3475.8  3512.4  3549.2  3586.3  3623.7  3661.3  3699.3  3737.4  3775.9  3814.6  3853.6  3892.8  3932.4  3972.2  4012.2  4052.5 | 2983.7  3005.6  3027.4  3049.0  3070.5  3092.0  3113.4  3134.8  3156.2  3177.5  3198.9  3220.2  3241.5  3262.9  3284.3  3305.6  3327.1  3348.5  3370.0  3391.5  3413.1  3434.7  3456.3  3478.0  3521.5  3565.3  3609.2  3653.4  3697.8  3742.4  3787.3  3832.5  3877.8  3923.5  3969.4  4015.6  4062.0  4108.7  4155.6  4202.9  4250.3  4298.1  4346.1  4394.4  4442.9  4491.7  4540.8  4590.1  4639.7 | 6.9602 7.0001 7.0391 7.0772 7.1144 7.1509 7.1868 7.2219 7.2565 7.2905 7.3239 7.3568 7.3892 7.4212 7.4527 7.4838 7.5145 7.5448 7.5747 7.6042 7.6335 7.6623 7.6909 7.7191 7.7747 7.8291 7.8825 7.9349 7.9864 8.0369 8.0866 8.1355 8.1836 8.2310 8.2777 8.3237 8.3691 8.4139 8.4581 8.5017 8.5447 8.5872 8.6292 8.6707 8.7117 8.7523 8.7924  8.8321  8.8713 |
| 184.062  185  190  195  200  210  220  230  240  250  260  270 | 0.17745 0.17797 0.18072 0.18340 0.18603 0.19118 0.19620 0.20113 0.20597 0.21075 0.21547  0.22014 | 2585.4  2587.4  2597.8  2607.9  2617.7  2636.5  2654.9  2672.8  2690.2  2707.6  2724.7  2741.5 | 2780.6  2783.2  2796.6  2809.6  2822.3  2846.8  2870.7  2894.0  2916.8  2939.4  2961.7  2983.7 | 6.5520 6.5576 6.5868 6.6146 6.6415 6.6929 6.7417 6.7885 6.8335 6.8770 6.9192  6.9602 |
|  | | | | |

1. **MPa ( = 187**.**957**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  187.957 | 0.00099960 0.00099949 0.00099977 0.00100039 0.00100129 0.00100246 0.00100388 0.00100551 0.00100736 0.00100939 0.00101162 0.00101402 0.00101660 0.00101933 0.00102223 0.00102529 0.00102851 0.00103188 0.00103540 0.00103907 0.00104290 0.00104688 0.00105102 0.00105531 0.00105976 0.00106438 0.00106916 0.00107410 0.00107923 0.00108453 0.00109001 0.00109569 0.00110157 0.00110765 0.00111395 0.00112047 0.00112723 0.00113424  0.00113850 | -0.02  21.01 41.99 62.93  83.84  104.74  125.62  146.50  167.38  188.27  209.16  230.04  250.95  271.87  292.79  313.74  334.70  355.67  376.67  397.69  418.74  439.81  460.92  482.06  503.25  524.46  545.73  567.04  588.41  609.83  631.32  652.87  674.49  696.19  717.97  739.84  761.80  783.87  796.96 | 1.18  22.21 43.19 64.13  85.04  105.94  126.82  147.71  168.59  189.48  210.37  231.26  252.17  273.09  294.02  314.97  335.93  356.91  377.91  398.94  419.99  441.07  462.18  483.33  504.52  525.74  547.01  568.33  589.71  611.13  632.63  654.18  675.81  697.52  719.31  741.18  763.15  785.23  798.33 | -0.00008  0.07623 0.15098 0.22428 0.29623 0.36692 0.43639 0.50471 0.57194 0.63811 0.70326 0.76743 0.83067 0.89299  0.95444  1.0150 1.0748 1.1338 1.1921  1.2496 1.3064 1.3625 1.4179 1.4728 1.5270 1.5806 1.6337 1.6863 1.7383 1.7899 1.8410 1.8916 1.9419 1.9917 2.0411 2.0902 2.1390  2.1874  2.2159 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.20111 0.20540 0.20964 0.21386 0.21804 0.22220 0.22634 0.23045 0.23455 0.23863 0.24270 0.24675 0.25079 0.25482 0.25883 0.26284 0.26684 0.27083 0.27482 0.27879 0.28276 0.28673 0.29069 0.29464 0.30253 0.31041 0.31826 0.32611 0.33394 0.34177 0.34958 0.35739 0.36518 0.37297 0.38076 0.38853 0.39631 0.40407 0.41184 0.41959 0.42735 0.43510 0.44285 0.45059 0.45834 0.46608 0.47381 0.48155  0.48928 | 2739.2  2756.1  2772.9  2789.7  2806.4  2823.0  2839.6  2856.2  2872.7  2889.2  2905.8  2922.3  2939.0  2955.5  2972.1  2988.8  3005.5  3022.2  3038.9  3055.8  3072.6  3089.4  3106.4  3123.3  3157.5  3191.8  3226.4  3261.3  3296.3  3331.6  3367.1  3402.9  3439.0  3475.3  3511.9  3548.8  3585.9  3623.3  3661.0  3698.9  3737.1  3775.6  3814.3  3853.3  3892.6  3932.1  3971.9  4011.9  4052.3 | 2980.5  3002.6  3024.5  3046.3  3068.0  3089.6  3111.2  3132.7  3154.2  3175.6  3197.0  3218.4  3239.9  3261.3  3282.7  3304.2  3325.7  3347.2  3368.7  3390.3  3411.9  3433.5  3455.2  3476.9  3520.5  3564.3  3608.3  3652.6  3697.0  3741.7  3786.6  3831.8  3877.2  3922.9  3968.8  4015.0  4061.5  4108.2  4155.2  4202.4  4249.9  4297.7  4345.7  4394.0  4442.6  4491.4  4540.5  4589.8  4639.4 | 6.9155 6.9558 6.9951 7.0335 7.0710 7.1078 7.1438 7.1792 7.2139 7.2480 7.2816 7.3147 7.3472 7.3793 7.4109 7.4421 7.4728 7.5032 7.5332 7.5628 7.5921 7.6210 7.6496 7.6779 7.7336 7.7881 7.8416 7.8940 7.9455 7.9961 8.0459 8.0948 8.1430 8.1904 8.2371 8.2832 8.3286 8.3734 8.4176 8.4612 8.5042 8.5468 8.5888 8.6303 8.6713 8.7119 8.7520 8.7917  8.8310 |
| 187.957  190  195  200  210  220  230  240  250  260  270 | 0.16326 0.16432 0.16686 0.16934 0.17417 0.17887 0.18346 0.18797 0.19241 0.19679  0.20111 | 2587.8  2592.2  2602.8  2612.9  2632.3  2651.1  2669.3  2687.1  2704.7  2722.1  2739.2 | 2783.7  2789.4  2803.0  2816.1  2841.3  2865.7  2889.5  2912.7  2935.6  2958.2  2980.5 | 6.5217 6.5340 6.5631 6.5909 6.6437 6.6937 6.7414 6.7872 6.8313 6.8740  6.9155 |
|  | | | | |

1. **MPa ( = 191**.**605**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  191.605 | 0.00099955 0.00099945 0.00099973 0.00100034 0.00100125 0.00100242 0.00100383 0.00100547 0.00100731 0.00100935 0.00101157 0.00101398 0.00101655 0.00101929 0.00102219 0.00102525 0.00102846 0.00103183 0.00103535 0.00103902 0.00104285 0.00104683 0.00105096 0.00105526 0.00105971 0.00106432 0.00106910 0.00107404 0.00107916 0.00108446 0.00108995 0.00109562 0.00110150 0.00110757 0.00111387 0.00112039 0.00112714 0.00113415 0.00114141  0.00114380 | -0.02  21.01 41.99 62.92  83.83  104.73  125.62  146.49  167.37  188.25  209.13  230.03  250.94  271.84  292.77  313.72  334.67  355.65  376.64  397.67  418.71  439.79  460.89  482.03  503.21  524.43  545.69  567.00  588.37  609.79  631.27  652.82  674.44  696.13  717.91  739.77  761.73  783.80  805.97  813.11 | 1.28  22.31 43.29 64.22  85.13  106.03  126.92  147.80  168.68  189.56  210.45  231.35  252.26  273.17  294.10  315.05  336.01  356.99  377.99  399.02  420.07  441.15  462.26  483.40  504.59  525.81  547.08  568.40  589.77  611.20  632.69  654.24  675.87  697.57  719.36  741.23  763.20  785.27  807.45  814.60 | -0.00007  0.07623 0.15097 0.22427 0.29621 0.36689 0.43636 0.50468 0.57190 0.63806 0.70321 0.76738 0.83061 0.89293  0.95438  1.0150 1.0748 1.1337 1.1920 1.2495 1.3063 1.3624 1.4178 1.4727 1.5269 1.5806 1.6336 1.6862 1.7382 1.7898 1.8409 1.8915 1.9417 1.9916 2.0410 2.0901 2.1388 2.1873 2.2354  2.2508 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.18501 0.18900 0.19296 0.19688 0.20077 0.20464 0.20848 0.21230 0.21610 0.21989 0.22366 0.22742 0.23116 0.23490 0.23862 0.24233 0.24604 0.24973 0.25342 0.25710 0.26077 0.26444 0.26811 0.27176 0.27906 0.28635 0.29362 0.30087 0.30811 0.31534 0.32257 0.32978 0.33698 0.34418 0.35137 0.35856 0.36574 0.37292 0.38009 0.38725 0.39442 0.40158 0.40873 0.41589 0.42304 0.43018 0.43733 0.44447  0.45161 | 2736.7  2753.8  2770.8  2787.7  2804.5  2821.3  2837.9  2854.6  2871.2  2887.8  2904.4  2921.1  2937.7  2954.3  2971.0  2987.7  3004.4  3021.2  3038.0  3054.8  3071.7  3088.6  3105.6  3122.6  3156.7  3191.1  3225.8  3260.6  3295.7  3331.1  3366.6  3402.4  3438.5  3474.9  3511.5  3548.4  3585.5  3622.9  3660.6  3698.6  3736.8  3775.2  3814.1  3853.0  3892.2  3931.9  3971.6  4011.7  4052.0 | 2977.2  2999.5  3021.6  3043.6  3065.5  3087.3  3108.9  3130.6  3152.1  3173.7  3195.2  3216.7  3238.2  3259.7  3281.2  3302.7  3324.3  3345.8  3367.4  3389.0  3410.7  3432.4  3454.1  3475.9  3519.5  3563.4  3607.5  3651.7  3696.2  3741.0  3785.9  3831.1  3876.6  3922.3  3968.3  4014.5  4061.0  4107.7  4154.7  4202.0  4249.5  4297.3  4345.4  4393.7  4442.2  4491.1  4540.1  4589.5  4639.1 | 6.8739 6.9146 6.9543 6.9930 7.0308 7.0678 7.1041 7.1396 7.1745 7.2088 7.2425 7.2757 7.3084 7.3406 7.3723 7.4036 7.4344 7.4649 7.4949 7.5246 7.5539 7.5829 7.6116 7.6399 7.6957 7.7503 7.8038 7.8563 7.9079 7.9586 8.0083 8.0573 8.1055 8.1530 8.1997 8.2458 8.2912 8.3361 8.3803 8.4239 8.4670 8.5095 8.5516 8.5931 8.6342 8.6747 8.7149  8.7546  8.7938 |
| 191.605  195  200  210  220  230  240  250  260  270 | 0.15119 0.15283 0.15519 0.15976 0.16418 0.16850 0.17273 0.17688 0.18097  0.18501 | 2590.0  2597.3  2607.9  2628.0  2647.3  2665.8  2684.0  2701.9  2719.3  2736.7 | 2786.5  2796.0  2809.6  2835.7  2860.7  2884.9  2908.5  2931.8  2954.6  2977.2 | 6.4936 6.5141 6.5431 6.5975 6.6487 6.6973 6.7439 6.7887 6.8320  6.8739 |
|  | | | | |

1. **MPa ( = 195**.**039**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  195.039 | 0.00099950 0.00099940 0.00099968 0.00100029 0.00100120 0.00100237 0.00100379 0.00100542 0.00100727 0.00100931 0.00101153 0.00101393 0.00101650 0.00101924 0.00102214 0.00102520 0.00102841 0.00103178 0.00103530 0.00103897 0.00104280 0.00104678 0.00105091 0.00105520 0.00105965 0.00106426 0.00106904 0.00107398 0.00107910 0.00108440 0.00108988 0.00109555 0.00110142 0.00110750 0.00111379 0.00112031 0.00112706 0.00113406 0.00114132 0.00114886  0.00114892 | -0.02  21.01 41.98 62.92  83.83  104.72  125.60  146.48  167.36  188.24  209.12  230.01  250.92  271.83  292.75  313.69  334.65  355.63  376.62  397.64  418.68  439.75  460.86  481.99  503.18  524.39  545.65  566.97  588.32  609.74  631.22  652.77  674.39  696.08  717.86  739.72  761.67  783.73  805.90  828.18  828.36 | 1.38  22.41 43.38 64.32  85.23  106.12  127.01  147.89  168.77  189.65  210.54  231.43  252.34  273.26  294.18  315.13  336.09  357.07  378.07  399.09  420.14  441.22  462.33  483.47  504.66  525.88  547.15  568.47  589.83  611.26  632.75  654.30  675.93  697.63  719.42  741.29  763.25  785.32  807.50  829.79  829.97 | -0.00006  0.07623 0.15096 0.22425 0.29619 0.36686 0.43633 0.50464 0.57186 0.63802 0.70317 0.76733 0.83056 0.89288  0.95432  1.0149 1.0747 1.1337 1.1919  1.2494 1.3062 1.3623 1.4178 1.4726 1.5268 1.5805 1.6335 1.6861 1.7381 1.7897 1.8408 1.8914 1.9416 1.9914 2.0409 2.0900 2.1387 2.1871 2.2353  2.2831  2.2835 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.17120 0.17495 0.17865 0.18232 0.18597 0.18958 0.19317 0.19674 0.20029 0.20383 0.20734 0.21085 0.21434 0.21782 0.22129 0.22475 0.22820 0.23164 0.23508 0.23851 0.24193 0.24534 0.24875 0.25216 0.25895 0.26573 0.27249 0.27923 0.28597 0.29269 0.29941 0.30612 0.31281 0.31951 0.32619 0.33287 0.33954 0.34621 0.35287 0.35953 0.36619 0.37284 0.37949 0.38614 0.39278 0.39942 0.40606 0.41270  0.41933 | 2734.1  2751.5  2768.7  2785.7  2802.5  2819.5  2836.3  2853.0  2869.7  2886.3  2903.0  2919.7  2936.4  2953.2  2969.9  2986.6  3003.3  3020.2  3037.0  3053.9  3070.8  3087.7  3104.8  3121.8  3156.0  3190.4  3225.1  3260.0  3295.0  3330.4  3366.0  3401.9  3438.1  3474.4  3511.0  3548.0  3585.1  3622.5  3660.3  3698.3  3736.4  3774.9  3813.7  3852.7  3892.0  3931.5  3971.3  4011.4  4051.7 | 2973.8  2996.4  3018.8  3040.9  3062.9  3084.9  3106.7  3128.4  3150.1  3171.7  3193.3  3214.9  3236.5  3258.1  3279.7  3301.2  3322.8  3344.5  3366.1  3387.8  3409.5  3431.2  3453.0  3474.8  3518.5  3562.4  3606.6  3650.9  3695.4  3740.2  3785.2  3830.5  3876.0  3921.7  3967.7  4014.0  4060.5  4107.2  4154.3  4201.6  4249.1  4296.9  4345.0  4393.3  4441.9  4490.7  4539.8  4589.2  4638.8 | 6.8350 6.8762 6.9162 6.9552 6.9933 7.0306 7.0671 7.1028 7.1379 7.1723 7.2062 7.2395 7.2723 7.3046 7.3364 7.3678 7.3987 7.4292 7.4594 7.4891 7.5185 7.5476 7.5763 7.6047 7.6605 7.7152 7.7688 7.8214 7.8730 7.9237 7.9736 8.0226 8.0708 8.1183 8.1651 8.2112 8.2567 8.3015 8.3457 8.3894 8.4325 8.4751 8.5171 8.5587 8.5997 8.6403 8.6805 8.7202  8.7594 |
| 195.039  200  210  220  230  240  250  260  270 | 0.14078 0.14303 0.14738 0.15158 0.15566 0.15965 0.16356 0.16741  0.17120 | 2591.7  2602.8  2623.6  2643.3  2662.3  2680.8  2698.9  2716.6  2734.1 | 2788.8  2803.0  2829.9  2855.5  2880.2  2904.3  2927.9  2951.0  2973.8 | 6.4675 6.4975 6.5538 6.6062 6.6559 6.7033 6.7488 6.7926  6.8350 |
|  | | | | |

1. **MPa ( = 198**.**287**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  198.287 | 0.00099945 0.00099935 0.00099963 0.00100025 0.00100115 0.00100233 0.00100374 0.00100538 0.00100722 0.00100926 0.00101149 0.00101389 0.00101646 0.00101920 0.00102210 0.00102515 0.00102837 0.00103173 0.00103525 0.00103892 0.00104275 0.00104673 0.00105086 0.00105515 0.00105959 0.00106420 0.00106898 0.00107392 0.00107904 0.00108433 0.00108981 0.00109548 0.00110135 0.00110742 0.00111371 0.00112023 0.00112697 0.00113397 0.00114123 0.00114876  0.00115387 | -0.02  21.01 41.98 62.91  83.82  104.71  125.59  146.47  167.35  188.23  209.10  230.00  250.90  271.81  292.74  313.67  334.63  355.60  376.60  397.61  418.66  439.72  460.82  481.97  503.14  524.35  545.62  566.92  588.28  609.70  631.18  652.72  674.34  696.03  717.80  739.66  761.61  783.67  805.83  828.11  842.83 | 1.48  22.51 43.48 64.41  85.32  106.21  127.10  147.98  168.86  189.74  210.62  231.52  252.42  273.34  294.27  315.21  336.17  357.15  378.15  399.17  420.22  441.29  462.40  483.55  504.73  525.95  547.22  568.53  589.90  611.33  632.81  654.36  675.99  697.69  719.47  741.34  763.30  785.37  807.54  829.83  844.56 | -0.00006  0.07623 0.15095 0.22424 0.29617 0.36684 0.43630 0.50461 0.57182 0.63798 0.70312 0.76728 0.83051 0.89282  0.95426  1.0148 1.0746 1.1336 1.1918 1.2493 1.3061 1.3622 1.4177 1.4725 1.5267 1.5804 1.6334 1.6860 1.7380 1.7896 1.8407 1.8913 1.9415 1.9913 2.0407 2.0898 2.1386 2.1870 2.2351 2.2830  2.3143 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.15923 0.16276 0.16625 0.16971 0.17313 0.17653 0.17990 0.18325 0.18659 0.18990 0.19320 0.19649 0.19976 0.20302 0.20627 0.20951 0.21274 0.21597 0.21918 0.22239 0.22559 0.22879 0.23198 0.23516 0.24152 0.24785 0.25418 0.26048 0.26678 0.27307 0.27934 0.28561 0.29187 0.29812 0.30436 0.31060 0.31684 0.32306 0.32929 0.33551 0.34173 0.34794 0.35415 0.36036 0.36656 0.37276 0.37896 0.38516  0.39135 | 2731.7  2749.2  2766.4  2783.6  2800.7  2817.6  2834.5  2851.3  2868.1  2884.9  2901.7  2918.5  2935.2  2952.0  2968.7  2985.5  3002.3  3019.1  3036.0  3052.9  3069.9  3086.8  3103.8  3121.0  3155.2  3189.7  3224.4  3259.4  3294.5  3329.9  3365.5  3401.4  3437.6  3473.9  3510.7  3547.5  3584.7  3622.2  3659.9  3697.8  3736.1  3774.6  3813.4  3852.4  3891.7  3931.3  3971.1  4011.2  4051.5 | 2970.5  2993.3  3015.8  3038.2  3060.4  3082.4  3104.4  3126.2  3148.0  3169.8  3191.5  3213.2  3234.8  3256.5  3278.1  3299.8  3321.4  3343.1  3364.8  3386.5  3408.3  3430.0  3451.8  3473.7  3517.5  3561.5  3605.7  3650.1  3694.7  3739.5  3784.5  3829.8  3875.4  3921.1  3967.2  4013.4  4060.0  4106.8  4153.8  4201.1  4248.7  4296.5  4344.6  4392.9  4441.5  4490.4  4539.5  4588.9  4638.5 | 6.7984 6.8400 6.8804 6.9198 6.9582 6.9957 7.0324 7.0683 7.1036 7.1382 7.1722 7.2057 7.2386 7.2710 7.3029 7.3343 7.3654 7.3960 7.4262 7.4560 7.4855 7.5146 7.5433 7.5718 7.6277 7.6825 7.7362 7.7888 7.8405 7.8912 7.9411 7.9902 8.0385 8.0860 8.1328 8.1789 8.2244 8.2693 8.3135 8.3572 8.4003 8.4429 8.4850 8.5266 8.5676 8.6082 8.6484  8.6881  8.7274 |
| 198.287  200  210  220  230  240  250  260  270 | 0.13171 0.13245 0.13664 0.14065 0.14453 0.14831 0.15201 0.15565  0.15923 | 2593.4  2597.3  2618.9  2639.2  2658.7  2677.5  2695.9  2713.9  2731.7 | 2791.0  2796.0  2823.9  2850.2  2875.5  2900.0  2923.9  2947.4  2970.5 | 6.4430 6.4536 6.5120 6.5659 6.6166 6.6649 6.7111 6.7555  6.7984 |
|  | | | | |

1. **MPa ( = 201**.**370**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  201.370 | 0.00099940 0.00099930 0.00099958 0.00100020 0.00100111 0.00100228 0.00100370 0.00100533 0.00100718 0.00100922 0.00101144 0.00101384 0.00101641 0.00101915 0.00102205 0.00102511 0.00102832 0.00103168 0.00103520 0.00103887 0.00104270 0.00104667 0.00105080 0.00105509 0.00105954 0.00106415 0.00106892 0.00107386 0.00107898 0.00108427 0.00108975 0.00109541 0.00110128 0.00110735 0.00111364 0.00112014 0.00112689 0.00113388 0.00114113 0.00114866 0.00115648  0.00115868 | -0.01  21.01 41.98 62.91  83.82  104.71  125.58  146.46  167.33  188.21  209.09  229.98  250.88  271.79  292.71  313.65  334.60  355.58  376.56  397.58  418.62  439.70  460.80  481.93  503.10  524.32  545.57  566.88  588.23  609.66  631.13  652.67  674.29  695.97  717.74  739.60  761.55  783.61  805.76  828.04  850.44  856.61 | 1.59  22.61 43.58 64.51  85.42  106.31  127.19  148.07  168.94  189.82  210.71  231.60  252.51  273.42  294.35  315.29  336.25  357.23  378.22  399.24  420.29  441.37  462.48  483.62  504.80  526.02  547.28  568.60  589.96  611.39  632.87  654.42  676.05  697.74  719.52  741.39  763.35  785.42  807.59  829.88  852.29  858.46 | -0.00005  0.07622 0.15094 0.22422 0.29615 0.36681 0.43627 0.50458 0.57178 0.63794 0.70307 0.76723 0.83045 0.89276  0.95420  1.0148 1.0746 1.1335 1.1918  1.2493 1.3060 1.3621 1.4176 1.4724 1.5266 1.5803 1.6334 1.6859 1.7379 1.7895 1.8405 1.8912 1.9414 1.9912 2.0406 2.0897 2.1384 2.1868 2.2350 2.2828  2.3305  2.3435 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.14875 0.15209 0.15539 0.15866 0.16190 0.16511 0.16829 0.17145 0.17459 0.17772 0.18083 0.18392 0.18700 0.19007 0.19313 0.19618 0.19922 0.20225 0.20527 0.20829 0.21130 0.21430 0.21730 0.22029 0.22626 0.23222 0.23815 0.24408 0.24999 0.25589 0.26178 0.26766 0.27354 0.27940 0.28526 0.29112 0.29697 0.30281 0.30865 0.31449 0.32032 0.32615 0.33197 0.33780 0.34361 0.34943 0.35525 0.36106  0.36687 | 2729.1  2746.8  2764.3  2781.5  2798.8  2815.8  2832.8  2849.8  2866.7  2883.4  2900.3  2917.1  2933.9  2950.8  2967.6  2984.4  3001.2  3018.1  3035.1  3052.0  3068.9  3086.0  3103.0  3120.1  3154.5  3189.0  3223.8  3258.7  3293.9  3329.3  3365.0  3400.9  3437.0  3473.5  3510.2  3547.1  3584.3  3621.8  3659.5  3697.5  3735.8  3774.3  3813.0  3852.1  3891.4  3931.0  3970.8  4010.9  4051.2 | 2967.1  2990.1  3012.9  3035.4  3057.8  3080.0  3102.1  3124.1  3146.0  3167.8  3189.6  3211.4  3233.1  3254.9  3276.6  3298.3  3320.0  3341.7  3363.5  3385.3  3407.0  3428.9  3450.7  3472.6  3516.5  3560.6  3604.8  3649.2  3693.9  3738.7  3783.8  3829.2  3874.7  3920.5  3966.6  4012.9  4059.5  4106.3  4153.3  4200.7  4248.3  4296.1  4344.2  4392.6  4441.2  4490.1  4539.2  4588.6  4638.2 | 6.7638 6.8059 6.8467 6.8863 6.9250 6.9628 6.9997 7.0359 7.0713 7.1061 7.1403 7.1738 7.2069 7.2394 7.2714 7.3030 7.3341 7.3648 7.3950 7.4249 7.4545 7.4836 7.5124 7.5409 7.5970 7.6518 7.7056 7.7583 7.8100 7.8608 7.9108 7.9599 8.0082 8.0557 8.1026 8.1487 8.1943 8.2391 8.2834 8.3271 8.3702 8.4128 8.4549 8.4965 8.5376 8.5782 8.6184 8.6581  8.6974 |
| 201.370  210  220  230  240  250  260  270 | 0.12374 0.12722 0.13106 0.13477 0.13838 0.14190 0.14535  0.14875 | 2594.8  2614.1  2635.1  2655.0  2674.2  2692.9  2711.1  2729.1 | 2792.8  2817.7  2844.8  2870.6  2895.6  2919.9  2943.7  2967.1 | 6.4199 6.4720 6.5274 6.5792 6.6284 6.6753 6.7204  6.7638 |
|  | | | | |

**8 MPa ( = 207**.**112**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  207.112 | 0.00099929 0.00099920 0.00099949 0.00100011 0.00100102 0.00100219 0.00100361 0.00100525 0.00100709 0.00100913 0.00101135 0.00101375 0.00101632 0.00101906 0.00102196 0.00102501 0.00102822 0.00103159 0.00103510 0.00103877 0.00104260 0.00104657 0.00105070 0.00105498 0.00105943 0.00106403 0.00106880 0.00107374 0.00107885 0.00108414 0.00108961 0.00109527 0.00110113 0.00110720 0.00111348 0.00111998 0.00112672 0.00113370 0.00114095 0.00114847 0.00115628  0.00116792 | -0.01  21.01 41.97 62.90  83.80  104.69  125.56  146.44  167.31  188.18  209.06  229.95  250.84  271.76  292.67  313.60  334.56  355.52  376.52  397.53  418.56  439.64  460.73  481.86  503.03  524.24  545.50  566.80  588.15  609.57  631.04  652.57  674.18  695.87  717.63  739.48  761.43  783.47  805.63  827.89  850.29  882.37 | 1.79  22.81 43.77 64.70  85.60  106.49  127.37  148.25  169.12  190.00  210.88  231.77  252.67  273.59  294.51  315.45  336.41  357.38  378.38  399.40  420.44  441.52  462.62  483.76  504.94  526.16  547.42  568.73  590.09  611.52  633.00  654.54  676.16  697.86  719.63  741.50  763.46  785.51  807.68  829.96  852.37  884.47 | -0.00004  0.07622 0.15092 0.22419 0.29611 0.36676 0.43621 0.50451 0.57171 0.63785 0.70298 0.76713 0.83035 0.89265  0.95408  1.0147 1.0744 1.1334 1.1916 1.2491 1.3059 1.3620 1.4174 1.4722 1.5265 1.5801 1.6332 1.6857 1.7377 1.7893 1.8403 1.8909 1.9411 1.9909 2.0404 2.0894 2.1382 2.1866 2.2347 2.2825 2.3301  2.3975 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.13126 0.13430 0.13729 0.14025 0.14317 0.14606 0.14893 0.15177 0.15460 0.15741 0.16020 0.16297 0.16573 0.16849 0.17122 0.17395 0.17667 0.17939 0.18209 0.18479 0.18748 0.19016 0.19284 0.19551 0.20084 0.20615 0.21145 0.21673 0.22200 0.22726 0.23251 0.23775 0.24299 0.24821 0.25343 0.25865 0.26386 0.26906 0.27426 0.27945 0.28464 0.28983 0.29502 0.30020 0.30537 0.31055 0.31572 0.32089  0.32606 | 2723.8  2742.0  2759.8  2777.4  2794.9  2812.2  2829.4  2846.5  2863.5  2880.6  2897.5  2914.5  2931.4  2948.3  2965.3  2982.2  2999.2  3016.1  3033.1  3050.1  3067.1  3084.2  3101.4  3118.5  3153.0  3187.6  3222.4  3257.5  3292.7  3328.2  3363.9  3399.9  3436.1  3472.6  3509.3  3546.2  3583.5  3621.0  3658.7  3696.8  3735.0  3773.6  3812.5  3851.5  3890.8  3930.4  3970.3  4010.4  4050.7 | 2960.1  2983.7  3006.9  3029.9  3052.6  3075.1  3097.5  3119.7  3141.8  3163.9  3185.9  3207.8  3229.7  3251.6  3273.5  3295.3  3317.2  3339.0  3360.9  3382.7  3404.6  3426.5  3448.5  3470.4  3514.5  3558.7  3603.0  3647.6  3692.3  3737.3  3782.4  3827.8  3873.5  3919.4  3965.5  4011.8  4058.4  4105.3  4152.4  4199.8  4247.4  4295.3  4343.5  4391.9  4440.5  4489.4  4538.6  4588.0  4637.6 | 6.6996 6.7426 6.7842 6.8246 6.8639 6.9022 6.9396 6.9761 7.0120 7.0471 7.0815 7.1154 7.1487 7.1814 7.2136 7.2454 7.2767 7.3075 7.3380 7.3680 7.3976 7.4269 7.4559 7.4845 7.5407 7.5957 7.6496 7.7025 7.7543 7.8052 7.8552 7.9044 7.9528 8.0004 8.0473 8.0936 8.1391 8.1840 8.2284 8.2721 8.3153 8.3579 8.4000 8.4416 8.4828 8.5234 8.5636  8.6033  8.6426 |
| 207.112  210  220  230  240  250  260  270 | 0.11037 0.11145 0.11505 0.11848 0.12180 0.12502 0.12817  0.13126 | 2597.2  2604.1  2626.4  2647.3  2667.4  2686.7  2705.5  2723.8 | 2795.9  2804.7  2833.5  2860.6  2886.6  2911.7  2936.2  2960.1 | 6.3775 6.3958 6.4548 6.5092 6.5602 6.6087 6.6551  6.6996 |
|  | | | | |

**= 2 0 MPa ( = 212**.**377**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  212.377 | 0.00099919 0.00099910 0.00099939 0.00100001 0.00100093 0.00100210 0.00100352 0.00100516 0.00100700 0.00100904 0.00101126 0.00101366 0.00101623 0.00101897 0.00102187 0.00102492 0.00102813 0.00103149 0.00103501 0.00103867 0.00104249 0.00104647 0.00105059 0.00105487 0.00105931 0.00106392 0.00106868 0.00107362 0.00107872 0.00108401 0.00108948 0.00109513 0.00110099 0.00110705 0.00111332 0.00111982 0.00112655 0.00113353 0.00114076 0.00114827 0.00115607 0.00117262  0.00117675 | -0.01  21.01 41.97 62.89  83.79  104.68  125.54  146.42  167.29  188.15  209.04  229.91  250.81  271.71  292.64  313.56  334.51  355.48  376.46  397.47  418.51  439.57  460.67  481.79  502.96  524.16  545.41  566.71  588.06  609.47  630.94  652.48  674.08  695.76  717.51  739.36  761.31  783.34  805.49  827.75  850.14  895.31  906.15 | 1.99  23.01 43.97 64.89  85.79  106.68  127.55  148.43  169.30  190.17  211.06  231.94  252.84  273.75  294.68  315.61  336.57  357.54  378.53  399.55  420.59  441.66  462.77  483.90  505.08  526.29  547.55  568.86  590.22  611.64  633.12  654.67  676.28  697.97  719.74  741.60  763.56  785.61  807.77  830.05  852.45  897.66  908.50 | -0.00003  0.07622 0.15091 0.22416 0.29607 0.36671 0.43615 0.50444 0.57163 0.63776 0.70289 0.76704 0.83024 0.89254  0.95396  1.0145 1.0743 1.1333 1.1915  1.2490 1.3057 1.3618 1.4173 1.4721 1.5263 1.5799 1.6330 1.6855 1.7375 1.7890 1.8401 1.8907 1.9409 1.9907 2.0401 2.0892 2.1379 2.1863 2.2344 2.2822 2.3298  2.4244  2.4468 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.11726 0.12005 0.12280 0.12551 0.12818 0.13082 0.13344 0.13603 0.13860 0.14115 0.14369 0.14621 0.14872 0.15121 0.15370 0.15617 0.15864 0.16109 0.16354 0.16598 0.16842 0.17085 0.17327 0.17568 0.18050 0.18530 0.19009 0.19486 0.19961 0.20436 0.20910 0.21383 0.21855 0.22326 0.22797 0.23267 0.23737 0.24206 0.24674 0.25142 0.25610 0.26078 0.26545 0.27012 0.27478 0.27944 0.28411 0.28876  0.29342 | 2718.6  2737.0  2755.2  2773.2  2790.9  2808.5  2825.9  2843.2  2860.5  2877.6  2894.7  2911.8  2928.9  2945.9  2962.9  2980.0  2997.0  3014.1  3031.1  3048.2  3065.4  3082.5  3099.7  3116.8  3151.4  3186.1  3221.0  3256.2  3291.5  3327.1  3362.8  3398.8  3435.1  3471.7  3508.4  3545.5  3582.7  3620.2  3658.0  3696.1  3734.4  3772.9  3811.8  3850.9  3890.2  3929.8  3969.7  4009.9  4050.2 | 2953.1  2977.1  3000.8  3024.2  3047.3  3070.1  3092.8  3115.3  3137.7  3159.9  3182.1  3204.2  3226.3  3248.3  3270.3  3292.3  3314.3  3336.3  3358.2  3380.2  3402.2  3424.2  3446.2  3468.2  3512.4  3556.7  3601.2  3645.9  3690.7  3735.8  3781.0  3826.5  3872.2  3918.2  3964.3  4010.8  4057.4  4104.3  4151.5  4198.9  4246.6  4294.5  4342.7  4391.1  4439.8  4488.7  4537.9  4587.4  4637.0 | 6.6409 6.6849 6.7273 6.7684 6.8083 6.8472 6.8851 6.9221 6.9583 6.9937 7.0285 7.0627 7.0962 7.1292 7.1616 7.1935 7.2250 7.2560 7.2866 7.3168 7.3466 7.3760 7.4050 7.4337 7.4901 7.5453 7.5994 7.6523 7.7043 7.7553 7.8054 7.8547 7.9032 7.9509 7.9978 8.0441 8.0897 8.1347 8.1790 8.2228 8.2660 8.3087 8.3509 8.3925 8.4336 8.4743 8.5145 8.5543  8.5936 |
| 212.377  220  230  240  250  260  270 | 0.0995850  0.10218 0.10541 0.10850 0.11150 0.11441  0.11726 | 2599.1  2617.2  2639.4  2660.2  2680.2  2699.7  2718.6 | 2798.3  2821.6  2850.2  2877.2  2903.2  2928.5  2953.1 | 6.3390 6.3867 6.4440 6.4973 6.5475 6.5952  6.6409 |
|  | | | | |

