



RS-50

(R442A)

THERMODYNAMIC TABLES

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	Liquid Phase	Vapor Phase	Liquid Phase	Vapor Phase	Liquid Phase	Vapor Phase	Liquid Phase	Vapor Phase
Temperature	Pressure	Pressure	Density	Density	Enthalpy	Enthalpy	Entropy	Entropy
(°C)	(bar)	(bar)	(kg/m³)	(kg/m³)	(kJ/kg)	(kJ/kg)	(kJ/kg-K)	(kJ/kg-K)
-60	0.4976	0.3315	1404.9	1.5596	117.94	381.16	0.6633	1.9222
-59	0.5263	0.3526	1401.9	1.6524	119.26	381.76	0.6694	1.9188
-58	0.5563	0.3747	1398.9	1.7495	120.57	382.36	0.6756	1.9156
-57	0.5877	0.3980	1396.0	1.8511	121.89	382.95	0.6817	1.9123
-56	0.6205	0.4224	1393.0	1.9574	123.21	383.55	0.6877	1.9092
-55	0.6547	0.4480	1390.0	2.0684	124.53	384.14	0.6938	1.9061
-54	0.6905	0.4748	1386.9	2.1845	125.85	384.74	0.6998	1.9030
-53	0.7278	0.5029	1383.9	2.3057	127.17	385.33	0.7058	1.9000
-52	0.7666	0.5324	1380.9	2.4322	128.49	385.92	0.7118	1.8970
-51	0.8071	0.5632	1377.9	2.5641	129.81	386.51	0.7177	1.8941
-50	0.8493	0.5954	1374.8	2.7017	131.14	387.10	0.7237	1.8913
-49	0.8933	0.6291	1371.8	2.8450	132.47	387.68	0.7296	1.8885
-48	0.9390	0.6643	1368.7	2.9944	133.79	388.27	0.7355	1.8857
-47	0.9865	0.7011	1365.7	3.1499	135.12	388.85	0.7414	1.8830
-46	1.0360	0.7395	1362.6	3.3117	136.45	389.44	0.7472	1.8803
-45	1.0874	0.7795	1359.5	3.4800	137.79	390.02	0.7531	1.8777
-44	1.1408	0.8213	1356.5	3.6550	139.12	390.59	0.7589	1.8751
-43	1.1962	0.8648	1353.4	3.8370	140.46	391.17	0.7647	1.8725
-42	1.2537	0.9101	1350.3	4.0260	141.79	391.75	0.7705	1.8700
-41	1.3134	0.9573	1347.2	4.2223	143.13	392.32	0.7762	1.8676
-40	1.3753	1.0064	1344.0	4.4261	144.47	392.89	0.7820	1.8652
-39	1.4395	1.0575	1340.9	4.6376	145.82	393.46	0.7877	1.8628
-38	1.5060	1.1106	1337.8	4.8570	147.16	394.03	0.7934	1.8604
-37	1.5749	1.1658	1334.6	5.0844	148.51	394.60	0.7991	1.8581
-36	1.6462	1.2232	1331.5	5.3203	149.85	395.16	0.8048	1.8558
-35	1.7201	1.2828	1328.3	5.5646	151.20	395.72	0.8104	1.8536
-34	1.7965	1.3446	1325.1	5.8178	152.56	396.28	0.8161	1.8514
-33	1.8755	1.4087	1321.9	6.0799	153.91	396.84	0.8217	1.8492
-32	1.9572	1.4752	1318.7	6.3513	155.27	397.39	0.8273	1.8471



