

| Temperatur [°C] | Druck [bar] | Dichte [kg/m ³] | | Enthalpie [kJ/kg] | | Entropie [J/kg*K] | |
|--------------------|----------------|--------------------------------|-----------|----------------------|-----------|----------------------|-----------|
| | | flüssig | gasförmig | flüssig | gasförmig | flüssig | gasförmig |
| -65,0 | 0,408 | 1572,9 | 2,892 | 124,75 | 297,71 | 0,6882 | 1,5191 |
| -64,0 | 0,432 | 1569,5 | 3,055 | 125,84 | 298,29 | 0,6934 | 1,5179 |
| -63,0 | 0,458 | 1566,0 | 3,226 | 126,92 | 298,87 | 0,6986 | 1,5168 |
| -62,0 | 0,485 | 1562,6 | 3,404 | 128,01 | 299,45 | 0,7037 | 1,5156 |
| -61,0 | 0,514 | 1559,1 | 3,590 | 129,10 | 300,02 | 0,7089 | 1,5145 |
| -60,0 | 0,543 | 1555,7 | 3,783 | 130,19 | 300,60 | 0,7140 | 1,5135 |
| -59,0 | 0,574 | 1552,2 | 3,985 | 131,28 | 301,18 | 0,7191 | 1,5124 |
| -58,0 | 0,607 | 1548,7 | 4,195 | 132,38 | 301,75 | 0,7242 | 1,5114 |
| -57,0 | 0,640 | 1545,2 | 4,414 | 133,48 | 302,33 | 0,7293 | 1,5104 |
| -56,0 | 0,676 | 1541,7 | 4,642 | 134,57 | 302,91 | 0,7343 | 1,5095 |
| -55,0 | 0,713 | 1538,2 | 4,879 | 135,68 | 303,48 | 0,7394 | 1,5086 |
| -54,0 | 0,751 | 1534,7 | 5,126 | 136,78 | 304,06 | 0,7444 | 1,5077 |
| -53,0 | 0,791 | 1531,1 | 5,382 | 137,88 | 304,63 | 0,7494 | 1,5068 |
| -52,0 | 0,833 | 1527,6 | 5,648 | 138,99 | 305,20 | 0,7544 | 1,5060 |
| -51,0 | 0,876 | 1524,0 | 5,924 | 140,10 | 305,78 | 0,7594 | 1,5052 |
| -50,0 | 0,922 | 1520,5 | 6,211 | 141,21 | 306,35 | 0,7644 | 1,5044 |
| -49,0 | 0,969 | 1516,9 | 6,509 | 142,32 | 306,92 | 0,7694 | 1,5037 |
| -48,0 | 1,018 | 1513,3 | 6,818 | 143,44 | 307,49 | 0,7743 | 1,5029 |
| -47,0 | 1,069 | 1509,7 | 7,138 | 144,56 | 308,06 | 0,7792 | 1,5022 |
| -46,0 | 1,121 | 1506,0 | 7,470 | 145,68 | 308,63 | 0,7842 | 1,5016 |
| -45,0 | 1,176 | 1502,4 | 7,814 | 146,80 | 309,20 | 0,7891 | 1,5009 |
| -44,0 | 1,233 | 1498,8 | 8,170 | 147,92 | 309,77 | 0,7940 | 1,5003 |
| -43,0 | 1,292 | 1495,1 | 8,539 | 149,05 | 310,34 | 0,7989 | 1,4997 |
| -42,0 | 1,354 | 1491,4 | 8,921 | 150,18 | 310,90 | 0,8037 | 1,4991 |
| -41,0 | 1,417 | 1487,7 | 9,316 | 151,31 | 311,47 | 0,8086 | 1,4985 |
| -40,0 | 1,483 | 1484,0 | 9,725 | 152,44 | 312,03 | 0,8135 | 1,4980 |
| -39,0 | 1,551 | 1480,3 | 10,15 | 153,58 | 312,60 | 0,8183 | 1,4974 |
| -38,0 | 1,622 | 1476,6 | 10,59 | 154,71 | 313,16 | 0,8231 | 1,4969 |
| -37,0 | 1,695 | 1472,8 | 11,04 | 155,85 | 313,72 | 0,8279 | 1,4964 |
| -36,0 | 1,771 | 1469,1 | 11,50 | 157,00 | 314,28 | 0,8327 | 1,4960 |
| -35,0 | 1,849 | 1465,3 | 11,99 | 158,14 | 314,84 | 0,8375 | 1,4955 |
| -34,0 | 1,930 | 1461,5 | 12,48 | 159,29 | 315,40 | 0,8423 | 1,4951 |
| -33,0 | 2,013 | 1457,7 | 13,00 | 160,44 | 315,95 | 0,8471 | 1,4947 |
| -32,0 | 2,099 | 1453,8 | 13,53 | 161,59 | 316,51 | 0,8519 | 1,4943 |
| -31,0 | 2,189 | 1450,0 | 14,07 | 162,74 | 317,06 | 0,8566 | 1,4939 |
| -30,0 | 2,281 | 1446,1 | 14,64 | 163,90 | 317,61 | 0,8614 | 1,4935 |
| -29,0 | 2,376 | 1442,3 | 15,22 | 165,06 | 318,16 | 0,8661 | 1,4932 |
| -28,0 | 2,474 | 1438,4 | 15,82 | 166,22 | 318,71 | 0,8708 | 1,4928 |
| -27,0 | 2,575 | 1434,4 | 16,44 | 167,39 | 319,25 | 0,8755 | 1,4925 |
| -26,0 | 2,679 | 1430,5 | 17,08 | 168,56 | 319,80 | 0,8802 | 1,4922 |
| -25,0 | 2,786 | 1426,5 | 17,74 | 169,73 | 320,34 | 0,8849 | 1,4919 |