**= 2 2 MPa ( = 217**.**249**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  217.249 | 0.00099909 0.00099900 0.00099930 0.00099992 0.00100083 0.00100201 0.00100343 0.00100507 0.00100691 0.00100895 0.00101117 0.00101357 0.00101614 0.00101888 0.00102177 0.00102483 0.00102804 0.00103140 0.00103491 0.00103857 0.00104239 0.00104636 0.00105049 0.00105477 0.00105920 0.00106380 0.00106856 0.00107349 0.00107860 0.00108388 0.00108934 0.00109500 0.00110085 0.00110690 0.00111317 0.00111966 0.00112638 0.00113335 0.00114058 0.00114808 0.00115587 0.00117239  0.00118523 | 0.00  21.01 41.96 62.88  83.78  104.66  125.53  146.39  167.26  188.13  209.01  229.88  250.77  271.68  292.59  313.52  334.47  355.43  376.41  397.42  418.45  439.51  460.60  481.73  502.89  524.09  545.34  566.64  587.98  609.39  630.84  652.38  673.98  695.64  717.40  739.25  761.18  783.22  805.35  827.61  849.99  895.15  928.26 | 2.20  23.21 44.16 65.08  85.98  106.86  127.74  148.60  169.48  190.35  211.23  232.11  253.01  273.92  294.84  315.77  336.73  357.70  378.69  399.70  420.74  441.81  462.91  484.05  505.22  526.43  547.69  569.00  590.35  611.77  633.24  654.79  676.40  698.08  719.85  741.71  763.66  785.71  807.86  830.14  852.53  897.73  930.87 | -0.00001  0.07621 0.15089 0.22413 0.29603 0.36666 0.43608 0.50437 0.57155 0.63768 0.70280 0.76694 0.83013 0.89243  0.95384  1.0144 1.0742 1.1331 1.1913 1.2488 1.3056 1.3617 1.4171 1.4719 1.5261 1.5797 1.6328 1.6853 1.7373 1.7888 1.8399 1.8905 1.9407 1.9905 2.0399 2.0889 2.1376 2.1860 2.2341 2.2819 2.3295 2.4240  2.4921 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.10579 0.10838 0.11093 0.11344 0.11591 0.11834 0.12075 0.12314 0.12551 0.12785 0.13018 0.13249 0.13479 0.13708 0.13936 0.14162 0.14388 0.14613 0.14837 0.15060 0.15282 0.15504 0.15725 0.15946 0.16386 0.16824 0.17261 0.17696 0.18130 0.18562 0.18994 0.19425 0.19855 0.20285 0.20713 0.21142 0.21569 0.21996 0.22423 0.22849 0.23275 0.23701 0.24126 0.24551 0.24975 0.25400 0.25824 0.26247  0.26671 | 2713.1  2732.1  2750.6  2768.8  2786.9  2804.8  2822.4  2839.9  2857.3  2874.6  2891.9  2909.1  2926.4  2943.5  2960.6  2977.7  2994.9  3012.0  3029.2  3046.3  3063.5  3080.7  3097.9  3115.2  3149.9  3184.7  3219.7  3254.9  3290.3  3325.9  3361.7  3397.8  3434.2  3470.7  3507.5  3544.6  3581.9  3619.5  3657.3  3695.4  3733.7  3772.3  3811.1  3850.3  3889.7  3929.3  3969.2  4009.4  4049.7 | 2945.8  2970.5  2994.6  3018.4  3041.9  3065.1  3088.0  3110.8  3133.4  3155.9  3178.3  3200.6  3222.9  3245.1  3267.2  3289.3  3311.4  3333.5  3355.6  3377.6  3399.7  3421.8  3443.9  3466.0  3510.4  3554.8  3599.4  3644.2  3689.2  3734.3  3779.6  3825.2  3871.0  3917.0  3963.2  4009.7  4056.4  4103.4  4150.6  4198.1  4245.8  4293.7  4341.9  4390.4  4439.1  4488.1  4537.3  4586.8  4636.5 | 6.5866 6.6316 6.6749 6.7167 6.7573 6.7967 6.8351 6.8726 6.9092 6.9450 6.9801 7.0145 7.0483 7.0815 7.1142 7.1463 7.1780 7.2091 7.2399 7.2702 7.3001 7.3296 7.3588 7.3876 7.4442 7.4996 7.5538 7.6069 7.6589 7.7100 7.7603 7.8096 7.8581 7.9059 7.9529 7.9993 8.0449 8.0900 8.1344 8.1782 8.2214 8.2641 8.3063 8.3480 8.3892 8.4299 8.4701  8.5099  8.5492 |
| 217.249  220  230  240  250  260  270 | 0.0906980 0.0915850 0.0946670  0.0975920  0.10041 0.10313  0.10579 | 2600.6  2607.5  2630.9  2652.8  2673.6  2693.6  2713.1 | 2800.1  2809.0  2839.2  2867.5  2894.5  2920.5  2945.8 | 6.3038 6.3218 6.3826 6.4383 6.4903 6.5396  6.5866 |
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**= 2 = 223**.**950**

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| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  223.950 | 0.00099894 0.00099886 0.00099915 0.00099978 0.00100070 0.00100188 0.00100329 0.00100493 0.00100678 0.00100882 0.00101104 0.00101344 0.00101601 0.00101874 0.00102164 0.00102469 0.00102789 0.00103125 0.00103476 0.00103843 0.00104224 0.00104621 0.00105033 0.00105460 0.00105904 0.00106363 0.00106839 0.00107331 0.00107841 0.00108368 0.00108914 0.00109479 0.00110063 0.00110668 0.00111293 0.00111942 0.00112613 0.00113309 0.00114030 0.00114779 0.00115556 0.00117205 0.00118994  0.00119743 | 0.00  21.00 41.96 62.87  83.76  104.64  125.50  146.36  167.22  188.09  208.96  229.84  250.72  271.62  292.53  313.46  334.39  355.35  376.33  397.33  418.36  439.41  460.50  481.62  502.78  523.98  545.22  566.52  587.85  609.25  630.71  652.23  673.82  695.48  717.24  739.07  760.99  783.02  805.15  827.40  849.76  894.90  940.66  958.92 | 2.50  23.50 44.46 65.37  86.26  107.14  128.01  148.87  169.74  190.61  211.49  232.37  253.26  274.17  295.08  316.02  336.96  357.93  378.92  399.93  420.97  442.03  463.13  484.26  505.43  526.64  547.89  569.20  590.55  611.96  633.43  654.97  676.57  698.25  720.02  741.87  763.81  785.85  808.00  830.27  852.65  897.83  943.63  961.91 | 0.00000 0.07621 0.15086 0.22408 0.29596 0.36658 0.43599 0.50426 0.57143 0.63755 0.70266 0.76679 0.82998 0.89226  0.95366  1.0142 1.0740 1.1329 1.1911  1.2486 1.3053 1.3614 1.4168 1.4716 1.5258 1.5794 1.6325 1.6850 1.7370 1.7885 1.8395 1.8901 1.9403 1.9901 2.0395 2.0885 2.1372 2.1856 2.2337 2.2815 2.3290 2.4235  2.5173  2.5543 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.0919920 0.0943580 0.0966700  0.0989370  0.10117 0.10336 0.10553 0.10767 0.10979 0.11188 0.11397 0.11603 0.11808 0.12012 0.12215 0.12416 0.12617 0.12816 0.13015 0.13213 0.13411 0.13607 0.13804 0.13999 0.14389 0.14777 0.15163 0.15548 0.15931 0.16314 0.16695 0.17076 0.17456 0.17835 0.18213 0.18591 0.18968 0.19345 0.19721 0.20097 0.20473 0.20848 0.21223 0.21597 0.21972 0.22346 0.22719 0.23093  0.23466 | 2704.6  2724.2  2743.4  2762.3  2780.7  2799.0  2817.0  2834.8  2852.5  2870.1  2887.6  2905.0  2922.5  2939.8  2957.1  2974.4  2991.7  3008.9  3026.2  3043.5  3060.7  3078.1  3095.4  3112.7  3147.6  3182.6  3217.7  3253.0  3288.5  3324.3  3360.1  3396.3  3432.7  3469.3  3506.2  3543.3  3580.7  3618.3  3656.2  3694.3  3732.7  3771.3  3810.2  3849.4  3888.8  3928.5  3968.3  4008.5  4049.0 | 2934.6  2960.1  2985.1  3009.6  3033.6  3057.4  3080.8  3104.0  3127.0  3149.8  3172.5  3195.1  3217.7  3240.1  3262.5  3284.8  3307.1  3329.3  3351.6  3373.8  3396.0  3418.3  3440.5  3462.7  3507.3  3552.0  3596.8  3641.7  3686.8  3732.1  3777.5  3823.2  3869.1  3915.2  3961.5  4008.1  4054.9  4101.9  4149.2  4196.7  4244.5  4292.5  4340.8  4389.3  4438.1  4487.1  4536.3  4585.8  4635.6 | 6.5114 6.5581 6.6028 6.6459 6.6875 6.7278 6.7670 6.8052 6.8424 6.8788 6.9143 6.9492 6.9834 7.0170 7.0500 7.0824 7.1143 7.1458 7.1767 7.2073 7.2374 7.2671 7.2964 7.3254 7.3823 7.4379 7.4923 7.5456 7.5979 7.6491 7.6995 7.7490 7.7976 7.8455 7.8926 7.9390 7.9848 8.0299 8.0743 8.1182 8.1615 8.2043 8.2465 8.2882 8.3294 8.3702 8.4104 8.4503  8.4896 |
| 223.950  230  240  250  260  270 | 0.0799490 0.0817020 0.0844450 0.0870530 0.0895620  0.0919920 | 2602.0  2617.5  2641.2  2663.3  2684.3  2704.6 | 2801.9  2821.8  2852.3  2880.9  2908.2  2934.6 | 6.2558 6.2955 6.3555 6.4107 6.4625  6.5114 |
|  | | | | |

**= 3 = 233**.**853**

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| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  233.853 | 0.00099869 0.00099861 0.00099892 0.00099955 0.00100047 0.00100165 0.00100307 0.00100471 0.00100656 0.00100860 0.00101082 0.00101322 0.00101579 0.00101852 0.00102141 0.00102446 0.00102766 0.00103101 0.00103452 0.00103818 0.00104199 0.00104595 0.00105006 0.00105433 0.00105876 0.00106334 0.00106809 0.00107301 0.00107810 0.00108336 0.00108881 0.00109444 0.00110027 0.00110630 0.00111255 0.00111901 0.00112571 0.00113265 0.00113984 0.00114731 0.00115506 0.00117149 0.00118931 0.00120873  0.00121669 | 0.01  21.00 41.94 62.85  83.73  104.60  125.45  146.31  167.16  188.02  208.89  229.75  250.63  271.52  292.43  313.35  334.28  355.23  376.21  397.20  418.21  439.26  460.35  481.46  502.60  523.80  545.03  566.31  587.64  609.03  630.47  651.99  673.57  695.22  716.95  738.77  760.68  782.69  804.81  827.04  849.39  894.50  940.19  986.60  1004.6 | 3.01  24.00 44.94 65.85  86.73  107.60  128.46  149.32  170.18  191.05  211.92  232.79  253.68  274.58  295.49  316.42  337.36  358.32  379.31  400.31  421.34  442.40  463.50  484.62  505.78  526.99  548.23  569.53  590.87  612.28  633.74  655.27  676.87  698.54  720.29  742.13  764.06  786.09  808.23  830.48  852.86  898.01  943.76  990.23  1008.3 | 0.00003 0.07619 0.15081 0.22400 0.29586 0.36645 0.43584 0.50409 0.57124 0.63734 0.70243 0.76654 0.82971 0.89198  0.95336  1.0139 1.0736 1.1326 1.1908 1.2482 1.3050 1.3610 1.4164 1.4712 1.5254 1.5790 1.6320 1.6845 1.7365 1.7880 1.8390 1.8896 1.9397 1.9895 2.0388 2.0878 2.1365 2.1849 2.2329 2.2807 2.3282 2.4227 2.5164 2.6097  2.6455 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.0750660 0.0771620 0.0791960 0.0811790 0.0831190 0.0850220 0.0868930 0.0887370 0.0905560 0.0923550 0.0941340 0.0958970 0.0976450  0.0993790  0.10110 0.10281 0.10451 0.10620 0.10789 0.10956 0.11123 0.11289 0.11455 0.11620 0.11948 0.12274 0.12599 0.12922 0.13245 0.13566 0.13886 0.14205 0.14523 0.14841 0.15157 0.15474 0.15790 0.16105 0.16420 0.16734 0.17048 0.17362 0.17675 0.17988 0.18301 0.18613 0.18925 0.19237  0.19549 | 2689.7  2710.7  2731.0  2750.8  2770.1  2789.1  2807.7  2826.2  2844.4  2862.4  2880.4  2898.2  2915.9  2933.6  2951.1  2968.7  2986.2  3003.7  3021.1  3038.6  3056.1  3073.6  3091.1  3108.6  3143.8  3179.0  3214.3  3249.8  3285.4  3321.3  3357.4  3393.8  3430.3  3467.0  3504.0  3541.2  3578.7  3616.4  3654.3  3692.6  3731.0  3769.6  3808.6  3847.9  3887.3  3927.0  3967.0  4007.2  4047.6 | 2914.9  2942.2  2968.6  2994.3  3019.5  3044.2  3068.4  3092.4  3116.1  3139.5  3162.8  3185.9  3208.8  3231.7  3254.4  3277.1  3299.7  3322.3  3344.8  3367.3  3389.8  3412.3  3434.8  3457.2  3502.2  3547.2  3592.3  3637.5  3682.8  3728.3  3774.0  3819.9  3866.0  3912.2  3958.7  4005.4  4052.4  4099.5  4146.9  4194.6  4242.4  4290.5  4338.9  4387.5  4436.3  4485.4  4534.8  4584.3  4634.1 | 6.3987 6.4486 6.4959 6.5412 6.5847 6.6266 6.6672 6.7066 6.7449 6.7823 6.8187 6.8544 6.8892 6.9234 6.9570 6.9900 7.0224 7.0542 7.0856 7.1165 7.1470 7.1770 7.2066 7.2359 7.2933 7.3493 7.4041 7.4577 7.5103 7.5618 7.6124 7.6621 7.7109 7.7590 7.8062 7.8528 7.8987 7.9439 7.9885 8.0325 8.0759 8.1187 8.1610 8.2028 8.2441 8.2849 8.3252 8.3651  8.4045 |
| 233.853  240  250  260  270 | 0.0666640 0.0682300 0.0706270 0.0728950  0.0750660 | 2603.2  2619.8  2644.6  2667.7  2689.7 | 2803.2  2824.5  2856.5  2886.4  2914.9 | 6.1856 6.2274 6.2893 6.3459  6.3987 |
|  | | | | |

**= 3 = 242**.**557**

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| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  242.557 | 0.00099844 0.00099837 0.00099868 0.00099932 0.00100024 0.00100143 0.00100285 0.00100449 0.00100634 0.00100838 0.00101060 0.00101300 0.00101556 0.00101829 0.00102118 0.00102423 0.00102742 0.00103078 0.00103428 0.00103793 0.00104173 0.00104569 0.00104980 0.00105406 0.00105848 0.00106306 0.00106780 0.00107271 0.00107778 0.00108304 0.00108847 0.00109410 0.00109991 0.00110593 0.00111216 0.00111861 0.00112529 0.00113221 0.00113938 0.00114683 0.00115456 0.00117094 0.00118869 0.00120803 0.00122921  0.00123497 | 0.02  21.01 41.93 62.82  83.70  104.55  125.41  146.25  167.11  187.95  208.81  229.67  250.55  271.44  292.33  313.24  334.16  355.11  376.07  397.06  418.07  439.11  460.19  481.29  502.44  523.61  544.83  566.11  587.43  608.81  630.24  651.74  673.31  694.95  716.68  738.48  760.38  782.38  804.47  826.69  849.02  894.08  939.74  986.09  1033.3  1045.5 | 3.51  24.50 45.43 66.32  87.20  108.06  128.92  149.77  170.63  191.48  212.35  233.22  254.10  275.00  295.90  316.82  337.76  358.72  379.69  400.69  421.72  442.77  463.86  484.98  506.14  527.33  548.57  569.86  591.20  612.60  634.05  655.57  677.16  698.82  720.57  742.40  764.32  786.34  808.46  830.70  853.06  898.18  943.90  990.32  1037.6  1049.8 | 0.00006 0.07618 0.15076 0.22392 0.29575 0.36632 0.43569 0.50391 0.57104 0.63713 0.70219 0.76629 0.82945 0.89169  0.95307  1.0136 1.0733 1.1322 1.1904  1.2478 1.3046 1.3606 1.4160 1.4708 1.5249 1.5785 1.6315 1.6840 1.7360 1.7874 1.8384 1.8890 1.9391 1.9889 2.0382 2.0872 2.1358 2.1842 2.2322 2.2799 2.3275 2.4218 2.5155 2.6087  2.7016  2.7254 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.0628980 0.0648170 0.0666640 0.0684530 0.0701940 0.0718940 0.0735590 0.0751940 0.0768040 0.0783900 0.0799560 0.0815050 0.0830380 0.0845560 0.0860620 0.0875560 0.0890390 0.0905130 0.0919780 0.0934350 0.0948850 0.0963280 0.0977640  0.0991950  0.10204 0.10487 0.10768 0.11047 0.11325 0.11602 0.11879 0.12154 0.12428 0.12702 0.12975 0.13247 0.13519 0.13790 0.14061 0.14332 0.14602 0.14871 0.15141 0.15410 0.15678 0.15947 0.16215 0.16483  0.16751 | 2673.7  2696.3  2718.0  2738.8  2759.1  2778.9  2798.2  2817.2  2836.0  2854.5  2873.0  2891.1  2909.3  2927.3  2945.1  2963.0  2980.7  2998.4  3016.1  3033.8  3051.5  3069.2  3086.8  3104.4  3139.9  3175.3  3210.8  3246.6  3282.5  3318.5  3354.7  3391.2  3427.8  3464.7  3501.8  3539.2  3576.6  3614.5  3652.5  3690.8  3729.2  3768.1  3807.1  3846.4  3885.9  3925.7  3965.7  4005.9  4046.4 | 2893.8  2923.2  2951.3  2978.4  3004.8  3030.5  3055.7  3080.4  3104.8  3128.9  3152.8  3176.4  3199.9  3223.2  3246.3  3269.4  3292.3  3315.2  3338.0  3360.8  3383.6  3406.3  3429.0  3451.6  3497.0  3542.3  3587.7  3633.2  3678.9  3724.6  3770.5  3816.6  3862.8  3909.3  3955.9  4002.8  4049.8  4097.1  4144.6  4192.4  4240.3  4288.6  4337.0  4385.7  4434.6  4483.8  4533.2  4582.8  4632.7 | 6.2968 6.3503 6.4006 6.4484 6.4940 6.5377 6.5799 6.6206 6.6601 6.6984 6.7358 6.7723 6.8079 6.8427 6.8769 6.9104 6.9433 6.9756 7.0074 7.0387 7.0695 7.0998 7.1298 7.1593 7.2172 7.2737 7.3288 7.3828 7.4356 7.4874 7.5383 7.5882 7.6372 7.6854 7.7329 7.7796 7.8256 7.8709 7.9156 7.9597 8.0032 8.0461 8.0885 8.1303 8.1717 8.2126 8.2529 8.2929  8.3324 |
| 242.557  250  260  270 | 0.0570580 0.0587570 0.0608880  0.0628980 | 2602.9  2624.1  2649.8  2673.7 | 2802.6  2829.7  2862.9  2893.8 | 6.1243 6.1764 6.2393  6.2968 |
|  | | | | |

**= 4 = 250**.**354**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  250.354 | 0.00099819 0.00099813 0.00099844 0.00099909 0.00100001 0.00100120 0.00100263 0.00100427 0.00100612 0.00100816 0.00101038 0.00101277 0.00101534 0.00101807 0.00102095 0.00102399 0.00102719 0.00103054 0.00103403 0.00103768 0.00104148 0.00104543 0.00104953 0.00105379 0.00105820 0.00106277 0.00106751 0.00107240 0.00107747 0.00108272 0.00108814 0.00109375 0.00109956 0.00110556 0.00111178 0.00111821 0.00112487 0.00113177 0.00113893 0.00114635 0.00115405 0.00117038 0.00118807 0.00120733 0.00122842 0.00125169  0.00125256 | 0.03  21.00 41.92 62.80  83.67  104.52  125.36  146.20  167.05  187.89  208.74  229.59  250.46  271.34  292.23  313.13  334.05  354.99  375.94  396.93  417.93  438.97  460.02  481.12  502.26  523.43  544.64  565.90  587.22  608.58  630.01  651.49  673.05  694.69  716.39  738.19  760.07  782.05  804.13  826.33  848.65  893.67  939.29  985.59  1032.7  1080.8  1082.5 | 4.02  24.99 45.91 66.80  87.67  108.52  129.37  150.22  171.07  191.92  212.78  233.64  254.52  275.41  296.31  317.23  338.16  359.11  380.08  401.08  422.10  443.15  464.22  485.34  506.49  527.68  548.91  570.19  591.53  612.91  634.36  655.87  677.45  699.11  720.84  742.66  764.57  786.58  808.69  830.92  853.27  898.35  944.04  990.42  1037.6  1085.8  1087.5 | 0.00009 0.07617 0.15072 0.22385 0.29564 0.36619 0.43553 0.50374 0.57085 0.63691 0.70196 0.76604 0.82918 0.89141  0.95277  1.0133 1.0730 1.1319 1.1900 1.2475 1.3042 1.3602 1.4156 1.4703 1.5245 1.5780 1.6310 1.6835 1.7354 1.7869 1.8379 1.8884 1.9385 1.9882 2.0376 2.0865 2.1352 2.1835 2.2315 2.2792 2.3267 2.4210 2.5146 2.6077 2.7005 2.7935  2.7968 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.0536930 0.0554970 0.0572170 0.0588700 0.0604680 0.0620210 0.0635360 0.0650190 0.0664730 0.0679030 0.0693110 0.0707010 0.0720730 0.0734310 0.0747760 0.0761080 0.0774290 0.0787410 0.0800430 0.0813370 0.0826230 0.0839020 0.0851750 0.0864420 0.0889590 0.0914570 0.0939380 0.0964050  0.0988590  0.10130 0.10373 0.10616 0.10857 0.11098 0.11338 0.11577 0.11816 0.12054 0.12292 0.12530 0.12767 0.13003 0.13240 0.13476 0.13712 0.13947 0.14183 0.14418  0.14652 | 2656.4  2680.9  2704.1  2726.2  2747.5  2768.2  2788.4  2808.0  2827.4  2846.5  2865.4  2884.0  2902.4  2920.8  2939.0  2957.1  2975.1  2993.0  3011.0  3028.9  3046.7  3064.6  3082.4  3100.2  3136.0  3171.7  3207.4  3243.4  3279.5  3315.7  3352.1  3388.6  3425.4  3462.4  3499.6  3537.0  3574.7  3612.5  3650.6  3689.0  3727.6  3766.5  3805.5  3844.9  3884.4  3924.2  3964.3  4004.6  4045.1 | 2871.2  2902.9  2933.0  2961.7  2989.4  3016.3  3042.5  3068.1  3093.3  3118.1  3142.6  3166.8  3190.7  3214.5  3238.1  3261.5  3284.8  3308.0  3331.2  3354.2  3377.2  3400.2  3423.1  3446.0  3491.8  3537.5  3583.2  3629.0  3674.9  3720.9  3767.0  3813.2  3859.7  3906.3  3953.1  4000.1  4047.3  4094.7  4142.3  4190.2  4238.3  4286.6  4335.1  4383.9  4432.9  4482.1  4531.6  4581.3  4631.2 | 6.2016 6.2595 6.3133 6.3639 6.4118 6.4576 6.5014 6.5435 6.5843 6.6238 6.6621 6.6994 6.7358 6.7714 6.8061 6.8402 6.8736 6.9064 6.9386 6.9703 7.0015 7.0321 7.0624 7.0922 7.1506 7.2075 7.2631 7.3174 7.3705 7.4226 7.4737 7.5238 7.5730 7.6214 7.6690 7.7159 7.7620 7.8074 7.8523 7.8964 7.9400 7.9830 8.0255 8.0674 8.1088 8.1498 8.1902 8.2302  8.2697 |
| 250.354  260  270 | 0.0497760 0.0517770  0.0536930 | 2601.7  2630.0  2656.4 | 2800.8  2837.1  2871.2 | 6.0696 6.1383  6.2016 |
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**= 4 = 257**.**437**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  257.437 | 0.00099793 0.00099789 0.00099821 0.00099885 0.00099979 0.00100098 0.00100240 0.00100405 0.00100590 0.00100794 0.00101016 0.00101255 0.00101511 0.00101784 0.00102072 0.00102376 0.00102696 0.00103030 0.00103379 0.00103744 0.00104123 0.00104517 0.00104927 0.00105352 0.00105793 0.00106249 0.00106721 0.00107210 0.00107716 0.00108240 0.00108781 0.00109341 0.00109920 0.00110519 0.00111139 0.00111781 0.00112445 0.00113134 0.00113847 0.00114587 0.00115355 0.00116983 0.00118745 0.00120663 0.00122763 0.00125077  0.00126965 | 0.04  21.00 41.91 62.79  83.64  104.49  125.32  146.15  166.98  187.82  208.66  229.51  250.37  271.24  292.13  313.02  333.94  354.86  375.82  396.79  417.78  438.82  459.87  480.96  502.08  523.24  544.45  565.71  587.00  608.36  629.77  651.26  672.80  694.42  716.12  737.90  759.77  781.74  803.81  825.98  848.28  893.27  938.84  985.09  1032.2  1080.2  1116.5 | 4.53  25.49 46.40 67.28  88.14  108.99  129.83  150.67  171.51  192.36  213.21  234.07  254.94  275.82  296.72  317.63  338.56  359.50  380.47  401.46  422.47  443.52  464.59  485.70  506.84  528.02  549.25  570.53  591.85  613.23  634.67  656.18  677.75  699.39  721.12  742.93  764.83  786.83  808.93  831.14  853.47  898.53  944.18  990.52  1037.7  1085.8  1122.2 | 0.00011 0.07615 0.15067 0.22377 0.29554 0.36605 0.43538 0.50356 0.57066 0.63670 0.70173 0.76579 0.82892 0.89113  0.95247  1.0130 1.0727 1.1315 1.1897  1.2471 1.3038 1.3598 1.4152 1.4699 1.5240 1.5776 1.6305 1.6830 1.7349 1.7864 1.8373 1.8879 1.9379 1.9876 2.0369 2.0859 2.1345 2.1827 2.2307 2.2784 2.3259 2.4201 2.5136 2.6067 2.6994  2.7922  2.8615 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.0464510 0.0481860 0.0498210 0.0513780 0.0528730 0.0543170 0.0557200 0.0570870 0.0584230 0.0597330 0.0610210 0.0622880 0.0635380 0.0647720 0.0659910 0.0671990 0.0683940 0.0695800 0.0707560 0.0719240 0.0730830 0.0742360 0.0753810 0.0765210 0.0787840 0.0810270 0.0832530 0.0854640 0.0876620 0.0898480 0.0920240 0.0941910 0.0963490 0.0985000  0.10064 0.10278 0.10491 0.10704 0.10916 0.11128 0.11340 0.11551 0.11762 0.11972 0.12182 0.12392 0.12602 0.12811  0.13020 | 2637.7  2664.5  2689.4  2713.0  2735.5  2757.2  2778.2  2798.6  2818.6  2838.2  2857.5  2876.6  2895.5  2914.1  2932.7  2951.1  2969.4  2987.7  3005.8  3023.9  3042.0  3060.0  3078.0  3096.1  3132.0  3168.0  3204.0  3240.1  3276.4  3312.8  3349.3  3386.0  3422.9  3460.1  3497.3  3534.9  3572.6  3610.6  3648.8  3687.2  3725.9  3764.8  3803.9  3843.4  3882.9  3922.9  3962.9  4003.3  4043.9 | 2846.7  2881.3  2913.6  2944.2  2973.4  3001.6  3028.9  3055.5  3081.5  3107.0  3132.1  3156.9  3181.4  3205.6  3229.7  3253.5  3277.2  3300.8  3324.2  3347.6  3370.9  3394.1  3417.2  3440.4  3486.5  3532.6  3578.6  3624.7  3670.9  3717.1  3763.4  3809.9  3856.5  3903.3  3950.2  3997.4  4044.7  4092.3  4140.0  4188.0  4236.2  4284.6  4333.2  4382.1  4431.1  4480.5  4530.0  4579.8  4629.8 | 6.1105 6.1737 6.2316 6.2854 6.3359 6.3838 6.4295 6.4732 6.5153 6.5560 6.5953 6.6336 6.6708 6.7070 6.7425 6.7771 6.8111 6.8443 6.8770 6.9091 6.9406 6.9716 7.0022 7.0323 7.0912 7.1486 7.2046 7.2592 7.3127 7.3650 7.4163 7.4666 7.5161 7.5646 7.6124 7.6594 7.7057 7.7512 7.7962 7.8404 7.8841 7.9272 7.9698 8.0118 8.0533 8.0942 8.1348 8.1748  8.2144 |
| 257.437  260  270 | 0.0440590 0.0445720  0.0464510 | 2599.6  2608.0  2637.7 | 2797.9  2808.6  2846.7 | 6.0197 6.0397  6.1105 |
|  | | | | |