	Liquid Phase	Vapor Phase	Liquid Phase	Vapor Phase	Liquid Phase	Vapor Phase	Liquid Phase	Vapor Phase
Temperature	Pressure	Pressure	Density	Density	Enthalpy	Enthalpy	Entropy	Entropy
(°C)	(bar)	(bar)	(kg/m ³)	(kg/m ³)	(kJ/kg)	(kJ/kg)	(kJ/kg-K)	(kJ/kg-K)
-31	2.0416	1.5442	1315.5	6.6321	156.62	397.95	0.8329	1.8449
-30	2.1288	1.6157	1312.3	6.9226	157.98	398.50	0.8385	1.8429
-29	2.2189	1.6897	1309.1	7.2231	159.35	399.04	0.8440	1.8408
-28	2.3120	1.7664	1305.8	7.5338	160.71	399.59	0.8496	1.8388
-27	2.4080	1.8457	1302.6	7.8549	162.08	400.13	0.8551	1.8368
-26	2.5070	1.9278	1299.3	8.1868	163.45	400.67	0.8606	1.8349
-25	2.6092	2.0128	1296.0	8.5296	164.82	401.21	0.8661	1.8329
-24	2.7146	2.1006	1292.7	8.8837	166.19	401.74	0.8716	1.8310
-23	2.8233	2.1913	1289.4	9.2492	167.57	402.28	0.8771	1.8291
-22	2.9352	2.2851	1286.1	9.6266	168.95	402.81	0.8826	1.8273
-21	3.0505	2.3820	1282.7	10.0160	170.33	403.33	0.8880	1.8255
-20	3.1693	2.4821	1279.4	10.4180	171.71	403.85	0.8935	1.8236
-19	3.2916	2.5853	1276.0	10.8320	173.10	404.38	0.8989	1.8219
-18	3.4175	2.6919	1272.6	11.2600	174.49	404.89	0.9043	1.8201
-17	3.5470	2.8018	1269.3	11.7010	175.88	405.41	0.9097	1.8184
-16	3.6803	2.9152	1265.8	12.1550	177.27	405.92	0.9151	1.8167
-15	3.8173	3.0321	1262.4	12.6230	178.67	406.43	0.9205	1.8150
-14	3.9583	3.1525	1259.0	13.1060	180.07	406.93	0.9258	1.8133
-13	4.1031	3.2767	1255.5	13.6030	181.47	407.43	0.9312	1.8117
-12	4.2520	3.4045	1252.1	14.1150	182.88	407.93	0.9366	1.8100
-11	4.4049	3.5362	1248.6	14.6420	184.29	408.42	0.9419	1.8084
-10	4.5619	3.6717	1245.1	15.1850	185.70	408.91	0.9472	1.8068
-9	4.7232	3.8112	1241.5	15.7440	187.11	409.40	0.9525	1.8052
-8	4.8888	3.9548	1238.0	16.3190	188.53	409.89	0.9578	1.8037
-7	5.0588	4.1024	1234.4	16.9110	189.95	410.36	0.9631	1.8021
-6	5.2331	4.2542	1230.9	17.5200	191.38	410.84	0.9684	1.8006
-5	5.4120	4.4103	1227.3	18.1470	192.81	411.31	0.9737	1.7991
-4	5.5955	4.5708	1223.6	18.7920	194.24	411.78	0.9790	1.7976
-3	5.7836	4.7357	1220.0	19.4550	195.67	412.24	0.9843	1.7961



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(°C)	(bar)	(bar)	(kg/m ³)	(kg/m ³)	(kJ/kg)	(kJ/kg)	(kJ/kg-K)	(kJ/kg-K)
-2	5.9765	4.9051	1216.3	20.1370	197.11	412.70	0.9895	1.7947
-1	6.1742	5.0790	1212.7	20.8380	198.55	413.16	0.9948	1.7932
0	6.3767	5.2577	1209.0	21.5600	200.00	413.61	1.0000	1.7918
1	6.5843	5.4411	1205.2	22.3010	201.45	414.05	1.0052	1.7904
2	6.7968	5.6293	1201.5	23.0630	202.90	414.49	1.0105	1.7889
3	7.0145	5.8225	1197.7	23.8460	204.36	414.93	1.0157	1.7875
4	7.2374	6.0207	1193.9	24.6510	205.82	415.36	1.0209	1.7861
5	7.4656	6.2240	1190.1	25.4790	207.29	415.79	1.0261	1.7848
6	7.6991	6.4324	1186.3	26.3290	208.76	416.21	1.0313	1.7834
7	7.9380	6.6461	1182.4	27.2020	210.23	416.63	1.0365	1.7820
8	8.1824	6.8652	1178.5	28.1000	211.71	417.04	1.0417	1.7807
9	8.4325	7.0898	1174.6	29.0220	213.19	417.44	1.0469	1.7793
10	8.6882	7.3198	1170.7	29.9690	214.68	417.84	1.0521	1.7780
11	8.9496	7.5555	1166.7	30.9430	216.17	418.24	1.0573	1.7766
12	9.2169	7.7969	1162.7	31.9420	217.67	418.63	1.0624	1.7753
13	9.4901	8.0441	1158.6	32.9690	219.17	419.01	1.0676	1.7740
14	9.7693	8.2973	1154.6	34.0240	220.68	419.39	1.0728	1.7726
15	10.0550	8.5564	1150.5	35.1080	222.19	419.76	1.0780	1.7713
16	10.3460	8.8216	1146.4	36.2210	223.71	420.12	1.0831	1.7700
17	10.6440	9.0930	1142.2	37.3640	225.23	420.48	1.0883	1.7687
18	10.9480	9.3707	1138.0	38.5380	226.76	420.83	1.0935	1.7674
19	11.2580	9.6548	1133.8	39.7440	228.29	421.17	1.0986	1.7661
20	11.5750	9.9454	1129.5	40.9830	229.83	421.51	1.1038	1.7648
21	11.8980	10.2430	1125.2	42.2560	231.37	421.84	1.1089	1.7635
22	12.2280	10.5460	1120.9	43.5630	232.92	422.16	1.1141	1.7621
23	12.5650	10.8570	1116.5	44.9060	234.48	422.47	1.1193	1.7608
24	12.9090	11.1750	1112.1	46.2850	236.04	422.78	1.1244	1.7595
25	13.2600	11.4990	1107.6	47.7030	237.61	423.08	1.1296	1.7582
26	13.6170	11.8310	1103.1	49.1590	239.19	423.36	1.1348	1.7569



