

# R 438A



Temperatur [°C]	Druck [bar]		Dichte [kg/m³]		Enthalpie [kJ/kg]		Entropie [J/kg*K]	
	flüssig	gasförmig	flüssig	gasförmig	flüssig	gasförmig	flüssig	gasförmig
-30,000	1,7593	1,3520	1351,8	6,9799	161,55	365,29	0,94101	1,7898
-29,000	1,8347	1,4147	1348,5	7,2859	162,84	365,89	0,94626	1,7887
-28,000	1,9126	1,4796	1345,3	7,6023	164,13	366,48	0,95150	1,7875
-27,000	1,9930	1,5469	1342,0	7,9294	165,42	367,08	0,95672	1,7864
-26,000	2,0760	1,6165	1338,7	8,2675	166,71	367,67	0,96193	1,7854
-25,000	2,1617	1,6886	1335,4	8,6169	168,00	368,26	0,96713	1,7843
-24,000	2,2500	1,7631	1332,1	8,9778	169,30	368,85	0,97232	1,7833
-23,000	2,3412	1,8402	1328,8	9,3506	170,59	369,44	0,97749	1,7822
-22,000	2,4351	1,9199	1325,4	9,7354	171,89	370,02	0,98265	1,7812
-21,000	2,5319	2,0022	1322,1	10,133	173,20	370,61	0,98780	1,7803
-20,000	2,6317	2,0873	1318,7	10,543	174,50	371,19	0,99293	1,7793
-19,000	2,7344	2,1751	1315,3	10,965	175,81	371,77	0,99806	1,7784
-18,000	2,8402	2,2657	1312,0	11,402	177,12	372,35	1,0032	1,7775
-17,000	2,9491	2,3593	1308,6	11,851	178,43	372,92	1,0083	1,7766
-16,000	3,0612	2,4558	1305,1	12,315	179,75	373,50	1,0134	1,7757
-15,000	3,1765	2,5553	1301,7	12,793	181,07	374,07	1,0185	1,7748
-14,000	3,2951	2,6580	1298,2	13,286	182,39	374,64	1,0235	1,7740
-13,000	3,4171	2,7637	1294,8	13,793	183,71	375,21	1,0286	1,7732
-12,000	3,5424	2,8727	1291,3	14,316	185,04	375,77	1,0336	1,7724
-11,000	3,6712	2,9850	1287,8	14,854	186,37	376,33	1,0387	1,7716
-10,000	3,8036	3,1006	1284,3	15,409	187,70	376,89	1,0437	1,7708
-9,0000	3,9395	3,2196	1280,7	15,980	189,03	377,45	1,0487	1,7700
-8,0000	4,0792	3,3421	1277,2	16,567	190,37	378,01	1,0537	1,7693
-7,0000	4,2225	3,4681	1273,6	17,172	191,71	378,56	1,0587	1,7686
-6,0000	4,3696	3,5978	1270,0	17,794	193,06	379,11	1,0637	1,7678
-5,0000	4,5206	3,7311	1266,4	18,434	194,40	379,66	1,0687	1,7671
-4,0000	4,6755	3,8682	1262,8	19,093	195,75	380,20	1,0737	1,7664
-3,0000	4,8343	4,0090	1259,2	19,770	197,11	380,74	1,0787	1,7658
-2,0000	4,9972	4,1538	1255,5	20,466	198,46	381,28	1,0836	1,7651
-1,0000	5,1642	4,3025	1251,8	21,183	199,82	381,81	1,0886	1,7644
0,00000	5,3354	4,4552	1248,1	21,919	201,19	382,35	1,0936	1,7638
1,0000	5,5108	4,6121	1244,4	22,676	202,55	382,88	1,0985	1,7631
2,0000	5,6906	4,7731	1240,6	23,454	203,92	383,40	1,1034	1,7625
3,0000	5,8747	4,9383	1236,8	24,253	205,30	383,92	1,1084	1,7619
4,0000	6,0632	5,1079	1233,0	25,075	206,67	384,44	1,1133	1,7613
5,0000	6,2562	5,2818	1229,2	25,919	208,05	384,96	1,1182	1,7607
6,0000	6,4539	5,4602	1225,4	26,787	209,44	385,47	1,1231	1,7601
7,0000	6,6561	5,6432	1221,5	27,678	210,83	385,98	1,1280	1,7595
8,0000	6,8631	5,8307	1217,6	28,594	212,22	386,48	1,1329	1,7589
9,0000	7,0748	6,0230	1213,7	29,534	213,62	386,98	1,1378	1,7584
10,000	7,2914	6,2200	1209,7	30,501	215,02	387,48	1,1427	1,7578
11,000	7,5130	6,4218	1205,8	31,493	216,42	387,97	1,1476	1,7572
12,000	7,7395	6,6286	1201,8	32,512	217,83	388,46	1,1525	1,7567
13,000	7,9710	6,8404	1197,7	33,559	219,24	388,94	1,1573	1,7561
14,000	8,2077	7,0572	1193,7	34,634	220,66	389,42	1,1622	1,7556