**= 5 = 263**.**941**

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| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  263.941 | 0.00099768 0.00099764 0.00099797 0.00099862 0.00099956 0.00100075 0.00100218 0.00100383 0.00100568 0.00100772 0.00100994 0.00101233 0.00101489 0.00101762 0.00102050 0.00102353 0.00102672 0.00103006 0.00103355 0.00103719 0.00104098 0.00104492 0.00104901 0.00105325 0.00105765 0.00106220 0.00106692 0.00107180 0.00107685 0.00108208 0.00108748 0.00109307 0.00109885 0.00110482 0.00111101 0.00111741 0.00112404 0.00113091 0.00113802 0.00114540 0.00115306 0.00116928 0.00118684 0.00120594 0.00122684 0.00124987 0.00127547  0.00128639 | 0.04  20.99 41.89 62.76  83.61  104.45  125.27  146.10  166.92  187.75  208.59  229.43  250.29  271.15  292.03  312.91  333.82  354.75  375.69  396.65  417.65  438.67  459.70  480.79  501.90  523.06  544.26  565.50  586.80  608.14  629.54  651.01  672.55  694.16  715.84  737.60  759.46  781.42  803.47  825.63  847.91  892.86  938.39  984.59  1031.6  1079.5  1128.5  1148.2 | 5.03  25.98 46.88 67.75  88.61  109.45  130.28  151.12  171.95  192.79  213.64  234.49  255.36  276.24  297.13  318.03  338.95  359.90  380.86  401.84  422.85  443.89  464.95  486.06  507.19  528.37  549.59  570.86  592.18  613.55  634.98  656.48  678.04  699.68  721.40  743.19  765.08  787.07  809.16  831.36  853.68  898.71  944.32  990.62  1037.7  1085.7  1134.9  1154.6 | 0.00014 0.07614 0.15062 0.22369 0.29543 0.36592 0.43522 0.50339 0.57046 0.63649 0.70150 0.76555 0.82865 0.89085  0.95218  1.0127 1.0723 1.1312 1.1893 1.2467 1.3034 1.3594 1.4147 1.4695 1.5236 1.5771 1.6301 1.6825 1.7344 1.7858 1.8368 1.8873 1.9374 1.9870 2.0363 2.0852 2.1338 2.1821 2.2300 2.2777 2.3251 2.4193 2.5127 2.6057 2.6983 2.7910 2.8841  2.9210 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.0405670 0.0422740 0.0438560 0.0453460 0.0467660 0.0481300 0.0494460 0.0507240 0.0519690 0.0531860 0.0543780 0.0555490 0.0567020 0.0578370 0.0589580 0.0600660 0.0611620 0.0622480 0.0633230 0.0643900 0.0654490 0.0665000 0.0675450 0.0685830 0.0706420 0.0726810 0.0747030 0.0767100 0.0787040 0.0806850 0.0826570 0.0846190 0.0865720 0.0885180 0.0904570 0.0923900 0.0943180 0.0962400  0.0981580  0.10007 0.10198 0.10389 0.10579 0.10769 0.10958 0.11148 0.11337 0.11526  0.11715 | 2617.0  2646.7  2673.7  2699.0  2722.8  2745.6  2767.5  2788.8  2809.5  2829.7  2849.6  2869.2  2888.4  2907.5  2926.4  2945.1  2963.7  2982.2  3000.6  3018.9  3037.2  3055.4  3073.6  3091.8  3128.0  3164.3  3200.6  3236.8  3273.3  3309.9  3346.6  3383.4  3420.4  3457.7  3495.1  3532.8  3570.6  3608.6  3646.9  3685.4  3724.2  3763.2  3802.3  3841.8  3881.5  3921.4  3961.5  4002.0  4042.5 | 2819.8  2858.1  2893.0  2925.7  2956.6  2986.2  3014.7  3042.4  3069.3  3095.6  3121.5  3146.9  3171.9  3196.7  3221.2  3245.4  3269.5  3293.4  3317.2  3340.9  3364.4  3387.9  3411.3  3434.7  3481.2  3527.7  3574.1  3620.4  3666.8  3713.3  3759.9  3806.5  3853.3  3900.3  3947.4  3994.7  4042.2  4089.8  4137.7  4185.8  4234.1  4282.6  4331.3  4380.2  4429.4  4478.8  4528.4  4578.3  4628.3 | 6.0211 6.0909 6.1536 6.2110 6.2646 6.3149 6.3626 6.4080 6.4516 6.4935 6.5340 6.5732 6.6112 6.6483 6.6844 6.7196 6.7541 6.7879 6.8210 6.8535 6.8854 6.9168 6.9477 6.9781 7.0375 7.0954 7.1517 7.2067 7.2605 7.3131 7.3647 7.4152 7.4649 7.5136 7.5615 7.6087 7.6551 7.7008 7.7458 7.7902 7.8340 7.8771 7.9198 7.9618 8.0034 8.0445 8.0850 8.1251  8.1648 |
| 263.941 270 | 0.0394460 0.0405670 | 2597.0  2617.0 | 2794.2  2819.8 | 5.9737 6.0211 |
|  | | | | |

**= 5 = 269**.**965**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  269.965 | 0.00099743 0.00099740 0.00099774 0.00099839 0.00099933 0.00100053 0.00100196 0.00100361 0.00100546 0.00100750 0.00100972 0.00101211 0.00101467 0.00101739 0.00102027 0.00102330 0.00102649 0.00102982 0.00103331 0.00103694 0.00104073 0.00104466 0.00104875 0.00105298 0.00105737 0.00106192 0.00106663 0.00107150 0.00107654 0.00108176 0.00108715 0.00109273 0.00109849 0.00110446 0.00111063 0.00111701 0.00112363 0.00113047 0.00113757 0.00114493 0.00115256 0.00116873 0.00118623 0.00120525 0.00122606 0.00124897 0.00127442  0.00130290 | 0.05  20.99 41.88 62.74  83.58  104.41  125.23  146.04  166.86  187.69  208.52  229.35  250.20  271.05  291.93  312.81  333.70  354.63  375.56  396.52  417.51  438.51  459.55  480.62  501.73  522.88  544.06  565.30  586.58  607.92  629.31  650.77  672.30  693.90  715.56  737.32  759.16  781.10  803.13  825.28  847.55  892.45  937.94  984.09  1031.1  1078.8  1127.8  1177.9 | 5.54  26.48 47.37 68.23  89.08  109.91  130.74  151.56  172.39  193.23  214.07  234.92  255.78  276.65  297.54  318.44  339.35  360.29  381.24  402.22  423.23  444.26  465.32  486.41  507.55  528.72  549.93  571.19  592.50  613.87  635.29  656.78  678.34  699.97  721.67  743.46  765.34  787.32  809.39  831.58  853.89  898.88  944.46  990.72  1037.8  1085.7  1134.8  1185.1 | 0.00016 0.07612 0.15057 0.22361 0.29532 0.36579 0.43507 0.50321 0.57027 0.63627 0.70127 0.76530 0.82839 0.89057  0.95188  1.0123 1.0720 1.1309 1.1890  1.2463 1.3030 1.3590 1.4143 1.4690 1.5231 1.5766 1.6296 1.6820 1.7339 1.7853 1.8362 1.8867 1.9368 1.9864 2.0357 2.0846 2.1331 2.1814 2.2293 2.2769 2.3243 2.4184 2.5118 2.6047 2.6972 2.7898  2.8828  2.9762 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.0356480 0.0373670 0.0389250 0.0403730 0.0417400 0.0430430 0.0442940 0.0455020 0.0466750 0.0478170 0.0489340 0.0500270 0.0511010 0.0521580 0.0531990 0.0542260 0.0552410 0.0562450 0.0572390 0.0582240 0.0592000 0.0601690 0.0611310 0.0620860 0.0639790 0.0658520 0.0677080 0.0695480 0.0713740 0.0731880 0.0749920 0.0767870 0.0785730 0.0803510 0.0821230 0.0838880 0.0856480 0.0874030 0.0891520 0.0908980 0.0926400 0.0943780 0.0961120 0.0978440  0.0995730  0.10130 0.10302 0.10474  0.10646 | 2593.8  2627.4  2657.0  2684.1  2709.5  2733.6  2756.5  2778.6  2800.1  2821.0  2841.4  2861.5  2881.2  2900.6  2919.9  2939.0  2957.9  2976.7  2995.3  3013.9  3032.3  3050.8  3069.1  3087.4  3124.0  3160.5  3197.0  3233.6  3270.2  3307.0  3343.8  3380.9  3418.0  3455.4  3492.9  3530.6  3568.5  3606.7  3645.1  3683.7  3722.5  3761.5  3800.8  3840.3  3880.0  3920.0  3960.2  4000.6  4041.4 | 2789.9  2832.9  2871.1  2906.2  2939.1  2970.3  3000.1  3028.9  3056.8  3084.0  3110.5  3136.6  3162.3  3187.5  3212.5  3237.2  3261.7  3286.0  3310.1  3334.1  3357.9  3381.7  3405.3  3428.9  3475.9  3522.7  3569.4  3616.1  3662.8  3709.5  3756.3  3803.2  3850.2  3897.3  3944.6  3992.0  4039.6  4087.4  4135.4  4183.6  4232.0  4280.6  4329.4  4378.4  4427.7  4477.1  4526.8  4576.7  4626.9 | 5.9310 6.0095 6.0779 6.1397 6.1966 6.2496 6.2995 6.3468 6.3920 6.4352 6.4769 6.5171 6.5561 6.5939 6.6307 6.6666 6.7017 6.7360 6.7696 6.8025 6.8348 6.8666 6.8978 6.9285 6.9885 7.0468 7.1035 7.1589 7.2130 7.2659 7.3177 7.3685 7.4183 7.4672 7.5153 7.5626 7.6091 7.6549 7.7001 7.7446 7.7884 7.8317 7.8744 7.9166 7.9582 7.9993 8.0399 8.0801  8.1198 |
| 269.965 270 | 0.0356420 0.0356480 | 2593.7  2593.8 | 2789.7  2789.9 | 5.9307 5.9310 |
|  | | | | |

**= 6 = 275**.**585**

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 0 | 0.00099718 | 0.06 | 6.04 | 0.00019 | | 5 | 0.00099716 | 20.99 | 26.97 | 0.07611 | | 10 | 0.00099750 | 41.86 | 47.85 | 0.15052 | | 15 | 0.00099816 | 62.72 | 68.71 | 0.22353 | | 20 | 0.00099911 | 83.55 | 89.54 | 0.29522 | | 25 | 0.00100031 | 104.37 | 110.37 | 0.36566 | | 30 | 0.00100174 | 125.18 | 131.19 | 0.43492 | | 35 | 0.00100339 | 145.99 | 152.01 | 0.50304 | | 40 | 0.00100524 | 166.81 | 172.84 | 0.57007 | | 45 | 0.00100728 | 187.62 | 193.66 | 0.63606 | | 50 | 0.00100950 | 208.44 | 214.50 | 0.70104 | | 55 | 0.00101189 | 229.27 | 235.34 | 0.76505 | | 60 | 0.00101445 | 250.11 | 256.20 | 0.82812 | | 65 | 0.00101717 | 270.97 | 277.07 | 0.89029 | | 70 | 0.00102004 | 291.83 | 297.95 | 0.95159 | | 75 | 0.00102307 | 312.70 | 318.84 | 1.0120 | | 80 | 0.00102626 | 333.59 | 339.75 | 1.0717 | | 85 | 0.00102959 | 354.50 | 360.68 | 1.1305 | | 90 | 0.00103307 | 375.43 | 381.63 | 1.1886 | | 95 | 0.00103670 | 396.38 | 402.60 | 1.2460 | | 100 | 0.00104048 | 417.36 | 423.60 | 1.3026 | | 105 | 0.00104441 | 438.36 | 444.63 | 1.3586 | | 110 | 0.00104848 | 459.39 | 465.68 | 1.4139 | | 115 | 0.00105271 | 480.45 | 486.77 | 1.4686 | | 120 | 0.00105710 | 501.56 | 507.90 | 1.5227 | | 125 | 0.00106164 | 522.69 | 529.06 | 1.5762 | | 130 | 0.00106634 | 543.87 | 550.27 | 1.6291 | | 135 | 0.00107120 | 565.10 | 571.53 | 1.6815 | | 140 | 0.00107624 | 586.37 | 592.83 | 1.7334 | | 145 | 0.00108144 | 607.70 | 614.19 | 1.7848 | | 150 | 0.00108682 | 629.09 | 635.61 | 1.8357 | | 155 | 0.00109239 | 650.54 | 657.09 | 1.8862 | | 160 | 0.00109814 | 672.04 | 678.63 | 1.9362 | | 165 | 0.00110409 | 693.63 | 700.25 | 1.9858 | | 170 | 0.00111025 | 715.29 | 721.95 | 2.0351 | | 175 | 0.00111662 | 737.03 | 743.73 | 2.0839 | | 180 | 0.00112321 | 758.86 | 765.60 | 2.1325 | | 185 | 0.00113004 | 780.78 | 787.56 | 2.1807 | | 190 | 0.00113712 | 802.81 | 809.63 | 2.2286 | | 195 | 0.00114446 | 824.93 | 831.80 | 2.2762 | | 200 | 0.00115207 | 847.18 | 854.09 | 2.3235 | | 210 | 0.00116818 | 892.05 | 899.06 | 2.4176 | | 220 | 0.00118562 | 937.50 | 944.61 | 2.5109 | | 230 | 0.00120457 | 983.59 | 990.82 | 2.6037 | | 240 | 0.00122528 | 1030.4 | 1037.8 | 2.6961 | | 250 | 0.00124807 | 1078.2 | 1085.7 | 2.7886 | | 260 | 0.00127337 | 1127.1 | 1134.7 | 2.8814 | | 270 | 0.00130177 | 1177.3 | 1185.1 | 2.9750 | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 270 | 0.00130177 | 1177.3 | 1185.1 | 2.9750 | | 275.585 | 0.00131926 | 1206.0 | 1213.9 | 3.0278 | | 275.585 | 0.0324480 | 2589.9 | 2784.6 | 5.8901 | | 280 | 0.0331990 | 2606.1 | 2805.3 | 5.9277 | | 290 | 0.0347620 | 2638.9 | 2847.5 | 6.0034 | | 300 | 0.0361890 | 2668.4 | 2885.5 | 6.0703 | | 310 | 0.0375210 | 2695.5 | 2920.6 | 6.1310 | | 320 | 0.0387800 | 2720.9 | 2953.6 | 6.1871 | | 330 | 0.0399810 | 2745.0 | 2984.9 | 6.2395 | | 340 | 0.0411350 | 2768.1 | 3014.9 | 6.2888 | | 350 | 0.0422510 | 2790.4 | 3043.9 | 6.3357 | | 360 | 0.0433330 | 2812.0 | 3072.0 | 6.3804 | | 370 | 0.0443880 | 2833.1 | 3099.4 | 6.4233 | | 380 | 0.0454180 | 2853.6 | 3126.1 | 6.4646 | | 390 | 0.0464280 | 2873.8 | 3152.4 | 6.5045 | | 400 | 0.0474190 | 2893.7 | 3178.2 | 6.5432 | | 410 | 0.0483950 | 2913.3 | 3203.7 | 6.5807 | | 420 | 0.0493550 | 2932.8 | 3228.9 | 6.6173 | | 430 | 0.0503030 | 2952.0 | 3253.8 | 6.6530 | | 440 | 0.0512400 | 2971.0 | 3278.4 | 6.6878 | | 450 | 0.0521660 | 2989.9 | 3302.9 | 6.7219 | | 460 | 0.0530830 | 3008.7 | 3327.2 | 6.7552 | | 470 | 0.0539910 | 3027.5 | 3351.4 | 6.7880 | | 480 | 0.0548910 | 3046.1 | 3375.4 | 6.8201 | | 490 | 0.0557840 | 3064.6 | 3399.3 | 6.8516 | | 500 | 0.0566710 | 3083.1 | 3423.1 | 6.8826 | | 520 | 0.0584260 | 3119.9 | 3470.5 | 6.9432 | | 540 | 0.0601610 | 3156.7 | 3517.7 | 7.0020 | | 560 | 0.0618770 | 3193.5 | 3564.8 | 7.0591 | | 580 | 0.0635780 | 3230.3 | 3611.8 | 7.1149 | | 600 | 0.0652650 | 3267.1 | 3658.7 | 7.1693 | | 620 | 0.0669410 | 3304.1 | 3705.7 | 7.2224 | | 640 | 0.0686050 | 3341.1 | 3752.7 | 7.2745 | | 660 | 0.0702600 | 3378.2 | 3799.8 | 7.3255 | | 680 | 0.0719070 | 3415.6 | 3847.0 | 7.3755 | | 700 | 0.0735450 | 3453.0 | 3894.3 | 7.4246 | | 720 | 0.0751770 | 3490.6 | 3941.7 | 7.4729 | | 740 | 0.0768030 | 3528.5 | 3989.3 | 7.5203 | | 760 | 0.0784230 | 3566.5 | 4037.0 | 7.5670 | | 780 | 0.0800380 | 3604.8 | 4085.0 | 7.6129 | | 800 | 0.0816480 | 3643.2 | 4133.1 | 7.6582 | | 820 | 0.0832540 | 3681.9 | 4181.4 | 7.7028 | | 840 | 0.0848560 | 3720.8 | 4229.9 | 7.7467 | | 860 | 0.0864540 | 3759.9 | 4278.6 | 7.7901 | | 880 | 0.0880490 | 3799.2 | 4327.5 | 7.8329 | | 900 | 0.0896410 | 3838.8 | 4376.6 | 7.8751 | | 920 | 0.0912300 | 3878.5 | 4425.9 | 7.9168 | | 940 | 0.0928160 | 3918.6 | 4475.5 | 7.9580 | | 960 | 0.0944000 | 3958.8 | 4525.2 | 7.9987 | | 980 | 0.0959810 | 3999.3 | 4575.2 | 8.0389 | | 1000 | 0.0975600 | 4040.0 | 4625.4 | 8.0786 | |

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 0 | 0.00099694 | 0.07 | 6.55 | 0.00021 | | 5 | 0.00099692 | 20.98 | 27.46 | 0.07609 | | 10 | 0.00099727 | 41.86 | 48.34 | 0.15047 | | 15 | 0.00099793 | 62.69 | 69.18 | 0.22345 | | 20 | 0.00099888 | 83.52 | 90.01 | 0.29511 | | 25 | 0.00100009 | 104.33 | 110.83 | 0.36553 | | 30 | 0.00100152 | 125.13 | 131.64 | 0.43476 | | 35 | 0.00100317 | 145.94 | 152.46 | 0.50286 | | 40 | 0.00100502 | 166.75 | 173.28 | 0.56988 | | 45 | 0.00100706 | 187.55 | 194.10 | 0.63585 | | 50 | 0.00100928 | 208.37 | 214.93 | 0.70081 | | 55 | 0.00101167 | 229.19 | 235.77 | 0.76480 | | 60 | 0.00101422 | 250.03 | 256.62 | 0.82786 | | 65 | 0.00101694 | 270.87 | 277.48 | 0.89001 | | 70 | 0.00101982 | 291.72 | 298.35 | 0.95129 | | 75 | 0.00102284 | 312.59 | 319.24 | 1.0117 | | 80 | 0.00102602 | 333.48 | 340.15 | 1.0713 | | 85 | 0.00102935 | 354.38 | 361.07 | 1.1302 | | 90 | 0.00103283 | 375.31 | 382.02 | 1.1883 | | 95 | 0.00103645 | 396.25 | 402.99 | 1.2456 | | 100 | 0.00104023 | 417.22 | 423.98 | 1.3022 | | 105 | 0.00104415 | 438.21 | 445.00 | 1.3582 | | 110 | 0.00104822 | 459.24 | 466.05 | 1.4135 | | 115 | 0.00105245 | 480.29 | 487.13 | 1.4682 | | 120 | 0.00105682 | 501.38 | 508.25 | 1.5222 | | 125 | 0.00106136 | 522.51 | 529.41 | 1.5757 | | 130 | 0.00106605 | 543.68 | 550.61 | 1.6286 | | 135 | 0.00107091 | 564.90 | 571.86 | 1.6810 | | 140 | 0.00107593 | 586.17 | 593.16 | 1.7329 | | 145 | 0.00108112 | 607.48 | 614.51 | 1.7842 | | 150 | 0.00108649 | 628.86 | 635.92 | 1.8351 | | 155 | 0.00109205 | 650.29 | 657.39 | 1.8856 | | 160 | 0.00109779 | 671.79 | 678.93 | 1.9356 | | 165 | 0.00110373 | 693.37 | 700.54 | 1.9852 | | 170 | 0.00110987 | 715.02 | 722.23 | 2.0344 | | 175 | 0.00111623 | 736.74 | 744.00 | 2.0833 | | 180 | 0.00112280 | 758.56 | 765.86 | 2.1318 | | 185 | 0.00112962 | 780.47 | 787.81 | 2.1800 | | 190 | 0.00113667 | 802.47 | 809.86 | 2.2278 | | 195 | 0.00114399 | 824.59 | 832.03 | 2.2754 | | 200 | 0.00115158 | 846.81 | 854.30 | 2.3228 | | 210 | 0.00116764 | 891.65 | 899.24 | 2.4168 | | 220 | 0.00118501 | 937.05 | 944.75 | 2.5100 | | 230 | 0.00120389 | 983.10 | 990.93 | 2.6027 | | 240 | 0.00122451 | 1029.9 | 1037.9 | 2.6951 | | 250 | 0.00124719 | 1077.6 | 1085.7 | 2.7874 | | 260 | 0.00127234 | 1126.4 | 1134.7 | 2.8801 | | 270 | 0.00130054 | 1176.4 | 1184.9 | 2.9735 | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 270 | 0.00130054 | 1176.4 | 1184.9 | 2.9735 | | 280 | 0.00133260 | 1228.1 | 1236.8 | 3.0682 | | 280.858 | 0.00133556 | 1232.7 | 1241.4 | 3.0764 | | 280.858 | 0.0297270 | 2585.7 | 2778.9 | 5.8516 | | 290 | 0.0311800 | 2619.3 | 2822.0 | 5.9289 | | 300 | 0.0326070 | 2651.6 | 2863.5 | 6.0019 | | 310 | 0.0339200 | 2680.7 | 2901.2 | 6.0671 | | 320 | 0.0351490 | 2707.7 | 2936.2 | 6.1266 | | 330 | 0.0363130 | 2733.1 | 2969.1 | 6.1817 | | 340 | 0.0374250 | 2757.2 | 3000.5 | 6.2333 | | 350 | 0.0384940 | 2780.4 | 3030.6 | 6.2820 | | 360 | 0.0395280 | 2802.8 | 3059.7 | 6.3283 | | 370 | 0.0405320 | 2824.4 | 3087.9 | 6.3725 | | 380 | 0.0415110 | 2845.6 | 3115.4 | 6.4150 | | 390 | 0.0424670 | 2866.4 | 3142.4 | 6.4559 | | 400 | 0.0434040 | 2886.7 | 3168.8 | 6.4954 | | 410 | 0.0443250 | 2906.7 | 3194.8 | 6.5338 | | 420 | 0.0452300 | 2926.4 | 3220.4 | 6.5710 | | 430 | 0.0461220 | 2946.0 | 3245.8 | 6.6073 | | 440 | 0.0470020 | 2965.3 | 3270.8 | 6.6427 | | 450 | 0.0478710 | 2984.4 | 3295.6 | 6.6773 | | 460 | 0.0487300 | 3003.6 | 3320.3 | 6.7111 | | 470 | 0.0495810 | 3022.4 | 3344.7 | 6.7442 | | 480 | 0.0504230 | 3041.3 | 3369.0 | 6.7767 | | 490 | 0.0512590 | 3060.0 | 3393.2 | 6.8086 | | 500 | 0.0520870 | 3078.7 | 3417.3 | 6.8399 | | 520 | 0.0537260 | 3115.9 | 3465.1 | 6.9011 | | 540 | 0.0553440 | 3153.0 | 3512.7 | 6.9603 | | 560 | 0.0569430 | 3190.1 | 3560.2 | 7.0179 | | 580 | 0.0585260 | 3227.0 | 3607.4 | 7.0740 | | 600 | 0.0600960 | 3264.1 | 3654.7 | 7.1288 | | 620 | 0.0616530 | 3301.2 | 3701.9 | 7.1822 | | 640 | 0.0632000 | 3338.3 | 3749.1 | 7.2345 | | 660 | 0.0647370 | 3375.6 | 3796.4 | 7.2858 | | 680 | 0.0662660 | 3413.1 | 3843.8 | 7.3360 | | 700 | 0.0677860 | 3450.7 | 3891.3 | 7.3853 | | 720 | 0.0693000 | 3488.4 | 3938.9 | 7.4337 | | 740 | 0.0708080 | 3526.3 | 3986.6 | 7.4813 | | 760 | 0.0723100 | 3564.5 | 4034.5 | 7.5281 | | 780 | 0.0738060 | 3602.8 | 4082.5 | 7.5741 | | 800 | 0.0752980 | 3641.4 | 4130.8 | 7.6195 | | 820 | 0.0767860 | 3680.1 | 4179.2 | 7.6642 | | 840 | 0.0782690 | 3719.1 | 4227.8 | 7.7083 | | 860 | 0.0797490 | 3758.2 | 4276.6 | 7.7517 | | 880 | 0.0812260 | 3797.6 | 4325.6 | 7.7946 | | 900 | 0.0826990 | 3837.3 | 4374.8 | 7.8369 | | 920 | 0.0841700 | 3877.1 | 4424.2 | 7.8786 | | 940 | 0.0856380 | 3917.2 | 4473.8 | 7.9199 | | 960 | 0.0871030 | 3957.4 | 4523.6 | 7.9606 | | 980 | 0.0885660 | 3998.0 | 4573.7 | 8.0009 | | 1000 | 0.0900270 | 4038.8 | 4624.0 | 8.0407 | |

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 0 | 0.00099669 | 0.07 | 7.05 | 0.00023 | | 5 | 0.00099668 | 20.98 | 27.96 | 0.07607 | | 10 | 0.00099703 | 41.84 | 48.82 | 0.15041 | | 15 | 0.00099771 | 62.68 | 69.66 | 0.22336 | | 20 | 0.00099866 | 83.49 | 90.48 | 0.29500 | | 25 | 0.00099986 | 104.29 | 111.29 | 0.36540 | | 30 | 0.00100130 | 125.09 | 132.10 | 0.43461 | | 35 | 0.00100295 | 145.89 | 152.91 | 0.50269 | | 40 | 0.00100480 | 166.69 | 173.72 | 0.56968 | | 45 | 0.00100684 | 187.49 | 194.54 | 0.63563 | | 50 | 0.00100906 | 208.30 | 215.36 | 0.70058 | | 55 | 0.00101145 | 229.11 | 236.19 | 0.76456 | | 60 | 0.00101400 | 249.94 | 257.04 | 0.82760 | | 65 | 0.00101672 | 270.77 | 277.89 | 0.88973 | | 70 | 0.00101959 | 291.62 | 298.76 | 0.95100 | | 75 | 0.00102262 | 312.49 | 319.65 | 1.0114 | | 80 | 0.00102579 | 333.37 | 340.55 | 1.0710 | | 85 | 0.00102912 | 354.27 | 361.47 | 1.1298 | | 90 | 0.00103259 | 375.18 | 382.41 | 1.1879 | | 95 | 0.00103621 | 396.12 | 403.37 | 1.2452 | | 100 | 0.00103998 | 417.08 | 424.36 | 1.3019 | | 105 | 0.00104390 | 438.06 | 445.37 | 1.3578 | | 110 | 0.00104796 | 459.07 | 466.41 | 1.4131 | | 115 | 0.00105218 | 480.12 | 487.49 | 1.4677 | | 120 | 0.00105655 | 501.21 | 508.61 | 1.5218 | | 125 | 0.00106108 | 522.33 | 529.76 | 1.5753 | | 130 | 0.00106576 | 543.49 | 550.95 | 1.6282 | | 135 | 0.00107061 | 564.70 | 572.19 | 1.6805 | | 140 | 0.00107562 | 585.95 | 593.48 | 1.7324 | | 145 | 0.00108081 | 607.26 | 614.83 | 1.7837 | | 150 | 0.00108617 | 628.63 | 636.23 | 1.8346 | | 155 | 0.00109171 | 650.05 | 657.69 | 1.8850 | | 160 | 0.00109744 | 671.54 | 679.22 | 1.9350 | | 165 | 0.00110336 | 693.11 | 700.83 | 1.9846 | | 170 | 0.00110949 | 714.74 | 722.51 | 2.0338 | | 175 | 0.00111583 | 736.46 | 744.27 | 2.0826 | | 180 | 0.00112239 | 758.25 | 766.11 | 2.1311 | | 185 | 0.00112919 | 780.16 | 788.06 | 2.1793 | | 190 | 0.00113623 | 802.15 | 810.10 | 2.2271 | | 195 | 0.00114352 | 824.25 | 832.25 | 2.2747 | | 200 | 0.00115109 | 846.45 | 854.51 | 2.3220 | | 210 | 0.00116710 | 891.25 | 899.42 | 2.4159 | | 220 | 0.00118441 | 936.61 | 944.90 | 2.5091 | | 230 | 0.00120321 | 982.62 | 991.04 | 2.6017 | | 240 | 0.00122374 | 1029.3 | 1037.9 | 2.6940 | | 250 | 0.00124631 | 1077.0 | 1085.7 | 2.7862 | | 260 | 0.00127131 | 1125.7 | 1134.6 | 2.8788 | | 270 | 0.00129932 | 1175.7 | 1184.8 | 2.9720 | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 270 | 0.00129932 | 1175.7 | 1184.8 | 2.9720 | | 280 | 0.00133112 | 1227.3 | 1236.6 | 3.0665 | | 285.829 | 0.00135186 | 1258.2 | 1267.7 | 3.1224 | | 285.829 | 0.0273780 | 2581.0 | 2772.6 | 5.8148 | | 290 | 0.0280430 | 2597.8 | 2794.1 | 5.8529 | | 300 | 0.0294920 | 2633.5 | 2839.9 | 5.9337 | | 310 | 0.0308010 | 2665.0 | 2880.6 | 6.0041 | | 320 | 0.0320120 | 2693.8 | 2917.9 | 6.0675 | | 330 | 0.0331490 | 2720.7 | 2952.7 | 6.1257 | | 340 | 0.0342290 | 2746.0 | 2985.6 | 6.1797 | | 350 | 0.0352620 | 2770.1 | 3016.9 | 6.2304 | | 360 | 0.0362570 | 2793.2 | 3047.0 | 6.2784 | | 370 | 0.0372190 | 2815.7 | 3076.2 | 6.3241 | | 380 | 0.0381550 | 2837.4 | 3104.5 | 6.3677 | | 390 | 0.0390670 | 2858.6 | 3132.1 | 6.4097 | | 400 | 0.0399580 | 2879.5 | 3159.2 | 6.4502 | | 410 | 0.0408320 | 2899.9 | 3185.7 | 6.4894 | | 420 | 0.0416900 | 2920.0 | 3211.8 | 6.5273 | | 430 | 0.0425340 | 2939.9 | 3237.6 | 6.5643 | | 440 | 0.0433660 | 2959.5 | 3263.1 | 6.6002 | | 450 | 0.0441870 | 2979.0 | 3288.3 | 6.6353 | | 460 | 0.0449970 | 2998.3 | 3313.3 | 6.6696 | | 470 | 0.0457990 | 3017.4 | 3338.0 | 6.7032 | | 480 | 0.0465920 | 3036.5 | 3362.6 | 6.7360 | | 490 | 0.0473780 | 3055.5 | 3387.1 | 6.7683 | | 500 | 0.0481570 | 3074.3 | 3411.4 | 6.8000 | | 520 | 0.0496960 | 3111.8 | 3459.7 | 6.8617 | | 540 | 0.0512140 | 3149.2 | 3507.7 | 6.9214 | | 560 | 0.0527130 | 3186.5 | 3555.5 | 6.9794 | | 580 | 0.0541960 | 3223.7 | 3603.1 | 7.0359 | | 600 | 0.0556650 | 3260.9 | 3650.6 | 7.0910 | | 620 | 0.0571210 | 3298.3 | 3698.1 | 7.1447 | | 640 | 0.0585670 | 3335.5 | 3745.5 | 7.1973 | | 660 | 0.0600030 | 3373.0 | 3793.0 | 7.2487 | | 680 | 0.0614310 | 3410.6 | 3840.6 | 7.2992 | | 700 | 0.0628500 | 3448.3 | 3888.2 | 7.3486 | | 720 | 0.0642630 | 3486.2 | 3936.0 | 7.3972 | | 740 | 0.0656690 | 3524.2 | 3983.9 | 7.4450 | | 760 | 0.0670700 | 3562.4 | 4031.9 | 7.4919 | | 780 | 0.0684650 | 3600.8 | 4080.1 | 7.5381 | | 800 | 0.0698550 | 3639.4 | 4128.4 | 7.5836 | | 820 | 0.0712420 | 3678.3 | 4177.0 | 7.6284 | | 840 | 0.0726240 | 3717.3 | 4225.7 | 7.6725 | | 860 | 0.0740030 | 3756.6 | 4274.6 | 7.7160 | | 880 | 0.0753780 | 3796.1 | 4323.7 | 7.7590 | | 900 | 0.0767500 | 3835.8 | 4373.0 | 7.8014 | | 920 | 0.0781190 | 3875.6 | 4422.4 | 7.8432 | | 940 | 0.0794850 | 3915.7 | 4472.1 | 7.8845 | | 960 | 0.0808490 | 3956.2 | 4522.1 | 7.9253 | | 980 | 0.0822110 | 3996.7 | 4572.2 | 7.9656 | | 1000 | 0.0835710 | 4037.5 | 4622.5 | 8.0055 | |