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(°C)	(bar)	(bar)	(kg/m ³)	(kg/m ³)	(kJ/kg)	(kJ/kg)	(kJ/kg-K)	(kJ/kg-K)
27	13.9820	12.1690	1098.6	50.6550	240.77	423.65	1.1399	1.7555
28	14.3540	12.5160	1094.0	52.1930	242.35	423.92	1.1451	1.7542
29	14.7330	12.8690	1089.4	53.7730	243.95	424.18	1.1503	1.7529
30	15.1200	13.2300	1084.7	55.3970	245.55	424.43	1.1554	1.7515
31	15.5140	13.5990	1080.0	57.0670	247.16	424.68	1.1606	1.7501
32	15.9150	13.9760	1075.2	58.7830	248.78	424.91	1.1658	1.7488
33	16.3240	14.3600	1070.4	60.5480	250.40	425.13	1.1710	1.7474
34	16.7410	14.7530	1065.5	62.3630	252.04	425.34	1.1762	1.7460
35	17.1660	15.1530	1060.5	64.2300	253.68	425.54	1.1814	1.7446
36	17.5980	15.5620	1055.5	66.1500	255.33	425.73	1.1866	1.7432
37	18.0390	15.9790	1050.5	68.1260	256.98	425.91	1.1918	1.7418
38	18.4880	16.4050	1045.4	70.1600	258.65	426.08	1.1971	1.7403
39	18.9450	16.8390	1040.2	72.2530	260.33	426.23	1.2023	1.7388
40	19.4100	17.2820	1034.9	74.4080	262.01	426.37	1.2075	1.7374
41	19.8830	17.7340	1029.6	76.6280	263.71	426.50	1.2128	1.7359
42	20.3660	18.1950	1024.2	78.9150	265.41	426.61	1.2181	1.7343
43	20.8560	18.6650	1018.8	81.2710	267.13	426.71	1.2234	1.7328
44	21.3550	19.1450	1013.2	83.7000	268.85	426.79	1.2286	1.7312
45	21.8640	19.6340	1007.6	86.2050	270.59	426.86	1.2340	1.7296
46	22.3810	20.1320	1001.9	88.7890	272.34	426.91	1.2393	1.7280
47	22.9060	20.6410	996.1	91.4550	274.10	426.95	1.2446	1.7263
48	23.4410	21.1590	990.2	94.2080	275.87	426.97	1.2500	1.7246
49	23.9860	21.6870	984.2	97.0510	277.66	426.97	1.2554	1.7229
50	24.5390	22.2260	978.2	99.9890	279.46	426.95	1.2608	1.7212
51	25.1020	22.7750	972.0	103.0300	281.28	426.90	1.2662	1.7194
52	25.6740	23.3350	965.7	106.1700	283.10	426.84	1.2717	1.7175
53	26.2570	23.9050	959.2	109.4200	284.95	426.76	1.2771	1.7156
54	26.8480	24.4860	952.7	112.7900	286.81	426.65	1.2827	1.7137
55	27.4500	25.0790	946.0	116.2900	288.69	426.52	1.2882	1.7117



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Temperature	Pressure	Pressure	Density	Density	Enthalpy	Enthalpy	Entropy	Entropy
(°C)	(bar)	(bar)	(kg/m³)	(kg/m³)	(kJ/kg)	(kJ/kg)	(kJ/kg-K)	(kJ/kg-K)
56	28.0610	25.6830	939.2	119.9100	290.59	426.36	1.2938	1.7097
57	28.6830	26.2980	932.2	123.6800	292.51	426.18	1.2994	1.7076
58	29.3150	26.9260	925.1	127.5900	294.44	425.96	1.3050	1.7054
59	29.9570	27.5650	917.8	131.6600	296.40	425.72	1.3107	1.7032
60	30.6090	28.2170	910.3	135.8900	298.39	425.44	1.3165	1.7009
61	31.2720	28.8810	902.5	140.3100	300.40	425.12	1.3223	1.6985
62	31.9460	29.5590	894.6	144.9300	302.43	424.77	1.3282	1.6960
63	32.6300	30.2490	886.5	149.7500	304.50	424.38	1.3341	1.6935
64	33.3250	30.9530	878.0	154.8000	306.60	423.94	1.3401	1.6908
65	34.0310	31.6710	869.3	160.1100	308.73	423.45	1.3462	1.6880
66	34.7480	32.4030	860.3	165.6800	310.90	422.92	1.3523	1.6851
67	35.4760	33.1490	850.9	171.5500	313.12	422.32	1.3586	1.6820
68	36.2150	33.9110	841.1	177.7600	315.38	421.66	1.3650	1.6788
69	36.9660	34.6880	830.9	184.3400	317.69	420.93	1.3715	1.6754
70	37.7280	35.4810	820.2	191.3300	320.07	420.13	1.3782	1.6719
71	38.5010	36.2910	808.9	198.7900	322.51	419.23	1.3850	1.6680
72	39.2850	37.1190	796.9	206.7900	325.03	418.23	1.3920	1.6640
73	40.0810	37.9650	784.1	215.4200	327.65	417.12	1.3993	1.6596
74	40.8880	38.8300	770.4	224.7900	330.38	415.87	1.4069	1.6548
75	41.7050	39.7150	755.5	235.0500	333.24	414.46	1.4148	1.6497
76	42.5320	40.6230	739.2	246.4000	336.27	412.84	1.4232	1.6440
77	43.3680	41.5560	720.9	259.1500	339.52	410.98	1.4321	1.6376
78	44.2120	42.5150	700.2	273.7400	343.07	408.78	1.4419	1.6303
79	45.0590	43.5070	675.6	290.9400	347.07	406.12	1.4529	1.6217
80	45.9010	44.5390	644.7	312.2200	351.84	402.74	1.4661	1.6111

