

Saturated Pressure Table

temperature [°C]	pressure [bar]	density [kg/m³]		enthalpy [kJ/kg]		entropy [kJ/kg·K]	
		liquid	vapour	liquid	vapour	liquid	vapour
-65,0	0,426	631,14	1,057	52,51	509,97	0,3890	2,5867
-64,0	0,450	629,95	1,111	54,64	511,07	0,3992	2,5815
-63,0	0,475	628,76	1,168	56,78	512,17	0,4094	2,5764
-62,0	0,501	627,56	1,227	58,93	513,27	0,4196	2,5713
-61,0	0,528	626,36	1,288	61,07	514,37	0,4297	2,5664
-60,0	0,556	625,16	1,352	63,22	515,47	0,4398	2,5615
-59,0	0,585	623,96	1,418	65,37	516,57	0,4498	2,5567
-58,0	0,616	622,75	1,486	67,53	517,67	0,4598	2,5520
-57,0	0,648	621,54	1,557	69,69	518,77	0,4698	2,5474
-56,0	0,681	620,33	1,631	71,85	519,86	0,4798	2,5429
-55,0	0,715	619,11	1,707	74,02	520,95	0,4897	2,5385
-54,0	0,751	617,90	1,786	76,19	522,05	0,4996	2,5341
-53,0	0,788	616,68	1,868	78,36	523,14	0,5095	2,5298
-52,0	0,827	615,45	1,952	80,53	524,23	0,5193	2,5256
-51,0	0,867	614,23	2,040	82,71	525,32	0,5291	2,5215
-50,0	0,908	613,00	2,131	84,90	526,41	0,5389	2,5174
-49,0	0,951	611,76	2,224	87,08	527,49	0,5486	2,5134
-48,0	0,996	610,53	2,321	89,27	528,58	0,5583	2,5095
-47,0	1,042	609,29	2,421	91,47	529,66	0,5680	2,5056
-46,0	1,090	608,05	2,525	93,66	530,74	0,5777	2,5019
-45,0	1,140	606,80	2,631	95,87	531,82	0,5873	2,4981
-44,0	1,191	605,55	2,741	98,07	532,90	0,5969	2,4945
-43,0	1,244	604,30	2,855	100,28	533,98	0,6065	2,4909
-42,0	1,299	603,04	2,972	102,49	535,05	0,6161	2,4874
-41,0	1,356	601,78	3,093	104,71	536,12	0,6256	2,4839
-40,0	1,415	600,52	3,218	106,93	537,19	0,6351	2,4805
-39,0	1,475	599,25	3,346	109,16	538,26	0,6446	2,4772
-38,0	1,538	597,98	3,479	111,39	539,33	0,6541	2,4739
-37,0	1,603	596,71	3,615	113,63	540,39	0,6635	2,4707
-36,0	1,670	595,43	3,756	115,87	541,46	0,6729	2,4675
-35,0	1,739	594,15	3,900	118,11	542,52	0,6823	2,4644
-34,0	1,810	592,86	4,049	120,36	543,57	0,6917	2,4613
-33,0	1,883	591,57	4,202	122,61	544,63	0,7010	2,4583
-32,0	1,958	590,28	4,360	124,87	545,68	0,7104	2,4554
-31,0	2,036	588,98	4,522	127,13	546,73	0,7197	2,4525
-30,0	2,116	587,67	4,688	129,40	547,78	0,7289	2,4496
-29,0	2,199	586,37	4,860	131,67	548,82	0,7382	2,4468
-28,0	2,284	585,05	5,036	133,95	549,86	0,7475	2,4440
-27,0	2,371	583,74	5,217	136,23	550,90	0,7567	2,4413
-26,0	2,461	582,42	5,403	138,52	551,94	0,7659	2,4387
-25,0	2,554	581,09	5,594	140,81	552,97	0,7751	2,4360