| Temperatur [°C] | Druck [bar] | Dichte [kg/m ³] | | Enthalpie [kJ/kg] | | Entropie [J/kg*K] | |
|--------------------|----------------|--------------------------------|-----------|----------------------|-----------|----------------------|-----------|
| | | flüssig | gasförmig | flüssig | gasförmig | flüssig | gasförmig |
| -24,0 | 2,897 | 1422,6 | 18,41 | 170,90 | 320,88 | 0,8896 | 1,4916 |
| -23,0 | 3,011 | 1418,6 | 19,11 | 172,08 | 321,42 | 0,8943 | 1,4913 |
| -22,0 | 3,128 | 1414,5 | 19,83 | 173,26 | 321,96 | 0,8990 | 1,4911 |
| -21,0 | 3,249 | 1410,5 | 20,57 | 174,44 | 322,50 | 0,9036 | 1,4908 |
| -20,0 | 3,373 | 1406,4 | 21,33 | 175,62 | 323,03 | 0,9083 | 1,4906 |
| -19,0 | 3,501 | 1402,4 | 22,12 | 176,81 | 323,56 | 0,9129 | 1,4903 |
| -18,0 | 3,633 | 1398,3 | 22,92 | 178,00 | 324,09 | 0,9176 | 1,4901 |
| -17,0 | 3,768 | 1394,1 | 23,75 | 179,20 | 324,62 | 0,9222 | 1,4899 |
| -16,0 | 3,907 | 1390,0 | 24,61 | 180,39 | 325,14 | 0,9268 | 1,4897 |
| -15,0 | 4,050 | 1385,8 | 25,49 | 181,59 | 325,67 | 0,9315 | 1,4895 |
| -14,0 | 4,197 | 1381,6 | 26,39 | 182,80 | 326,19 | 0,9361 | 1,4894 |
| -13,0 | 4,348 | 1377,4 | 27,32 | 184,00 | 326,70 | 0,9407 | 1,4892 |
| -12,0 | 4,503 | 1373,1 | 28,28 | 185,21 | 327,22 | 0,9453 | 1,4890 |
| -11,0 | 4,662 | 1368,8 | 29,26 | 186,43 | 327,73 | 0,9499 | 1,4889 |
| -10,0 | 4,825 | 1364,5 | 30,27 | 187,64 | 328,24 | 0,9544 | 1,4887 |
| -9,0 | 4,993 | 1360,2 | 31,31 | 188,86 | 328,75 | 0,9590 | 1,4886 |
| -8,0 | 5,165 | 1355,8 | 32,38 | 190,08 | 329,25 | 0,9636 | 1,4884 |
| -7,0 | 5,341 | 1351,4 | 33,48 | 191,31 | 329,75 | 0,9682 | 1,4883 |
| -6,0 | 5,522 | 1347,0 | 34,61 | 192,54 | 330,25 | 0,9727 | 1,4882 |
| -5,0 | 5,707 | 1342,6 | 35,77 | 193,77 | 330,74 | 0,9773 | 1,4881 |
| -4,0 | 5,897 | 1338,1 | 36,96 | 195,01 | 331,23 | 0,9818 | 1,4879 |
| -3,0 | 6,092 | 1333,6 | 38,19 | 196,25 | 331,72 | 0,9864 | 1,4878 |
| -2,0 | 6,292 | 1329,0 | 39,45 | 197,50 | 332,20 | 0,9909 | 1,4877 |
| -1,0 | 6,496 | 1324,4 | 40,74 | 198,75 | 332,68 | 0,9955 | 1,4876 |
| 0,0 | 6,705 | 1319,8 | 42,07 | 200,00 | 333,16 | 1,0000 | 1,4875 |
| 1,0 | 6,920 | 1315,2 | 43,44 | 201,26 | 333,63 | 1,0045 | 1,4874 |
| 2,0 | 7,139 | 1310,5 | 44,84 | 202,52 | 334,10 | 1,0091 | 1,4873 |
| 3,0 | 7,364 | 1305,7 | 46,28 | 203,78 | 334,56 | 1,0136 | 1,4872 |
| 4,0 | 7,594 | 1301,0 | 47,77 | 205,05 | 335,02 | 1,0181 | 1,4870 |
| 5,0 | 7,829 | 1296,2 | 49,29 | 206,33 | 335,47 | 1,0226 | 1,4869 |
| 6,0 | 8,069 | 1291,3 | 50,86 | 207,60 | 335,92 | 1,0272 | 1,4868 |
| 7,0 | 8,316 | 1286,4 | 52,47 | 208,89 | 336,36 | 1,0317 | 1,4867 |
| 8,0 | 8,567 | 1281,5 | 54,12 | 210,17 | 336,80 | 1,0362 | 1,4866 |
| 9,0 | 8,825 | 1276,5 | 55,82 | 211,47 | 337,23 | 1,0407 | 1,4865 |
| 10,0 | 9,088 | 1271,5 | 57,56 | 212,76 | 337,66 | 1,0452 | 1,4863 |
| 11,0 | 9,356 | 1266,4 | 59,36 | 214,06 | 338,08 | 1,0497 | 1,4862 |
| 12,0 | 9,631 | 1261,3 | 61,20 | 215,37 | 338,50 | 1,0542 | 1,4860 |
| 13,0 | 9,912 | 1256,1 | 63,10 | 216,68 | 338,91 | 1,0588 | 1,4859 |
| 14,0 | 10,20 | 1250,9 | 65,05 | 218,00 | 339,31 | 1,0633 | 1,4857 |
| 15,0 | 10,49 | 1245,6 | 67,05 | 219,32 | 339,71 | 1,0678 | 1,4856 |