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Temperature	Pressure	Pressure	Density	Density	Enthalpy	Enthalpy	Entropy	Entropy
(°C)	(bar_g)	(bar_g)	(kg/m³)	(kg/m³)	(kJ/kg)	(kJ/kg)	(kJ/kg-K)	(kJ/kg-K)
-60	-0.5156	-0.6817	1404.90	1.56	117.94	381.16	0.6633	1.9222
-59	-0.4869	-0.6607	1401.90	1.65	119.26	381.76	0.6694	1.9188
-58	-0.4569	-0.6385	1398.90	1.75	120.57	382.36	0.6756	1.9156
-57	-0.4255	-0.6153	1396.00	1.85	121.89	382.95	0.6817	1.9123
-56	-0.3928	-0.5909	1393.00	1.96	123.21	383.55	0.6877	1.9092
-55	-0.3585	-0.5653	1390.00	2.07	124.53	384.14	0.6938	1.9061
-54	-0.3228	-0.5385	1386.90	2.18	125.85	384.74	0.6998	1.9030
-53	-0.2855	-0.5103	1383.90	2.31	127.17	385.33	0.7058	1.9000
-52	-0.2466	-0.4809	1380.90	2.43	128.49	385.92	0.7118	1.8970
-51	-0.2061	-0.4501	1377.90	2.56	129.81	386.51	0.7177	1.8941
-50	-0.1639	-0.4178	1374.80	2.70	131.14	387.10	0.7237	1.8913
-49	-0.1200	-0.3841	1371.80	2.85	132.47	387.68	0.7296	1.8885
-48	-0.0743	-0.3489	1368.70	2.99	133.79	388.27	0.7355	1.8857
-47	-0.0267	-0.3121	1365.70	3.15	135.12	388.85	0.7414	1.8830
-46	0.0227	-0.2738	1362.60	3.31	136.45	389.44	0.7472	1.8803
-45	0.0741	-0.2337	1359.50	3.48	137.79	390.02	0.7531	1.8777
-44	0.1275	-0.1920	1356.50	3.66	139.12	390.59	0.7589	1.8751
-43	0.1830	-0.1485	1353.40	3.84	140.46	391.17	0.7647	1.8725
-42	0.2405	-0.1031	1350.30	4.03	141.79	391.75	0.7705	1.8700
-41	0.3002	-0.0559	1347.20	4.22	143.13	392.32	0.7762	1.8676
-40	0.3621	-0.0068	1344.00	4.43	144.47	392.89	0.7820	1.8652
-39	0.4263	0.0443	1340.90	4.64	145.82	393.46	0.7877	1.8628
-38	0.4928	0.0974	1337.80	4.86	147.16	394.03	0.7934	1.8604
-37	0.5617	0.1526	1334.60	5.08	148.51	394.60	0.7991	1.8581
-36	0.6330	0.2100	1331.50	5.32	149.85	395.16	0.8048	1.8558
-35	0.7068	0.2695	1328.30	5.56	151.20	395.72	0.8104	1.8536
-34	0.7832	0.3313	1325.10	5.82	152.56	396.28	0.8161	1.8514
-33	0.8622	0.3955	1321.90	6.08	153.91	396.84	0.8217	1.8492
-32	0.9439	0.4620	1318.70	6.35	155.27	397.39	0.8273	1.8471

