

R 422D



| Temperatur [°C] | Druck [bar] | | Dichte [kg/m³] | | Enthalpie [kJ/kg] | | Entropie [J/kg*K] | |
|--------------------|----------------|-----------|-------------------|-----------|----------------------|-----------|----------------------|-----------|
| | flüssig | gasförmig | flüssig | gasförmig | flüssig | gasförmig | flüssig | gasförmig |
| -30,000 | 1,8182 | 1,4961 | 1358,4 | 8,6097 | 161,74 | 340,73 | 0,85281 | 1,5968 |
| -29,000 | 1,8950 | 1,5642 | 1355,0 | 8,9815 | 162,98 | 341,33 | 0,85786 | 1,5961 |
| -28,000 | 1,9742 | 1,6348 | 1351,7 | 9,3658 | 164,22 | 341,93 | 0,86290 | 1,5954 |
| -27,000 | 2,0560 | 1,7078 | 1348,3 | 9,7629 | 165,46 | 342,53 | 0,86793 | 1,5947 |
| -26,000 | 2,1404 | 1,7833 | 1344,9 | 10,173 | 166,71 | 343,12 | 0,87295 | 1,5941 |
| -25,000 | 2,2274 | 1,8613 | 1341,5 | 10,597 | 167,95 | 343,72 | 0,87795 | 1,5934 |
| -24,000 | 2,3172 | 1,9420 | 1338,0 | 11,034 | 169,20 | 344,32 | 0,88295 | 1,5928 |
| -23,000 | 2,4097 | 2,0253 | 1334,6 | 11,485 | 170,45 | 344,91 | 0,88793 | 1,5922 |
| -22,000 | 2,5050 | 2,1114 | 1331,1 | 11,951 | 171,71 | 345,50 | 0,89290 | 1,5917 |
| -21,000 | 2,6032 | 2,2002 | 1327,6 | 12,432 | 172,96 | 346,09 | 0,89787 | 1,5911 |
| -20,000 | 2,7043 | 2,2919 | 1324,2 | 12,927 | 174,22 | 346,68 | 0,90282 | 1,5906 |
| -19,000 | 2,8084 | 2,3865 | 1320,6 | 13,438 | 175,48 | 347,26 | 0,90776 | 1,5900 |
| -18,000 | 2,9155 | 2,4841 | 1317,1 | 13,965 | 176,75 | 347,85 | 0,91269 | 1,5895 |
| -17,000 | 3,0257 | 2,5847 | 1313,6 | 14,508 | 178,01 | 348,43 | 0,91761 | 1,5891 |
| -16,000 | 3,1391 | 2,6884 | 1310,0 | 15,067 | 179,28 | 349,01 | 0,92253 | 1,5886 |
| -15,000 | 3,2557 | 2,7953 | 1306,4 | 15,644 | 180,55 | 349,59 | 0,92743 | 1,5881 |
| -14,000 | 3,3756 | 2,9053 | 1302,9 | 16,237 | 181,83 | 350,16 | 0,93232 | 1,5877 |
| -13,000 | 3,4988 | 3,0187 | 1299,2 | 16,849 | 183,11 | 350,74 | 0,93721 | 1,5873 |
| -12,000 | 3,6254 | 3,1354 | 1295,6 | 17,478 | 184,39 | 351,31 | 0,94209 | 1,5868 |
| -11,000 | 3,7554 | 3,2555 | 1292,0 | 18,127 | 185,67 | 351,88 | 0,94695 | 1,5864 |
| -10,000 | 3,8890 | 3,3790 | 1288,3 | 18,794 | 186,96 | 352,45 | 0,95181 | 1,5861 |
| -9,0000 | 4,0261 | 3,5061 | 1284,6 | 19,480 | 188,25 | 353,01 | 0,95666 | 1,5857 |
| -8,0000 | 4,1669 | 3,6368 | 1280,9 | 20,187 | 189,54 | 353,57 | 0,96151 | 1,5853 |