Saturated Pressure Table

temperature [°C]	pressure [bar]	density [kg/m³]		enthalpy [kJ/kg]		entropy [kJ/kg·K]	
		liquid	vapour	liquid	vapour	liquid	vapour
-24,0	2,649	579,76	5,790	143,11	554,00	0,7843	2,4335
-23,0	2,746	578,42	5,991	145,41	555,03	0,7934	2,4309
-22,0	2,847	577,08	6,198	147,72	556,05	0,8026	2,4284
-21,0	2,950	575,74	6,410	150,03	557,07	0,8117	2,4260
-20,0	3,056	574,38	6,627	152,35	558,09	0,8208	2,4236
-19,0	3,165	573,03	6,851	154,68	559,11	0,8299	2,4212
-18,0	3,277	571,67	7,080	157,01	560,12	0,8390	2,4188
-17,0	3,392	570,30	7,315	159,34	561,12	0,8480	2,4166
-16,0	3,509	568,93	7,556	161,68	562,13	0,8571	2,4143
-15,0	3,630	567,55	7,803	164,03	563,13	0,8661	2,4121
-14,0	3,754	566,17	8,057	166,39	564,12	0,8751	2,4099
-13,0	3,881	564,78	8,316	168,75	565,11	0,8841	2,4077
-12,0	4,011	563,38	8,582	171,11	566,10	0,8931	2,4056
-11,0	4,145	561,98	8,855	173,48	567,08	0,9021	2,4035
-10,0	4,281	560,57	9,135	175,86	568,06	0,9110	2,4014
-9,0	4,422	559,16	9,421	178,24	569,04	0,9200	2,3994
-8,0	4,565	557,74	9,714	180,64	570,01	0,9289	2,3974
-7,0	4,712	556,31	10,02	183,03	570,97	0,9378	2,3954
-6,0	4,862	554,87	10,32	185,44	571,93	0,9468	2,3935
-5,0	5,016	553,43	10,64	187,85	572,89	0,9557	2,3916
-4,0	5,174	551,99	10,96	190,26	573,84	0,9645	2,3897
-3,0	5,335	550,53	11,29	192,69	574,78	0,9734	2,3878
-2,0	5,500	549,07	11,63	195,12	575,73	0,9823	2,3860
-1,0	5,669	547,60	11,97	197,56	576,66	0,9912	2,3842
0,0	5,841	546,13	12,33	200,00	577,59	1,0000	2,3824
1,0	6,017	544,64	12,69	202,45	578,51	1,0088	2,3806
2,0	6,197	543,15	13,06	204,91	579,43	1,0177	2,3788
3,0	6,382	541,65	13,44	207,38	580,35	1,0265	2,3771
4,0	6,570	540,14	13,83	209,85	581,25	1,0353	2,3754
5,0	6,762	538,63	14,23	212,33	582,15	1,0441	2,3737
6,0	6,958	537,10	14,63	214,82	583,05	1,0529	2,3720
7,0	7,159	535,57	15,05	217,32	583,94	1,0617	2,3704
8,0	7,364	534,03	15,47	219,83	584,82	1,0705	2,3687
9,0	7,573	532,48	15,91	222,34	585,69	1,0793	2,3671
10,0	7,786	530,92	16,35	224,86	586,56	1,0881	2,3655
11,0	8,004	529,35	16,81	227,39	587,42	1,0969	2,3639
12,0	8,226	527,77	17,28	229,93	588,28	1,1056	2,3623
13,0	8,453	526,18	17,75	232,47	589,12	1,1144	2,3608
14,0	8,684	524,59	18,24	235,03	589,96	1,1231	2,3592
15,0	8,920	522,98	18,74	237,59	590,79	1,1319	2,3576

Saturated Pressure Table

temperature [°C]	pressure [bar]	density [kg/m³]		enthalpy [kJ/kg]		entropy [kJ/kg·K]	
		liquid	vapour	liquid	vapour	liquid	vapour
16,0	9,160	521,36	19,25	240,16	591,61	1,1407	2,3561
17,0	9,406	519,73	19,77	242,75	592,43	1,1494	2,3546
18,0	9,656	518,09	20,30	245,34	593,24	1,1582	2,3531
19,0	9,911	516,44	20,84	247,94	594,04	1,1669	2,3516
20,0	10,17	514,77	21,40	250,55	594,82	1,1756	2,3501
21,0	10,44	513,10	21,97	253,17	595,61	1,1844	2,3486
22,0	10,71	511,41	22,55	255,80	596,38	1,1931	2,3471
23,0	10,98	509,71	23,15	258,44	597,14	1,2019	2,3456
24,0	11,26	508,00	23,76	261,08	597,89	1,2106	2,3441
25,0	11,54	506,28	24,38	263,74	598,63	1,2194	2,3426
26,0	11,84	504,54	25,02	266,41	599,37	1,2281	2,3411
27,0	12,13	502,79	25,67	269,10	600,09	1,2369	2,3396
28,0	12,43	501,02	26,34	271,79	600,80	1,2456	2,3381
29,0	12,74	499,24	27,02	274,49	601,50	1,2544	2,3367
30,0	13,05	497,45	27,72	277,20	602,19	1,2631	2,3352
31,0	13,37	495,64	28,43	279,93	602,87	1,2719	2,3337
32,0	13,69	493,81	29,16	282,67	603,53	1,2807	2,3322
33,0	14,02	491,97	29,91	285,42	604,18	1,2895	2,3307
34,0	14,35	490,12	30,68	288,18	604,82	1,2982	2,3291
35,0	14,69	488,24	31,46	290,95	605,45	1,3070	2,3276
36,0	15,04	486,35	32,26	293,74	606,06	1,3158	2,3261
37,0	15,39	484,44	33,08	296,54	606,66	1,3246	2,3245
38,0	15,75	482,51	33,92	299,35	607,25	1,3335	2,3230
39,0	16,11	480,56	34,78	302,18	607,82	1,3423	2,3214
40,0	16,48	478,59	35,66	305,02	608,37	1,3511	2,3198
41,0	16,86	476,61	36,57	307,88	608,91	1,3600	2,3182
42,0	17,24	474,60	37,49	310,75	609,43	1,3688	2,3166
43,0	17,63	472,56	38,44	313,63	609,94	1,3777	2,3150
44,0	18,03	470,51	39,41	316,53	610,42	1,3866	2,3133
45,0	18,43	468,43	40,41	319,45	610,89	1,3955	2,3116
46,0	18,84	466,33	41,43	322,38	611,34	1,4045	2,3099
47,0	19,25	464,20	42,47	325,34	611,78	1,4134	2,3081
48,0	19,67	462,05	43,55	328,30	612,19	1,4224	2,3063
49,0	20,10	459,87	44,65	331,29	612,58	1,4314	2,3045
50,0	20,54	457,66	45,78	334,29	612,94	1,4404	2,3027
51,0	20,98	455,43	46,94	337,31	613,29	1,4494	2,3008
52,0	21,43	453,16	48,14	340,36	613,61	1,4585	2,2989
53,0	21,89	450,86	49,36	343,42	613,90	1,4676	2,2969
54,0	22,35	448,52	50,62	346,50	614,17	1,4767	2,2949
55,0	22,82	446,15	51,92	349,61	614,42	1,4859	2,2929