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Temperature	Pressure	Pressure	Density	Density	Enthalpy	Enthalpy	Entropy	Entropy
(°C)	(bar_g)	(bar_g)	(kg/m ³)	(kg/m ³)	(kJ/kg)	(kJ/kg)	(kJ/kg-K)	(kJ/kg-K)
-31	1.0283	0.5310	1315.50	6.63	156.62	397.95	0.8329	1.8449
-30	1.1156	0.6024	1312.30	6.92	157.98	398.50	0.8385	1.8429
-29	1.2057	0.6765	1309.10	7.22	159.35	399.04	0.8440	1.8408
-28	1.2987	0.7531	1305.80	7.53	160.71	399.59	0.8496	1.8388
-27	1.3947	0.8325	1302.60	7.85	162.08	400.13	0.8551	1.8368
-26	1.4938	0.9146	1299.30	8.19	163.45	400.67	0.8606	1.8349
-25	1.5960	0.9995	1296.00	8.53	164.82	401.21	0.8661	1.8329
-24	1.7014	1.0873	1292.70	8.88	166.19	401.74	0.8716	1.8310
-23	1.8100	1.1781	1289.40	9.25	167.57	402.28	0.8771	1.8291
-22	1.9220	1.2719	1286.10	9.63	168.95	402.81	0.8826	1.8273
-21	2.0373	1.3688	1282.70	10.02	170.33	403.33	0.8880	1.8255
-20	2.1561	1.4688	1279.40	10.42	171.71	403.85	0.8935	1.8236
-19	2.2784	1.5721	1276.00	10.83	173.10	404.38	0.8989	1.8219
-18	2.4042	1.6786	1272.60	11.26	174.49	404.89	0.9043	1.8201
-17	2.5338	1.7886	1269.30	11.70	175.88	405.41	0.9097	1.8184
-16	2.6670	1.9019	1265.80	12.16	177.27	405.92	0.9151	1.8167
-15	2.8041	2.0188	1262.40	12.62	178.67	406.43	0.9205	1.8150
-14	2.9450	2.1393	1259.00	13.11	180.07	406.93	0.9258	1.8133
-13	3.0899	2.2634	1255.50	13.60	181.47	407.43	0.9312	1.8117
-12	3.2387	2.3913	1252.10	14.12	182.88	407.93	0.9366	1.8100
-11	3.3916	2.5229	1248.60	14.64	184.29	408.42	0.9419	1.8084
-10	3.5487	2.6585	1245.10	15.19	185.70	408.91	0.9472	1.8068
-9	3.7100	2.7980	1241.50	15.74	187.11	409.40	0.9525	1.8052
-8	3.8756	2.9415	1238.00	16.32	188.53	409.89	0.9578	1.8037
-7	4.0455	3.0892	1234.40	16.91	189.95	410.36	0.9631	1.8021
-6	4.2199	3.2410	1230.90	17.52	191.38	410.84	0.9684	1.8006
-5	4.3988	3.3971	1227.30	18.15	192.81	411.31	0.9737	1.7991
-4	4.5822	3.5575	1223.60	18.79	194.24	411.78	0.9790	1.7976
-3	4.7704	3.7224	1220.00	19.46	195.67	412.24	0.9843	1.7961

	Liquid Phase	Vapor Phase	Liquid Phase	Vapor Phase	Liquid Phase	Vapor Phase	Liquid Phase	Vapor Phase
Temperature	Pressure	Pressure	Density	Density	Enthalpy	Enthalpy	Entropy	Entropy
(°C)	(bar_g)	(bar_g)	(kg/m³)	(kg/m³)	(kJ/kg)	(kJ/kg)	(kJ/kg-K)	(kJ/kg-K)
-2	4.9632	3.8918	1216.30	20.14	197.11	412.70	0.9895	1.7947
-1	5.1609	4.0658	1212.70	20.84	198.55	413.16	0.9948	1.7932
0	5.3635	4.2444	1209.00	21.56	200.00	413.61	1.0000	1.7918
1	5.5710	4.4278	1205.20	22.30	201.45	414.05	1.0052	1.7904
2	5.7836	4.6161	1201.50	23.06	202.90	414.49	1.0105	1.7889
3	6.0013	4.8093	1197.70	23.85	204.36	414.93	1.0157	1.7875
4	6.2242	5.0074	1193.90	24.65	205.82	415.36	1.0209	1.7861
5	6.4523	5.2107	1190.10	25.48	207.29	415.79	1.0261	1.7848
6	6.6858	5.4192	1186.30	26.33	208.76	416.21	1.0313	1.7834
7	6.9247	5.6329	1182.40	27.20	210.23	416.63	1.0365	1.7820
8	7.1692	5.8520	1178.50	28.10	211.71	417.04	1.0417	1.7807
9	7.4192	6.0765	1174.60	29.02	213.19	417.44	1.0469	1.7793
10	7.6749	6.3066	1170.70	29.97	214.68	417.84	1.0521	1.7780
11	7.9364	6.5423	1166.70	30.94	216.17	418.24	1.0573	1.7766
12	8.2036	6.7837	1162.70	31.94	217.67	418.63	1.0624	1.7753
13	8.4768	7.0309	1158.60	32.97	219.17	419.01	1.0676	1.7740
14	8.7560	7.2840	1154.60	34.02	220.68	419.39	1.0728	1.7726
15	9.0413	7.5431	1150.50	35.11	222.19	419.76	1.0780	1.7713
16	9.3327	7.8084	1146.40	36.22	223.71	420.12	1.0831	1.7700
17	9.6304	8.0798	1142.20	37.36	225.23	420.48	1.0883	1.7687
18	9.9343	8.3575	1138.00	38.54	226.76	420.83	1.0935	1.7674
19	10.2450	8.6416	1133.80	39.74	228.29	421.17	1.0986	1.7661
20	10.5620	8.9321	1129.50	40.98	229.83	421.51	1.1038	1.7648
21	10.8850	9.2293	1125.20	42.26	231.37	421.84	1.1089	1.7635
22	11.2150	9.5331	1120.90	43.56	232.92	422.16	1.1141	1.7621
23	11.5520	9.8437	1116.50	44.91	234.48	422.47	1.1193	1.7608
24	11.8960	10.1610	1112.10	46.29	236.04	422.78	1.1244	1.7595
25	12.2460	10.4860	1107.60	47.70	237.61	423.08	1.1296	1.7582
26	12.6040	10.8170	1103.10	49.16	239.19	423.36	1.1348	1.7569