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 0 | 0.00099644 | 0.09 | 7.56 | 0.00025 | | 5 | 0.00099644 | 20.98 | 28.45 | 0.07605 | | 10 | 0.00099680 | 41.82 | 49.30 | 0.15036 | | 15 | 0.00099748 | 62.65 | 70.13 | 0.22328 | | 20 | 0.00099843 | 83.46 | 90.95 | 0.29489 | | 25 | 0.00099964 | 104.25 | 111.75 | 0.36526 | | 30 | 0.00100108 | 125.04 | 132.55 | 0.43445 | | 35 | 0.00100273 | 145.83 | 153.35 | 0.50251 | | 40 | 0.00100458 | 166.63 | 174.16 | 0.56949 | | 45 | 0.00100662 | 187.42 | 194.97 | 0.63542 | | 50 | 0.00100884 | 208.22 | 215.79 | 0.70035 | | 55 | 0.00101123 | 229.04 | 236.62 | 0.76431 | | 60 | 0.00101378 | 249.86 | 257.46 | 0.82733 | | 65 | 0.00101650 | 270.69 | 278.31 | 0.88945 | | 70 | 0.00101937 | 291.52 | 299.17 | 0.95070 | | 75 | 0.00102239 | 312.38 | 320.05 | 1.0111 | | 80 | 0.00102556 | 333.26 | 340.95 | 1.0707 | | 85 | 0.00102888 | 354.14 | 361.86 | 1.1295 | | 90 | 0.00103235 | 375.05 | 382.79 | 1.1876 | | 95 | 0.00103597 | 395.98 | 403.75 | 1.2449 | | 100 | 0.00103973 | 416.93 | 424.73 | 1.3015 | | 105 | 0.00104364 | 437.91 | 445.74 | 1.3574 | | 110 | 0.00104770 | 458.92 | 466.78 | 1.4127 | | 115 | 0.00105191 | 479.96 | 487.85 | 1.4673 | | 120 | 0.00105628 | 501.04 | 508.96 | 1.5213 | | 125 | 0.00106080 | 522.15 | 530.11 | 1.5748 | | 130 | 0.00106547 | 543.30 | 551.29 | 1.6277 | | 135 | 0.00107031 | 564.50 | 572.53 | 1.6800 | | 140 | 0.00107532 | 585.75 | 593.81 | 1.7319 | | 145 | 0.00108049 | 607.05 | 615.15 | 1.7832 | | 150 | 0.00108584 | 628.40 | 636.54 | 1.8341 | | 155 | 0.00109137 | 649.81 | 658.00 | 1.8845 | | 160 | 0.00109709 | 671.29 | 679.52 | 1.9344 | | 165 | 0.00110300 | 692.84 | 701.11 | 1.9840 | | 170 | 0.00110911 | 714.46 | 722.78 | 2.0332 | | 175 | 0.00111544 | 736.17 | 744.54 | 2.0820 | | 180 | 0.00112199 | 757.96 | 766.37 | 2.1304 | | 185 | 0.00112876 | 779.83 | 788.30 | 2.1786 | | 190 | 0.00113578 | 801.82 | 810.34 | 2.2264 | | 195 | 0.00114306 | 823.90 | 832.47 | 2.2739 | | 200 | 0.00115060 | 846.10 | 854.73 | 2.3212 | | 210 | 0.00116656 | 890.86 | 899.61 | 2.4151 | | 220 | 0.00118381 | 936.17 | 945.05 | 2.5082 | | 230 | 0.00120254 | 982.12 | 991.14 | 2.6007 | | 240 | 0.00122298 | 1028.8 | 1038.0 | 2.6929 | | 250 | 0.00124543 | 1076.4 | 1085.7 | 2.7851 | | 260 | 0.00127030 | 1125.0 | 1134.5 | 2.8775 | | 270 | 0.00129812 | 1174.9 | 1184.6 | 2.9705 | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 270 | 0.00129812 | 1174.9 | 1184.6 | 2.9705 | | 280 | 0.00132967 | 1226.3 | 1236.3 | 3.0648 | | 290 | 0.00136609 | 1279.8 | 1290.0 | 3.1610 | | 290.535 | 0.00136821 | 1282.6 | 1292.9 | 3.1662 | | 290.535 | 0.0253300 | 2575.9 | 2765.9 | 5.7793 | | 300 | 0.0267420 | 2613.8 | 2814.4 | 5.8646 | | 310 | 0.0280630 | 2648.3 | 2858.8 | 5.9414 | | 320 | 0.0292680 | 2679.2 | 2898.7 | 6.0093 | | 330 | 0.0303880 | 2707.6 | 2935.5 | 6.0709 | | 340 | 0.0314440 | 2734.3 | 2970.1 | 6.1277 | | 350 | 0.0324490 | 2759.4 | 3002.8 | 6.1806 | | 360 | 0.0334120 | 2783.4 | 3034.0 | 6.2304 | | 370 | 0.0343400 | 2806.6 | 3064.1 | 6.2776 | | 380 | 0.0352390 | 2829.0 | 3093.3 | 6.3225 | | 390 | 0.0361130 | 2850.9 | 3121.7 | 6.3656 | | 400 | 0.0369660 | 2872.2 | 3149.4 | 6.4071 | | 410 | 0.0378010 | 2893.0 | 3176.5 | 6.4471 | | 420 | 0.0386190 | 2913.5 | 3203.1 | 6.4858 | | 430 | 0.0394220 | 2933.7 | 3229.4 | 6.5234 | | 440 | 0.0402120 | 2953.7 | 3255.3 | 6.5600 | | 450 | 0.0409920 | 2973.5 | 3280.9 | 6.5956 | | 460 | 0.0417600 | 2993.0 | 3306.2 | 6.6304 | | 470 | 0.0425200 | 3012.4 | 3331.3 | 6.6644 | | 480 | 0.0432700 | 3031.7 | 3356.2 | 6.6977 | | 490 | 0.0440140 | 3050.8 | 3380.9 | 6.7303 | | 500 | 0.0447500 | 3069.9 | 3405.5 | 6.7623 | | 520 | 0.0462030 | 3107.7 | 3454.2 | 6.8246 | | 540 | 0.0476340 | 3145.3 | 3502.6 | 6.8848 | | 560 | 0.0490460 | 3183.0 | 3550.8 | 6.9433 | | 580 | 0.0504420 | 3220.4 | 3598.7 | 7.0001 | | 600 | 0.0518240 | 3257.8 | 3646.5 | 7.0555 | | 620 | 0.0531930 | 3295.3 | 3694.2 | 7.1096 | | 640 | 0.0545520 | 3332.8 | 3741.9 | 7.1624 | | 660 | 0.0559000 | 3370.4 | 3789.6 | 7.2141 | | 680 | 0.0572400 | 3408.1 | 3837.4 | 7.2647 | | 700 | 0.0585720 | 3445.9 | 3885.2 | 7.3144 | | 720 | 0.0598970 | 3483.9 | 3933.1 | 7.3631 | | 740 | 0.0612150 | 3522.1 | 3981.2 | 7.4110 | | 760 | 0.0625280 | 3560.3 | 4029.3 | 7.4581 | | 780 | 0.0638360 | 3598.9 | 4077.7 | 7.5044 | | 800 | 0.0651380 | 3637.6 | 4126.1 | 7.5500 | | 820 | 0.0664370 | 3676.5 | 4174.8 | 7.5949 | | 840 | 0.0677310 | 3715.6 | 4223.6 | 7.6391 | | 860 | 0.0690220 | 3754.9 | 4272.6 | 7.6828 | | 880 | 0.0703090 | 3794.4 | 4321.7 | 7.7258 | | 900 | 0.0715930 | 3834.2 | 4371.1 | 7.7682 | | 920 | 0.0728750 | 3874.1 | 4420.7 | 7.8101 | | 940 | 0.0741530 | 3914.4 | 4470.5 | 7.8515 | | 960 | 0.0754300 | 3954.8 | 4520.5 | 7.8924 | | 980 | 0.0767030 | 3995.4 | 4570.7 | 7.9327 | | 1000 | 0.0779750 | 4036.3 | 4621.1 | 7.9726 | |

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 0 | 0.00099619 | 0.09 | 8.06 | 0.00027 | | 5 | 0.00099620 | 20.97 | 28.94 | 0.07603 | | 10 | 0.00099657 | 41.82 | 49.79 | 0.15031 | | 15 | 0.00099725 | 62.63 | 70.61 | 0.22320 | | 20 | 0.00099821 | 83.42 | 91.41 | 0.29478 | | 25 | 0.00099942 | 104.21 | 112.21 | 0.36513 | | 30 | 0.00100086 | 125.00 | 133.01 | 0.43430 | | 35 | 0.00100251 | 145.78 | 153.80 | 0.50234 | | 40 | 0.00100437 | 166.57 | 174.60 | 0.56929 | | 45 | 0.00100640 | 187.36 | 195.41 | 0.63521 | | 50 | 0.00100862 | 208.15 | 216.22 | 0.70012 | | 55 | 0.00101101 | 228.95 | 237.04 | 0.76406 | | 60 | 0.00101356 | 249.77 | 257.88 | 0.82707 | | 65 | 0.00101627 | 270.59 | 278.72 | 0.88917 | | 70 | 0.00101914 | 291.43 | 299.58 | 0.95041 | | 75 | 0.00102216 | 312.27 | 320.45 | 1.0108 | | 80 | 0.00102533 | 333.14 | 341.34 | 1.0704 | | 85 | 0.00102865 | 354.02 | 362.25 | 1.1292 | | 90 | 0.00103211 | 374.92 | 383.18 | 1.1872 | | 95 | 0.00103572 | 395.84 | 404.13 | 1.2445 | | 100 | 0.00103948 | 416.79 | 425.11 | 1.3011 | | 105 | 0.00104339 | 437.76 | 446.11 | 1.3570 | | 110 | 0.00104744 | 458.77 | 467.15 | 1.4123 | | 115 | 0.00105165 | 479.80 | 488.21 | 1.4669 | | 120 | 0.00105600 | 500.86 | 509.31 | 1.5209 | | 125 | 0.00106052 | 521.97 | 530.45 | 1.5743 | | 130 | 0.00106519 | 543.11 | 551.63 | 1.6272 | | 135 | 0.00107002 | 564.30 | 572.86 | 1.6795 | | 140 | 0.00107501 | 585.54 | 594.14 | 1.7313 | | 145 | 0.00108017 | 606.83 | 615.47 | 1.7827 | | 150 | 0.00108551 | 628.18 | 636.86 | 1.8335 | | 155 | 0.00109103 | 649.57 | 658.30 | 1.8839 | | 160 | 0.00109674 | 671.05 | 679.82 | 1.9339 | | 165 | 0.00110264 | 692.58 | 701.40 | 1.9834 | | 170 | 0.00110874 | 714.19 | 723.06 | 2.0326 | | 175 | 0.00111505 | 735.88 | 744.80 | 2.0813 | | 180 | 0.00112158 | 757.66 | 766.63 | 2.1298 | | 185 | 0.00112834 | 779.52 | 788.55 | 2.1779 | | 190 | 0.00113534 | 801.49 | 810.57 | 2.2257 | | 195 | 0.00114259 | 823.56 | 832.70 | 2.2732 | | 200 | 0.00115011 | 845.74 | 854.94 | 2.3205 | | 210 | 0.00116603 | 890.46 | 899.79 | 2.4143 | | 220 | 0.00118322 | 935.73 | 945.20 | 2.5073 | | 230 | 0.00120187 | 981.64 | 991.25 | 2.5997 | | 240 | 0.00122222 | 1028.3 | 1038.1 | 2.6919 | | 250 | 0.00124457 | 1075.7 | 1085.7 | 2.7839 | | 260 | 0.00126929 | 1124.3 | 1134.5 | 2.8761 | | 270 | 0.00129693 | 1174.1 | 1184.5 | 2.9690 | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 270 | 0.00129693 | 1174.1 | 1184.5 | 2.9690 | | 280 | 0.00132823 | 1225.4 | 1236.0 | 3.0631 | | 290 | 0.00136430 | 1278.7 | 1289.6 | 3.1590 | | 295.008 | 0.00138467 | 1306.2 | 1317.3 | 3.2081 | | 295.008 | 0.0235260 | 2570.5 | 2758.7 | 5.7450 | | 300 | 0.0242790 | 2592.3 | 2786.5 | 5.7937 | | 310 | 0.0256300 | 2630.4 | 2835.4 | 5.8783 | | 320 | 0.0268400 | 2663.7 | 2878.4 | 5.9515 | | 330 | 0.0279520 | 2694.0 | 2917.6 | 6.0170 | | 340 | 0.0289920 | 2722.0 | 2953.9 | 6.0768 | | 350 | 0.0299750 | 2748.3 | 2988.1 | 6.1321 | | 360 | 0.0309120 | 2773.3 | 3020.6 | 6.1838 | | 370 | 0.0318120 | 2797.3 | 3051.8 | 6.2327 | | 380 | 0.0326810 | 2820.4 | 3081.8 | 6.2790 | | 390 | 0.0335240 | 2842.8 | 3111.0 | 6.3233 | | 400 | 0.0343440 | 2864.6 | 3139.4 | 6.3658 | | 410 | 0.0351440 | 2885.9 | 3167.1 | 6.4067 | | 420 | 0.0359280 | 2906.9 | 3194.3 | 6.4462 | | 430 | 0.0366960 | 2927.4 | 3221.0 | 6.4845 | | 440 | 0.0374510 | 2947.7 | 3247.3 | 6.5217 | | 450 | 0.0381940 | 2967.7 | 3273.3 | 6.5579 | | 460 | 0.0389260 | 2987.6 | 3299.0 | 6.5931 | | 470 | 0.0396480 | 3007.2 | 3324.4 | 6.6276 | | 480 | 0.0403620 | 3026.7 | 3349.6 | 6.6613 | | 490 | 0.0410680 | 3046.2 | 3374.7 | 6.6942 | | 500 | 0.0417670 | 3065.4 | 3399.5 | 6.7266 | | 520 | 0.0431450 | 3103.5 | 3448.7 | 6.7895 | | 540 | 0.0445010 | 3141.6 | 3497.6 | 6.8503 | | 560 | 0.0458380 | 3179.3 | 3546.0 | 6.9092 | | 580 | 0.0471580 | 3217.0 | 3594.3 | 6.9664 | | 600 | 0.0484630 | 3254.7 | 3642.4 | 7.0221 | | 620 | 0.0497560 | 3292.4 | 3690.4 | 7.0764 | | 640 | 0.0510380 | 3330.0 | 3738.3 | 7.1295 | | 660 | 0.0523100 | 3367.7 | 3786.2 | 7.1814 | | 680 | 0.0535730 | 3405.6 | 3834.2 | 7.2323 | | 700 | 0.0548280 | 3443.6 | 3882.2 | 7.2821 | | 720 | 0.0560770 | 3481.7 | 3930.3 | 7.3310 | | 740 | 0.0573180 | 3520.0 | 3978.5 | 7.3791 | | 760 | 0.0585540 | 3558.4 | 4026.8 | 7.4263 | | 780 | 0.0597850 | 3596.9 | 4075.2 | 7.4727 | | 800 | 0.0610110 | 3635.7 | 4123.8 | 7.5184 | | 820 | 0.0622330 | 3674.6 | 4172.5 | 7.5635 | | 840 | 0.0634500 | 3713.9 | 4221.5 | 7.6078 | | 860 | 0.0646640 | 3753.3 | 4270.6 | 7.6515 | | 880 | 0.0658740 | 3792.8 | 4319.8 | 7.6946 | | 900 | 0.0670820 | 3832.6 | 4369.3 | 7.7371 | | 920 | 0.0682860 | 3872.7 | 4419.0 | 7.7791 | | 940 | 0.0694880 | 3912.9 | 4468.8 | 7.8206 | | 960 | 0.0706870 | 3953.4 | 4518.9 | 7.8615 | | 980 | 0.0718840 | 3994.0 | 4569.1 | 7.9019 | | 1000 | 0.0730790 | 4035.0 | 4619.6 | 7.9419 | |

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 0 | 0.00099569 | 0.10 | 9.06 | 0.00031 | | 5 | 0.00099572 | 20.97 | 29.93 | 0.07599 | | 10 | 0.00099610 | 41.79 | 50.75 | 0.15020 | | 15 | 0.00099679 | 62.59 | 71.56 | 0.22303 | | 20 | 0.00099776 | 83.37 | 92.35 | 0.29457 | | 25 | 0.00099898 | 104.14 | 113.13 | 0.36486 | | 30 | 0.00100042 | 124.91 | 133.91 | 0.43399 | | 35 | 0.00100208 | 145.68 | 154.70 | 0.50199 | | 40 | 0.00100393 | 166.44 | 175.48 | 0.56890 | | 45 | 0.00100597 | 187.23 | 196.28 | 0.63478 | | 50 | 0.00100819 | 208.01 | 217.08 | 0.69966 | | 55 | 0.00101057 | 228.79 | 237.89 | 0.76357 | | 60 | 0.00101312 | 249.59 | 258.71 | 0.82654 | | 65 | 0.00101583 | 270.41 | 279.55 | 0.88862 | | 70 | 0.00101869 | 291.23 | 300.40 | 0.94982 | | 75 | 0.00102170 | 312.06 | 321.26 | 1.0102 | | 80 | 0.00102487 | 332.92 | 342.14 | 1.0697 | | 85 | 0.00102818 | 353.79 | 363.04 | 1.1285 | | 90 | 0.00103163 | 374.68 | 383.96 | 1.1865 | | 95 | 0.00103524 | 395.58 | 404.90 | 1.2438 | | 100 | 0.00103899 | 416.51 | 425.86 | 1.3003 | | 105 | 0.00104288 | 437.46 | 446.85 | 1.3562 | | 110 | 0.00104693 | 458.46 | 467.88 | 1.4114 | | 115 | 0.00105112 | 479.47 | 488.93 | 1.4660 | | 120 | 0.00105546 | 500.52 | 510.02 | 1.5200 | | 125 | 0.00105996 | 521.61 | 531.15 | 1.5734 | | 130 | 0.00106461 | 542.74 | 552.32 | 1.6263 | | 135 | 0.00106942 | 563.91 | 573.53 | 1.6786 | | 140 | 0.00107440 | 585.12 | 594.79 | 1.7303 | | 145 | 0.00107955 | 606.39 | 616.11 | 1.7816 | | 150 | 0.00108487 | 627.72 | 637.48 | 1.8324 | | 155 | 0.00109036 | 649.11 | 658.92 | 1.8828 | | 160 | 0.00109604 | 670.55 | 680.41 | 1.9327 | | 165 | 0.00110192 | 692.06 | 701.98 | 1.9822 | | 170 | 0.00110799 | 713.65 | 723.62 | 2.0313 | | 175 | 0.00111427 | 735.32 | 745.35 | 2.0801 | | 180 | 0.00112077 | 757.06 | 767.15 | 2.1285 | | 185 | 0.00112749 | 778.90 | 789.05 | 2.1765 | | 190 | 0.00113446 | 800.84 | 811.05 | 2.2243 | | 195 | 0.00114167 | 822.88 | 833.15 | 2.2717 | | 200 | 0.00114915 | 845.03 | 855.37 | 2.3189 | | 210 | 0.00116496 | 889.68 | 900.16 | 2.4126 | | 220 | 0.00118203 | 934.86 | 945.50 | 2.5055 | | 230 | 0.00120055 | 980.68 | 991.48 | 2.5978 | | 240 | 0.00122072 | 1027.2 | 1038.2 | 2.6897 | | 250 | 0.00124285 | 1074.6 | 1085.8 | 2.7815 | | 260 | 0.00126730 | 1123.0 | 1134.4 | 2.8736 | | 270 | 0.00129458 | 1172.5 | 1184.2 | 2.9661 | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 270 | 0.00129458 | 1172.5 | 1184.2 | 2.9661 | | 280 | 0.00132540 | 1223.6 | 1235.5 | 3.0598 | | 290 | 0.00136080 | 1276.6 | 1288.8 | 3.1552 | | 300 | 0.00140239 | 1331.9 | 1344.5 | 3.2533 | | 303.345 | 0.00141811 | 1351.1 | 1363.9 | 3.2870 | | 303.345 | 0.0204900 | 2558.5 | 2742.9 | 5.6791 | | 310 | 0.0214480 | 2589.7 | 2782.7 | 5.7478 | | 320 | 0.0227080 | 2629.6 | 2834.0 | 5.8350 | | 330 | 0.0238310 | 2664.5 | 2879.0 | 5.9101 | | 340 | 0.0248590 | 2696.0 | 2919.7 | 5.9771 | | 350 | 0.0258160 | 2725.0 | 2957.3 | 6.0380 | | 360 | 0.0267180 | 2752.1 | 2992.6 | 6.0942 | | 370 | 0.0275770 | 2777.9 | 3026.1 | 6.1467 | | 380 | 0.0283990 | 2802.5 | 3058.1 | 6.1961 | | 390 | 0.0291920 | 2826.3 | 3089.0 | 6.2429 | | 400 | 0.0299600 | 2849.2 | 3118.8 | 6.2876 | | 410 | 0.0307060 | 2871.5 | 3147.9 | 6.3304 | | 420 | 0.0314330 | 2893.3 | 3176.2 | 6.3716 | | 430 | 0.0321440 | 2914.6 | 3203.9 | 6.4114 | | 440 | 0.0328410 | 2935.6 | 3231.2 | 6.4499 | | 450 | 0.0335240 | 2956.3 | 3258.0 | 6.4872 | | 460 | 0.0341970 | 2976.7 | 3284.5 | 6.5235 | | 470 | 0.0348590 | 2996.9 | 3310.6 | 6.5589 | | 480 | 0.0355120 | 3016.8 | 3336.4 | 6.5935 | | 490 | 0.0361560 | 3036.6 | 3362.0 | 6.6272 | | 500 | 0.0367930 | 3056.3 | 3387.4 | 6.6603 | | 520 | 0.0380470 | 3095.2 | 3437.6 | 6.7244 | | 540 | 0.0392780 | 3133.8 | 3487.3 | 6.7862 | | 560 | 0.0404880 | 3172.1 | 3536.5 | 6.8461 | | 580 | 0.0416820 | 3210.3 | 3585.4 | 6.9041 | | 600 | 0.0428610 | 3248.4 | 3634.1 | 6.9605 | | 620 | 0.0440270 | 3286.4 | 3682.6 | 7.0154 | | 640 | 0.0451810 | 3324.4 | 3731.0 | 7.0690 | | 660 | 0.0463260 | 3362.5 | 3779.4 | 7.1214 | | 680 | 0.0474610 | 3400.6 | 3827.7 | 7.1726 | | 700 | 0.0485890 | 3438.8 | 3876.1 | 7.2229 | | 720 | 0.0497090 | 3477.1 | 3924.5 | 7.2721 | | 740 | 0.0508230 | 3515.6 | 3973.0 | 7.3205 | | 760 | 0.0519310 | 3554.2 | 4021.6 | 7.3680 | | 780 | 0.0530340 | 3593.0 | 4070.3 | 7.4147 | | 800 | 0.0541320 | 3631.9 | 4119.1 | 7.4606 | | 820 | 0.0552260 | 3671.1 | 4168.1 | 7.5058 | | 840 | 0.0563150 | 3710.5 | 4217.3 | 7.5503 | | 860 | 0.0574010 | 3749.9 | 4266.5 | 7.5942 | | 880 | 0.0584830 | 3789.7 | 4316.0 | 7.6375 | | 900 | 0.0595620 | 3829.6 | 4365.7 | 7.6802 | | 920 | 0.0606390 | 3869.7 | 4415.5 | 7.7223 | | 940 | 0.0617120 | 3910.1 | 4465.5 | 7.7639 | | 960 | 0.0627830 | 3950.7 | 4515.7 | 7.8049 | | 980 | 0.0638520 | 3991.4 | 4566.1 | 7.8454 | | 1000 | 0.0649180 | 4032.4 | 4616.7 | 7.8855 | |

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 0 | 0.00099520 | 0.12 | 10.07 | 0.00034 | | 5 | 0.00099524 | 20.96 | 30.91 | 0.07595 | | 10 | 0.00099564 | 41.76 | 51.72 | 0.15009 | | 15 | 0.00099634 | 62.55 | 72.51 | 0.22287 | | 20 | 0.00099731 | 83.31 | 93.28 | 0.29435 | | 25 | 0.00099854 | 104.06 | 114.05 | 0.36460 | | 30 | 0.00099998 | 124.82 | 134.82 | 0.43368 | | 35 | 0.00100164 | 145.57 | 155.59 | 0.50163 | | 40 | 0.00100350 | 166.32 | 176.36 | 0.56851 | | 45 | 0.00100554 | 187.09 | 197.15 | 0.63436 | | 50 | 0.00100775 | 207.86 | 217.94 | 0.69920 | | 55 | 0.00101014 | 228.64 | 238.74 | 0.76307 | | 60 | 0.00101268 | 249.42 | 259.55 | 0.82602 | | 65 | 0.00101539 | 270.23 | 280.38 | 0.88806 | | 70 | 0.00101824 | 291.03 | 301.21 | 0.94923 | | 75 | 0.00102125 | 311.86 | 322.07 | 1.0096 | | 80 | 0.00102441 | 332.70 | 342.94 | 1.0691 | | 85 | 0.00102771 | 353.54 | 363.82 | 1.1278 | | 90 | 0.00103116 | 374.42 | 384.73 | 1.1858 | | 95 | 0.00103475 | 395.31 | 405.66 | 1.2430 | | 100 | 0.00103849 | 416.24 | 426.62 | 1.2996 | | 105 | 0.00104238 | 437.18 | 447.60 | 1.3554 | | 110 | 0.00104641 | 458.15 | 468.61 | 1.4106 | | 115 | 0.00105059 | 479.14 | 489.65 | 1.4652 | | 120 | 0.00105492 | 500.18 | 510.73 | 1.5191 | | 125 | 0.00105940 | 521.25 | 531.84 | 1.5725 | | 130 | 0.00106404 | 542.36 | 553.00 | 1.6253 | | 135 | 0.00106884 | 563.51 | 574.20 | 1.6776 | | 140 | 0.00107380 | 584.71 | 595.45 | 1.7293 | | 145 | 0.00107892 | 605.96 | 616.75 | 1.7806 | | 150 | 0.00108422 | 627.27 | 638.11 | 1.8313 | | 155 | 0.00108970 | 648.63 | 659.53 | 1.8817 | | 160 | 0.00109535 | 670.06 | 681.01 | 1.9315 | | 165 | 0.00110120 | 691.55 | 702.56 | 1.9810 | | 170 | 0.00110725 | 713.11 | 724.18 | 2.0301 | | 175 | 0.00111350 | 734.76 | 745.89 | 2.0788 | | 180 | 0.00111997 | 756.48 | 767.68 | 2.1271 | | 185 | 0.00112666 | 778.28 | 789.55 | 2.1752 | | 190 | 0.00113358 | 800.19 | 811.53 | 2.2229 | | 195 | 0.00114076 | 822.20 | 833.61 | 2.2703 | | 200 | 0.00114819 | 844.32 | 855.80 | 2.3174 | | 210 | 0.00116390 | 888.89 | 900.53 | 2.4110 | | 220 | 0.00118086 | 934.00 | 945.81 | 2.5037 | | 230 | 0.00119923 | 979.72 | 991.71 | 2.5959 | | 240 | 0.00121924 | 1026.1 | 1038.3 | 2.6876 | | 250 | 0.00124115 | 1073.4 | 1085.8 | 2.7792 | | 260 | 0.00126533 | 1121.6 | 1134.3 | 2.8710 | | 270 | 0.00129227 | 1171.0 | 1183.9 | 2.9633 | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 270 | 0.00129227 | 1171.0 | 1183.9 | 2.9633 | | 280 | 0.00132263 | 1221.8 | 1235.0 | 3.0565 | | 290 | 0.00135739 | 1274.4 | 1288.0 | 3.1514 | | 300 | 0.00139804 | 1329.3 | 1343.3 | 3.2488 | | 310 | 0.00144709 | 1387.5 | 1402.0 | 3.3502 | | 310.997 | 0.00145259 | 1393.6 | 1408.1 | 3.3606 | | 310.997 | 0.0180300 | 2545.2 | 2725.5 | 5.6160 | | 320 | 0.0192700 | 2590.1 | 2782.8 | 5.7133 | | 330 | 0.0204440 | 2631.4 | 2835.8 | 5.8019 | | 340 | 0.0214870 | 2667.2 | 2882.1 | 5.8782 | | 350 | 0.0224400 | 2699.6 | 2924.0 | 5.9459 | | 360 | 0.0233250 | 2729.4 | 2962.7 | 6.0075 | | 370 | 0.0241580 | 2757.3 | 2998.9 | 6.0642 | | 380 | 0.0249500 | 2783.7 | 3033.2 | 6.1172 | | 390 | 0.0257070 | 2808.8 | 3065.9 | 6.1669 | | 400 | 0.0264360 | 2833.0 | 3097.4 | 6.2141 | | 410 | 0.0271420 | 2856.5 | 3127.9 | 6.2590 | | 420 | 0.0278260 | 2879.2 | 3157.5 | 6.3020 | | 430 | 0.0284930 | 2901.5 | 3186.4 | 6.3434 | | 440 | 0.0291440 | 2923.2 | 3214.6 | 6.3833 | | 450 | 0.0297820 | 2944.5 | 3242.3 | 6.4219 | | 460 | 0.0304070 | 2965.5 | 3269.6 | 6.4593 | | 470 | 0.0310220 | 2986.3 | 3296.5 | 6.4957 | | 480 | 0.0316260 | 3006.7 | 3323.0 | 6.5311 | | 490 | 0.0322230 | 3027.0 | 3349.2 | 6.5657 | | 500 | 0.0328110 | 3047.0 | 3375.1 | 6.5995 | | 520 | 0.0339660 | 3086.7 | 3426.4 | 6.6649 | | 540 | 0.0350970 | 3125.9 | 3476.9 | 6.7278 | | 560 | 0.0362070 | 3164.8 | 3526.9 | 6.7886 | | 580 | 0.0373000 | 3203.5 | 3576.5 | 6.8474 | | 600 | 0.0383780 | 3242.0 | 3625.8 | 6.9045 | | 620 | 0.0394420 | 3280.4 | 3674.8 | 6.9600 | | 640 | 0.0404950 | 3318.8 | 3723.7 | 7.0142 | | 660 | 0.0415380 | 3357.1 | 3772.5 | 7.0670 | | 680 | 0.0425720 | 3395.6 | 3821.3 | 7.1187 | | 700 | 0.0435970 | 3434.0 | 3870.0 | 7.1693 | | 720 | 0.0446150 | 3472.6 | 3918.7 | 7.2189 | | 740 | 0.0456270 | 3511.3 | 3967.6 | 7.2676 | | 760 | 0.0466330 | 3550.1 | 4016.4 | 7.3153 | | 780 | 0.0476330 | 3589.1 | 4065.4 | 7.3623 | | 800 | 0.0486290 | 3628.2 | 4114.5 | 7.4085 | | 820 | 0.0496200 | 3667.5 | 4163.7 | 7.4539 | | 840 | 0.0506070 | 3706.9 | 4213.0 | 7.4986 | | 860 | 0.0515900 | 3746.6 | 4262.5 | 7.5427 | | 880 | 0.0525700 | 3786.5 | 4312.2 | 7.5861 | | 900 | 0.0535470 | 3826.5 | 4362.0 | 7.6290 | | 920 | 0.0545210 | 3866.8 | 4412.0 | 7.6712 | | 940 | 0.0554920 | 3907.3 | 4462.2 | 7.7129 | | 960 | 0.0564600 | 3947.9 | 4512.5 | 7.7541 | | 980 | 0.0574260 | 3988.7 | 4563.0 | 7.7947 | | 1000 | 0.0583900 | 4029.9 | 4613.8 | 7.8349 | |

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 0 | 0.00099471 | 0.13 | 11.07 | 0.00037 | | 5 | 0.00099477 | 20.95 | 31.89 | 0.07590 | | 10 | 0.00099517 | 41.73 | 52.68 | 0.14998 | | 15 | 0.00099588 | 62.50 | 73.45 | 0.22270 | | 20 | 0.00099687 | 83.24 | 94.21 | 0.29412 | | 25 | 0.00099810 | 103.99 | 114.97 | 0.36433 | | 30 | 0.00099955 | 124.72 | 135.72 | 0.43337 | | 35 | 0.00100121 | 145.47 | 156.48 | 0.50128 | | 40 | 0.00100306 | 166.22 | 177.25 | 0.56812 | | 45 | 0.00100510 | 186.96 | 198.02 | 0.63393 | | 50 | 0.00100732 | 207.72 | 218.80 | 0.69874 | | 55 | 0.00100970 | 228.48 | 239.59 | 0.76258 | | 60 | 0.00101224 | 249.26 | 260.39 | 0.82549 | | 65 | 0.00101494 | 270.04 | 281.20 | 0.88750 | | 70 | 0.00101780 | 290.83 | 302.03 | 0.94865 | | 75 | 0.00102080 | 311.64 | 322.87 | 1.0089 | | 80 | 0.00102395 | 332.47 | 343.73 | 1.0684 | | 85 | 0.00102725 | 353.31 | 364.61 | 1.1271 | | 90 | 0.00103069 | 374.17 | 385.51 | 1.1851 | | 95 | 0.00103427 | 395.05 | 406.43 | 1.2423 | | 100 | 0.00103800 | 415.95 | 427.37 | 1.2988 | | 105 | 0.00104188 | 436.88 | 448.34 | 1.3546 | | 110 | 0.00104590 | 457.84 | 469.34 | 1.4098 | | 115 | 0.00105006 | 478.82 | 490.37 | 1.4643 | | 120 | 0.00105438 | 499.84 | 511.44 | 1.5183 | | 125 | 0.00105885 | 520.89 | 532.54 | 1.5716 | | 130 | 0.00106347 | 541.98 | 553.68 | 1.6244 | | 135 | 0.00106825 | 563.12 | 574.87 | 1.6766 | | 140 | 0.00107319 | 584.30 | 596.11 | 1.7283 | | 145 | 0.00107830 | 605.54 | 617.40 | 1.7795 | | 150 | 0.00108358 | 626.82 | 638.74 | 1.8303 | | 155 | 0.00108903 | 648.16 | 660.14 | 1.8806 | | 160 | 0.00109467 | 669.57 | 681.61 | 1.9304 | | 165 | 0.00110049 | 691.03 | 703.14 | 1.9798 | | 170 | 0.00110651 | 712.58 | 724.75 | 2.0289 | | 175 | 0.00111273 | 734.19 | 746.43 | 2.0775 | | 180 | 0.00111917 | 755.89 | 768.20 | 2.1258 | | 185 | 0.00112582 | 777.68 | 790.06 | 2.1738 | | 190 | 0.00113271 | 799.55 | 812.01 | 2.2215 | | 195 | 0.00113985 | 821.53 | 834.07 | 2.2688 | | 200 | 0.00114724 | 843.61 | 856.23 | 2.3159 | | 210 | 0.00116286 | 888.12 | 900.91 | 2.4094 | | 220 | 0.00117970 | 933.15 | 946.13 | 2.5020 | | 230 | 0.00119794 | 978.77 | 991.95 | 2.5940 | | 240 | 0.00121777 | 1025.1 | 1038.5 | 2.6855 | | 250 | 0.00123948 | 1072.2 | 1085.8 | 2.7769 | | 260 | 0.00126340 | 1120.3 | 1134.2 | 2.8685 | | 270 | 0.00129000 | 1169.5 | 1183.7 | 2.9604 | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 270 | 0.00129000 | 1169.5 | 1183.7 | 2.9604 | | 280 | 0.00131992 | 1220.1 | 1234.6 | 3.0533 | | 290 | 0.00135407 | 1272.4 | 1287.3 | 3.1477 | | 300 | 0.00139383 | 1326.9 | 1342.2 | 3.2444 | | 310 | 0.00144149 | 1384.4 | 1400.3 | 3.3449 | | 318.079 | 0.00148851 | 1434.0 | 1450.4 | 3.4303 | | 318.079 | 0.0159900 | 2530.4 | 2706.3 | 5.5545 | | 320 | 0.0162740 | 2542.1 | 2721.1 | 5.5793 | | 330 | 0.0175650 | 2593.3 | 2786.5 | 5.6888 | | 340 | 0.0186560 | 2635.4 | 2840.6 | 5.7777 | | 350 | 0.0196250 | 2672.0 | 2887.9 | 5.8542 | | 360 | 0.0205090 | 2705.0 | 2930.6 | 5.9223 | | 370 | 0.0213310 | 2735.4 | 2970.0 | 5.9840 | | 380 | 0.0221030 | 2763.8 | 3006.9 | 6.0410 | | 390 | 0.0228360 | 2790.7 | 3041.9 | 6.0941 | | 400 | 0.0235370 | 2816.3 | 3075.2 | 6.1440 | | 410 | 0.0242120 | 2840.9 | 3107.2 | 6.1912 | | 420 | 0.0248640 | 2864.7 | 3138.2 | 6.2362 | | 430 | 0.0254960 | 2887.8 | 3168.3 | 6.2793 | | 440 | 0.0261120 | 2910.4 | 3197.6 | 6.3207 | | 450 | 0.0267130 | 2932.5 | 3226.3 | 6.3607 | | 460 | 0.0273010 | 2954.1 | 3254.4 | 6.3993 | | 470 | 0.0278770 | 2975.4 | 3282.0 | 6.4367 | | 480 | 0.0284430 | 2996.4 | 3309.3 | 6.4731 | | 490 | 0.0290000 | 3017.1 | 3336.1 | 6.5085 | | 500 | 0.0295490 | 3037.7 | 3362.7 | 6.5431 | | 520 | 0.0306240 | 3078.1 | 3415.0 | 6.6099 | | 540 | 0.0316740 | 3118.0 | 3466.4 | 6.6739 | | 560 | 0.0327030 | 3157.5 | 3517.2 | 6.7356 | | 580 | 0.0337140 | 3196.6 | 3567.5 | 6.7953 | | 600 | 0.0347090 | 3235.6 | 3617.4 | 6.8531 | | 620 | 0.0356910 | 3274.4 | 3667.0 | 6.9092 | | 640 | 0.0366610 | 3313.1 | 3716.4 | 6.9639 | | 660 | 0.0376210 | 3351.8 | 3765.6 | 7.0173 | | 680 | 0.0385710 | 3390.5 | 3814.8 | 7.0694 | | 700 | 0.0395130 | 3429.3 | 3863.9 | 7.1204 | | 720 | 0.0404480 | 3468.1 | 3913.0 | 7.1703 | | 740 | 0.0413760 | 3507.0 | 3962.1 | 7.2193 | | 760 | 0.0422980 | 3545.9 | 4011.2 | 7.2673 | | 780 | 0.0432150 | 3585.1 | 4060.5 | 7.3146 | | 800 | 0.0441260 | 3624.4 | 4109.8 | 7.3610 | | 820 | 0.0450340 | 3663.9 | 4159.3 | 7.4066 | | 840 | 0.0459370 | 3703.5 | 4208.8 | 7.4515 | | 860 | 0.0468370 | 3743.3 | 4258.5 | 7.4958 | | 880 | 0.0477330 | 3783.2 | 4308.3 | 7.5394 | | 900 | 0.0486250 | 3823.4 | 4358.3 | 7.5824 | | 920 | 0.0495150 | 3863.8 | 4408.5 | 7.6247 | | 940 | 0.0504020 | 3904.4 | 4458.8 | 7.6666 | | 960 | 0.0512870 | 3945.1 | 4509.3 | 7.7079 | | 980 | 0.0521690 | 3986.1 | 4560.0 | 7.7486 | | 1000 | 0.0530490 | 4027.4 | 4610.9 | 7.7889 | |

