

R 417A



Temperatur [°C]	Druck [bar]		Dichte [kg/m³]		Enthalpie [kJ/kg]		Entropie [J/kg*K]	
	flüssig	gasförmig	flüssig	gasförmig	flüssig	gasförmig	flüssig	gasförmig
-30,000	1,5171	1,2263	1352,2	6,8024	161,11	353,05	0,85020	1,6475
-29,000	1,5828	1,2835	1349,0	7,1024	162,37	353,67	0,85535	1,6467
-28,000	1,6508	1,3429	1345,7	7,4127	163,63	354,29	0,86050	1,6459
-27,000	1,7209	1,4043	1342,5	7,7336	164,90	354,90	0,86563	1,6451
-26,000	1,7934	1,4680	1339,3	8,0652	166,17	355,52	0,87074	1,6443
-25,000	1,8682	1,5338	1336,1	8,4080	167,44	356,13	0,87585	1,6436
-24,000	1,9455	1,6020	1332,8	8,7622	168,71	356,75	0,88094	1,6429
-23,000	2,0251	1,6724	1329,5	9,1279	169,98	357,36	0,88602	1,6421
-22,000	2,1073	1,7453	1326,3	9,5056	171,26	357,97	0,89109	1,6415
-21,000	2,1920	1,8206	1323,0	9,8955	172,54	358,58	0,89614	1,6408
-20,000	2,2794	1,8984	1319,7	10,298	173,82	359,18	0,90119	1,6401
-19,000	2,3694	1,9787	1316,3	10,713	175,10	359,79	0,90622	1,6395
-18,000	2,4621	2,0617	1313,0	11,141	176,39	360,39	0,91125	1,6389
-17,000	2,5575	2,1473	1309,7	11,583	177,68	360,99	0,91626	1,6383
-16,000	2,6558	2,2357	1306,3	12,038	178,97	361,59	0,92126	1,6377
-15,000	2,7570	2,3268	1302,9	12,508	180,26	362,19	0,92625	1,6372
-14,000	2,8611	2,4208	1299,5	12,991	181,56	362,79	0,93123	1,6366
-13,000	2,9681	2,5176	1296,1	13,490	182,86	363,39	0,93620	1,6361
-12,000	3,0782	2,6174	1292,7	14,003	184,16	363,98	0,94116	1,6356
-11,000	3,1915	2,7202	1289,3	14,532	185,46	364,57	0,94611	1,6351
-10,000	3,3078	2,8261	1285,8	15,076	186,77	365,16	0,95106	1,6346
-9,0000	3,4274	2,9351	1282,3	15,637	188,08	365,75	0,95599	1,6342
-8,0000	3,5502	3,0473	1278,9	16,214	189,39	366,33	0,96091	1,6337
-7,0000	3,6764	3,1628	1275,4	16,807	190,71	366,91	0,96583	1,6333
-6,0000	3,8059	3,2816	1271,8	17,418	192,03	367,49	0,97073	1,6328
-5,0000	3,9389	3,4037	1268,3	18,047	193,35	368,07	0,97563	1,6324
-4,0000	4,0754	3,5293	1264,7	18,694	194,67	368,65	0,98052	1,6320
-3,0000	4,2154	3,6584	1261,2	19,359	196,00	369,22	0,98540	1,6316
-2,0000	4,3591	3,7910	1257,6	20,043	197,33	369,79	0,99027	1,6312
-1,0000	4,5065	3,9273	1254,0	20,746	198,66	370,36	0,99514	1,6309
0,00000	4,6575	4,0673	1250,3	21,469	200,00	370,92	1,0000	1,6305
1,0000	4,8124	4,2110	1246,7	22,212	201,34	371,48	1,0049	1,6302
2,0000	4,9712	4,3586	1243,0	22,976	202,68	372,04	1,0097	1,6298
3,0000	5,1339	4,5100	1239,3	23,761	204,03	372,60	1,0145	1,6295
4,0000	5,3005	4,6654	1235,6	24,567	205,38	373,15	1,0194	1,6292
5,0000	5,4712	4,8248	1231,8	25,396	206,73	373,70	1,0242	1,6289
6,0000	5,6460	4,9884	1228,1	26,247	208,09	374,25	1,0290	1,6285
7,0000	5,8250	5,1560	1224,3	27,122	209,45	374,80	1,0338	1,6282
8,0000	6,0083	5,3279	1220,5	28,020	210,82	375,34	1,0386	1,6279
9,0000	6,1958	5,5041	1216,6	28,943	212,18	375,87	1,0434	1,6277
10,000	6,3877	5,6846	1212,8	29,891	213,56	376,41	1,0482	1,6274
11,000	6,5840	5,8696	1208,9	30,864	214,93	376,94	1,0530	1,6271
12,000	6,7849	6,0591	1204,9	31,863	216,31	377,46	1,0578	1,6268
13,000	6,9903	6,2531	1201,0	32,889	217,69	377,99	1,0626	1,6266
14,000	7,2003	6,4518	1197,0	33,943	219,08	378,50	1,0674	1,6263