	Liquid Phase	Vapor Phase	Liquid Phase	Vapor Phase	Liquid Phase	Vapor Phase	Liquid Phase	Vapor Phase
Temperature	Pressure	Pressure	Density	Density	Enthalpy	Enthalpy	Entropy	Entropy
(°C)	(bar_g)	(bar_g)	(kg/m³)	(kg/m³)	(kJ/kg)	(kJ/kg)	(kJ/kg-K)	(kJ/kg-K)
27	12.9690	11.1560	1098.60	50.66	240.77	423.65	1.1399	1.7555
28	13.3410	11.5020	1094.00	52.19	242.35	423.92	1.1451	1.7542
29	13.7200	11.8560	1089.40	53.77	243.95	424.18	1.1503	1.7529
30	14.1060	12.2170	1084.70	55.40	245.55	424.43	1.1554	1.7515
31	14.5000	12.5860	1080.00	57.07	247.16	424.68	1.1606	1.7501
32	14.9020	12.9620	1075.20	58.78	248.78	424.91	1.1658	1.7488
33	15.3110	13.3470	1070.40	60.55	250.40	425.13	1.1710	1.7474
34	15.7280	13.7390	1065.50	62.36	252.04	425.34	1.1762	1.7460
35	16.1530	14.1400	1060.50	64.23	253.68	425.54	1.1814	1.7446
36	16.5850	14.5490	1055.50	66.15	255.33	425.73	1.1866	1.7432
37	17.0260	14.9660	1050.50	68.13	256.98	425.91	1.1918	1.7418
38	17.4750	15.3920	1045.40	70.16	258.65	426.08	1.1971	1.7403
39	17.9310	15.8260	1040.20	72.25	260.33	426.23	1.2023	1.7388
40	18.3970	16.2690	1034.90	74.41	262.01	426.37	1.2075	1.7374
41	18.8700	16.7210	1029.60	76.63	263.71	426.50	1.2128	1.7359
42	19.3520	17.1820	1024.20	78.92	265.41	426.61	1.2181	1.7343
43	19.8430	17.6520	1018.80	81.27	267.13	426.71	1.2234	1.7328
44	20.3420	18.1320	1013.20	83.70	268.85	426.79	1.2286	1.7312
45	20.8500	18.6210	1007.60	86.21	270.59	426.86	1.2340	1.7296
46	21.3670	19.1190	1001.90	88.79	272.34	426.91	1.2393	1.7280
47	21.8930	19.6270	996.11	91.46	274.10	426.95	1.2446	1.7263
48	22.4280	20.1460	990.22	94.21	275.87	426.97	1.2500	1.7246
49	22.9720	20.6740	984.24	97.05	277.66	426.97	1.2554	1.7229
50	23.5260	21.2130	978.16	99.99	279.46	426.95	1.2608	1.7212
51	24.0890	21.7620	971.97	103.03	281.28	426.90	1.2662	1.7194
52	24.6610	22.3210	965.66	106.17	283.10	426.84	1.2717	1.7175
53	25.2430	22.8920	959.24	109.42	284.95	426.76	1.2771	1.7156
54	25.8350	23.4730	952.69	112.79	286.81	426.65	1.2827	1.7137
55	26.4370	24.0660	946.01	116.29	288.69	426.52	1.2882	1.7117

	Liquid Phase	Vapor Phase	Liquid Phase	Vapor Phase	Liquid Phase	Vapor Phase	Liquid Phase	Vapor Phase
Temperature	Pressure	Pressure	Density	Density	Enthalpy	Enthalpy	Entropy	Entropy
(°C)	(bar_g)	(bar_g)	(kg/m ³)	(kg/m ³)	(kJ/kg)	(kJ/kg)	(kJ/kg-K)	(kJ/kg-K)
56	27.0480	24.6700	939.18	119.91	290.59	426.36	1.2938	1.7097
57	27.6700	25.2850	932.21	123.68	292.51	426.18	1.2994	1.7076
58	28.3010	25.9120	925.07	127.59	294.44	425.96	1.3050	1.7054
59	28.9430	26.5520	917.75	131.66	296.40	425.72	1.3107	1.7032
60	29.5960	27.2040	910.25	135.89	298.39	425.44	1.3165	1.7009
61	30.2590	27.8680	902.54	140.31	300.40	425.12	1.3223	1.6985
62	30.9320	28.5450	894.62	144.93	302.43	424.77	1.3282	1.6960
63	31.6170	29.2360	886.45	149.75	304.50	424.38	1.3341	1.6935
64	32.3120	29.9400	878.03	154.80	306.60	423.94	1.3401	1.6908
65	33.0180	30.6570	869.32	160.11	308.73	423.45	1.3462	1.6880
66	33.7350	31.3890	860.28	165.68	310.90	422.92	1.3523	1.6851
67	34.4630	32.1360	850.90	171.55	313.12	422.32	1.3586	1.6820
68	35.2020	32.8970	841.12	177.76	315.38	421.66	1.3650	1.6788
69	35.9530	33.6750	830.89	184.34	317.69	420.93	1.3715	1.6754
70	36.7150	34.4680	820.16	191.33	320.07	420.13	1.3782	1.6719
71	37.4880	35.2780	808.85	198.79	322.51	419.23	1.3850	1.6680
72	38.2720	36.1050	796.86	206.79	325.03	418.23	1.3920	1.6640
73	39.0680	36.9510	784.08	215.42	327.65	417.12	1.3993	1.6596
74	39.8740	37.8160	770.36	224.79	330.38	415.87	1.4069	1.6548
75	40.6920	38.7020	755.48	235.05	333.24	414.46	1.4148	1.6497
76	41.5190	39.6100	739.15	246.40	336.27	412.84	1.4232	1.6440
77	42.3550	40.5420	720.94	259.15	339.52	410.98	1.4321	1.6376
78	43.1980	41.5020	700.16	273.74	343.07	408.78	1.4419	1.6303
79	44.0450	42.4940	675.58	290.94	347.07	406.12	1.4529	1.6217
80	44.8880	43.5260	644.65	312.22	351.84	402.74	1.4661	1.6111