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15,000	8,4496	7,2792	1189,6	35,737	222,08	389,89	1,1671	1,7550
16,000	8,6968	7,5065	1185,5	36,871	223,51	390,36	1,1720	1,7545
17,000	8,9493	7,7390	1181,3	38,035	224,94	390,83	1,1768	1,7539
18,000	9,2073	7,9770	1177,1	39,230	226,37	391,28	1,1817	1,7534
19,000	9,4707	8,2205	1172,9	40,458	227,81	391,74	1,1865	1,7529
20,000	9,7397	8,4695	1168,6	41,718	229,26	392,19	1,1914	1,7523
21,000	10,014	8,7242	1164,3	43,012	230,70	392,63	1,1963	1,7518
22,000	10,295	8,9846	1160,0	44,341	232,16	393,07	1,2011	1,7512
23,000	10,581	9,2509	1155,6	45,706	233,62	393,50	1,2060	1,7507
24,000	10,873	9,5230	1151,2	47,108	235,08	393,92	1,2108	1,7502
25,000	11,171	9,8012	1146,8	48,548	236,56	394,34	1,2157	1,7496
26,000	11,475	10,085	1142,3	50,026	238,03	394,76	1,2205	1,7491
27,000	11,785	10,376	1137,8	51,545	239,51	395,16	1,2254	1,7485
28,000	12,101	10,673	1133,2	53,105	241,00	395,56	1,2302	1,7479
29,000	12,423	10,976	1128,6	54,707	242,49	395,95	1,2351	1,7474
30,000	12,752	11,285	1123,9	56,354	243,99	396,34	1,2400	1,7468
31,000	13,087	11,601	1119,2	58,045	245,50	396,71	1,2448	1,7462
32,000	13,429	11,924	1114,5	59,783	247,01	397,08	1,2497	1,7456
33,000	13,777	12,254	1109,7	61,570	248,53	397,45	1,2546	1,7451
34,000	14,132	12,590	1104,8	63,406	250,06	397,80	1,2594	1,7445
35,000	14,493	12,933	1099,9	65,294	251,59	398,15	1,2643	1,7438
36,000	14,861	13,284	1094,9	67,234	253,13	398,48	1,2692	1,7432
37,000	15,236	13,641	1089,9	69,230	254,67	398,81	1,2741	1,7426
38,000	15,619	14,006	1084,8	71,283	256,23	399,13	1,2789	1,7419
39,000	16,008	14,378	1079,7	73,394	257,79	399,44	1,2838	1,7413
40,000	16,404	14,758	1074,5	75,567	259,36	399,73	1,2887	1,7406
41,000	16,808	15,145	1069,2	77,803	260,94	400,02	1,2937	1,7399
42,000	17,218	15,540	1063,9	80,105	262,52	400,30	1,2986	1,7392
43,000	17,636	15,942	1058,4	82,475	264,12	400,57	1,3035	1,7385
44,000	18,062	16,353	1052,9	84,917	265,72	400,82	1,3084	1,7377
45,000	18,495	16,772	1047,4	87,432	267,34	401,06	1,3134	1,7370
46,000	18,936	17,199	1041,7	90,024	268,96	401,29	1,3183	1,7362
47,000	19,385	17,634	1036,0	92,697	270,59	401,51	1,3233	1,7354
48,000	19,841	18,077	1030,2	95,454	272,23	401,72	1,3283	1,7345
49,000	20,305	18,529	1024,3	98,299	273,89	401,90	1,3333	1,7337
50,000	20,778	18,990	1018,3	101,24	275,55	402,08	1,3383	1,7328
51,000	21,258	19,460	1012,1	104,27	277,23	402,24	1,3434	1,7319
52,000	21,747	19,938	1005,9	107,40	278,92	402,38	1,3484	1,7309
53,000	22,243	20,426	999,60	110,64	280,62	402,51	1,3535	1,7299
54,000	22,749	20,923	993,15	113,99	282,33	402,62	1,3586	1,7289
55,000	23,262	21,429	986,58	117,46	284,06	402,71	1,3637	1,7278
56,000	23,785	21,945	979,88	121,06	285,80	402,78	1,3688	1,7267
57,000	24,316	22,471	973,03	124,78	287,56	402,83	1,3740	1,7256
58,000	24,856	23,006	966,04	128,65	289,34	402,85	1,3792	1,7244
59,000	25,404	23,552	958,89	132,66	291,13	402,86	1,3844	1,7231
60,000	25,962	24,108	951,57	136,83	292,94	402,84	1,3897	1,7218
61,000	26,529	24,674	944,07	141,18	294,77	402,79	1,3950	1,7205
62,000	27,105	25,251	936,38	145,70	296,62	402,71	1,4003	1,7191

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63,000	27,690	25,840	928,47	150,41	298,49	402,61	1,4057	1,7176
64,000	28,285	26,439	920,33	155,34	300,39	402,47	1,4112	1,7160
65,000	28,889	27,050	911,95	160,49	302,31	402,29	1,4167	1,7143
66,000	29,503	27,672	903,29	165,89	304,26	402,08	1,4222	1,7126
67,000	30,127	28,306	894,34	171,55	306,24	401,83	1,4279	1,7107
68,000	30,760	28,953	885,05	177,51	308,25	401,53	1,4336	1,7087
69,000	31,404	29,613	875,40	183,80	310,30	401,18	1,4394	1,7066
70,000	32,057	30,285	865,34	190,45	312,40	400,78	1,4452	1,7044
71,000	32,721	30,971	854,83	197,50	314,53	400,31	1,4512	1,7020
72,000	33,395	31,671	843,79	205,00	316,72	399,77	1,4574	1,6995
73,000	34,078	32,385	832,15	213,03	318,97	399,16	1,4636	1,6967
74,000	34,773	33,115	819,81	221,65	321,29	398,45	1,4701	1,6937
75,000	35,477	33,860	806,65	230,96	323,69	397,64	1,4767	1,6904
76,000	36,192	34,622	792,51	241,11	326,18	396,71	1,4836	1,6868
77,000	36,916	35,402	777,15	252,26	328,79	395,63	1,4908	1,6828
78,000	37,650	36,202	760,28	264,67	331,55	394,36	1,4984	1,6783
79,000	38,392	37,023	741,39	278,69	334,51	392,86	1,5065	1,6732
80,000	39,142	37,867	719,72	294,90	337,74	391,03	1,5154	1,6672

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