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 0 | 0.00099422 | 0.14 | 12.07 | 0.00039 | | 5 | 0.00099429 | 20.94 | 32.87 | 0.07585 | | 10 | 0.00099471 | 41.70 | 53.64 | 0.14987 | | 15 | 0.00099543 | 62.45 | 74.40 | 0.22252 | | 20 | 0.00099642 | 83.18 | 95.14 | 0.29390 | | 25 | 0.00099766 | 103.92 | 115.89 | 0.36406 | | 30 | 0.00099911 | 124.64 | 136.63 | 0.43305 | | 35 | 0.00100078 | 145.36 | 157.37 | 0.50093 | | 40 | 0.00100263 | 166.10 | 178.13 | 0.56773 | | 45 | 0.00100467 | 186.83 | 198.89 | 0.63350 | | 50 | 0.00100689 | 207.58 | 219.66 | 0.69828 | | 55 | 0.00100927 | 228.33 | 240.44 | 0.76209 | | 60 | 0.00101181 | 249.09 | 261.23 | 0.82497 | | 65 | 0.00101450 | 269.86 | 282.03 | 0.88695 | | 70 | 0.00101735 | 290.64 | 302.85 | 0.94806 | | 75 | 0.00102035 | 311.44 | 323.68 | 1.0083 | | 80 | 0.00102349 | 332.25 | 344.53 | 1.0678 | | 85 | 0.00102678 | 353.08 | 365.40 | 1.1265 | | 90 | 0.00103021 | 373.92 | 386.28 | 1.1844 | | 95 | 0.00103379 | 394.78 | 407.19 | 1.2416 | | 100 | 0.00103751 | 415.67 | 428.12 | 1.2980 | | 105 | 0.00104138 | 436.58 | 449.08 | 1.3538 | | 110 | 0.00104538 | 457.53 | 470.07 | 1.4090 | | 115 | 0.00104954 | 478.50 | 491.09 | 1.4635 | | 120 | 0.00105384 | 499.50 | 512.15 | 1.5174 | | 125 | 0.00105830 | 520.54 | 533.24 | 1.5707 | | 130 | 0.00106291 | 541.62 | 554.37 | 1.6234 | | 135 | 0.00106767 | 562.74 | 575.55 | 1.6756 | | 140 | 0.00107259 | 583.90 | 596.77 | 1.7273 | | 145 | 0.00107768 | 605.11 | 618.04 | 1.7785 | | 150 | 0.00108294 | 626.37 | 639.37 | 1.8292 | | 155 | 0.00108837 | 647.70 | 660.76 | 1.8794 | | 160 | 0.00109398 | 669.08 | 682.21 | 1.9293 | | 165 | 0.00109978 | 690.52 | 703.72 | 1.9786 | | 170 | 0.00110577 | 712.04 | 725.31 | 2.0276 | | 175 | 0.00111197 | 733.64 | 746.98 | 2.0763 | | 180 | 0.00111837 | 755.31 | 768.73 | 2.1245 | | 185 | 0.00112500 | 777.07 | 790.57 | 2.1724 | | 190 | 0.00113185 | 798.92 | 812.50 | 2.2201 | | 195 | 0.00113895 | 820.86 | 834.53 | 2.2674 | | 200 | 0.00114630 | 842.91 | 856.67 | 2.3144 | | 210 | 0.00116182 | 887.35 | 901.29 | 2.4077 | | 220 | 0.00117855 | 932.30 | 946.44 | 2.5002 | | 230 | 0.00119665 | 977.84 | 992.20 | 2.5921 | | 240 | 0.00121633 | 1024.0 | 1038.6 | 2.6835 | | 250 | 0.00123783 | 1071.0 | 1085.9 | 2.7747 | | 260 | 0.00126150 | 1119.0 | 1134.1 | 2.8660 | | 270 | 0.00128778 | 1167.9 | 1183.4 | 2.9576 | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 270 | 0.00128778 | 1167.9 | 1183.4 | 2.9576 | | 280 | 0.00131727 | 1218.3 | 1234.1 | 3.0501 | | 290 | 0.00135083 | 1270.4 | 1286.6 | 3.1440 | | 300 | 0.00138976 | 1324.5 | 1341.2 | 3.2401 | | 310 | 0.00143613 | 1381.5 | 1398.7 | 3.3397 | | 320 | 0.00149366 | 1442.6 | 1460.5 | 3.4447 | | 324.675 | 0.00152630 | 1473.2 | 1491.5 | 3.4967 | | 324.675 | 0.0142640 | 2514.2 | 2685.4 | 5.4939 | | 330 | 0.0150210 | 2547.9 | 2728.2 | 5.5651 | | 340 | 0.0162100 | 2599.1 | 2793.6 | 5.6727 | | 350 | 0.0172210 | 2641.4 | 2848.1 | 5.7609 | | 360 | 0.0181210 | 2678.4 | 2895.9 | 5.8371 | | 370 | 0.0189430 | 2711.9 | 2939.2 | 5.9049 | | 380 | 0.0197060 | 2742.7 | 2979.2 | 5.9665 | | 390 | 0.0204240 | 2771.5 | 3016.6 | 6.0234 | | 400 | 0.0211060 | 2798.7 | 3052.0 | 6.0764 | | 410 | 0.0217580 | 2824.7 | 3085.8 | 6.1262 | | 420 | 0.0223850 | 2849.7 | 3118.3 | 6.1734 | | 430 | 0.0229900 | 2873.8 | 3149.7 | 6.2184 | | 440 | 0.0235770 | 2897.2 | 3180.1 | 6.2614 | | 450 | 0.0241490 | 2920.0 | 3209.8 | 6.3028 | | 460 | 0.0247070 | 2942.4 | 3238.9 | 6.3427 | | 470 | 0.0252520 | 2964.3 | 3267.3 | 6.3812 | | 480 | 0.0257870 | 2985.9 | 3295.3 | 6.4186 | | 490 | 0.0263120 | 3007.1 | 3322.8 | 6.4549 | | 500 | 0.0268280 | 3028.1 | 3350.0 | 6.4903 | | 520 | 0.0278370 | 3069.4 | 3403.4 | 6.5585 | | 540 | 0.0288210 | 3109.9 | 3455.8 | 6.6237 | | 560 | 0.0297820 | 3150.0 | 3507.4 | 6.6864 | | 580 | 0.0307250 | 3189.7 | 3558.4 | 6.7469 | | 600 | 0.0316510 | 3229.1 | 3608.9 | 6.8054 | | 620 | 0.0325640 | 3268.3 | 3659.1 | 6.8622 | | 640 | 0.0334650 | 3307.4 | 3709.0 | 6.9175 | | 660 | 0.0343560 | 3346.4 | 3758.7 | 6.9713 | | 680 | 0.0352370 | 3385.4 | 3808.2 | 7.0239 | | 700 | 0.0361090 | 3424.4 | 3857.7 | 7.0753 | | 720 | 0.0369750 | 3463.5 | 3907.2 | 7.1256 | | 740 | 0.0378330 | 3502.6 | 3956.6 | 7.1748 | | 760 | 0.0386850 | 3541.8 | 4006.0 | 7.2232 | | 780 | 0.0395320 | 3581.2 | 4055.6 | 7.2706 | | 800 | 0.0403750 | 3620.6 | 4105.1 | 7.3173 | | 820 | 0.0412120 | 3660.3 | 4154.8 | 7.3631 | | 840 | 0.0420450 | 3700.1 | 4204.6 | 7.4083 | | 860 | 0.0428750 | 3740.0 | 4254.5 | 7.4527 | | 880 | 0.0437010 | 3780.1 | 4304.5 | 7.4965 | | 900 | 0.0445240 | 3820.4 | 4354.7 | 7.5396 | | 920 | 0.0453440 | 3860.9 | 4405.0 | 7.5821 | | 940 | 0.0461610 | 3901.6 | 4455.5 | 7.6241 | | 960 | 0.0469760 | 3942.4 | 4506.1 | 7.6655 | | 980 | 0.0477890 | 3983.5 | 4557.0 | 7.7064 | | 1000 | 0.0485990 | 4024.8 | 4608.0 | 7.7467 | |

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 0 | 0.00099373 | 0.15 | 13.07 | 0.00041 | | 5 | 0.00099382 | 20.93 | 33.85 | 0.07580 | | 10 | 0.00099425 | 41.68 | 54.61 | 0.14975 | | 15 | 0.00099498 | 62.41 | 75.34 | 0.22235 | | 20 | 0.00099598 | 83.12 | 96.07 | 0.29368 | | 25 | 0.00099722 | 103.84 | 116.80 | 0.36379 | | 30 | 0.00099868 | 124.55 | 137.53 | 0.43274 | | 35 | 0.00100035 | 145.27 | 158.27 | 0.50058 | | 40 | 0.00100220 | 165.98 | 179.01 | 0.56734 | | 45 | 0.00100424 | 186.70 | 199.76 | 0.63308 | | 50 | 0.00100646 | 207.43 | 220.51 | 0.69782 | | 55 | 0.00100883 | 228.17 | 241.28 | 0.76160 | | 60 | 0.00101137 | 248.91 | 262.06 | 0.82444 | | 65 | 0.00101406 | 269.68 | 282.86 | 0.88639 | | 70 | 0.00101691 | 290.44 | 303.66 | 0.94748 | | 75 | 0.00101990 | 311.23 | 324.49 | 1.0077 | | 80 | 0.00102304 | 332.02 | 345.32 | 1.0671 | | 85 | 0.00102632 | 352.84 | 366.18 | 1.1258 | | 90 | 0.00102975 | 373.67 | 387.06 | 1.1837 | | 95 | 0.00103331 | 394.53 | 407.96 | 1.2408 | | 100 | 0.00103702 | 415.40 | 428.88 | 1.2973 | | 105 | 0.00104088 | 436.30 | 449.83 | 1.3531 | | 110 | 0.00104488 | 457.23 | 470.81 | 1.4082 | | 115 | 0.00104902 | 478.17 | 491.81 | 1.4626 | | 120 | 0.00105331 | 499.17 | 512.86 | 1.5165 | | 125 | 0.00105775 | 520.19 | 533.94 | 1.5698 | | 130 | 0.00106234 | 541.25 | 555.06 | 1.6225 | | 135 | 0.00106709 | 562.35 | 576.22 | 1.6747 | | 140 | 0.00107200 | 583.49 | 597.43 | 1.7263 | | 145 | 0.00107707 | 604.69 | 618.69 | 1.7775 | | 150 | 0.00108231 | 625.93 | 640.00 | 1.8281 | | 155 | 0.00108772 | 647.23 | 661.37 | 1.8783 | | 160 | 0.00109330 | 668.60 | 682.81 | 1.9281 | | 165 | 0.00109908 | 690.02 | 704.31 | 1.9775 | | 170 | 0.00110504 | 711.51 | 725.88 | 2.0264 | | 175 | 0.00111121 | 733.08 | 747.53 | 2.0750 | | 180 | 0.00111758 | 754.73 | 769.26 | 2.1232 | | 185 | 0.00112417 | 776.46 | 791.07 | 2.1711 | | 190 | 0.00113099 | 798.28 | 812.98 | 2.2187 | | 195 | 0.00113805 | 820.20 | 834.99 | 2.2659 | | 200 | 0.00114536 | 842.22 | 857.11 | 2.3129 | | 210 | 0.00116079 | 886.59 | 901.68 | 2.4061 | | 220 | 0.00117741 | 931.46 | 946.77 | 2.4985 | | 230 | 0.00119538 | 976.91 | 992.45 | 2.5902 | | 240 | 0.00121489 | 1023.0 | 1038.8 | 2.6814 | | 250 | 0.00123620 | 1069.9 | 1086.0 | 2.7724 | | 260 | 0.00125963 | 1117.6 | 1134.0 | 2.8635 | | 270 | 0.00128559 | 1166.5 | 1183.2 | 2.9549 | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 270 | 0.00128559 | 1166.5 | 1183.2 | 2.9549 | | 280 | 0.00131467 | 1216.6 | 1233.7 | 3.0470 | | 290 | 0.00134768 | 1268.4 | 1285.9 | 3.1405 | | 300 | 0.00138581 | 1322.2 | 1340.2 | 3.2360 | | 310 | 0.00143098 | 1378.6 | 1397.2 | 3.3346 | | 320 | 0.00148650 | 1438.9 | 1458.2 | 3.4383 | | 330 | 0.00155909 | 1505.1 | 1525.4 | 3.5506 | | 330.854 | 0.00156649 | 1511.1 | 1531.5 | 3.5608 | | 330.854 | 0.0127800 | 2496.6 | 2662.7 | 5.4336 | | 340 | 0.0140290 | 2556.6 | 2739.0 | 5.5591 | | 350 | 0.0151190 | 2607.2 | 2803.7 | 5.6638 | | 360 | 0.0160530 | 2649.4 | 2858.1 | 5.7504 | | 370 | 0.0168880 | 2686.7 | 2906.2 | 5.8257 | | 380 | 0.0176530 | 2720.2 | 2949.7 | 5.8929 | | 390 | 0.0183640 | 2751.3 | 2990.0 | 5.9541 | | 400 | 0.0190330 | 2780.3 | 3027.7 | 6.0106 | | 410 | 0.0196690 | 2807.8 | 3063.5 | 6.0633 | | 420 | 0.0202760 | 2834.0 | 3097.6 | 6.1129 | | 430 | 0.0208610 | 2859.2 | 3130.4 | 6.1599 | | 440 | 0.0214260 | 2883.7 | 3162.2 | 6.2047 | | 450 | 0.0219740 | 2907.3 | 3193.0 | 6.2476 | | 460 | 0.0225070 | 2930.4 | 3223.0 | 6.2888 | | 470 | 0.0230270 | 2952.9 | 3252.3 | 6.3286 | | 480 | 0.0235350 | 2975.1 | 3281.1 | 6.3670 | | 490 | 0.0240340 | 2996.9 | 3309.3 | 6.4043 | | 500 | 0.0245230 | 3018.3 | 3337.1 | 6.4405 | | 520 | 0.0254770 | 3060.5 | 3391.7 | 6.5101 | | 540 | 0.0264040 | 3101.7 | 3445.0 | 6.5766 | | 560 | 0.0273090 | 3142.5 | 3497.5 | 6.6403 | | 580 | 0.0281940 | 3182.7 | 3549.2 | 6.7016 | | 600 | 0.0290630 | 3222.6 | 3600.4 | 6.7609 | | 620 | 0.0299180 | 3262.2 | 3651.1 | 6.8184 | | 640 | 0.0307610 | 3301.6 | 3701.5 | 6.8742 | | 660 | 0.0315930 | 3341.0 | 3751.7 | 6.9286 | | 680 | 0.0324150 | 3380.3 | 3801.7 | 6.9816 | | 700 | 0.0332290 | 3419.5 | 3851.5 | 7.0333 | | 720 | 0.0340360 | 3458.8 | 3901.3 | 7.0840 | | 740 | 0.0348350 | 3498.2 | 3951.1 | 7.1336 | | 760 | 0.0356290 | 3537.6 | 4000.8 | 7.1822 | | 780 | 0.0364170 | 3577.2 | 4050.6 | 7.2299 | | 800 | 0.0372000 | 3616.8 | 4100.4 | 7.2768 | | 820 | 0.0379780 | 3656.7 | 4150.4 | 7.3229 | | 840 | 0.0387530 | 3696.5 | 4200.3 | 7.3682 | | 860 | 0.0395230 | 3736.7 | 4250.5 | 7.4128 | | 880 | 0.0402900 | 3776.9 | 4300.7 | 7.4567 | | 900 | 0.0410540 | 3817.3 | 4351.0 | 7.5000 | | 920 | 0.0418150 | 3857.9 | 4401.5 | 7.5427 | | 940 | 0.0425730 | 3898.8 | 4452.2 | 7.5848 | | 960 | 0.0433290 | 3939.7 | 4503.0 | 7.6263 | | 980 | 0.0440820 | 3980.8 | 4553.9 | 7.6673 | | 1000 | 0.0448330 | 4022.2 | 4605.0 | 7.7078 | |

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 0 | 0.00099325 | 0.16 | 14.07 | 0.00043 | | 5 | 0.00099335 | 20.92 | 34.83 | 0.07574 | | 10 | 0.00099379 | 41.66 | 55.57 | 0.14963 | | 15 | 0.00099453 | 62.37 | 76.29 | 0.22218 | | 20 | 0.00099554 | 83.06 | 97.00 | 0.29345 | | 25 | 0.00099678 | 103.77 | 117.72 | 0.36352 | | 30 | 0.00099825 | 124.46 | 138.44 | 0.43243 | | 35 | 0.00099992 | 145.16 | 159.16 | 0.50022 | | 40 | 0.00100178 | 165.87 | 179.89 | 0.56695 | | 45 | 0.00100382 | 186.57 | 200.62 | 0.63265 | | 50 | 0.00100603 | 207.29 | 221.37 | 0.69736 | | 55 | 0.00100840 | 228.01 | 242.13 | 0.76110 | | 60 | 0.00101094 | 248.75 | 262.90 | 0.82392 | | 65 | 0.00101363 | 269.49 | 283.68 | 0.88584 | | 70 | 0.00101647 | 290.25 | 304.48 | 0.94689 | | 75 | 0.00101945 | 311.02 | 325.29 | 1.0071 | | 80 | 0.00102258 | 331.80 | 346.12 | 1.0665 | | 85 | 0.00102586 | 352.61 | 366.97 | 1.1251 | | 90 | 0.00102928 | 373.42 | 387.83 | 1.1830 | | 95 | 0.00103284 | 394.26 | 408.72 | 1.2401 | | 100 | 0.00103654 | 415.12 | 429.63 | 1.2965 | | 105 | 0.00104038 | 436.00 | 450.57 | 1.3523 | | 110 | 0.00104437 | 456.92 | 471.54 | 1.4073 | | 115 | 0.00104850 | 477.86 | 492.54 | 1.4618 | | 120 | 0.00105278 | 498.83 | 513.57 | 1.5156 | | 125 | 0.00105720 | 519.83 | 534.63 | 1.5689 | | 130 | 0.00106178 | 540.88 | 555.74 | 1.6216 | | 135 | 0.00106651 | 561.96 | 576.89 | 1.6737 | | 140 | 0.00107140 | 583.09 | 598.09 | 1.7253 | | 145 | 0.00107646 | 604.26 | 619.33 | 1.7764 | | 150 | 0.00108167 | 625.49 | 640.63 | 1.8271 | | 155 | 0.00108706 | 646.77 | 661.99 | 1.8772 | | 160 | 0.00109263 | 668.11 | 683.41 | 1.9270 | | 165 | 0.00109838 | 689.51 | 704.89 | 1.9763 | | 170 | 0.00110432 | 710.99 | 726.45 | 2.0252 | | 175 | 0.00111046 | 732.53 | 748.08 | 2.0738 | | 180 | 0.00111680 | 754.15 | 769.79 | 2.1219 | | 185 | 0.00112336 | 775.86 | 791.59 | 2.1698 | | 190 | 0.00113014 | 797.65 | 813.47 | 2.2173 | | 195 | 0.00113716 | 819.54 | 835.46 | 2.2645 | | 200 | 0.00114443 | 841.53 | 857.55 | 2.3114 | | 210 | 0.00115977 | 885.83 | 902.07 | 2.4045 | | 220 | 0.00117628 | 930.63 | 947.10 | 2.4968 | | 230 | 0.00119412 | 975.99 | 992.71 | 2.5883 | | 240 | 0.00121348 | 1022.0 | 1039.0 | 2.6794 | | 250 | 0.00123459 | 1068.7 | 1086.0 | 2.7702 | | 260 | 0.00125778 | 1116.4 | 1134.0 | 2.8610 | | 270 | 0.00128344 | 1165.0 | 1183.0 | 2.9521 | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 270 | 0.00128344 | 1165.0 | 1183.0 | 2.9521 | | 280 | 0.00131212 | 1215.0 | 1233.4 | 3.0440 | | 290 | 0.00134460 | 1266.5 | 1285.3 | 3.1370 | | 300 | 0.00138198 | 1319.9 | 1339.2 | 3.2319 | | 310 | 0.00142603 | 1375.8 | 1395.8 | 3.3297 | | 320 | 0.00147972 | 1435.3 | 1456.0 | 3.4322 | | 330 | 0.00154883 | 1500.2 | 1521.9 | 3.5423 | | 336.666 | 0.00160974 | 1548.5 | 1571.0 | 3.6232 | | 336.666 | 0.0114850 | 2477.1 | 2637.9 | 5.3727 | | 340 | 0.0119970 | 2504.3 | 2672.3 | 5.4290 | | 350 | 0.0132320 | 2567.9 | 2753.1 | 5.5598 | | 360 | 0.0142280 | 2617.3 | 2816.5 | 5.6607 | | 370 | 0.0150910 | 2659.1 | 2870.4 | 5.7453 | | 380 | 0.0158660 | 2696.2 | 2918.3 | 5.8192 | | 390 | 0.0165770 | 2729.8 | 2961.9 | 5.8855 | | 400 | 0.0172400 | 2760.9 | 3002.3 | 5.9459 | | 410 | 0.0178650 | 2790.2 | 3040.3 | 6.0019 | | 420 | 0.0184590 | 2817.8 | 3076.2 | 6.0542 | | 430 | 0.0190280 | 2844.2 | 3110.6 | 6.1034 | | 440 | 0.0195750 | 2869.6 | 3143.7 | 6.1501 | | 450 | 0.0201040 | 2894.2 | 3175.7 | 6.1946 | | 460 | 0.0206160 | 2918.1 | 3206.7 | 6.2373 | | 470 | 0.0211150 | 2941.4 | 3237.0 | 6.2783 | | 480 | 0.0216020 | 2964.2 | 3266.6 | 6.3178 | | 490 | 0.0220780 | 2986.5 | 3295.6 | 6.3561 | | 500 | 0.0225440 | 3008.5 | 3324.1 | 6.3932 | | 520 | 0.0234520 | 3051.5 | 3379.8 | 6.4643 | | 540 | 0.0243320 | 3093.6 | 3434.2 | 6.5320 | | 560 | 0.0251880 | 3134.9 | 3487.5 | 6.5968 | | 580 | 0.0260250 | 3175.5 | 3539.9 | 6.6591 | | 600 | 0.0268450 | 3216.0 | 3591.8 | 6.7191 | | 620 | 0.0276500 | 3256.0 | 3643.1 | 6.7772 | | 640 | 0.0284430 | 3295.8 | 3694.0 | 6.8336 | | 660 | 0.0292250 | 3335.6 | 3744.7 | 6.8885 | | 680 | 0.0299970 | 3375.1 | 3795.1 | 6.9419 | | 700 | 0.0307610 | 3414.6 | 3845.3 | 6.9941 | | 720 | 0.0315170 | 3454.3 | 3895.5 | 7.0451 | | 740 | 0.0322660 | 3493.9 | 3945.6 | 7.0950 | | 760 | 0.0330090 | 3533.5 | 3995.6 | 7.1440 | | 780 | 0.0337460 | 3573.3 | 4045.7 | 7.1920 | | 800 | 0.0344790 | 3613.1 | 4095.8 | 7.2391 | | 820 | 0.0352070 | 3653.0 | 4145.9 | 7.2854 | | 840 | 0.0359310 | 3693.1 | 4196.1 | 7.3309 | | 860 | 0.0366500 | 3733.3 | 4246.4 | 7.3757 | | 880 | 0.0373670 | 3773.7 | 4296.8 | 7.4198 | | 900 | 0.0380800 | 3814.3 | 4347.4 | 7.4632 | | 920 | 0.0387900 | 3854.9 | 4398.0 | 7.5060 | | 940 | 0.0394980 | 3895.8 | 4448.8 | 7.5483 | | 960 | 0.0402030 | 3937.0 | 4499.8 | 7.5899 | | 980 | 0.0409050 | 3978.2 | 4550.9 | 7.6310 | | 1000 | 0.0416050 | 4019.6 | 4602.1 | 7.6716 | |

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 0 | 0.00099276 | 0.18 | 15.07 | 0.00045 | | 5 | 0.00099288 | 20.92 | 35.81 | 0.07569 | | 10 | 0.00099334 | 41.63 | 56.53 | 0.14951 | | 15 | 0.00099409 | 62.32 | 77.23 | 0.22200 | | 20 | 0.00099510 | 83.00 | 97.93 | 0.29323 | | 25 | 0.00099635 | 103.68 | 118.63 | 0.36325 | | 30 | 0.00099782 | 124.37 | 139.34 | 0.43211 | | 35 | 0.00099949 | 145.06 | 160.05 | 0.49987 | | 40 | 0.00100135 | 165.75 | 180.77 | 0.56656 | | 45 | 0.00100339 | 186.44 | 201.49 | 0.63223 | | 50 | 0.00100560 | 207.15 | 222.23 | 0.69690 | | 55 | 0.00100797 | 227.86 | 242.98 | 0.76061 | | 60 | 0.00101051 | 248.58 | 263.74 | 0.82340 | | 65 | 0.00101319 | 269.31 | 284.51 | 0.88529 | | 70 | 0.00101603 | 290.06 | 305.30 | 0.94631 | | 75 | 0.00101901 | 310.81 | 326.10 | 1.0065 | | 80 | 0.00102213 | 331.59 | 346.92 | 1.0659 | | 85 | 0.00102540 | 352.37 | 367.75 | 1.1245 | | 90 | 0.00102881 | 373.18 | 388.61 | 1.1823 | | 95 | 0.00103236 | 394.00 | 409.49 | 1.2394 | | 100 | 0.00103605 | 414.85 | 430.39 | 1.2958 | | 105 | 0.00103989 | 435.72 | 451.32 | 1.3515 | | 110 | 0.00104386 | 456.61 | 472.27 | 1.4065 | | 115 | 0.00104798 | 477.54 | 493.26 | 1.4610 | | 120 | 0.00105225 | 498.50 | 514.28 | 1.5148 | | 125 | 0.00105666 | 519.48 | 535.33 | 1.5680 | | 130 | 0.00106122 | 540.51 | 556.43 | 1.6206 | | 135 | 0.00106594 | 561.58 | 577.57 | 1.6727 | | 140 | 0.00107081 | 582.69 | 598.75 | 1.7243 | | 145 | 0.00107585 | 603.84 | 619.98 | 1.7754 | | 150 | 0.00108104 | 625.05 | 641.27 | 1.8260 | | 155 | 0.00108641 | 646.31 | 662.61 | 1.8762 | | 160 | 0.00109196 | 667.63 | 684.01 | 1.9259 | | 165 | 0.00109768 | 689.01 | 705.48 | 1.9751 | | 170 | 0.00110360 | 710.47 | 727.02 | 2.0240 | | 175 | 0.00110971 | 731.98 | 748.63 | 2.0725 | | 180 | 0.00111602 | 753.58 | 770.32 | 2.1206 | | 185 | 0.00112255 | 775.26 | 792.10 | 2.1684 | | 190 | 0.00112930 | 797.03 | 813.97 | 2.2159 | | 195 | 0.00113628 | 818.89 | 835.93 | 2.2631 | | 200 | 0.00114351 | 840.84 | 857.99 | 2.3100 | | 210 | 0.00115876 | 885.08 | 902.46 | 2.4030 | | 220 | 0.00117516 | 929.80 | 947.43 | 2.4951 | | 230 | 0.00119287 | 975.08 | 992.97 | 2.5865 | | 240 | 0.00121208 | 1021.0 | 1039.2 | 2.6774 | | 250 | 0.00123301 | 1067.6 | 1086.1 | 2.7680 | | 260 | 0.00125596 | 1115.2 | 1134.0 | 2.8586 | | 270 | 0.00128133 | 1163.7 | 1182.9 | 2.9495 | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 270 | 0.00128133 | 1163.7 | 1182.9 | 2.9495 | | 280 | 0.00130963 | 1213.4 | 1233.0 | 3.0409 | | 290 | 0.00134159 | 1264.6 | 1284.7 | 3.1335 | | 300 | 0.00137826 | 1317.6 | 1338.3 | 3.2279 | | 310 | 0.00142125 | 1373.1 | 1394.4 | 3.3250 | | 320 | 0.00147326 | 1431.9 | 1454.0 | 3.4263 | | 330 | 0.00153932 | 1495.7 | 1518.8 | 3.5345 | | 340 | 0.00163113 | 1567.9 | 1592.4 | 3.6555 | | 342.155 | 0.00165695 | 1585.3 | 1610.2 | 3.6846 | | 342.155 | 0.0103380 | 2455.6 | 2610.7 | 5.3106 | | 350 | 0.0114810 | 2520.9 | 2693.1 | 5.4437 | | 360 | 0.0125820 | 2581.0 | 2769.7 | 5.5657 | | 370 | 0.0134930 | 2629.0 | 2831.4 | 5.6625 | | 380 | 0.0142890 | 2670.4 | 2884.7 | 5.7446 | | 390 | 0.0150080 | 2707.1 | 2932.2 | 5.8168 | | 400 | 0.0156710 | 2740.6 | 2975.7 | 5.8819 | | 410 | 0.0162900 | 2771.8 | 3016.1 | 5.9415 | | 420 | 0.0168750 | 2800.9 | 3054.0 | 5.9967 | | 430 | 0.0174310 | 2828.6 | 3090.1 | 6.0484 | | 440 | 0.0179640 | 2855.2 | 3124.7 | 6.0971 | | 450 | 0.0184770 | 2880.7 | 3157.9 | 6.1434 | | 460 | 0.0189730 | 2905.5 | 3190.1 | 6.1876 | | 470 | 0.0194550 | 2929.5 | 3221.3 | 6.2299 | | 480 | 0.0199230 | 2953.0 | 3251.8 | 6.2706 | | 490 | 0.0203800 | 2975.9 | 3281.6 | 6.3099 | | 500 | 0.0208270 | 2998.4 | 3310.8 | 6.3480 | | 520 | 0.0216960 | 3042.4 | 3367.8 | 6.4207 | | 540 | 0.0225340 | 3085.2 | 3423.2 | 6.4897 | | 560 | 0.0233490 | 3127.2 | 3477.4 | 6.5556 | | 580 | 0.0241440 | 3168.4 | 3530.6 | 6.6187 | | 600 | 0.0249210 | 3209.3 | 3583.1 | 6.6796 | | 620 | 0.0256840 | 3249.8 | 3635.1 | 6.7384 | | 640 | 0.0264330 | 3290.0 | 3686.5 | 6.7954 | | 660 | 0.0271720 | 3330.0 | 3737.6 | 6.8508 | | 680 | 0.0279010 | 3370.0 | 3788.5 | 6.9047 | | 700 | 0.0286210 | 3409.8 | 3839.1 | 6.9572 | | 720 | 0.0293340 | 3449.6 | 3889.6 | 7.0086 | | 740 | 0.0300390 | 3489.4 | 3940.0 | 7.0589 | | 760 | 0.0307380 | 3529.3 | 3990.4 | 7.1081 | | 780 | 0.0314320 | 3569.2 | 4040.7 | 7.1563 | | 800 | 0.0321210 | 3609.3 | 4091.1 | 7.2037 | | 820 | 0.0328050 | 3649.3 | 4141.4 | 7.2502 | | 840 | 0.0334850 | 3689.6 | 4191.9 | 7.2959 | | 860 | 0.0341610 | 3730.0 | 4242.4 | 7.3409 | | 880 | 0.0348330 | 3770.5 | 4293.0 | 7.3852 | | 900 | 0.0355030 | 3811.2 | 4343.7 | 7.4288 | | 920 | 0.0361690 | 3852.0 | 4394.5 | 7.4717 | | 940 | 0.0368320 | 3893.0 | 4445.5 | 7.5141 | | 960 | 0.0374930 | 3934.2 | 4496.6 | 7.5559 | | 980 | 0.0381520 | 3975.5 | 4547.8 | 7.5971 | | 1000 | 0.0388080 | 4017.1 | 4599.2 | 7.6378 | |