| -7,0000 | 4,3114 | 3,7712 | 1277,2 | 20,914 | 190,84 | 354,13 | 0,96634 | 1,5850 |
| -6,0000 | 4,4596 | 3,9093 | 1273,4 | 21,661 | 192,14 | 354,69 | 0,97117 | 1,5846 |
| -5,0000 | 4,6116 | 4,0512 | 1269,7 | 22,430 | 193,44 | 355,25 | 0,97599 | 1,5843 |
| -4,0000 | 4,7676 | 4,1969 | 1265,9 | 23,221 | 194,74 | 355,80 | 0,98081 | 1,5840 |
| -3,0000 | 4,9275 | 4,3466 | 1262,1 | 24,034 | 196,05 | 356,35 | 0,98562 | 1,5837 |
| -2,0000 | 5,0914 | 4,5003 | 1258,2 | 24,870 | 197,36 | 356,90 | 0,99042 | 1,5834 |
| -1,0000 | 5,2593 | 4,6580 | 1254,4 | 25,729 | 198,68 | 357,44 | 0,99521 | 1,5831 |
| 0,00000 | 5,4315 | 4,8199 | 1250,5 | 26,613 | 200,00 | 357,98 | 1,0000 | 1,5828 |
| 1,0000 | 5,6078 | 4,9860 | 1246,6 | 27,521 | 201,32 | 358,52 | 1,0048 | 1,5825 |
| 2,0000 | 5,7884 | 5,1564 | 1242,7 | 28,454 | 202,65 | 359,05 | 1,0096 | 1,5822 |
| 3,0000 | 5,9733 | 5,3311 | 1238,7 | 29,413 | 203,98 | 359,58 | 1,0143 | 1,5820 |
| 4,0000 | 6,1627 | 5,5102 | 1234,7 | 30,398 | 205,31 | 360,11 | 1,0191 | 1,5817 |
| 5,0000 | 6,3565 | 5,6938 | 1230,7 | 31,410 | 206,65 | 360,63 | 1,0239 | 1,5814 |
| 6,0000 | 6,5549 | 5,8820 | 1226,7 | 32,450 | 207,99 | 361,15 | 1,0286 | 1,5812 |
| 7,0000 | 6,7578 | 6,0748 | 1222,6 | 33,519 | 209,34 | 361,67 | 1,0334 | 1,5809 |
| 8,0000 | 6,9655 | 6,2723 | 1218,5 | 34,617 | 210,69 | 362,18 | 1,0381 | 1,5807 |
| 9,0000 | 7,1779 | 6,4746 | 1214,4 | 35,744 | 212,04 | 362,69 | 1,0429 | 1,5805 |
| 10,000 | 7,3951 | 6,6818 | 1210,2 | 36,902 | 213,40 | 363,19 | 1,0476 | 1,5802 |
| 11,000 | 7,6172 | 6,8939 | 1206,0 | 38,092 | 214,76 | 363,69 | 1,0523 | 1,5800 |
| 12,000 | 7,8442 | 7,1110 | 1201,8 | 39,314 | 216,13 | 364,19 | 1,0571 | 1,5798 |
| 13,000 | 8,0763 | 7,3331 | 1197,5 | 40,569 | 217,50 | 364,68 | 1,0618 | 1,5795 |
| 14,000 | 8,3134 | 7,5605 | 1193,2 | 41,859 | 218,87 | 365,17 | 1,0665 | 1,5793 |

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|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 15,000 | 8,5557 | 7,7930 | 1188,9 | 43,183 | 220,25 | 365,65 | 1,0713 | 1,5791 |
| 16,000 | 8,8033 | 8,0309 | 1184,5 | 44,543 | 221,64 | 366,12 | 1,0760 | 1,5789 |
| 17,000 | 9,0561 | 8,2742 | 1180,1 | 45,940 | 223,03 | 366,60 | 1,0807 | 1,5786 |
| 18,000 | 9,3144 | 8,5229 | 1175,7 | 47,376 | 224,42 | 367,06 | 1,0854 | 1,5784 |