| Temperatur [°C] | Druck [bar] | Dichte [kg/m³] | | Enthalpie [kJ/kg] | | Entropie [J/kg*K] | |
|--------------------|----------------|-------------------|-----------|----------------------|-----------|----------------------|-----------|
| | | flüssig | gasförmig | flüssig | gasförmig | flüssig | gasförmig |
| 16,0 | 10,79 | 1240,3 | 69,12 | 220,65 | 340,09 | 1,0723 | 1,4854 |
| 17,0 | 11,10 | 1234,9 | 71,24 | 221,98 | 340,48 | 1,0768 | 1,4852 |
| 18,0 | 11,41 | 1229,4 | 73,42 | 223,32 | 340,85 | 1,0813 | 1,4850 |
| 19,0 | 11,73 | 1223,9 | 75,66 | 224,67 | 341,22 | 1,0859 | 1,4848 |
| 20,0 | 12,05 | 1218,3 | 77,97 | 226,02 | 341,58 | 1,0904 | 1,4846 |
| 21,0 | 12,38 | 1212,7 | 80,34 | 227,38 | 341,94 | 1,0949 | 1,4844 |
| 22,0 | 12,72 | 1206,9 | 82,78 | 228,74 | 342,28 | 1,0995 | 1,4842 |
| 23,0 | 13,07 | 1201,2 | 85,30 | 230,11 | 342,62 | 1,1040 | 1,4839 |
| 24,0 | 13,42 | 1195,3 | 87,89 | 231,49 | 342,94 | 1,1085 | 1,4836 |
| 25,0 | 13,78 | 1189,4 | 90,56 | 232,87 | 343,26 | 1,1131 | 1,4834 |
| 26,0 | 14,15 | 1183,3 | 93,31 | 234,26 | 343,57 | 1,1176 | 1,4831 |
| 27,0 | 14,52 | 1177,2 | 96,14 | 235,66 | 343,87 | 1,1222 | 1,4827 |
| 28,0 | 14,90 | 1171,0 | 99,06 | 237,07 | 344,16 | 1,1268 | 1,4824 |
| 29,0 | 15,29 | 1164,8 | 102,1 | 238,48 | 344,44 | 1,1314 | 1,4820 |
| 30,0 | 15,69 | 1158,4 | 105,2 | 239,91 | 344,71 | 1,1359 | 1,4817 |
| 31,0 | 16,09 | 1151,9 | 108,4 | 241,34 | 344,97 | 1,1405 | 1,4813 |
| 32,0 | 16,50 | 1145,4 | 111,7 | 242,78 | 345,22 | 1,1452 | 1,4809 |
| 33,0 | 16,92 | 1138,7 | 115,1 | 244,23 | 345,45 | 1,1498 | 1,4804 |
| 34,0 | 17,35 | 1131,9 | 118,6 | 245,69 | 345,67 | 1,1544 | 1,4799 |
| 35,0 | 17,78 | 1125,0 | 122,3 | 247,16 | 345,88 | 1,1591 | 1,4794 |
| 36,0 | 18,23 | 1117,9 | 126,0 | 248,64 | 346,07 | 1,1637 | 1,4789 |
| 37,0 | 18,68 | 1110,8 | 130,0 | 250,13 | 346,25 | 1,1684 | 1,4783 |
| 38,0 | 19,14 | 1103,5 | 134,0 | 251,63 | 346,41 | 1,1731 | 1,4778 |
| 39,0 | 19,61 | 1096,0 | 138,2 | 253,14 | 346,56 | 1,1778 | 1,4771 |
| 40,0 | 20,09 | 1088,4 | 142,5 | 254,67 | 346,69 | 1,1826 | 1,4764 |
| 41,0 | 20,57 | 1080,6 | 147,0 | 256,21 | 346,80 | 1,1874 | 1,4757 |
| 42,0 | 21,07 | 1072,7 | 151,7 | 257,76 | 346,90 | 1,1921 | 1,4750 |
| 43,0 | 21,57 | 1064,6 | 156,6 | 259,33 | 346,97 | 1,1970 | 1,4742 |
| 44,0 | 22,08 | 1056,2 | 161,7 | 260,92 | 347,02 | 1,2018 | 1,4733 |
| 45,0 | 22,61 | 1047,7 | 167,0 | 262,52 | 347,05 | 1,2067 | 1,4724 |
| 46,0 | 23,14 | 1038,9 | 172,5 | 264,14 | 347,05 | 1,2116 | 1,4714 |
| 47,0 | 23,68 | 1029,9 | 178,3 | 265,78 | 347,02 | 1,2166 | 1,4704 |
| 48,0 | 24,23 | 1020,6 | 184,3 | 267,44 | 346,96 | 1,2216 | 1,4692 |
| 49,0 | 24,80 | 1011,0 | 190,6 | 269,12 | 346,88 | 1,2267 | 1,4680 |
| 50,0 | 25,37 | 1001,1 | 197,3 | 270,83 | 346,75 | 1,2318 | 1,4667 |
| 51,0 | 25,95 | 990,84 | 204,3 | 272,56 | 346,59 | 1,2369 | 1,4653 |
| 52,0 | 26,54 | 980,19 | 211,7 | 274,32 | 346,38 | 1,2422 | 1,4638 |
| 53,0 | 27,15 | 969,09 | 219,6 | 276,12 | 346,13 | 1,2475 | 1,4622 |
| 54,0 | 27,76 | 957,51 | 228,0 | 277,95 | 345,82 | 1,2529 | 1,4604 |
| 55,0 | 28,39 | 945,35 | 236,9 | 279,83 | 345,44 | 1,2585 | 1,4584 |