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 0 | 0.00099228 | 0.18 | 16.06 | 0.00046 | | 5 | 0.00099241 | 20.90 | 36.78 | 0.07563 | | 10 | 0.00099288 | 41.59 | 57.48 | 0.14939 | | 15 | 0.00099364 | 62.28 | 78.18 | 0.22182 | | 20 | 0.00099466 | 82.95 | 98.86 | 0.29300 | | 25 | 0.00099592 | 103.62 | 119.55 | 0.36297 | | 30 | 0.00099739 | 124.28 | 140.24 | 0.43180 | | 35 | 0.00099906 | 144.96 | 160.94 | 0.49952 | | 40 | 0.00100092 | 165.64 | 181.65 | 0.56617 | | 45 | 0.00100296 | 186.31 | 202.36 | 0.63180 | | 50 | 0.00100517 | 207.01 | 223.09 | 0.69644 | | 55 | 0.00100755 | 227.70 | 243.82 | 0.76012 | | 60 | 0.00101007 | 248.41 | 264.57 | 0.82288 | | 65 | 0.00101276 | 269.14 | 285.34 | 0.88474 | | 70 | 0.00101559 | 289.86 | 306.11 | 0.94573 | | 75 | 0.00101856 | 310.61 | 326.91 | 1.0059 | | 80 | 0.00102168 | 331.36 | 347.71 | 1.0652 | | 85 | 0.00102494 | 352.14 | 368.54 | 1.1238 | | 90 | 0.00102835 | 372.94 | 389.39 | 1.1816 | | 95 | 0.00103189 | 393.74 | 410.25 | 1.2387 | | 100 | 0.00103557 | 414.57 | 431.14 | 1.2950 | | 105 | 0.00103939 | 435.43 | 452.06 | 1.3507 | | 110 | 0.00104336 | 456.32 | 473.01 | 1.4057 | | 115 | 0.00104747 | 477.22 | 493.98 | 1.4601 | | 120 | 0.00105172 | 498.16 | 514.99 | 1.5139 | | 125 | 0.00105612 | 519.13 | 536.03 | 1.5671 | | 130 | 0.00106067 | 540.15 | 557.12 | 1.6197 | | 135 | 0.00106537 | 561.19 | 578.24 | 1.6718 | | 140 | 0.00107022 | 582.29 | 599.41 | 1.7233 | | 145 | 0.00107524 | 603.43 | 620.63 | 1.7744 | | 150 | 0.00108042 | 624.61 | 641.90 | 1.8250 | | 155 | 0.00108577 | 645.86 | 663.23 | 1.8751 | | 160 | 0.00109129 | 667.16 | 684.62 | 1.9247 | | 165 | 0.00109699 | 688.52 | 706.07 | 1.9740 | | 170 | 0.00110288 | 709.94 | 727.59 | 2.0228 | | 175 | 0.00110896 | 731.44 | 749.18 | 2.0713 | | 180 | 0.00111525 | 753.02 | 770.86 | 2.1194 | | 185 | 0.00112174 | 774.66 | 792.61 | 2.1671 | | 190 | 0.00112846 | 796.40 | 814.46 | 2.2145 | | 195 | 0.00113540 | 818.23 | 836.40 | 2.2617 | | 200 | 0.00114259 | 840.16 | 858.44 | 2.3085 | | 210 | 0.00115775 | 884.34 | 902.86 | 2.4014 | | 220 | 0.00117405 | 928.99 | 947.77 | 2.4934 | | 230 | 0.00119164 | 974.17 | 993.24 | 2.5847 | | 240 | 0.00121069 | 1020.0 | 1039.4 | 2.6754 | | 250 | 0.00123144 | 1066.5 | 1086.2 | 2.7658 | | 260 | 0.00125417 | 1113.8 | 1133.9 | 2.8562 | | 270 | 0.00127925 | 1162.2 | 1182.7 | 2.9468 | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 270 | 0.00127925 | 1162.2 | 1182.7 | 2.9468 | | 280 | 0.00130718 | 1211.8 | 1232.7 | 3.0380 | | 290 | 0.00133865 | 1262.7 | 1284.1 | 3.1302 | | 300 | 0.00137464 | 1315.4 | 1337.4 | 3.2240 | | 310 | 0.00141665 | 1370.5 | 1393.2 | 3.3204 | | 320 | 0.00146711 | 1428.6 | 1452.1 | 3.4206 | | 330 | 0.00153044 | 1491.3 | 1515.8 | 3.5271 | | 340 | 0.00161630 | 1561.5 | 1587.4 | 3.6447 | | 347.355 | 0.00170944 | 1622.3 | 1649.7 | 3.7457 | | 347.355 | 0.00930880 | 2431.9 | 2580.8 | 5.2463 | | 350 | 0.00976580 | 2460.7 | 2617.0 | 5.3045 | | 360 | 0.0110610 | 2538.8 | 2715.8 | 5.4619 | | 370 | 0.0120460 | 2595.7 | 2788.4 | 5.5756 | | 380 | 0.0128780 | 2642.3 | 2848.3 | 5.6681 | | 390 | 0.0136130 | 2682.8 | 2900.6 | 5.7476 | | 400 | 0.0142810 | 2719.1 | 2947.6 | 5.8179 | | 410 | 0.0148990 | 2752.3 | 2990.7 | 5.8816 | | 420 | 0.0154780 | 2783.4 | 3031.0 | 5.9401 | | 430 | 0.0160260 | 2812.6 | 3069.0 | 5.9945 | | 440 | 0.0165480 | 2840.3 | 3105.1 | 6.0455 | | 450 | 0.0170490 | 2866.9 | 3139.7 | 6.0937 | | 460 | 0.0175310 | 2892.5 | 3173.0 | 6.1395 | | 470 | 0.0179980 | 2917.3 | 3205.3 | 6.1832 | | 480 | 0.0184510 | 2941.5 | 3236.7 | 6.2252 | | 490 | 0.0188920 | 2965.0 | 3267.3 | 6.2656 | | 500 | 0.0193230 | 2988.1 | 3297.3 | 6.3046 | | 520 | 0.0201570 | 3033.1 | 3355.6 | 6.3790 | | 540 | 0.0209610 | 3076.7 | 3412.1 | 6.4493 | | 560 | 0.0217390 | 3119.4 | 3467.2 | 6.5163 | | 580 | 0.0224970 | 3161.2 | 3521.2 | 6.5804 | | 600 | 0.0232380 | 3202.6 | 3574.4 | 6.6421 | | 620 | 0.0239630 | 3243.6 | 3627.0 | 6.7016 | | 640 | 0.0246750 | 3284.2 | 3679.0 | 6.7591 | | 660 | 0.0253760 | 3324.6 | 3730.6 | 6.8150 | | 680 | 0.0260670 | 3364.8 | 3781.9 | 6.8694 | | 700 | 0.0267490 | 3404.9 | 3832.9 | 6.9224 | | 720 | 0.0274230 | 3445.0 | 3883.8 | 6.9741 | | 740 | 0.0280910 | 3485.0 | 3934.5 | 7.0247 | | 760 | 0.0287520 | 3525.1 | 3985.1 | 7.0742 | | 780 | 0.0294070 | 3565.2 | 4035.7 | 7.1227 | | 800 | 0.0300580 | 3605.4 | 4086.3 | 7.1703 | | 820 | 0.0307030 | 3645.8 | 4137.0 | 7.2171 | | 840 | 0.0313450 | 3686.1 | 4187.6 | 7.2630 | | 860 | 0.0319830 | 3726.6 | 4238.3 | 7.3082 | | 880 | 0.0326170 | 3767.2 | 4289.1 | 7.3526 | | 900 | 0.0332470 | 3808.0 | 4340.0 | 7.3964 | | 920 | 0.0338750 | 3849.0 | 4391.0 | 7.4395 | | 940 | 0.0345000 | 3890.2 | 4442.2 | 7.4819 | | 960 | 0.0351230 | 3931.4 | 4493.4 | 7.5238 | | 980 | 0.0357430 | 3972.9 | 4544.8 | 7.5652 | | 1000 | 0.0363610 | 4014.5 | 4596.3 | 7.6060 | |

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 0 | 0.00099179 | 0.20 | 17.06 | 0.00047 | | 5 | 0.00099194 | 20.90 | 37.76 | 0.07556 | | 10 | 0.00099242 | 41.57 | 58.44 | 0.14926 | | 15 | 0.00099319 | 62.24 | 79.12 | 0.22164 | | 20 | 0.00099422 | 82.89 | 99.79 | 0.29277 | | 25 | 0.00099548 | 103.54 | 120.46 | 0.36270 | | 30 | 0.00099696 | 124.19 | 141.14 | 0.43148 | | 35 | 0.00099864 | 144.85 | 161.83 | 0.49916 | | 40 | 0.00100050 | 165.51 | 182.52 | 0.56578 | | 45 | 0.00100254 | 186.19 | 203.23 | 0.63138 | | 50 | 0.00100475 | 206.86 | 223.94 | 0.69598 | | 55 | 0.00100712 | 227.55 | 244.67 | 0.75963 | | 60 | 0.00100964 | 248.25 | 265.41 | 0.82236 | | 65 | 0.00101232 | 268.95 | 286.16 | 0.88419 | | 70 | 0.00101515 | 289.67 | 306.93 | 0.94515 | | 75 | 0.00101812 | 310.40 | 327.71 | 1.0053 | | 80 | 0.00102123 | 331.15 | 348.51 | 1.0646 | | 85 | 0.00102449 | 351.91 | 369.33 | 1.1231 | | 90 | 0.00102788 | 372.69 | 390.16 | 1.1809 | | 95 | 0.00103142 | 393.49 | 411.02 | 1.2379 | | 100 | 0.00103509 | 414.30 | 431.90 | 1.2943 | | 105 | 0.00103890 | 435.15 | 452.81 | 1.3499 | | 110 | 0.00104286 | 456.01 | 473.74 | 1.4049 | | 115 | 0.00104695 | 476.90 | 494.70 | 1.4593 | | 120 | 0.00105119 | 497.83 | 515.70 | 1.5130 | | 125 | 0.00105558 | 518.79 | 536.73 | 1.5662 | | 130 | 0.00106011 | 539.78 | 557.80 | 1.6188 | | 135 | 0.00106480 | 560.82 | 578.92 | 1.6708 | | 140 | 0.00106964 | 581.89 | 600.07 | 1.7224 | | 145 | 0.00107464 | 603.01 | 621.28 | 1.7734 | | 150 | 0.00107980 | 624.18 | 642.54 | 1.8239 | | 155 | 0.00108512 | 645.40 | 663.85 | 1.8740 | | 160 | 0.00109062 | 666.68 | 685.22 | 1.9236 | | 165 | 0.00109630 | 688.02 | 706.66 | 1.9728 | | 170 | 0.00110217 | 709.42 | 728.16 | 2.0216 | | 175 | 0.00110822 | 730.90 | 749.74 | 2.0700 | | 180 | 0.00111448 | 752.44 | 771.39 | 2.1181 | | 185 | 0.00112094 | 774.07 | 793.13 | 2.1658 | | 190 | 0.00112762 | 795.79 | 814.96 | 2.2132 | | 195 | 0.00113453 | 817.59 | 836.88 | 2.2602 | | 200 | 0.00114168 | 839.49 | 858.90 | 2.3070 | | 210 | 0.00115676 | 883.60 | 903.26 | 2.3998 | | 220 | 0.00117295 | 928.17 | 948.11 | 2.4917 | | 230 | 0.00119042 | 973.27 | 993.51 | 2.5828 | | 240 | 0.00120932 | 1018.9 | 1039.5 | 2.6734 | | 250 | 0.00122989 | 1065.4 | 1086.3 | 2.7637 | | 260 | 0.00125240 | 1112.6 | 1133.9 | 2.8538 | | 270 | 0.00127720 | 1160.8 | 1182.5 | 2.9442 | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 270 | 0.00127720 | 1160.8 | 1182.5 | 2.9442 | | 280 | 0.00130477 | 1210.1 | 1232.3 | 3.0350 | | 290 | 0.00133577 | 1260.9 | 1283.6 | 3.1268 | | 300 | 0.00137112 | 1313.3 | 1336.6 | 3.2202 | | 310 | 0.00141219 | 1367.9 | 1391.9 | 3.3158 | | 320 | 0.00146122 | 1425.5 | 1450.3 | 3.4151 | | 330 | 0.00152211 | 1487.2 | 1513.1 | 3.5201 | | 340 | 0.00160296 | 1555.6 | 1582.9 | 3.6347 | | 350 | 0.00172698 | 1637.2 | 1666.6 | 3.7702 | | 352.293 | 0.00176926 | 1659.9 | 1690.0 | 3.8077 | | 352.293 | 0.00837090 | 2405.2 | 2547.5 | 5.1787 | | 360 | 0.00960380 | 2487.8 | 2651.1 | 5.3434 | | 370 | 0.0107130 | 2557.8 | 2739.9 | 5.4826 | | 380 | 0.0115980 | 2611.5 | 2808.7 | 5.5888 | | 390 | 0.0123590 | 2656.6 | 2866.7 | 5.6770 | | 400 | 0.0130380 | 2696.3 | 2917.9 | 5.7536 | | 410 | 0.0136600 | 2732.0 | 2964.2 | 5.8219 | | 420 | 0.0142370 | 2765.0 | 3007.0 | 5.8841 | | 430 | 0.0147790 | 2795.9 | 3047.1 | 5.9414 | | 440 | 0.0152930 | 2824.9 | 3084.9 | 5.9949 | | 450 | 0.0157840 | 2852.7 | 3121.0 | 6.0451 | | 460 | 0.0162550 | 2879.3 | 3155.6 | 6.0927 | | 470 | 0.0167100 | 2904.9 | 3189.0 | 6.1379 | | 480 | 0.0171500 | 2929.8 | 3221.4 | 6.1812 | | 490 | 0.0175770 | 2954.1 | 3252.9 | 6.2227 | | 500 | 0.0179940 | 2977.7 | 3283.6 | 6.2628 | | 520 | 0.0187980 | 3023.6 | 3343.2 | 6.3389 | | 540 | 0.0195710 | 3068.1 | 3400.8 | 6.4106 | | 560 | 0.0203180 | 3111.5 | 3456.9 | 6.4787 | | 580 | 0.0210440 | 3154.0 | 3511.7 | 6.5438 | | 600 | 0.0217520 | 3195.9 | 3565.7 | 6.6063 | | 620 | 0.0224440 | 3237.3 | 3618.8 | 6.6665 | | 640 | 0.0231230 | 3278.3 | 3671.4 | 6.7247 | | 660 | 0.0237910 | 3319.1 | 3723.5 | 6.7811 | | 680 | 0.0244490 | 3359.6 | 3775.2 | 6.8360 | | 700 | 0.0250970 | 3400.0 | 3826.6 | 6.8894 | | 720 | 0.0257380 | 3440.4 | 3877.9 | 6.9415 | | 740 | 0.0263720 | 3480.6 | 3928.9 | 6.9924 | | 760 | 0.0269990 | 3520.9 | 3979.9 | 7.0422 | | 780 | 0.0276210 | 3561.2 | 4030.8 | 7.0910 | | 800 | 0.0282370 | 3601.6 | 4081.6 | 7.1388 | | 820 | 0.0288490 | 3642.1 | 4132.5 | 7.1858 | | 840 | 0.0294570 | 3682.6 | 4183.4 | 7.2319 | | 860 | 0.0300610 | 3723.3 | 4234.3 | 7.2772 | | 880 | 0.0306610 | 3764.1 | 4285.3 | 7.3218 | | 900 | 0.0312580 | 3805.0 | 4336.4 | 7.3658 | | 920 | 0.0318520 | 3846.0 | 4387.5 | 7.4090 | | 940 | 0.0324430 | 3887.3 | 4438.8 | 7.4516 | | 960 | 0.0330310 | 3928.7 | 4490.2 | 7.4936 | | 980 | 0.0336180 | 3970.2 | 4541.7 | 7.5351 | | 1000 | 0.0342020 | 4012.0 | 4593.4 | 7.5760 | |

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 0 | 0.00099131 | 0.21 | 18.05 | 0.00047 | | 5 | 0.00099148 | 20.88 | 38.73 | 0.07550 | | 10 | 0.00099197 | 41.54 | 59.40 | 0.14914 | | 15 | 0.00099275 | 62.19 | 80.06 | 0.22146 | | 20 | 0.00099378 | 82.83 | 100.72 | 0.29254 | | 25 | 0.00099505 | 103.47 | 121.38 | 0.36242 | | 30 | 0.00099653 | 124.10 | 142.04 | 0.43117 | | 35 | 0.00099821 | 144.75 | 162.72 | 0.49881 | | 40 | 0.00100008 | 165.40 | 183.40 | 0.56539 | | 45 | 0.00100212 | 186.06 | 204.10 | 0.63095 | | 50 | 0.00100432 | 206.72 | 224.80 | 0.69553 | | 55 | 0.00100669 | 227.40 | 245.52 | 0.75914 | | 60 | 0.00100922 | 248.08 | 266.25 | 0.82184 | | 65 | 0.00101189 | 268.78 | 286.99 | 0.88364 | | 70 | 0.00101471 | 289.49 | 307.75 | 0.94457 | | 75 | 0.00101768 | 310.20 | 328.52 | 1.0047 | | 80 | 0.00102079 | 330.94 | 349.31 | 1.0640 | | 85 | 0.00102403 | 351.68 | 370.11 | 1.1225 | | 90 | 0.00102742 | 372.45 | 390.94 | 1.1802 | | 95 | 0.00103095 | 393.23 | 411.79 | 1.2372 | | 100 | 0.00103461 | 414.04 | 432.66 | 1.2935 | | 105 | 0.00103841 | 434.86 | 453.55 | 1.3492 | | 110 | 0.00104236 | 455.71 | 474.47 | 1.4041 | | 115 | 0.00104644 | 476.59 | 495.43 | 1.4585 | | 120 | 0.00105067 | 497.50 | 516.41 | 1.5122 | | 125 | 0.00105504 | 518.44 | 537.43 | 1.5653 | | 130 | 0.00105956 | 539.42 | 558.49 | 1.6179 | | 135 | 0.00106423 | 560.43 | 579.59 | 1.6699 | | 140 | 0.00106905 | 581.50 | 600.74 | 1.7214 | | 145 | 0.00107403 | 602.60 | 621.93 | 1.7724 | | 150 | 0.00107918 | 623.74 | 643.17 | 1.8229 | | 155 | 0.00108448 | 644.95 | 664.47 | 1.8729 | | 160 | 0.00108996 | 666.21 | 685.83 | 1.9225 | | 165 | 0.00109562 | 687.53 | 707.25 | 1.9717 | | 170 | 0.00110146 | 708.91 | 728.74 | 2.0204 | | 175 | 0.00110749 | 730.37 | 750.30 | 2.0688 | | 180 | 0.00111371 | 751.88 | 771.93 | 2.1168 | | 185 | 0.00112015 | 773.49 | 793.65 | 2.1645 | | 190 | 0.00112680 | 795.18 | 815.46 | 2.2118 | | 195 | 0.00113367 | 816.94 | 837.35 | 2.2588 | | 200 | 0.00114078 | 838.82 | 859.35 | 2.3056 | | 210 | 0.00115577 | 882.86 | 903.66 | 2.3983 | | 220 | 0.00117186 | 927.37 | 948.46 | 2.4900 | | 230 | 0.00118921 | 972.38 | 993.79 | 2.5810 | | 240 | 0.00120797 | 1018.0 | 1039.7 | 2.6715 | | 250 | 0.00122836 | 1064.3 | 1086.4 | 2.7615 | | 260 | 0.00125065 | 1111.4 | 1133.9 | 2.8515 | | 270 | 0.00127518 | 1159.4 | 1182.4 | 2.9416 | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 270 | 0.00127518 | 1159.4 | 1182.4 | 2.9416 | | 280 | 0.00130241 | 1208.6 | 1232.0 | 3.0321 | | 290 | 0.00133296 | 1259.1 | 1283.1 | 3.1236 | | 300 | 0.00136769 | 1311.2 | 1335.8 | 3.2164 | | 310 | 0.00140789 | 1365.5 | 1390.8 | 3.3114 | | 320 | 0.00145558 | 1422.4 | 1448.6 | 3.4098 | | 330 | 0.00151426 | 1483.3 | 1510.6 | 3.5133 | | 340 | 0.00159081 | 1550.2 | 1578.8 | 3.6255 | | 350 | 0.00170200 | 1628.1 | 1658.7 | 3.7547 | | 356.992 | 0.00183980 | 1699.0 | 1732.1 | 3.8718 | | 356.992 | 0.00750170 | 2374.8 | 2509.8 | 5.1061 | | 360 | 0.00811120 | 2420.1 | 2566.1 | 5.1952 | | 370 | 0.00945350 | 2513.7 | 2683.9 | 5.3799 | | 380 | 0.0104190 | 2577.4 | 2764.9 | 5.5050 | | 390 | 0.0112180 | 2628.4 | 2830.3 | 5.6042 | | 400 | 0.0119160 | 2671.9 | 2886.4 | 5.6883 | | 410 | 0.0125450 | 2710.6 | 2936.4 | 5.7620 | | 420 | 0.0131230 | 2745.8 | 2982.0 | 5.8283 | | 430 | 0.0136630 | 2778.5 | 3024.4 | 5.8890 | | 440 | 0.0141710 | 2809.0 | 3064.1 | 5.9451 | | 450 | 0.0146540 | 2838.0 | 3101.8 | 5.9975 | | 460 | 0.0151170 | 2865.6 | 3137.7 | 6.0469 | | 470 | 0.0155610 | 2892.2 | 3172.3 | 6.0938 | | 480 | 0.0159900 | 2917.9 | 3205.7 | 6.1384 | | 490 | 0.0164060 | 2942.8 | 3238.1 | 6.1812 | | 500 | 0.0168100 | 2967.1 | 3269.7 | 6.2223 | | 520 | 0.0175890 | 3014.1 | 3330.7 | 6.3002 | | 540 | 0.0183350 | 3059.5 | 3389.5 | 6.3734 | | 560 | 0.0190540 | 3103.5 | 3446.5 | 6.4427 | | 580 | 0.0197520 | 3146.7 | 3502.2 | 6.5087 | | 600 | 0.0204310 | 3189.0 | 3556.8 | 6.5720 | | 620 | 0.0210940 | 3230.9 | 3610.6 | 6.6329 | | 640 | 0.0217440 | 3272.4 | 3663.8 | 6.6918 | | 660 | 0.0223820 | 3313.4 | 3716.3 | 6.7487 | | 680 | 0.0230100 | 3354.3 | 3768.5 | 6.8041 | | 700 | 0.0236290 | 3395.1 | 3820.4 | 6.8579 | | 720 | 0.0242400 | 3435.7 | 3872.0 | 6.9104 | | 740 | 0.0248440 | 3476.2 | 3923.4 | 6.9616 | | 760 | 0.0254410 | 3516.7 | 3974.6 | 7.0117 | | 780 | 0.0260330 | 3557.2 | 4025.8 | 7.0608 | | 800 | 0.0266190 | 3597.8 | 4076.9 | 7.1089 | | 820 | 0.0272010 | 3638.4 | 4128.0 | 7.1560 | | 840 | 0.0277790 | 3679.1 | 4179.1 | 7.2024 | | 860 | 0.0283520 | 3720.0 | 4230.3 | 7.2479 | | 880 | 0.0289230 | 3760.8 | 4281.4 | 7.2927 | | 900 | 0.0294890 | 3801.9 | 4332.7 | 7.3368 | | 920 | 0.0300530 | 3843.0 | 4384.0 | 7.3801 | | 940 | 0.0306140 | 3884.4 | 4435.5 | 7.4229 | | 960 | 0.0311730 | 3925.9 | 4487.0 | 7.4650 | | 980 | 0.0317290 | 3967.6 | 4538.7 | 7.5066 | | 1000 | 0.0322820 | 4009.4 | 4590.5 | 7.5476 | |

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 0 | 0.00099084 | 0.21 | 19.04 | 0.00047 | | 5 | 0.00099102 | 20.87 | 39.70 | 0.07543 | | 10 | 0.00099152 | 41.51 | 60.35 | 0.14901 | | 15 | 0.00099231 | 62.15 | 81.00 | 0.22128 | | 20 | 0.00099335 | 82.77 | 101.64 | 0.29231 | | 25 | 0.00099462 | 103.39 | 122.29 | 0.36215 | | 30 | 0.00099611 | 124.01 | 142.94 | 0.43085 | | 35 | 0.00099779 | 144.65 | 163.61 | 0.49845 | | 40 | 0.00099965 | 165.29 | 184.28 | 0.56500 | | 45 | 0.00100169 | 185.93 | 204.96 | 0.63053 | | 50 | 0.00100390 | 206.59 | 225.66 | 0.69507 | | 55 | 0.00100627 | 227.24 | 246.36 | 0.75865 | | 60 | 0.00100879 | 247.91 | 267.08 | 0.82132 | | 65 | 0.00101146 | 268.59 | 287.81 | 0.88309 | | 70 | 0.00101428 | 289.29 | 308.56 | 0.94399 | | 75 | 0.00101724 | 309.99 | 329.32 | 1.0041 | | 80 | 0.00102034 | 330.71 | 350.10 | 1.0633 | | 85 | 0.00102358 | 351.45 | 370.90 | 1.1218 | | 90 | 0.00102696 | 372.21 | 391.72 | 1.1795 | | 95 | 0.00103048 | 392.97 | 412.55 | 1.2365 | | 100 | 0.00103413 | 413.76 | 433.41 | 1.2928 | | 105 | 0.00103793 | 434.58 | 454.30 | 1.3484 | | 110 | 0.00104186 | 455.41 | 475.21 | 1.4033 | | 115 | 0.00104593 | 476.28 | 496.15 | 1.4576 | | 120 | 0.00105015 | 497.18 | 517.13 | 1.5113 | | 125 | 0.00105451 | 518.09 | 538.13 | 1.5644 | | 130 | 0.00105901 | 539.06 | 559.18 | 1.6169 | | 135 | 0.00106367 | 560.06 | 580.27 | 1.6689 | | 140 | 0.00106847 | 581.10 | 601.40 | 1.7204 | | 145 | 0.00107344 | 602.18 | 622.58 | 1.7713 | | 150 | 0.00107856 | 623.32 | 643.81 | 1.8218 | | 155 | 0.00108385 | 644.51 | 665.10 | 1.8718 | | 160 | 0.00108930 | 665.74 | 686.44 | 1.9214 | | 165 | 0.00109494 | 687.04 | 707.84 | 1.9705 | | 170 | 0.00110075 | 708.40 | 729.31 | 2.0192 | | 175 | 0.00110675 | 729.83 | 750.86 | 2.0676 | | 180 | 0.00111295 | 751.33 | 772.48 | 2.1156 | | 185 | 0.00111936 | 772.90 | 794.17 | 2.1632 | | 190 | 0.00112597 | 794.57 | 815.96 | 2.2105 | | 195 | 0.00113281 | 816.31 | 837.83 | 2.2574 | | 200 | 0.00113989 | 838.15 | 859.81 | 2.3041 | | 210 | 0.00115479 | 882.13 | 904.07 | 2.3967 | | 220 | 0.00117078 | 926.57 | 948.81 | 2.4884 | | 230 | 0.00118801 | 971.51 | 994.08 | 2.5792 | | 240 | 0.00120663 | 1017.1 | 1040.0 | 2.6695 | | 250 | 0.00122685 | 1063.2 | 1086.5 | 2.7594 | | 260 | 0.00124893 | 1110.2 | 1133.9 | 2.8492 | | 270 | 0.00127320 | 1158.1 | 1182.3 | 2.9390 | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 270 | 0.00127320 | 1158.1 | 1182.3 | 2.9390 | | 280 | 0.00130010 | 1207.1 | 1231.8 | 3.0293 | | 290 | 0.00133020 | 1257.3 | 1282.6 | 3.1203 | | 300 | 0.00136434 | 1309.2 | 1335.1 | 3.2127 | | 310 | 0.00140371 | 1363.0 | 1389.7 | 3.3071 | | 320 | 0.00145017 | 1419.4 | 1447.0 | 3.4046 | | 330 | 0.00150683 | 1479.6 | 1508.2 | 3.5068 | | 340 | 0.00157964 | 1545.0 | 1575.0 | 3.6168 | | 350 | 0.00168265 | 1619.9 | 1651.9 | 3.7412 | | 360 | 0.00187374 | 1719.6 | 1755.2 | 3.9054 | | 361.473 | 0.00192677 | 1740.6 | 1777.2 | 3.9401 | | 361.473 | 0.00667730 | 2339.1 | 2466.0 | 5.0256 | | 370 | 0.00821990 | 2460.1 | 2616.3 | 5.2610 | | 380 | 0.00931600 | 2538.9 | 2715.9 | 5.4147 | | 390 | 0.0101680 | 2597.5 | 2790.7 | 5.5284 | | 400 | 0.0108920 | 2645.9 | 2852.8 | 5.6215 | | 410 | 0.0115330 | 2688.0 | 2907.1 | 5.7015 | | 420 | 0.0121170 | 2725.8 | 2956.0 | 5.7725 | | 430 | 0.0126560 | 2760.3 | 3000.8 | 5.8368 | | 440 | 0.0131620 | 2792.5 | 3042.6 | 5.8958 | | 450 | 0.0136390 | 2822.9 | 3082.0 | 5.9506 | | 460 | 0.0140940 | 2851.6 | 3119.4 | 6.0020 | | 470 | 0.0145300 | 2879.2 | 3155.3 | 6.0506 | | 480 | 0.0149500 | 2905.8 | 3189.8 | 6.0967 | | 490 | 0.0153560 | 2931.3 | 3223.1 | 6.1407 | | 500 | 0.0157500 | 2956.3 | 3255.5 | 6.1829 | | 520 | 0.0165060 | 3004.4 | 3318.0 | 6.2627 | | 540 | 0.0172280 | 3050.7 | 3378.0 | 6.3374 | | 560 | 0.0179230 | 3095.5 | 3436.0 | 6.4079 | | 580 | 0.0185950 | 3139.3 | 3492.6 | 6.4750 | | 600 | 0.0192490 | 3182.3 | 3548.0 | 6.5391 | | 620 | 0.0198860 | 3224.6 | 3602.4 | 6.6008 | | 640 | 0.0205100 | 3266.4 | 3656.1 | 6.6603 | | 660 | 0.0211220 | 3307.9 | 3709.2 | 6.7178 | | 680 | 0.0217230 | 3349.1 | 3761.8 | 6.7736 | | 700 | 0.0223160 | 3390.1 | 3814.1 | 6.8278 | | 720 | 0.0229000 | 3430.9 | 3866.0 | 6.8807 | | 740 | 0.0234770 | 3471.7 | 3917.8 | 6.9323 | | 760 | 0.0240480 | 3512.4 | 3969.3 | 6.9827 | | 780 | 0.0246120 | 3553.2 | 4020.8 | 7.0320 | | 800 | 0.0251720 | 3593.9 | 4072.2 | 7.0803 | | 820 | 0.0257270 | 3634.7 | 4123.5 | 7.1277 | | 840 | 0.0262780 | 3675.6 | 4174.9 | 7.1743 | | 860 | 0.0268240 | 3716.5 | 4226.2 | 7.2200 | | 880 | 0.0273670 | 3757.6 | 4277.6 | 7.2649 | | 900 | 0.0279070 | 3798.8 | 4329.0 | 7.3092 | | 920 | 0.0284440 | 3840.2 | 4380.6 | 7.3527 | | 940 | 0.0289780 | 3881.6 | 4432.2 | 7.3956 | | 960 | 0.0295090 | 3923.2 | 4483.9 | 7.4379 | | 980 | 0.0300380 | 3965.0 | 4535.7 | 7.4796 | | 1000 | 0.0305650 | 4006.9 | 4587.6 | 7.5207 | |