| 19,000 | 9,5781 | 8,7772 | 1171,2 | 48,850 | 225,82 | 367,52 | 1,0901 | 1,5782 |
| 20,000 | 9,8473 | 9,0371 | 1166,7 | 50,364 | 227,23 | 367,98 | 1,0949 | 1,5779 |
| 21,000 | 10,122 | 9,3027 | 1162,1 | 51,920 | 228,63 | 368,43 | 1,0996 | 1,5777 |
| 22,000 | 10,403 | 9,5742 | 1157,5 | 53,518 | 230,05 | 368,87 | 1,1043 | 1,5774 |
| 23,000 | 10,689 | 9,8515 | 1152,9 | 55,160 | 231,47 | 369,31 | 1,1090 | 1,5772 |
| 24,000 | 10,981 | 10,135 | 1148,2 | 56,848 | 232,90 | 369,74 | 1,1137 | 1,5769 |
| 25,000 | 11,279 | 10,424 | 1143,4 | 58,582 | 234,33 | 370,16 | 1,1185 | 1,5767 |
| 26,000 | 11,583 | 10,719 | 1138,6 | 60,364 | 235,76 | 370,58 | 1,1232 | 1,5764 |
| 27,000 | 11,893 | 11,021 | 1133,8 | 62,196 | 237,21 | 370,99 | 1,1279 | 1,5761 |
| 28,000 | 12,209 | 11,329 | 1128,9 | 64,078 | 238,66 | 371,39 | 1,1326 | 1,5759 |
| 29,000 | 12,532 | 11,644 | 1124,0 | 66,014 | 240,11 | 371,78 | 1,1374 | 1,5756 |
| 30,000 | 12,860 | 11,964 | 1119,0 | 68,004 | 241,57 | 372,17 | 1,1421 | 1,5753 |
| 31,000 | 13,195 | 12,292 | 1113,9 | 70,051 | 243,04 | 372,55 | 1,1468 | 1,5749 |
| 32,000 | 13,537 | 12,626 | 1108,8 | 72,157 | 244,52 | 372,92 | 1,1516 | 1,5746 |
| 33,000 | 13,885 | 12,967 | 1103,6 | 74,323 | 246,00 | 373,29 | 1,1563 | 1,5743 |
| 34,000 | 14,240 | 13,314 | 1098,3 | 76,551 | 247,49 | 373,64 | 1,1611 | 1,5739 |
| 35,000 | 14,601 | 13,669 | 1093,0 | 78,845 | 248,99 | 373,98 | 1,1658 | 1,5736 |
| 36,000 | 14,970 | 14,031 | 1087,6 | 81,206 | 250,49 | 374,32 | 1,1706 | 1,5732 |
| 37,000 | 15,345 | 14,400 | 1082,2 | 83,638 | 252,01 | 374,65 | 1,1754 | 1,5728 |
| 38,000 | 15,727 | 14,776 | 1076,6 | 86,142 | 253,53 | 374,96 | 1,1802 | 1,5724 |
| 39,000 | 16,116 | 15,159 | 1071,0 | 88,722 | 255,06 | 375,27 | 1,1850 | 1,5720 |
| 40,000 | 16,512 | 15,550 | 1065,3 | 91,381 | 256,59 | 375,56 | 1,1898 | 1,5715 |
| 41,000 | 16,916 | 15,949 | 1059,5 | 94,122 | 258,14 | 375,84 | 1,1946 | 1,5710 |
| 42,000 | 17,327 | 16,355 | 1053,7 | 96,949 | 259,70 | 376,11 | 1,1994 | 1,5706 |
| 43,000 | 17,745 | 16,769 | 1047,7 | 99,866 | 261,26 | 376,37 | 1,2042 | 1,5700 |
| 44,000 | 18,171 | 17,191 | 1041,7 | 102,88 | 262,84 | 376,62 | 1,2091 | 1,5695 |
| 45,000 | 18,604 | 17,621 | 1035,5 | 105,98 | 264,43 | 376,85 | 1,2139 | 1,5689 |