Sat -60 C [0.33152 bar]				Sat -50 C [0.59543 bar]				Sat -40 C [1.0064 bar]			
Temp	Volume	Enthalpy	Entropy	Temp	Volume	Enthalpy	Entropy	Temp	Volume	Enthalpy	Entropy
[C]	[litre/kg]	[kJ/kg]	[kJ/K-kg]	[C]	[litre/kg]	[kJ/kg]	[kJ/K-kg]	[C]	[litre/kg]	[kJ/kg]	[kJ/K-kg]
-60	0.64117	381.16	1.9222	-50	0.37014	387.10	1.8913	-40	0.22594	392.89	1.8652
-58	0.64772	382.60	1.9289	-48	0.37390	388.60	1.8980	-38	0.22825	394.47	1.8719
-56	0.65425	384.04	1.9356	-46	0.37763	390.11	1.9047	-36	0.23053	396.05	1.8786
-54	0.66076	385.48	1.9422	-44	0.38135	391.61	1.9112	-34	0.23281	397.62	1.8852
-52	0.66725	386.93	1.9488	-42	0.38506	393.12	1.9178	-32	0.23507	399.19	1.8917
-50	0.67371	388.38	1.9553	-40	0.38875	394.62	1.9243	-30	0.23732	400.76	1.8982
-48	0.68017	389.83	1.9618	-38	0.39243	396.13	1.9307	-28	0.23956	402.33	1.9046
-46	0.68660	391.29	1.9682	-36	0.39609	397.64	1.9371	-26	0.24179	403.90	1.9110
-44	0.69303	392.75	1.9746	-34	0.39974	399.16	1.9435	-24	0.24402	405.47	1.9173
-42	0.69944	394.21	1.9810	-32	0.40339	400.67	1.9498	-22	0.24623	407.05	1.9236
-40	0.70583	395.68	1.9873	-30	0.40702	402.19	1.9561	-20	0.24843	408.62	1.9299
-38	0.71222	397.15	1.9936	-28	0.41064	403.71	1.9623	-18	0.25063	410.20	1.9361
-36	0.71859	398.62	1.9998	-26	0.41426	405.24	1.9685	-16	0.25282	411.78	1.9423
-34	0.72496	400.11	2.0060	-24	0.41787	406.77	1.9747	-14	0.25500	413.37	1.9484
-32	0.73131	401.59	2.0122	-22	0.42147	408.31	1.9808	-12	0.25718	414.96	1.9545
-30	0.73766	403.08	2.0184	-20	0.42506	409.84	1.9869	-10	0.25935	416.55	1.9606
-28	0.74400	404.58	2.0245	-18	0.42865	411.39	1.9930	-8	0.26152	418.14	1.9666
-26	0.75032	406.08	2.0306	-16	0.43223	412.94	1.9990	-6	0.26368	419.74	1.9726
-24	0.75665	407.58	2.0367	-14	0.43580	414.49	2.0050	-4	0.26584	421.34	1.9786
-22	0.76296	409.09	2.0427	-12	0.43937	416.04	2.0110	-2	0.26799	422.95	1.9846
-20	0.76927	410.61	2.0487	-10	0.44293	417.61	2.0170	0	0.27014	424.56	1.9905
-18	0.77557	412.13	2.0547	-8	0.44649	419.17	2.0229	2	0.27228	426.18	1.9964
-16	0.78187	413.66	2.0607	-6	0.45004	420.75	2.0288	4	0.27442	427.80	2.0022
-14	0.78816	415.19	2.0666	-4	0.45359	422.32	2.0347	6	0.27655	429.42	2.0081
-12	0.79444	416.73	2.0725	-2	0.45713	423.91	2.0405	8	0.27869	431.05	2.0139
-10	0.80072	418.28	2.0784	0	0.46067	425.49	2.0464	10	0.28081	432.69	2.0197
-8	0.80700	419.83	2.0843	2	0.46421	427.09	2.0522	12	0.28294	434.33	2.0255
-6	0.81327	421.38	2.0901	4	0.46774	428.68	2.0580	14	0.28506	435.97	2.0312
-4	0.81953	422.94	2.0959	6	0.47127	430.29	2.0637	16	0.28718	437.62	2.0369
-2	0.82579	424.51	2.1017	8	0.47479	431.90	2.0695	18	0.28930	439.27	2.0426
0	0.83205	426.08	2.1075	10	0.47831	433.51	2.0752	20	0.29141	440.93	2.0483
2	0.83830	427.66	2.1133	12	0.48183	435.13	2.0809	22	0.29352	442.60	2.0540
4	0.84455	429.25	2.1190	14	0.48535	436.76	2.0866	24	0.29563	444.27	2.0596
6	0.85080	430.84	2.1247	16	0.48886	438.39	2.0923	26	0.29773	445.94	2.0652
8	0.85704	432.43	2.1304	18	0.49237	440.03	2.0979	28	0.29984	447.62	2.0708
10	0.86328	434.04	2.1361	20	0.49587	441.67	2.1035	30	0.30194	449.31	2.0764
12	0.86951	435.65	2.1418	22	0.49938	443.32	2.1091	32	0.30403	451.00	2.0820
14	0.87575	437.26	2.1474	24	0.50288	444.98	2.1147	34	0.30613	452.70	2.0875