TEGA – Technische Gase und Gasetechnik GmbH
Werner-von-Siemens-Straße 18
97076 Würzburg | Germany
www.tega.de

Geschäftsführer: Dr. Jürgen Zöllner
Sitz: Würzburg - Registergericht: Würzburg, HRB 21
USt-IdNr.: DE 811145437

Deutsche Bank Würzburg

Telefon +49 931 2093-0
Telefax +49 931 2093-101
Email: info@tega.de

IBAN: DE707907001600202804 00
BIC: DEUTDEMM790

a DCC business

R 417A



15,000	7,4150	6,6552	1193,0	35,025	220,47	379,02	1,0722	1,6260
16,000	7,6345	6,8634	1189,0	36,136	221,87	379,53	1,0769	1,6258
17,000	7,8588	7,0765	1184,9	37,277	223,27	380,03	1,0817	1,6255
18,000	8,0880	7,2944	1180,8	38,448	224,67	380,53	1,0865	1,6252
19,000	8,3222	7,5174	1176,7	39,650	226,08	381,03	1,0912	1,6250
20,000	8,5614	7,7455	1172,6	40,884	227,50	381,52	1,0960	1,6247
21,000	8,8057	7,9788	1168,4	42,151	228,91	382,01	1,1007	1,6245
22,000	9,0551	8,2172	1164,2	43,452	230,34	382,49	1,1055	1,6242
23,000	9,3099	8,4610	1159,9	44,788	231,77	382,97	1,1103	1,6240
24,000	9,5699	8,7102	1155,6	46,159	233,20	383,44	1,1150	1,6237
25,000	9,8353	8,9648	1151,3	47,567	234,64	383,91	1,1198	1,6234
26,000	10,106	9,2250	1146,9	49,013	236,08	384,37	1,1245	1,6232
27,000	10,383	9,4908	1142,5	50,497	237,53	384,82	1,1293	1,6229
28,000	10,665	9,7623	1138,0	52,022	238,98	385,27	1,1340	1,6226
29,000	10,952	10,040	1133,5	53,587	240,44	385,71	1,1388	1,6224
30,000	11,246	10,323	1129,0	55,195	241,90	386,15	1,1435	1,6221
31,000	11,545	10,612	1124,4	56,847	243,37	386,58	1,1483	1,6218
32,000	11,850	10,907	1119,8	58,544	244,85	387,00	1,1530	1,6215
33,000	12,161	11,208	1115,1	60,286	246,33	387,41	1,1578	1,6212
34,000	12,478	11,516	1110,4	62,077	247,82	387,82	1,1625	1,6209
35,000	12,802	11,830	1105,6	63,917	249,31	388,22	1,1673	1,6206
36,000	13,131	12,150	1100,8	65,809	250,81	388,62	1,1721	1,6203
37,000	13,467	12,476	1095,9	67,753	252,32	389,00	1,1768	1,6199
38,000	13,809	12,810	1090,9	69,751	253,83	389,38	1,1816	1,6196
39,000	14,158	13,149	1085,9	71,806	255,36	389,75	1,1864	1,6192
40,000	14,513	13,496	1080,9	73,920	256,88	390,11	1,1912	1,6189
41,000	14,874	13,849	1075,7	76,094	258,42	390,46	1,1960	1,6185
42,000	15,243	14,210	1070,6	78,331	259,96	390,80	1,2008	1,6181
43,000	15,618	14,577	1065,3	80,633	261,52	391,13	1,2056	1,6177
44,000	16,000	14,952	1060,0	83,002	263,07	391,45	1,2104	1,6172
45,000	16,389	15,333	1054,6	85,442	264,64	391,76	1,2152	1,6168
46,000	16,785	15,722	1049,1	87,956	266,22	392,06	1,2200	1,6163
47,000	17,188	16,119	1043,6	90,545	267,81	392,35	1,2249	1,6158
48,000	17,598	16,523	1037,9	93,214	269,40	392,63	1,2297	1,6153
49,000	18,016	16,935	1032,2	95,966	271,01	392,89	1,2346	1,6148
50,000	18,441	17,354	1026,4	98,805	272,62	393,14	1,2395	1,6142
51,000	18,873	17,781	1020,5	101,73	274,25	393,38	1,2444	1,6136
52,000	19,313	18,217	1014,5	104,76	275,88	393,60	1,2493	1,6130
53,000	19,761	18,660	1008,4	107,88	277,53	393,81	1,2542	1,6124
54,000	20,216	19,112	1002,2	111,11	279,19	394,01	1,2591	1,6117
55,000	20,679	19,572	995,82	114,45	280,86	394,18	1,2641	1,6110
56,000	21,150	20,041	989,37	117,90	282,54	394,34	1,2691	1,6103
57,000	21,630	20,518	982,79	121,48	284,24	394,49	1,2741	1,6095
58,000	22,117	21,004	976,08	125,18	285,95	394,61	1,2791	1,6087
59,000	22,613	21,499	969,22	129,02	287,68	394,71	1,2841	1,6078
60,000	23,117	22,002	962,22	133,01	289,42	394,80	1,2892	1,6069
61,000	23,630	22,516	955,05	137,15	291,18	394,86	1,2943	1,6060
62,000	24,151	23,038	947,70	141,46	292,96	394,89	1,2995	1,6049