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 0 | 0.00099036 | 0.22 | 20.03 | 0.00047 | | 5 | 0.00099055 | 20.87 | 40.68 | 0.07536 | | 10 | 0.00099107 | 41.49 | 61.31 | 0.14888 | | 15 | 0.00099187 | 62.10 | 81.94 | 0.22109 | | 20 | 0.00099292 | 82.71 | 102.57 | 0.29207 | | 25 | 0.00099419 | 103.32 | 123.20 | 0.36187 | | 30 | 0.00099568 | 123.93 | 143.84 | 0.43053 | | 35 | 0.00099737 | 144.54 | 164.49 | 0.49810 | | 40 | 0.00099923 | 165.18 | 185.16 | 0.56461 | | 45 | 0.00100127 | 185.80 | 205.83 | 0.63010 | | 50 | 0.00100348 | 206.44 | 226.51 | 0.69461 | | 55 | 0.00100585 | 227.09 | 247.21 | 0.75817 | | 60 | 0.00100836 | 247.75 | 267.92 | 0.82080 | | 65 | 0.00101103 | 268.42 | 288.64 | 0.88254 | | 70 | 0.00101384 | 289.10 | 309.38 | 0.94341 | | 75 | 0.00101680 | 309.79 | 330.13 | 1.0035 | | 80 | 0.00101989 | 330.50 | 350.90 | 1.0627 | | 85 | 0.00102313 | 351.23 | 371.69 | 1.1211 | | 90 | 0.00102650 | 371.96 | 392.49 | 1.1788 | | 95 | 0.00103001 | 392.72 | 413.32 | 1.2358 | | 100 | 0.00103366 | 413.50 | 434.17 | 1.2920 | | 105 | 0.00103744 | 434.29 | 455.04 | 1.3476 | | 110 | 0.00104136 | 455.11 | 475.94 | 1.4025 | | 115 | 0.00104543 | 475.97 | 496.88 | 1.4568 | | 120 | 0.00104963 | 496.85 | 517.84 | 1.5105 | | 125 | 0.00105398 | 517.76 | 538.84 | 1.5635 | | 130 | 0.00105847 | 538.70 | 559.87 | 1.6160 | | 135 | 0.00106311 | 559.69 | 580.95 | 1.6680 | | 140 | 0.00106790 | 580.71 | 602.07 | 1.7194 | | 145 | 0.00107284 | 601.77 | 623.23 | 1.7703 | | 150 | 0.00107795 | 622.89 | 644.45 | 1.8208 | | 155 | 0.00108321 | 644.06 | 665.72 | 1.8707 | | 160 | 0.00108865 | 665.28 | 687.05 | 1.9203 | | 165 | 0.00109426 | 686.55 | 708.44 | 1.9694 | | 170 | 0.00110005 | 707.89 | 729.89 | 2.0181 | | 175 | 0.00110603 | 729.30 | 751.42 | 2.0664 | | 180 | 0.00111220 | 750.78 | 773.02 | 2.1143 | | 185 | 0.00111857 | 772.33 | 794.70 | 2.1619 | | 190 | 0.00112516 | 793.96 | 816.46 | 2.2091 | | 195 | 0.00113196 | 815.68 | 838.32 | 2.2561 | | 200 | 0.00113900 | 837.49 | 860.27 | 2.3027 | | 210 | 0.00115381 | 881.40 | 904.48 | 2.3952 | | 220 | 0.00116971 | 925.77 | 949.16 | 2.4867 | | 230 | 0.00118682 | 970.63 | 994.37 | 2.5774 | | 240 | 0.00120530 | 1016.1 | 1040.2 | 2.6676 | | 250 | 0.00122536 | 1062.2 | 1086.7 | 2.7573 | | 260 | 0.00124723 | 1109.1 | 1134.0 | 2.8469 | | 270 | 0.00127125 | 1156.8 | 1182.2 | 2.9365 | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 270 | 0.00127125 | 1156.8 | 1182.2 | 2.9365 | | 280 | 0.00129782 | 1205.5 | 1231.5 | 3.0265 | | 290 | 0.00132750 | 1255.5 | 1282.1 | 3.1172 | | 300 | 0.00136108 | 1307.2 | 1334.4 | 3.2091 | | 310 | 0.00139966 | 1360.6 | 1388.6 | 3.3029 | | 320 | 0.00144496 | 1416.6 | 1445.5 | 3.3996 | | 330 | 0.00149978 | 1475.9 | 1505.9 | 3.5006 | | 340 | 0.00156929 | 1540.2 | 1571.6 | 3.6086 | | 350 | 0.00166490 | 1612.7 | 1646.0 | 3.7290 | | 360 | 0.00182479 | 1703.6 | 1740.1 | 3.8787 | | 365.749 | 0.00204000 | 1786.4 | 1827.2 | 4.0156 | | 365.749 | 0.00586520 | 2295.0 | 2412.3 | 4.9314 | | 370 | 0.00692340 | 2388.0 | 2526.5 | 5.1097 | | 380 | 0.00825990 | 2494.2 | 2659.4 | 5.3149 | | 390 | 0.00919060 | 2563.4 | 2747.2 | 5.4483 | | 400 | 0.00995030 | 2617.9 | 2816.9 | 5.5525 | | 410 | 0.0106100 | 2664.0 | 2876.2 | 5.6400 | | 420 | 0.0112010 | 2704.7 | 2928.7 | 5.7163 | | 430 | 0.0117430 | 2741.5 | 2976.4 | 5.7847 | | 440 | 0.0122470 | 2775.5 | 3020.4 | 5.8469 | | 450 | 0.0127210 | 2807.3 | 3061.7 | 5.9043 | | 460 | 0.0131710 | 2837.3 | 3100.7 | 5.9579 | | 470 | 0.0136000 | 2865.8 | 3137.8 | 6.0082 | | 480 | 0.0140120 | 2893.3 | 3173.5 | 6.0559 | | 490 | 0.0144090 | 2919.7 | 3207.9 | 6.1012 | | 500 | 0.0147930 | 2945.3 | 3241.2 | 6.1446 | | 520 | 0.0155300 | 2994.6 | 3305.2 | 6.2263 | | 540 | 0.0162310 | 3041.8 | 3366.4 | 6.3025 | | 560 | 0.0169040 | 3087.3 | 3425.4 | 6.3743 | | 580 | 0.0175540 | 3131.8 | 3482.9 | 6.4424 | | 600 | 0.0181850 | 3175.3 | 3539.0 | 6.5075 | | 620 | 0.0187990 | 3218.1 | 3594.1 | 6.5699 | | 640 | 0.0193990 | 3260.4 | 3648.4 | 6.6300 | | 660 | 0.0199870 | 3302.3 | 3702.0 | 6.6881 | | 680 | 0.0205650 | 3343.8 | 3755.1 | 6.7443 | | 700 | 0.0211330 | 3385.1 | 3807.8 | 6.7990 | | 720 | 0.0216940 | 3426.2 | 3860.1 | 6.8523 | | 740 | 0.0222470 | 3467.3 | 3912.2 | 6.9042 | | 760 | 0.0227930 | 3508.2 | 3964.1 | 6.9549 | | 780 | 0.0233340 | 3549.1 | 4015.8 | 7.0045 | | 800 | 0.0238690 | 3590.1 | 4067.5 | 7.0531 | | 820 | 0.0244000 | 3631.0 | 4119.0 | 7.1007 | | 840 | 0.0249270 | 3672.1 | 4170.6 | 7.1475 | | 860 | 0.0254490 | 3713.2 | 4222.2 | 7.1934 | | 880 | 0.0259680 | 3754.3 | 4273.7 | 7.2385 | | 900 | 0.0264830 | 3795.7 | 4325.4 | 7.2829 | | 920 | 0.0269960 | 3837.2 | 4377.1 | 7.3266 | | 940 | 0.0275060 | 3878.7 | 4428.8 | 7.3696 | | 960 | 0.0280130 | 3920.4 | 4480.7 | 7.4120 | | 980 | 0.0285180 | 3962.2 | 4532.6 | 7.4538 | | 1000 | 0.0290200 | 4004.3 | 4584.7 | 7.4950 | |

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 0 | 0.00098941 | 0.24 | 22.01 | 0.00046 | | 5 | 0.00098963 | 20.84 | 42.61 | 0.07521 | | 10 | 0.00099017 | 41.43 | 63.21 | 0.14861 | | 15 | 0.00099099 | 62.01 | 83.81 | 0.22072 | | 20 | 0.00099205 | 82.58 | 104.41 | 0.29161 | | 25 | 0.00099334 | 103.17 | 125.02 | 0.36132 | | 30 | 0.00099484 | 123.75 | 145.64 | 0.42990 | | 35 | 0.00099653 | 144.35 | 166.27 | 0.49739 | | 40 | 0.00099840 | 164.95 | 186.91 | 0.56383 | | 45 | 0.00100044 | 185.55 | 207.56 | 0.62925 | | 50 | 0.00100264 | 206.16 | 228.22 | 0.69370 | | 55 | 0.00100500 | 226.79 | 248.90 | 0.75719 | | 60 | 0.00100752 | 247.42 | 269.59 | 0.81976 | | 65 | 0.00101018 | 268.07 | 290.29 | 0.88144 | | 70 | 0.00101298 | 288.72 | 311.01 | 0.94226 | | 75 | 0.00101593 | 309.39 | 331.74 | 1.0022 | | 80 | 0.00101901 | 330.07 | 352.49 | 1.0614 | | 85 | 0.00102223 | 350.77 | 373.26 | 1.1198 | | 90 | 0.00102559 | 371.49 | 394.05 | 1.1775 | | 95 | 0.00102908 | 392.21 | 414.85 | 1.2344 | | 100 | 0.00103271 | 412.96 | 435.68 | 1.2906 | | 105 | 0.00103648 | 433.74 | 456.54 | 1.3461 | | 110 | 0.00104038 | 454.53 | 477.42 | 1.4009 | | 115 | 0.00104442 | 475.35 | 498.33 | 1.4551 | | 120 | 0.00104860 | 496.20 | 519.27 | 1.5088 | | 125 | 0.00105292 | 517.08 | 540.24 | 1.5618 | | 130 | 0.00105738 | 537.99 | 561.25 | 1.6142 | | 135 | 0.00106199 | 558.95 | 582.31 | 1.6661 | | 140 | 0.00106675 | 579.93 | 603.40 | 1.7175 | | 145 | 0.00107166 | 600.96 | 624.54 | 1.7683 | | 150 | 0.00107673 | 622.04 | 645.73 | 1.8187 | | 155 | 0.00108196 | 643.17 | 666.97 | 1.8686 | | 160 | 0.00108735 | 664.35 | 688.27 | 1.9181 | | 165 | 0.00109292 | 685.59 | 709.63 | 1.9671 | | 170 | 0.00109866 | 706.88 | 731.05 | 2.0157 | | 175 | 0.00110458 | 728.24 | 752.54 | 2.0639 | | 180 | 0.00111070 | 749.67 | 774.11 | 2.1118 | | 185 | 0.00111701 | 771.18 | 795.75 | 2.1593 | | 190 | 0.00112354 | 792.76 | 817.48 | 2.2065 | | 195 | 0.00113027 | 814.42 | 839.29 | 2.2533 | | 200 | 0.00113724 | 836.18 | 861.20 | 2.2999 | | 210 | 0.00115189 | 879.97 | 905.31 | 2.3921 | | 220 | 0.00116759 | 924.19 | 949.88 | 2.4834 | | 230 | 0.00118448 | 968.90 | 994.96 | 2.5739 | | 240 | 0.00120269 | 1014.1 | 1040.6 | 2.6638 | | 250 | 0.00122242 | 1060.0 | 1086.9 | 2.7532 | | 260 | 0.00124390 | 1106.6 | 1134.0 | 2.8423 | | 270 | 0.00126743 | 1154.1 | 1182.0 | 2.9315 | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | T | v | u | h | s | | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | | 270 | 0.00126743 | 1154.1 | 1182.0 | 2.9315 | | 280 | 0.00129338 | 1202.5 | 1231.0 | 3.0209 | | 290 | 0.00132227 | 1252.2 | 1281.3 | 3.1110 | | 300 | 0.00135478 | 1303.2 | 1333.0 | 3.2021 | | 310 | 0.00139190 | 1356.1 | 1386.7 | 3.2948 | | 320 | 0.00143509 | 1411.1 | 1442.7 | 3.3900 | | 330 | 0.00148666 | 1469.1 | 1501.8 | 3.4889 | | 340 | 0.00155060 | 1531.3 | 1565.4 | 3.5934 | | 350 | 0.00163487 | 1599.9 | 1635.9 | 3.7075 | | 360 | 0.00176012 | 1680.7 | 1719.4 | 3.8404 | | 370 | 0.00202860 | 1797.9 | 1842.5 | 4.0332 | | 373.705 | 0.00270440 | 1951.8 | 2011.3 | 4.2945 | | 373.705 | 0.00364750 | 2092.9 | 2173.1 | 4.5446 | | 380 | 0.00612340 | 2369.8 | 2504.5 | 5.0555 | | 390 | 0.00737870 | 2481.6 | 2643.9 | 5.2675 | | 400 | 0.00825560 | 2554.2 | 2735.8 | 5.4051 | | 410 | 0.00897020 | 2611.1 | 2808.4 | 5.5122 | | 420 | 0.00958930 | 2659.0 | 2870.0 | 5.6018 | | 430 | 0.0101440 | 2701.3 | 2924.5 | 5.6798 | | 440 | 0.0106510 | 2739.4 | 2973.7 | 5.7494 | | 450 | 0.0111230 | 2774.5 | 3019.2 | 5.8127 | | 460 | 0.0115650 | 2807.3 | 3061.7 | 5.8710 | | 470 | 0.0119850 | 2838.1 | 3101.8 | 5.9254 | | 480 | 0.0123850 | 2867.5 | 3140.0 | 5.9764 | | 490 | 0.0127680 | 2895.6 | 3176.5 | 6.0246 | | 500 | 0.0131380 | 2922.8 | 3211.8 | 6.0705 | | 520 | 0.0138420 | 2974.5 | 3279.0 | 6.1563 | | 540 | 0.0145080 | 3023.6 | 3342.8 | 6.2358 | | 560 | 0.0151440 | 3070.8 | 3404.0 | 6.3102 | | 580 | 0.0157550 | 3116.7 | 3463.3 | 6.3805 | | 600 | 0.0163470 | 3161.4 | 3521.0 | 6.4473 | | 620 | 0.0169210 | 3205.1 | 3577.4 | 6.5113 | | 640 | 0.0174810 | 3248.3 | 3632.9 | 6.5727 | | 660 | 0.0180280 | 3291.0 | 3687.6 | 6.6319 | | 680 | 0.0185650 | 3333.2 | 3741.6 | 6.6892 | | 700 | 0.0190920 | 3375.1 | 3795.1 | 6.7447 | | 720 | 0.0196110 | 3416.8 | 3848.2 | 6.7988 | | 740 | 0.0201220 | 3458.3 | 3901.0 | 6.8514 | | 760 | 0.0206270 | 3499.7 | 3953.5 | 6.9027 | | 780 | 0.0211260 | 3541.0 | 4005.8 | 6.9529 | | 800 | 0.0216200 | 3582.4 | 4058.0 | 7.0020 | | 820 | 0.0221090 | 3623.7 | 4110.1 | 7.0500 | | 840 | 0.0225940 | 3665.0 | 4162.1 | 7.0972 | | 860 | 0.0230740 | 3706.5 | 4214.1 | 7.1435 | | 880 | 0.0235510 | 3747.9 | 4266.0 | 7.1889 | | 900 | 0.0240250 | 3789.4 | 4318.0 | 7.2336 | | 920 | 0.0244950 | 3831.2 | 4370.1 | 7.2776 | | 940 | 0.0249630 | 3873.0 | 4422.2 | 7.3209 | | 960 | 0.0254280 | 3914.9 | 4474.3 | 7.3636 | | 980 | 0.0258910 | 3957.0 | 4526.6 | 7.4056 | | 1000 | 0.0263520 | 3999.2 | 4578.9 | 7.4470 | |