temperature [°C]	pressure [bar]	density [kg/m³]		enthalpy [kJ/kg]		entropy [kJ/kg·K]	
		liquid	vapour	liquid	vapour	liquid	vapour
56,0	23,30	443,75	53,25	352,73	614,63	1,4951	2,2907
57,0	23,78	441,31	54,62	355,89	614,82	1,5043	2,2886
58,0	24,28	438,82	56,03	359,06	614,97	1,5136	2,2864
59,0	24,78	436,30	57,49	362,26	615,09	1,5229	2,2841
60,0	25,28	433,73	58,99	365,49	615,18	1,5322	2,2817
61,0	25,80	431,11	60,53	368,74	615,23	1,5416	2,2793
62,0	26,32	428,45	62,13	372,03	615,25	1,5511	2,2768
63,0	26,85	425,73	63,78	375,34	615,22	1,5606	2,2742
64,0	27,39	422,96	65,48	378,69	615,15	1,5701	2,2715
65,0	27,94	420,13	67,24	382,07	615,04	1,5798	2,2687
66,0	28,50	417,24	69,06	385,48	614,88	1,5894	2,2658
67,0	29,06	414,28	70,95	388,93	614,67	1,5992	2,2629
68,0	29,63	411,25	72,91	392,42	614,41	1,6090	2,2597
69,0	30,21	408,15	74,95	395,96	614,09	1,6190	2,2565
70,0	30,80	404,97	77,06	399,54	613,71	1,6290	2,2531
71,0	31,40	401,70	79,27	403,16	613,26	1,6391	2,2496
72,0	32,01	398,33	81,56	406,84	612,74	1,6493	2,2459
73,0	32,63	394,86	83,96	410,57	612,14	1,6597	2,2420
74,0	33,25	391,28	86,47	414,36	611,46	1,6702	2,2379
75,0	33,89	387,58	89,10	418,22	610,69	1,6808	2,2336
76,0	34,53	383,74	91,86	422,15	609,82	1,6916	2,2291
77,0	35,18	379,75	94,78	426,15	608,84	1,7025	2,2243
78,0	35,85	375,60	97,85	430,25	607,73	1,7137	2,2192
79,0	36,52	371,26	101,1	434,44	606,49	1,7251	2,2137
80,0	37,21	366,70	104,6	438,74	605,09	1,7368	2,2078
81,0	37,90	361,90	108,3	443,16	603,51	1,7488	2,2015
82,0	38,61	356,82	112,3	447,73	601,72	1,7611	2,1947
83,0	39,32	351,41	116,6	452,47	599,69	1,7738	2,1872
84,0	40,05	345,59	121,4	457,40	597,37	1,7871	2,1790
85,0	40,79	339,27	126,6	462,59	594,69	1,8010	2,1698
86,0	41,54	332,31	132,5	468,10	591,55	1,8157	2,1595
87,0	42,30	324,50	139,2	474,03	587,80	1,8316	2,1475
88,0	43,08	315,47	147,1	480,56	583,18	1,8490	2,1332
89,0	43,87	304,48	157,0	488,08	577,18	1,8691	2,1151
90,0	44,68	289,52	170,9	497,56	568,44	1,8945	2,0897
91,0	45,50	253,73	205,5	517,74	545,90	1,9491	2,0265

Calculated by Refprop version 10.0

revised 10.01.2020

A guarantee, warranty or liability for the accuracy, completeness and timeliness of the content and information provided cannot be assumed.

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