TEGA – Technische Gase und Gasetechnik GmbH
Werner-von-Siemens-Straße 18
97076 Würzburg | Germany
www.tega.de

Geschäftsführer: Dr. Jürgen Zöllner
Sitz: Würzburg - Registergericht: Würzburg, HRB 21
USt-IdNr.: DE 811145437

Deutsche Bank Würzburg

Telefon +49 931 2093-0
Telefax +49 931 2093-101
Email: info@tega.de

IBAN: DE707907001600202804 00
BIC: DEUTDEMM790

a DCC business

R 417A



63,000	24,681	23,570	940,18	145,94	294,76	394,90	1,3047	1,6039
64,000	25,219	24,112	932,45	150,61	296,57	394,88	1,3099	1,6027
65,000	25,767	24,664	924,51	155,49	298,41	394,84	1,3152	1,6015
66,000	26,324	25,225	916,34	160,58	300,27	394,76	1,3205	1,6002
67,000	26,890	25,797	907,91	165,91	302,15	394,65	1,3258	1,5989
68,000	27,465	26,380	899,21	171,51	304,07	394,50	1,3313	1,5974
69,000	28,050	26,974	890,22	177,38	306,01	394,30	1,3368	1,5959
70,000	28,645	27,578	880,88	183,57	307,98	394,07	1,3423	1,5942
71,000	29,249	28,194	871,19	190,10	309,99	393,78	1,3480	1,5924
72,000	29,863	28,821	861,08	197,02	312,04	393,44	1,3537	1,5905
73,000	30,487	29,461	850,51	204,36	314,13	393,04	1,3595	1,5884
74,000	31,121	30,113	839,41	212,20	316,27	392,57	1,3655	1,5861
75,000	31,766	30,777	827,71	220,60	318,47	392,03	1,3716	1,5837
76,000	32,421	31,455	815,32	229,64	320,73	391,39	1,3779	1,5810
77,000	33,087	32,147	802,09	239,45	323,07	390,64	1,3843	1,5780
78,000	33,763	32,853	787,86	250,17	325,51	389,77	1,3910	1,5747
79,000	34,450	33,575	772,40	262,01	328,06	388,74	1,3980	1,5710
80,000	35,147	34,314	755,35	275,27	330,75	387,52	1,4054	1,5667

TEGA – Technische Gase und Gasetechnik GmbH
Werner-von-Siemens-Straße 18
97076 Würzburg | Germany
www.tega.de

Telefon +49 931 2093-0
Telefax +49 931 2093-101
Email: info@tega.de

Geschäftsführer: Dr. Jürgen Zöller
Sitz: Würzburg - Registergericht: Würzburg, HRB 21
USt-IdNr.: DE 811145437

Deutsche Bank Würzburg

IBAN: DE707907001600202804 00
BIC: DEUTDEMM790

a **DCC** business