| 46,000 | 19,045 | 18,058 | 1029,2 | 109,20 | 266,03 | 377,07 | 1,2188 | 1,5683 |
| 47,000 | 19,494 | 18,505 | 1022,9 | 112,52 | 267,63 | 377,27 | 1,2237 | 1,5677 |
| 48,000 | 19,951 | 18,959 | 1016,4 | 115,95 | 269,26 | 377,45 | 1,2286 | 1,5671 |
| 49,000 | 20,416 | 19,422 | 1009,8 | 119,50 | 270,89 | 377,63 | 1,2336 | 1,5664 |
| 50,000 | 20,889 | 19,894 | 1003,0 | 123,18 | 272,54 | 377,78 | 1,2385 | 1,5656 |
| 51,000 | 21,370 | 20,375 | 996,11 | 127,00 | 274,20 | 377,91 | 1,2435 | 1,5649 |
| 52,000 | 21,860 | 20,864 | 989,08 | 130,95 | 275,87 | 378,03 | 1,2485 | 1,5641 |
| 53,000 | 22,358 | 21,363 | 981,88 | 135,06 | 277,56 | 378,13 | 1,2536 | 1,5632 |
| 54,000 | 22,864 | 21,870 | 974,52 | 139,32 | 279,27 | 378,20 | 1,2586 | 1,5623 |
| 55,000 | 23,379 | 22,387 | 966,98 | 143,76 | 280,99 | 378,25 | 1,2637 | 1,5613 |
| 56,000 | 23,903 | 22,914 | 959,25 | 148,38 | 282,73 | 378,28 | 1,2689 | 1,5603 |
| 57,000 | 24,436 | 23,450 | 951,32 | 153,19 | 284,49 | 378,28 | 1,2740 | 1,5592 |
| 58,000 | 24,978 | 23,996 | 943,16 | 158,22 | 286,28 | 378,25 | 1,2792 | 1,5581 |
| 59,000 | 25,529 | 24,553 | 934,76 | 163,47 | 288,08 | 378,19 | 1,2845 | 1,5569 |
| 60,000 | 26,090 | 25,119 | 926,11 | 168,97 | 289,91 | 378,10 | 1,2898 | 1,5556 |
| 61,000 | 26,660 | 25,696 | 917,17 | 174,74 | 291,76 | 377,97 | 1,2952 | 1,5542 |
| 62,000 | 27,239 | 26,284 | 907,92 | 180,80 | 293,65 | 377,80 | 1,3006 | 1,5527 |

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|---------------|--------|--------|--------|--------|--------|--------|--------|--------|
| 63,000 | 27,828 | 26,883 | 898,33 | 187,19 | 295,56 | 377,59 | 1,3061 | 1,5511 |
| 64,000 | 28,428 | 27,493 | 888,36 | 193,94 | 297,51 | 377,33 | 1,3117 | 1,5494 |
| 65,000 | 29,037 | 28,115 | 877,96 | 201,09 | 299,49 | 377,02 | 1,3174 | 1,5475 |
| 66,000 | 29,656 | 28,749 | 867,08 | 208,69 | 301,52 | 376,64 | 1,3232 | 1,5455 |
| 67,000 | 30,286 | 29,395 | 855,66 | 216,80 | 303,60 | 376,20 | 1,3291 | 1,5433 |
| 68,000 | 30,926 | 30,053 | 843,61 | 225,50 | 305,73 | 375,69 | 1,3351 | 1,5409 |
| 69,000 | 31,577 | 30,725 | 830,83 | 234,89 | 307,93 | 375,08 | 1,3413 | 1,5383 |
| 70,000 | 32,238 | 31,411 | 817,17 | 245,08 | 310,20 | 374,37 | 1,3477 | 1,5354 |

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