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| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.00098800 0.00098826 0.00098884 0.00098968 0.00099077 0.00099207 0.00099358 0.00099527 0.00099715 0.00099919 0.00100139 0.00100375 0.00100625 0.00100890 0.00101170 0.00101463 0.00101769 0.00102090 0.00102423 0.00102770 0.00103130 0.00103504 0.00103891 0.00104292 0.00104706 0.00105134 0.00105577 0.00106033 0.00106505 0.00106991 0.00107492 0.00108009 0.00108543 0.00109093 0.00109660 0.00110245 0.00110849 0.00111472 0.00112115 0.00112778 0.00113464 0.00114906 0.00116449 0.00118104 0.00119887 0.00121814 0.00123906  0.00126190 | 0.26  20.80 41.34 61.88  82.41  102.95  123.49  144.05  164.60  185.17  205.76  226.34  246.93  267.55  288.17  308.79  329.44  350.10  370.77  391.46  412.17  432.90  453.66  474.43  495.23  516.07  536.94  557.84  578.78  599.76  620.79  641.86  662.97  684.16  705.39  726.69  748.05  769.48  790.99  812.58  834.24  877.86  921.89  966.36  1011.3  1056.9  1103.2  1150.4 | 24.96 45.51 66.06  86.62  107.18  127.75  148.33  168.93  189.53  210.15  230.79  251.43  272.09  292.77  313.46  334.16  354.88  375.62  396.38  417.15  437.95  458.78  479.63  500.50  521.41  542.35  563.33  584.35  605.41  626.51  647.66  668.86  690.11  711.43  732.80  754.25  775.76  797.35  819.02  840.77  862.61  906.59  951.00  995.89  1041.3  1087.4  1134.2  1181.9 | 0.00041 0.07496 0.14819 0.22015 0.29089 0.36047 0.42894 0.49632 0.56265 0.62798 0.69233 0.75573 0.81821 0.87981  0.94054  1.0004 1.0595 1.1178 1.1754 1.2322 1.2883 1.3438 1.3986 1.4527 1.5062 1.5591 1.6115 1.6633 1.7146 1.7654 1.8156 1.8654 1.9148 1.9637 2.0122 2.0604 2.1081 2.1555 2.2025 2.2492 2.2956 2.3876 2.4786 2.5687 2.6582 2.7471 2.8357  2.9242 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.00126190 0.00128699 0.00131478 0.00134590 0.00138100 0.00142150 0.00146900 0.00152640 0.00159880 0.00169690 0.00185030 0.00221820 0.00464740 0.00600470 0.00688330 0.00757920 0.00817250 0.00869860 0.00917630  0.00961760  0.0100300 0.0104190 0.0107890 0.0111430 0.0118110 0.0124360 0.0130290 0.0135950 0.0141400 0.0146670 0.0151790 0.0156780 0.0161650 0.0166430 0.0171130 0.0175740 0.0180290 0.0184780 0.0189220 0.0193610 0.0197950 0.0202250 0.0206520 0.0210750 0.0214960 0.0219130 0.0223280 0.0227400  0.0231500 | 1150.4  1198.3  1247.3  1297.7  1349.6  1403.4  1459.7  1519.3  1583.9  1656.2  1743.5  1880.2  2279.5  2428.5  2515.0  2579.9  2633.5  2679.8  2721.2  2759.0  2793.9  2826.7  2857.8  2887.3  2943.1  2995.6  3045.5  3093.4  3140.0  3185.4  3229.9  3273.8  3317.1  3359.9  3402.4  3444.8  3486.9  3528.9  3570.8  3612.6  3654.4  3696.3  3738.2  3780.2  3822.2  3864.4  3906.6  3949.0  3991.5 | 1181.9  1230.5  1280.2  1331.3  1384.1  1438.9  1496.4  1557.5  1623.9  1698.6  1789.8  1935.7  2395.7  2578.6  2687.1  2769.4  2837.8  2897.3  2950.6  2999.4  3044.6  3087.2  3127.5  3165.9  3238.4  3306.5  3371.2  3433.3  3493.5  3552.1  3609.4  3665.7  3721.2  3776.0  3830.2  3884.1  3937.6  3990.8  4043.8  4096.6  4149.3  4201.9  4254.5  4307.1  4359.6  4412.2  4464.8  4517.5  4570.2 | 2.9242 3.0129 3.1020 3.1919 3.2832 3.3764 3.4726 3.5731 3.6804 3.7993 3.9423 4.1671 4.8660 5.1400 5.3000 5.4197 5.5176 5.6016 5.6759 5.7428 5.8042 5.8610 5.9142 5.9642 6.0569 6.1416 6.2202 6.2940 6.3637 6.4300 6.4935 6.5545 6.6133 6.6702 6.7254 6.7791 6.8313 6.8823 6.9322 6.9810 7.0287 7.0756 7.1216 7.1668 7.2112 7.2549 7.2979 7.3403  7.3820 |
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| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.00098567  0.00098601 0.00098664 0.00098753 0.00098865 0.00098998 0.00099150 0.00099321 0.00099509 0.00099714 0.00099933 0.00100168 0.00100417 0.00100681 0.00100958 0.00101249 0.00101553 0.00101870 0.00102200 0.00102543 0.00102899 0.00103268 0.00103651 0.00104046 0.00104455 0.00104877 0.00105312 0.00105762 0.00106226 0.00106704 0.00107197 0.00107705 0.00108228 0.00108768 0.00109324 0.00109897 0.00110488 0.00111098 0.00111726 0.00112374 0.00113043 0.00114447 0.00115947 0.00117552 0.00119275 0.00121131 0.00123137  0.00125317 | 0.29  20.74 41.19 61.65  82.11  102.58  123.07  143.55  164.05  184.56  205.07  225.60  246.13  266.69  287.24  307.82  328.39  348.99  369.60  390.23  410.87  431.54  452.22  472.93  493.66  514.42  535.22  556.03  576.89  597.79  618.73  639.71  660.74  681.82  702.95  724.14  745.39  766.72  788.10  809.57  831.11  874.44  918.15  962.27  1006.9  1052.1  1097.8  1144.2 | 29.86 50.32 70.79  91.28  111.77  132.28  152.81  173.35  193.90  214.47  235.05  255.65  276.26  296.89  317.53  338.19  358.86  379.55  400.26  420.99  441.74  462.52  483.32  504.14  525.00  545.88  566.81  587.76  608.76  629.80  650.89  672.02  693.21  714.45  735.75  757.11  778.54  800.05  821.62  843.28  865.02  908.77  952.93  997.54  1042.7  1088.4  1134.7  1181.8 | 0.00027 0.07450 0.14745 0.21916 0.28968 0.35905 0.42732 0.49452 0.56069 0.62586 0.69005 0.75330 0.81564 0.87710 0.93769  0.99746  1.0564 1.1146 1.1720 1.2287 1.2847 1.3400 1.3946 1.4486 1.5020 1.5548 1.6070 1.6587 1.7098 1.7605 1.8106 1.8602 1.9094 1.9582 2.0065 2.0545 2.1020 2.1492 2.1961 2.2426 2.2888 2.3803 2.4707 2.5603 2.6491 2.7373 2.8250  2.9126 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.00125317 0.00127698 0.00130315 0.00133220 0.00136460 0.00140140 0.00144360 0.00149320 0.00155290 0.00162760 0.00172680 0.00187290 0.00213310 0.00279780 0.00398090 0.00492030 0.00563660 0.00622670 0.00673730 0.00719310 0.00760830 0.00799230 0.00835150 0.00869040 0.00932000  0.00990000  0.0104420 0.0109550 0.0114450 0.0119140 0.0123680 0.0128080 0.0132360 0.0136530 0.0140620 0.0144630 0.0148570 0.0152450 0.0156280 0.0160050 0.0163780 0.0167470 0.0171120 0.0174730 0.0178320 0.0181880 0.0185410 0.0188910  0.0192400 | 1144.2  1191.5  1239.6  1288.9  1339.5  1391.7  1445.8  1502.3  1562.2  1626.8  1698.3  1782.0  1891.3  2068.9  2276.0  2405.3  2493.7  2562.1  2618.9  2668.2  2712.2  2752.2  2789.4  2824.0  2888.0  2946.6  3001.4  3053.6  3103.3  3151.7  3198.7  3244.6  3289.7  3334.3  3378.3  3421.9  3465.2  3508.4  3551.2  3594.0  3636.7  3679.3  3721.9  3764.6  3807.2  3850.0  3892.8  3935.7  3978.6 | 1181.8  1229.8  1278.7  1328.9  1380.4  1433.7  1489.1  1547.1  1608.8  1675.6  1750.1  1838.2  1955.3  2152.8  2395.4  2552.9  2662.8  2748.9  2821.0  2884.0  2940.4  2992.0  3039.9  3084.7  3167.6  3243.6  3314.7  3382.2  3446.7  3509.1  3569.7  3628.8  3686.8  3743.9  3800.2  3855.8  3910.9  3965.7  4020.0  4074.1  4128.0  4181.7  4235.3  4288.8  4342.2  4395.6  4449.0  4502.4  4555.8 | 2.9126 3.0001 3.0878 3.1760 3.2652 3.3557 3.4483 3.5438 3.6436 3.7498 3.8666 4.0025 4.1804 4.4757 4.8336 5.0627 5.2200 5.3416 5.4421 5.5286 5.6051 5.6741 5.7372 5.7956 5.9014 5.9961 6.0825 6.1625 6.2373 6.3079 6.3750 6.4391 6.5006 6.5598 6.6171 6.6726 6.7264 6.7789 6.8300 6.8800 6.9288 6.9766 7.0235 7.0695 7.1147 7.1591 7.2027 7.2457  7.2880 |
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| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.00098338 0.00098379 0.00098447 0.00098540 0.00098656 0.00098791 0.00098946 0.00099118 0.00099307 0.00099511 0.00099731 0.00099965 0.00100213 0.00100475 0.00100750 0.00101038 0.00101339 0.00101654 0.00101980 0.00102320 0.00102672 0.00103037 0.00103414 0.00103805 0.00104208 0.00104624 0.00105053 0.00105496 0.00105953 0.00106423 0.00106908 0.00107407 0.00107922 0.00108451 0.00108997 0.00109559 0.00110138 0.00110734 0.00111349 0.00111983 0.00112636 0.00114005 0.00115464 0.00117022 0.00118690 0.00120481 0.00122411  0.00124498 | 0.30  20.67 41.04 61.42  81.81  102.22  122.64  143.06  163.50  183.95  204.40  224.87  245.36  265.84  286.34  306.85  327.37  347.91  368.46  389.02  409.60  430.20  450.82  471.46  492.12  512.81  533.52  554.28  575.06  595.87  616.72  637.62  658.56  679.54  700.58  721.67  742.82  764.03  785.31  806.65  828.06  871.12  914.53  958.32  1002.6  1047.2  1092.6  1138.4 | 34.72 55.10 75.50  95.91  116.34  136.80  157.27  177.75  198.26  218.78  239.31  259.86  280.43  301.01  321.60  342.21  362.84  383.49  404.15  424.83  445.54  466.26  487.01  507.79  528.59  549.43  570.29  591.20  612.14  633.12  654.14  675.21  696.33  717.50  738.73  760.02  781.37  802.79  824.28  845.84  867.48  911.02  954.94  999.28  1044.1  1089.4  1135.4  1182.0 | 0.00005 0.07398 0.14666 0.21813 0.28844 0.35761 0.42570 0.49272 0.55873 0.62374 0.68778 0.75089 0.81308 0.87440 0.93486  0.99450  1.0533 1.1114 1.1687 1.2252 1.2811 1.3363 1.3908 1.4447 1.4979 1.5506 1.6027 1.6542 1.7052 1.7557 1.8056 1.8551 1.9042 1.9528 2.0009 2.0487 2.0961 2.1431 2.1897 2.2361 2.2820 2.3731 2.4631 2.5521 2.6403 2.7278 2.8148  2.9014 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.00124498 0.00126766 0.00129245 0.00131970 0.00134990 0.00138370 0.00142200 0.00146600 0.00151740 0.00157910 0.00165540 0.00175460 0.00189300 0.00210540 0.00247470 0.00308380 0.00378000 0.00441200 0.00495720 0.00543360 0.00585880 0.00624500 0.00660090 0.00693250 0.00753920 0.00808930 0.00859740 0.00907320 0.00952340  0.00995270  0.0103650 0.0107620 0.0111480 0.0115230 0.0118880 0.0122460 0.0125960 0.0129400 0.0132780 0.0136120 0.0139410 0.0142650 0.0145860 0.0149040 0.0152180 0.0155300 0.0158390 0.0161450  0.0164500 | 1138.4  1185.0  1232.5  1280.8  1330.4  1381.1  1433.4  1487.8  1544.5  1604.3  1668.6  1739.0  1819.1  1914.9  2037.3  2184.0  2315.3  2417.4  2497.5  2563.4  2619.7  2669.5  2714.3  2755.3  2829.0  2895.0  2955.5  3012.0  3065.6  3117.0  3166.6  3214.8  3262.0  3308.3  3353.8  3398.8  3443.4  3487.6  3531.6  3575.3  3618.8  3662.2  3705.6  3749.0  3792.3  3835.6  3878.9  3922.3  3965.8 | 1182.0  1229.4  1277.7  1327.0  1377.6  1429.5  1483.2  1539.1  1597.6  1659.6  1726.5  1800.4  1885.4  1988.6  2123.9  2291.9  2447.6  2571.8  2671.0  2753.6  2824.8  2888.1  2945.3  2997.9  3092.9  3178.1  3256.4  3329.6  3398.9  3465.3  3529.4  3591.5  3652.2  3711.6  3769.9  3827.4  3884.3  3940.5  3996.3  4051.7  4106.7  4161.5  4216.1  4270.6  4324.9  4379.1  4433.3  4487.4  4541.5 | 2.9014 2.9879 3.0744 3.1612 3.2486 3.3370 3.4268 3.5186 3.6132 3.7120 3.8168 3.9308 4.0599 4.2143 4.4138 4.6579 4.8809 5.0564 5.1945 5.3080 5.4046 5.4891 5.5646 5.6331 5.7544 5.8605 5.9556 6.0425 6.1228 6.1980 6.2689 6.3363 6.4006 6.4622 6.5216 6.5789 6.6345 6.6884 6.7409 6.7920 6.8419 6.8907 6.9385 6.9853 7.0312 7.0763 7.1205 7.1641  7.2069 |
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| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.00098113  0.00098160 0.00098234 0.00098331 0.00098450 0.00098588 0.00098744 0.00098917 0.00099107 0.00099311 0.00099531 0.00099764 0.00100011 0.00100271 0.00100545 0.00100831 0.00101129 0.00101441 0.00101764 0.00102100 0.00102449 0.00102809 0.00103182 0.00103568 0.00103965 0.00104376 0.00104799 0.00105236 0.00105685 0.00106149 0.00106626 0.00107117 0.00107622 0.00108142 0.00108678 0.00109229 0.00109797 0.00110381 0.00110983 0.00111603 0.00112241 0.00113578 0.00114999 0.00116514 0.00118131 0.00119863 0.00121723  0.00123727 | 0.30  20.59 40.89 61.20  81.52  101.85  122.21  142.58  162.96  183.35  203.75  224.15  244.58  265.01  285.45  305.91  326.37  346.84  367.33  387.84  408.35  428.89  449.45  470.01  490.61  511.23  531.87  552.55  573.26  593.99  614.77  635.57  656.43  677.32  698.27  719.27  740.31  761.42  782.58  803.81  825.10  867.91  911.04  954.49  998.45  1042.8  1087.6  1132.9 | 39.55 59.85  80.18  100.53  120.90  141.29  161.71  182.15  202.60  223.07  243.56  264.06  284.58  305.12  325.67  346.24  366.82  387.42  408.04  428.68  449.33  470.01  490.72  511.44  532.20  552.98  573.79  594.64  615.53  636.45  657.42  678.42  699.48  720.58  741.74  762.96  784.23  805.57  826.97  848.45  870.00  913.34  957.04  1001.1  1045.7  1090.7  1136.3  1182.4 | -0.00024  0.07340 0.14582 0.21707 0.28716 0.35615 0.42405 0.49091 0.55676 0.62161 0.68551 0.74848 0.81054 0.87172 0.93205  0.99156  1.0503 1.1082 1.1654 1.2218 1.2775 1.3326 1.3870 1.4407 1.4938 1.5464 1.5983 1.6497 1.7006 1.7509 1.8008 1.8501 1.8990 1.9474 1.9955 2.0431 2.0903 2.1371 2.1836 2.2297 2.2755 2.3661 2.4556 2.5442 2.6318 2.7187 2.8050  2.8908 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.00123727 0.00125895 0.00128252 0.00130830 0.00133660 0.00136800 0.00140320 0.00144290 0.00148840 0.00154150 0.00160460 0.00168190 0.00178010 0.00191080 0.00209340 0.00236010 0.00274370 0.00320920 0.00369150 0.00414800 0.00456620 0.00494790 0.00529850 0.00562310 0.00621160 0.00673880 0.00722090 0.00766850 0.00808910 0.00848780 0.00886860 0.00923440 0.00958750 0.00992970  0.0102630 0.0105870 0.0109050 0.0112160 0.0115210 0.0118210 0.0121170 0.0124080 0.0126960 0.0129800 0.0132610 0.0135400 0.0138150 0.0140890  0.0143600 | 1132.9  1178.9  1225.7  1273.3  1321.8  1371.5  1422.4  1474.9  1529.3  1586.0  1645.7  1709.3  1778.4  1855.0  1941.8  2042.0  2154.8  2265.8  2364.1  2447.5  2518.2  2579.2  2633.1  2681.6  2766.6  2840.8  2907.7  2969.2  3026.8  3081.5  3134.0  3184.6  3233.9  3281.9  3329.1  3375.6  3421.4  3466.8  3511.8  3556.5  3600.9  3645.2  3689.3  3733.3  3777.3  3821.1  3865.1  3908.9  3952.9 | 1182.4  1229.3  1277.0  1325.6  1375.3  1426.2  1478.5  1532.6  1588.8  1647.7  1709.9  1776.6  1849.6  1931.4  2025.5  2136.4  2264.5  2394.2  2511.8  2613.4  2700.8  2777.1  2845.0  2906.5  3015.1  3110.4  3196.5  3275.9  3350.4  3421.0  3488.7  3554.0  3617.4  3679.1  3739.6  3799.1  3857.6  3915.4  3972.6  4029.3  4085.6  4141.5  4197.1  4252.5  4307.7  4362.7  4417.7  4472.5  4527.3 | 2.8908 2.9764 3.0618 3.1473 3.2332 3.3198 3.4073 3.4962 3.5871 3.6808 3.7783 3.8813 3.9921 4.1145 4.2533 4.4144 4.5979 4.7810 4.9448 5.0844 5.2028 5.3048 5.3944 5.4744 5.6132 5.7319 5.8365 5.9307 6.0170 6.0970 6.1719 6.2427 6.3098 6.3740 6.4355 6.4948 6.5520 6.6074 6.6612 6.7136 6.7646 6.8144 6.8630 6.9106 6.9573 7.0030 7.0480 7.0921  7.1355 |
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| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.00097892 0.00097945 0.00098024 0.00098125 0.00098247 0.00098387 0.00098545 0.00098720 0.00098910 0.00099114 0.00099333 0.00099566 0.00099812 0.00100071 0.00100342 0.00100626 0.00100923 0.00101231 0.00101552 0.00101884 0.00102229 0.00102585 0.00102954 0.00103335 0.00103728 0.00104133 0.00104550 0.00104981 0.00105424 0.00105880 0.00106349 0.00106832 0.00107329 0.00107841 0.00108367 0.00108908 0.00109465 0.00110037 0.00110627 0.00111234 0.00111858 0.00113164 0.00114550 0.00116024 0.00117595 0.00119272 0.00121068  0.00122997 | 0.30  20.50 40.72 60.96  81.23  101.51  121.79  142.11  162.42  182.76  203.10  223.46  243.82  264.20  284.59  304.98  325.38  345.81  366.23  386.67  407.14  427.61  448.09  468.60  489.13  509.68  530.26  550.86  571.49  592.15  612.85  633.59  654.35  675.16  696.01  716.92  737.87  758.87  779.94  801.05  822.23  864.80  907.66  950.89  994.38  1038.3  1082.8  1127.8 | 44.35 64.58  84.83  105.12  125.44  145.78  166.14  186.53  206.93  227.36  247.80  268.26  288.74  309.23  329.74  350.26  370.80  391.36  411.93  432.52  453.14  473.77  494.42  515.10  535.81  556.54  577.31  598.10  618.93  639.80  660.71  681.66  702.65  723.69  744.78  765.93  787.13  808.39  829.72  851.11  872.57  915.72  959.21  1003.1  1047.3  1092.0  1137.3  1183.1 | -0.00060  0.07276 0.14494 0.21597 0.28586 0.35466 0.42240 0.48910 0.55479 0.61950 0.68325 0.74608 0.80801 0.86906 0.92927  0.98865  1.0472 1.1050 1.1621 1.2184 1.2740 1.3289 1.3832 1.4368 1.4898 1.5422 1.5941 1.6453 1.6960 1.7462 1.7960 1.8452 1.8939 1.9422 1.9901 2.0375 2.0846 2.1312 2.1775 2.2235 2.2691 2.3593 2.4484 2.5364 2.6236 2.7099 2.7955  2.8806 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.00122997 0.00125076 0.00127325 0.00129770 0.00132440 0.00135380 0.00138640 0.00142280 0.00146380 0.00151080 0.00156520 0.00162940 0.00170710 0.00180340 0.00192670 0.00208790 0.00230160 0.00258080 0.00291540 0.00327740 0.00364150 0.00399220 0.00432290 0.00463300 0.00519780 0.00570270 0.00616200 0.00658610 0.00698250 0.00735650 0.00771220 0.00805270 0.00838020 0.00869670 0.00900370 0.00930250 0.00959390  0.00987890  0.0101580 0.0104320 0.0107020 0.0109670 0.0112290 0.0114870 0.0117430 0.0119950 0.0122440 0.0124920  0.0127370 | 1127.8  1173.2  1219.4  1266.2  1313.9  1362.6  1412.3  1463.4  1515.9  1570.3  1626.9  1686.3  1749.1  1816.5  1889.7  1969.7  2057.5  2151.8  2246.4  2335.2  2415.1  2485.9  2548.6  2604.7  2701.8  2784.9  2858.5  2925.3  2987.3  3045.5  3100.9  3154.0  3205.4  3255.4  3304.2  3352.2  3399.4  3445.9  3492.0  3537.7  3583.0  3628.1  3672.9  3717.7  3762.3  3806.7  3851.2  3895.7  3940.1 | 1183.1  1229.5  1276.7  1324.6  1373.5  1423.5  1474.7  1527.4  1581.8  1638.3  1697.3  1759.6  1825.9  1897.7  1976.4  2063.7  2161.1  2267.9  2377.6  2482.7  2579.0  2665.5  2743.1  2813.2  2935.7  3041.5  3135.8  3221.7  3301.5  3376.5  3447.9  3516.4  3582.5  3646.8  3709.4  3770.8  3831.1  3890.5  3949.1  4007.1  4064.6  4121.6  4178.2  4234.6  4290.7  4346.5  4402.2  4457.8  4513.3 | 2.8806 2.9653 3.0498 3.1342 3.2188 3.3038 3.3894 3.4760 3.5640 3.6539 3.7464 3.8425 3.9433 4.0507 4.1667 4.2937 4.4331 4.5839 4.7367 4.8810 5.0115 5.1272 5.2295 5.3207 5.4773 5.6091 5.7236 5.8255 5.9179 6.0029 6.0820 6.1562 6.2263 6.2930 6.3568 6.4179 6.4769 6.5338 6.5889 6.6425 6.6946 6.7454 6.7949 6.8433 6.8907 6.9372 6.9827 7.0274  7.0713 |
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| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.00097673  0.00097733 0.00097816 0.00097922 0.00098047 0.00098189 0.00098349 0.00098525 0.00098715 0.00098920 0.00099139 0.00099371 0.00099616 0.00099873 0.00100143 0.00100425 0.00100719 0.00101025 0.00101343 0.00101672 0.00102013 0.00102365 0.00102730 0.00103106 0.00103494 0.00103894 0.00104306 0.00104730 0.00105167 0.00105616 0.00106079 0.00106554 0.00107043 0.00107546 0.00108063 0.00108594 0.00109141 0.00109703 0.00110281 0.00110875 0.00111486 0.00112763 0.00114116 0.00115553 0.00117080 0.00118707 0.00120444  0.00122305 | 0.29  20.41 40.56 60.73  80.93  101.15  121.39  141.63  161.89  182.17  202.46  222.76  243.07  263.39  283.73  304.07  324.42  344.78  365.15  385.53  405.93  426.35  446.78  467.22  487.68  508.17  528.68  549.22  569.78  590.36  610.98  631.63  652.32  673.05  693.82  714.63  735.49  756.40  777.36  798.37  819.45  861.78  904.39  947.32  990.56  1034.1  1078.2  1122.7 | 49.13 69.28  89.47  109.69  129.95  150.24  170.56  190.89  211.25  231.63  252.03  272.45  292.88  313.33  333.80  354.28  374.78  395.29  415.82  436.37  456.94  477.53  498.14  518.77  539.43  560.12  580.83  601.58  622.36  643.17  664.02  684.91  705.84  726.82  747.85  768.93  790.06  811.25  832.50  853.81  875.19  918.16  961.45  1005.1  1049.1  1093.5  1138.4  1183.9 | -0.00103  0.07207 0.14402 0.21483 0.28454 0.35316 0.42073 0.48727 0.55281 0.61738 0.68100 0.74369 0.80549 0.86642 0.92650  0.98575  1.0442 1.1019 1.1588 1.2150 1.2705 1.3253 1.3795 1.4330 1.4859 1.5381 1.5898 1.6410 1.6916 1.7417 1.7912 1.8403 1.8889 1.9371 1.9848 2.0321 2.0790 2.1255 2.1716 2.2174 2.2628 2.3527 2.4414 2.5289 2.6156 2.7013 2.7864  2.8708 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.00122305 0.00124303 0.00126457 0.00128790 0.00131320 0.00134090 0.00137130 0.00140490 0.00144250 0.00148480 0.00153290 0.00158840 0.00165340 0.00173070 0.00182470 0.00194090 0.00208560 0.00226600 0.00248730 0.00274540 0.00302720 0.00331860 0.00360850 0.00389000 0.00441680 0.00489470 0.00533080 0.00573310 0.00610810 0.00646100 0.00679560 0.00711490 0.00742130 0.00771660 0.00800250 0.00828010 0.00855040 0.00881430 0.00907240 0.00932550 0.00957410  0.00981850  0.0100590 0.0102960 0.0105310 0.0107620 0.0109910 0.0112170  0.0114410 | 1122.7  1167.7  1213.4  1259.6  1306.5  1354.4  1403.0  1452.9  1504.0  1556.5  1610.8  1667.1  1725.9  1787.9  1853.5  1923.5  1998.2  2077.5  2160.3  2243.4  2323.4  2397.9  2466.1  2528.1  2636.2  2728.1  2808.5  2880.7  2947.1  3008.9  3067.4  3123.2  3176.8  3228.8  3279.3  3328.7  3377.3  3425.0  3472.2  3518.8  3565.1  3611.0  3656.6  3702.0  3747.2  3792.4  3837.4  3882.4  3927.3 | 1183.9  1229.9  1276.6  1324.0  1372.2  1421.4  1471.6  1523.1  1576.1  1630.7  1687.4  1746.5  1808.6  1874.4  1944.7  2020.5  2102.5  2190.8  2284.7  2380.7  2474.8  2563.8  2646.5  2722.6  2857.0  2972.8  3075.0  3167.4  3252.5  3332.0  3407.2  3478.9  3547.9  3614.6  3679.4  3742.7  3804.8  3865.7  3925.8  3985.1  4043.8  4101.9  4159.5  4216.8  4273.8  4330.5  4387.0  4443.2  4499.4 | 2.8708 2.9547 3.0383 3.1218 3.2052 3.2888 3.3728 3.4575 3.5431 3.6301 3.7189 3.8101 3.9045 4.0029 4.1066 4.2168 4.3342 4.4589 4.5896 4.7215 4.8489 4.9680 5.0771 5.1762 5.3479 5.4920 5.6163 5.7259 5.8245 5.9145 5.9978 6.0755 6.1486 6.2178 6.2838 6.3469 6.4076 6.4660 6.5225 6.5773 6.6304 6.6822 6.7326 6.7819 6.8300 6.8772 6.9233 6.9686  7.0131 |
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| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.00097247 0.00097318 0.00097411 0.00097524 0.00097654 0.00097802 0.00097965 0.00098143 0.00098334 0.00098540 0.00098758 0.00098989 0.00099232 0.00099486 0.00099753 0.00100031 0.00100321 0.00100621 0.00100933 0.00101257 0.00101591 0.00101936 0.00102292 0.00102660 0.00103039 0.00103429 0.00103830 0.00104243 0.00104668 0.00105105 0.00105554 0.00106015 0.00106489 0.00106976 0.00107476 0.00107989 0.00108517 0.00109058 0.00109615 0.00110186 0.00110773 0.00111997 0.00113289 0.00114657 0.00116106 0.00117643 0.00119277  0.00121018 | 0.23  20.21 40.22 60.27  80.35  100.45  120.57  140.70  160.86  181.04  201.22  221.42  241.62  261.84  282.06  302.29  322.54  342.79  363.05  383.33  403.61  423.90  444.21  464.53  484.88  505.23  525.61  546.01  566.44  586.89  607.36  627.86  648.40  668.97  689.57  710.22  730.90  751.63  772.40  793.22  814.09  855.99  898.13  940.51  983.24  1026.2  1069.5  1113.3 | 58.58 78.60  98.67  118.78  138.94  159.13  179.35  199.59  219.86  240.16  260.47  280.81  301.16  321.53  341.91  362.31  382.73  403.16  423.61  444.08  464.56  485.06  505.59  526.13  546.70  567.29  587.91  608.56  629.24  649.95  670.69  691.47  712.29  733.16  754.06  775.01  796.01  817.06  838.17  859.33  880.55  923.19  966.10  1009.3  1052.9  1096.8  1141.1  1185.9 | -0.00208  0.07053 0.14204 0.21246 0.28180 0.35009 0.41734 0.48359 0.54885 0.61314 0.67650 0.73894 0.80049 0.86117 0.92101  0.98004  1.0383 1.0957 1.1524 1.2084 1.2637 1.3182 1.3721 1.4254 1.4781 1.5301 1.5816 1.6325 1.6828 1.7327 1.7820 1.8308 1.8792 1.9270 1.9745 2.0215 2.0681 2.1143 2.1601 2.2056 2.2507 2.3398 2.4277 2.5145 2.6002 2.6850 2.7690  2.8522 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.00121018 0.00122876 0.00124866 0.00127000 0.00129300 0.00131790 0.00134490 0.00137440 0.00140670 0.00144230 0.00148190 0.00152620 0.00157610 0.00163290 0.00169810 0.00177360 0.00186180 0.00196500 0.00208550 0.00222490 0.00238390 0.00256100 0.00275210 0.00295220 0.00336170 0.00376240 0.00414220 0.00449860 0.00483300 0.00514820 0.00544680 0.00573120 0.00600330 0.00626490 0.00651740 0.00676180 0.00699920 0.00723040 0.00745600 0.00767660 0.00789280 0.00810500 0.00831360 0.00851880 0.00872100 0.00892040 0.00911730 0.00931190  0.00950430 | 1113.3  1157.5  1202.1  1247.3  1293.0  1339.3  1386.4  1434.3  1483.1  1532.9  1583.8  1636.0  1689.7  1745.2  1802.6  1862.2  1924.2  1988.5  2055.1  2123.3  2192.5  2261.3  2328.6  2393.2  2512.2  2617.0  2709.4  2791.9  2866.8  2935.9  3000.4  3061.4  3119.5  3175.4  3229.4  3281.8  3333.0  3383.3  3432.6  3481.3  3529.3  3576.9  3624.1  3670.9  3717.4  3763.8  3810.0  3856.0  3901.9 | 1185.9  1231.2  1277.0  1323.5  1370.6  1418.4  1467.1  1516.8  1567.5  1619.4  1672.7  1727.6  1784.3  1843.2  1904.5  1968.6  2035.9  2106.4  2180.2  2256.8  2335.5  2415.0  2493.7  2570.3  2713.9  2842.7  2957.9  3061.8  3156.8  3244.8  3327.2  3405.3  3479.7  3551.3  3620.4  3687.5  3753.0  3817.1  3880.0  3941.9  4002.9  4063.2  4122.9  4182.0  4240.7  4299.0  4357.0  4414.7  4472.2 | 2.8522 2.9348 3.0169 3.0986 3.1801 3.2615 3.3429 3.4245 3.5065 3.5892 3.6727 3.7574 3.8436 3.9317 4.0221 4.1153 4.2116 4.3112 4.4140 4.5191 4.6257 4.7320 4.8358 4.9356 5.1189 5.2794 5.4193 5.5426 5.6527 5.7524 5.8437 5.9282 6.0071 6.0814 6.1518 6.2187 6.2827 6.3441 6.4033 6.4604 6.5158 6.5694 6.6217 6.6725 6.7221 6.7706 6.8180 6.8644  6.9099 |
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| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.00096834  0.00096916 0.00097017 0.00097137 0.00097273 0.00097425 0.00097591 0.00097771 0.00097964 0.00098169 0.00098387 0.00098617 0.00098858 0.00099110 0.00099374 0.00099648 0.00099934 0.00100230 0.00100536 0.00100854 0.00101181 0.00101520 0.00101869 0.00102228 0.00102599 0.00102980 0.00103371 0.00103774 0.00104188 0.00104613 0.00105050 0.00105498 0.00105958 0.00106430 0.00106914 0.00107411 0.00107921 0.00108444 0.00108981 0.00109532 0.00110097 0.00111273 0.00112512 0.00113819 0.00115199 0.00116658 0.00118203  0.00119841 | 0.15  19.99 39.87 59.80 79.76  99.75  119.77  139.80  159.86  179.93  200.01  220.11  240.21  260.32  280.45  300.58  320.72  340.87  361.02  381.18  401.36  421.55  441.74  461.95  482.17  502.41  522.67  542.94  563.24  583.55  603.90  624.25  644.65  665.07  685.52  706.00  726.53  747.09  767.68  788.32  809.00  850.51  892.22  934.13  976.36  1018.8  1061.6  1104.6 | 67.93  87.83  107.78  127.80  147.85  167.95  188.08  208.24  228.43  248.65  268.88  289.14  309.41  329.70  350.01  370.33  390.67  411.03  431.40  451.78  472.19  492.61  513.05  533.51  553.99  574.50  595.03  615.58  636.17  656.78  677.43  698.10  718.82  739.57  760.36  781.19  802.07  823.00  843.97  864.99  886.07  928.40  970.98  1013.8  1057.0  1100.5  1144.3  1188.5 | -0.00338  0.06879 0.13990 0.20996 0.27897 0.34694 0.41391 0.47987 0.54487 0.60890 0.67201 0.73422 0.79553 0.85599 0.91560  0.97440  1.0324 1.0896 1.1461 1.2019 1.2569 1.3113 1.3650 1.4180 1.4705 1.5223 1.5735 1.6242 1.6743 1.7239 1.7730 1.8216 1.8697 1.9173 1.9645 2.0113 2.0576 2.1035 2.1490 2.1942 2.2390 2.3275 2.4147 2.5008 2.5857 2.6696 2.7526  2.8348 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.00119841 0.00121582 0.00123436 0.00125410 0.00127530 0.00129800 0.00132240 0.00134880 0.00137740 0.00140840 0.00144240 0.00147970 0.00152080 0.00156640 0.00161720 0.00167410 0.00173820 0.00181060 0.00189240 0.00198460 0.00208770 0.00220220 0.00232770 0.00246320 0.00275720 0.00306730 0.00337900 0.00368290 0.00397490 0.00425380 0.00451980 0.00477420 0.00501790 0.00525230 0.00547840 0.00569710 0.00590930 0.00611560 0.00631670 0.00651300 0.00670520 0.00689350 0.00707830 0.00725990 0.00743870 0.00761480 0.00778840 0.00795980  0.00812910 | 1104.6  1148.1  1191.9  1236.1  1280.8  1326.0  1371.7  1418.2  1465.2  1513.0  1561.6  1611.1  1661.6  1713.3  1766.1  1820.3  1875.8  1932.9  1991.2  2050.8  2111.4  2172.2  2233.3  2293.7  2410.3  2518.6  2617.5  2707.3  2789.2  2864.5  2934.7  3000.6  3063.0  3122.6  3180.0  3235.5  3289.3  3342.0  3393.5  3444.2  3494.0  3543.3  3591.9  3640.1  3688.0  3735.6  3782.8  3829.9  3876.9 | 1188.5  1233.2  1278.3  1323.9  1370.1  1416.9  1464.3  1512.6  1561.6  1611.6  1662.6  1714.7  1768.1  1822.9  1879.3  1937.5  1997.5  2059.6  2123.7  2189.7  2257.5  2326.4  2396.2  2466.1  2603.3  2733.3  2854.0  2965.1  3067.4  3162.3  3251.1  3334.8  3414.3  3490.3  3563.5  3634.3  3703.0  3770.1  3835.7  3900.1  3963.4  4025.8  4087.4  4148.3  4208.7  4268.6  4328.0  4387.1  4445.9 | 2.8348 2.9162 2.9970 3.0773 3.1572 3.2368 3.3162 3.3954 3.4748 3.5543 3.6342 3.7147 3.7958 3.8779 3.9610 4.0455 4.1315 4.2192 4.3084 4.3991 4.4909 4.5831 4.6751 4.7660 4.9412 5.1032 5.2499 5.3816 5.5002 5.6077 5.7060 5.7966 5.8809 5.9599 6.0343 6.1049 6.1721 6.2364 6.2981 6.3576 6.4150 6.4705 6.5244 6.5768 6.6279 6.6776 6.7262 6.7737  6.8203 |
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| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.00096434 0.00096525 0.00096634 0.00096760 0.00096902 0.00097057 0.00097226 0.00097408 0.00097602 0.00097808 0.00098026 0.00098254 0.00098494 0.00098744 0.00099005 0.00099276 0.00099557 0.00099849 0.00100151 0.00100463 0.00100784 0.00101116 0.00101458 0.00101810 0.00102173 0.00102545 0.00102928 0.00103321 0.00103725 0.00104139 0.00104564 0.00105000 0.00105447 0.00105906 0.00106376 0.00106858 0.00107352 0.00107858 0.00108377 0.00108909 0.00109454 0.00110587 0.00111777 0.00113030 0.00114349 0.00115739 0.00117207  0.00118757 | 0.03  19.74 39.51 59.32 79.18  99.07  118.99  138.92  158.88  178.85  198.84  218.84  238.84  258.86  278.89  298.92  318.96  339.01  359.06  379.13  399.19  419.28  439.36  459.46  479.57  499.69  519.84  539.99  560.16  580.35  600.56  620.80  641.05  661.34  681.64  701.98  722.35  742.75  763.19  783.65  804.17  845.31  886.63  928.18  969.92  1011.8  1054.0  1096.5 | 77.18  96.96  116.82  136.73  156.70  176.72  196.77  216.85  236.96  257.10  277.26  297.44  317.64  337.86  358.09  378.34  398.61  418.89  439.18  459.50  479.82  500.17  520.53  540.91  561.31  581.73  602.18  622.65  643.14  663.66  684.21  704.80  725.41  746.06  766.74  787.47  808.23  829.04  849.89  870.78  891.73  933.78  976.05  1018.6  1061.4  1104.4  1147.8  1191.5 | -0.00489  0.06686 0.13761 0.20733 0.27604 0.34373 0.41042 0.47613 0.54087 0.60467 0.66755 0.72952 0.79061 0.85085 0.91025  0.96884  1.0266 1.0837 1.1399 1.1955 1.2503 1.3045 1.3580 1.4108 1.4630 1.5147 1.5657 1.6162 1.6661 1.7154 1.7643 1.8126 1.8605 1.9079 1.9549 2.0014 2.0474 2.0931 2.1384 2.1832 2.2277 2.3157 2.4023 2.4876 2.5718 2.6550 2.7371  2.8184 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.00118757 0.00120397 0.00122136 0.00123980 0.00125950 0.00128040 0.00130280 0.00132670 0.00135250 0.00138020 0.00141010 0.00144260 0.00147780 0.00151630 0.00155840 0.00160470 0.00165560 0.00171180 0.00177390 0.00184240 0.00191790 0.00200060 0.00209070 0.00218800 0.00240240 0.00263760 0.00288460 0.00313540 0.00338380 0.00362620 0.00386090 0.00408740 0.00430580 0.00451650 0.00472020 0.00491750 0.00510890 0.00529510 0.00547650 0.00565360 0.00582670 0.00599630 0.00616250 0.00632580 0.00648640 0.00664440 0.00680010 0.00695370  0.00710530 | 1096.5  1139.3  1182.4  1225.9  1269.7  1314.0  1358.7  1403.9  1449.5  1495.8  1542.7  1590.2  1638.5  1687.5  1737.3  1788.1  1839.8  1892.4  1945.9  2000.2  2055.3  2110.9  2166.6  2222.4  2332.4  2438.3  2538.1  2631.2  2717.4  2797.4  2871.9  2942.0  3008.3  3071.4  3131.9  3190.2  3246.6  3301.5  3355.2  3407.7  3459.3  3510.1  3560.3  3609.8  3659.0  3707.7  3756.1  3804.2  3852.1 | 1191.5  1235.6  1280.1  1325.1  1370.5  1416.4  1462.9  1510.0  1557.7  1606.2  1655.5  1705.6  1756.7  1808.8  1862.0  1916.5  1972.2  2029.3  2087.8  2147.6  2208.7  2270.9  2333.9  2397.4  2524.6  2649.3  2768.9  2882.0  2988.1  3087.5  3180.8  3269.0  3352.8  3432.7  3509.5  3583.6  3655.3  3725.1  3793.3  3860.0  3925.4  3989.8  4053.3  4115.9  4177.9  4239.3  4300.1  4360.5  4420.5 | 2.8184 2.8988 2.9785 3.0576 3.1362 3.2142 3.2919 3.3694 3.4466 3.5238 3.6010 3.6784 3.7560 3.8340 3.9125 3.9916 4.0714 4.1520 4.2335 4.3156 4.3984 4.4815 4.5647 4.6473 4.8097 4.9650 5.1104 5.2445 5.3674 5.4800 5.5834 5.6789 5.7677 5.8507 5.9288 6.0027 6.0728 6.1397 6.2038 6.2654 6.3248 6.3821 6.4376 6.4915 6.5439 6.5949 6.6446 6.6932  6.7407 |
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| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.00096045  0.00096145 0.00096262 0.00096394 0.00096540 0.00096700 0.00096871 0.00097055 0.00097250 0.00097457 0.00097674 0.00097901 0.00098139 0.00098387 0.00098645 0.00098913 0.00099191 0.00099479 0.00099776 0.00100082 0.00100399 0.00100725 0.00101060 0.00101405 0.00101760 0.00102125 0.00102499 0.00102883 0.00103277 0.00103681 0.00104096 0.00104521 0.00104956 0.00105402 0.00105859 0.00106327 0.00106806 0.00107297 0.00107799 0.00108314 0.00108841 0.00109934 0.00111081 0.00112285 0.00113550 0.00114879 0.00116278  0.00117751 | -0.10  19.48 39.14 58.85 78.60  98.39  118.22  138.06  157.92  177.80  197.70  217.61  237.52  257.45  277.38  297.32  317.27  337.22  357.17  377.14  397.10  417.08  437.07  457.07  477.07  497.08  517.11  537.15  557.20  577.28  597.36  617.47  637.60  657.75  677.93  698.13  718.34  738.60  758.89  779.21  799.55  840.36  881.32  922.44  963.80  1005.3  1046.9  1088.9 | 86.34  106.01  125.78  145.60  165.49  185.42  205.40  225.41  245.45  265.51  285.61  305.72  325.85  346.00  366.16  386.34  406.54  426.75  446.97  467.21  487.46  507.73  528.02  548.33  568.65  588.99  609.36  629.74  650.15  670.59  691.05  711.54  732.06  752.61  773.20  793.82  814.47  835.17  855.91  876.69  897.51  939.30  981.29  1023.5  1066.0  1108.7  1151.6  1194.9 | -0.00661  0.06477 0.13518 0.20460 0.27302 0.34045 0.40688 0.47235 0.53686 0.60044 0.66309 0.72485 0.78574 0.84577 0.90496  0.96335  1.0209 1.0778 1.1338 1.1892 1.2438 1.2978 1.3511 1.4038 1.4558 1.5072 1.5580 1.6083 1.6580 1.7071 1.7558 1.8039 1.8516 1.8988 1.9455 1.9917 2.0376 2.0830 2.1280 2.1726 2.2169 2.3043 2.3903 2.4750 2.5586 2.6410 2.7224  2.8028 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.00117751 0.00119304 0.00120944 0.00122680 0.00124510 0.00126460 0.00128530 0.00130740 0.00133080 0.00135600 0.00138290 0.00141170 0.00144280 0.00147630 0.00151260 0.00155180 0.00159440 0.00164070 0.00169100 0.00174570 0.00180520 0.00186960 0.00193920 0.00201400 0.00217840 0.00236070 0.00255670 0.00276120 0.00296930 0.00317700 0.00338180 0.00358200 0.00377690 0.00396620 0.00415000 0.00432860 0.00450220 0.00467130 0.00483620 0.00499720 0.00515460 0.00530880 0.00545990 0.00560830 0.00575420 0.00589760 0.00603900 0.00617820  0.00631570 | 1088.9  1131.1  1173.7  1216.4  1259.5  1303.0  1346.7  1390.9  1435.5  1480.6  1526.0  1572.0  1618.6  1665.7  1713.5  1761.8  1810.8  1860.4  1910.7  1961.6  2012.9  2064.7  2116.9  2169.0  2272.7  2374.4  2472.4  2565.6  2653.5  2736.1  2813.7  2886.9  2956.3  3022.3  3085.6  3146.3  3205.2  3262.2  3317.7  3372.2  3425.4  3477.7  3529.3  3580.3  3630.6  3680.4  3729.9  3779.0  3827.8 | 1194.9  1238.5  1282.5  1326.8  1371.6  1416.8  1462.4  1508.6  1555.3  1602.6  1650.5  1699.1  1748.5  1798.6  1849.6  1901.5  1954.3  2008.1  2062.9  2118.7  2175.4  2233.0  2291.4  2350.3  2468.8  2586.9  2702.5  2814.1  2920.7  3022.0  3118.1  3209.3  3296.2  3379.3  3459.1  3535.9  3610.4  3682.6  3753.0  3821.9  3889.3  3955.5  4020.7  4085.0  4148.5  4211.2  4273.4  4335.0  4396.2 | 2.8028 2.8824 2.9612 3.0392 3.1166 3.1934 3.2697 3.3456 3.4212 3.4965 3.5716 3.6466 3.7216 3.7966 3.8718 3.9472 4.0228 4.0988 4.1751 4.2517 4.3286 4.4056 4.4826 4.5592 4.7106 4.8576 4.9981 5.1304 5.2540 5.3687 5.4751 5.5740 5.6661 5.7524 5.8335 5.9102 5.9829 6.0522 6.1184 6.1820 6.2431 6.3021 6.3591 6.4144 6.4680 6.5202 6.5710 6.6206  6.6690 |
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| T | v | u | h | s |  | T | v | u | h | s |
| C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K | C | m**3**/kg | kJ/kg | kJ/kg | kJ/kg K |
| 0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100  105  110  115  120  125  130  135  140  145  150  155  160  165  170  175  180  185  190  195  200  210  220  230  240  250  260  270 | 0.00095668 0.00095776 0.00095900 0.00096037 0.00096188 0.00096351 0.00096525 0.00096711 0.00096907 0.00097114 0.00097330 0.00097557 0.00097794 0.00098040 0.00098295 0.00098560 0.00098835 0.00099118 0.00099411 0.00099713 0.00100024 0.00100344 0.00100673 0.00101012 0.00101360 0.00101717 0.00102083 0.00102459 0.00102844 0.00103239 0.00103643 0.00104058 0.00104482 0.00104916 0.00105361 0.00105816 0.00106282 0.00106758 0.00107246 0.00107745 0.00108256 0.00109313 0.00110420 0.00111579 0.00112795 0.00114069 0.00115407  0.00116812 | -0.27  19.21 38.76 58.37 78.03  97.73  117.45  137.21  156.99  176.79  196.59  216.41  236.24  256.07  275.91  295.77  315.62  335.48  355.34  375.21  395.09  414.97  434.86  454.75  474.65  494.55  514.48  534.41  554.36  574.31  594.29  614.27  634.28  654.31  674.36  694.42  714.52  734.63  754.77  774.95  795.14  835.63  876.26  917.02  958.01  999.03  1040.4  1081.8 | 95.40  114.99  134.66  154.41  174.22  194.08  213.98  233.92  253.90  273.90  293.92  313.97  334.03  354.11  374.21  394.33  414.45  434.60  454.75  474.92  495.11  515.31  535.53  555.76  576.01  596.27  616.56  636.87  657.20  677.55  697.93  718.33  738.76  759.23  779.72  800.24  820.80  841.39  862.02  882.69  903.40  944.94  986.68  1028.6  1070.8  1113.1  1155.8  1198.6 | -0.00851  0.06252 0.13263 0.20176 0.26992 0.33710 0.40331 0.46855 0.53284 0.59620 0.65865 0.72021 0.78089 0.84073 0.89973  0.95792  1.0153 1.0720 1.1279 1.1830 1.2375 1.2913 1.3444 1.3968 1.4487 1.4999 1.5505 1.6006 1.6501 1.6991 1.7475 1.7954 1.8429 1.8898 1.9364 1.9824 2.0280 2.0732 2.1180 2.1624 2.2064 2.2933 2.3788 2.4629 2.5459 2.6277 2.7084  2.7881 | 270  280  290  300  310  320  330  340  350  360  370  380  390  400  410  420  430  440  450  460  470  480  490  500  520  540  560  580  600  620  640  660  680  700  720  740  760  780  800  820  840  860  880  900  920  940  960  980  1000 | 0.00116812 0.00118289 0.00119844 0.00121480 0.00123210 0.00125030 0.00126960 0.00129010 0.00131180 0.00133480 0.00135930 0.00138540 0.00141330 0.00144310 0.00147510 0.00150940 0.00154620 0.00158570 0.00162820 0.00167400 0.00172320 0.00177600 0.00183260 0.00189300 0.00202510 0.00217150 0.00233010 0.00249820 0.00267230 0.00284940 0.00302690 0.00320280 0.00337600 0.00354560 0.00371140 0.00387320 0.00403110 0.00418520 0.00433580 0.00448290 0.00462700 0.00476810 0.00490650 0.00504240 0.00517600 0.00530740 0.00543680 0.00556420  0.00569000 | 1081.8  1123.5  1165.5  1207.6  1250.1  1292.8  1335.8  1379.2  1422.8  1466.8  1511.2  1556.0  1601.2  1646.8  1692.9  1739.5  1786.5  1833.9  1881.9  1930.3  1979.1  2028.1  2077.4  2126.9  2225.6  2323.1  2418.2  2510.0  2597.9  2681.5  2760.8  2836.1  2907.7  2976.1  3041.6  3104.6  3165.4  3224.3  3281.7  3337.7  3392.5  3446.3  3499.3  3551.4  3602.9  3653.8  3704.2  3754.3  3804.0 | 1198.6  1241.8  1285.3  1329.1  1373.3  1417.8  1462.8  1508.2  1554.0  1600.3  1647.1  1694.5  1742.5  1791.1  1840.4  1890.4  1941.1  1992.5  2044.7  2097.7  2151.4  2205.7  2260.7  2316.2  2428.1  2540.2  2651.2  2759.8  2865.1  2966.4  3063.5  3156.4  3245.3  3330.7  3412.7  3491.9  3568.5  3642.8  3715.3  3786.0  3855.2  3923.1  3989.9  4055.6  4120.5  4184.5  4247.9  4310.7  4373.0 | 2.7881 2.8669 2.9448 3.0219 3.0983 3.1740 3.2492 3.3238 3.3979 3.4717 3.5451 3.6182 3.6911 3.7639 3.8365 3.9091 3.9818 4.0544 4.1271 4.1998 4.2725 4.3452 4.4177 4.4900 4.6329 4.7724 4.9073 5.0361 5.1581 5.2728 5.3803 5.4810 5.5753 5.6639 5.7474 5.8263 5.9012 5.9725 6.0406 6.1059 6.1686 6.2291 6.2875 6.3440 6.3988 6.4521 6.5039 6.5545  6.6038 |
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