| Temperatur [°C] | Druck [bar] | Dichte [kg/m³] | | Enthalpie [kJ/kg] | | Entropie [J/kg*K] | |
|--------------------|----------------|-------------------|-----------|----------------------|-----------|----------------------|-----------|
| | | flüssig | gasförmig | flüssig | gasförmig | flüssig | gasförmig |
| 56,0 | 29,03 | 932,56 | 246,5 | 281,75 | 345,00 | 1,2641 | 1,4563 |
| 57,0 | 29,68 | 919,00 | 256,9 | 283,73 | 344,47 | 1,2699 | 1,4539 |
| 58,0 | 30,34 | 904,54 | 268,2 | 285,77 | 343,85 | 1,2758 | 1,4512 |
| 59,0 | 31,01 | 889,00 | 280,6 | 287,88 | 343,10 | 1,2820 | 1,4482 |
| 60,0 | 31,70 | 872,09 | 294,4 | 290,10 | 342,21 | 1,2884 | 1,4448 |
| 61,0 | 32,41 | 853,43 | 310,0 | 292,44 | 341,13 | 1,2952 | 1,4409 |
| 62,0 | 33,12 | 832,38 | 328,0 | 294,95 | 339,79 | 1,3024 | 1,4362 |
| 63,0 | 33,85 | 807,84 | 349,5 | 297,70 | 338,08 | 1,3104 | 1,4305 |
| 64,0 | 34,60 | 777,55 | 376,9 | 300,86 | 335,77 | 1,3195 | 1,4230 |
| 65,0 | 35,37 | 735,11 | 416,6 | 304,88 | 332,24 | 1,3311 | 1,4120 |
| 66,0 | 36,16 | 612,97 | 534,6 | 314,86 | 321,41 | 1,3602 | 1,3795 |

Berechnet mit Refprop Version 10.0

Eine Garantie, Gewährleistung oder Haftung für die Richtigkeit, Vollständigkeit und Aktualität der zur Verfügung gestellten Inhalte und Informationen kann nicht übernommen werden.

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