Sat -60 C [0.33152 bar]				Sat -50 C [0.59543 bar]				Sat -40 C [1.0064 bar]			
Temp	Volume	Enthalpy	Entropy	Temp	Volume	Enthalpy	Entropy	Temp	Volume	Enthalpy	Entropy
[C]	[litre/kg]	[kJ/kg]	[kJ/K-kg]	[C]	[litre/kg]	[kJ/kg]	[kJ/K-kg]	[C]	[litre/kg]	[kJ/kg]	[kJ/K-kg]
16	0.88198	438.88	2.1531	26	0.50638	446.64	2.1203	36	0.30823	454.40	2.0930
18	0.88820	440.51	2.1587	28	0.50987	448.31	2.1259	38	0.31032	456.11	2.0986
20	0.89443	442.14	2.1643	30	0.51337	449.98	2.1314	40	0.31241	457.83	2.1040
22	0.90065	443.78	2.1698	32	0.51686	451.66	2.1369	42	0.31450	459.55	2.1095
24	0.90687	445.43	2.1754	34	0.52035	453.34	2.1424	44	0.31659	461.27	2.1150
26	0.91309	447.08	2.1809	36	0.52384	455.03	2.1479	46	0.31867	463.00	2.1204
28	0.91930	448.74	2.1865	38	0.52733	456.73	2.1534	48	0.32075	464.74	2.1258
30	0.92552	450.40	2.1920	40	0.53081	458.43	2.1588	50	0.32284	466.48	2.1313
32	0.93173	452.07	2.1975	42	0.53429	460.14	2.1643	52	0.32492	468.23	2.1367
34	0.93794	453.75	2.2029	44	0.53778	461.86	2.1697	54	0.32700	469.99	2.1420
36	0.94414	455.43	2.2084	46	0.54126	463.58	2.1751	56	0.32908	471.75	2.1474
38	0.95035	457.12	2.2138	48	0.54473	465.30	2.1805	58	0.33115	473.51	2.1527
40	0.95655	458.82	2.2193	50	0.54821	467.04	2.1859	60	0.33323	475.28	2.1581
42	0.96275	460.52	2.2247	52	0.55169	468.78	2.1912	62	0.33530	477.06	2.1634
44	0.96895	462.23	2.2301	54	0.55516	470.52	2.1966	64	0.33738	478.85	2.1687
46	0.97515	463.94	2.2355	56	0.55863	472.27	2.2019	66	0.33945	480.64	2.1740
48	0.98135	465.66	2.2409	58	0.56210	474.03	2.2072	68	0.34152	482.43	2.1793
50	0.98754	467.39	2.2462	60	0.56557	475.79	2.2126	70	0.34359	484.23	2.1845
52	0.99374	469.12	2.2516	62	0.56904	477.56	2.2179	72	0.34566	486.04	2.1898
54	0.99993	470.86	2.2569	64	0.57251	479.34	2.2231	74	0.34773	487.85	2.1950
56	1.00610	472.61	2.2622	66	0.57598	481.12	2.2284	76	0.34979	489.67	2.2003
58	1.01230	474.36	2.2675	68	0.57944	482.91	2.2337	78	0.35186	491.50	2.2055
60	1.01850	476.12	2.2728	70	0.58291	484.70	2.2389	80	0.35392	493.33	2.2107
62	1.02470	477.88	2.2781	72	0.58637	486.50	2.2441	82	0.35599	495.17	2.2159
64	1.03090	479.65	2.2834	74	0.58983	488.31	2.2494	84	0.35805	497.01	2.2210
66	1.03710	481.43	2.2886	76	0.59329	490.12	2.2546	86	0.36011	498.86	2.2262
68	1.04320	483.21	2.2939	78	0.59675	491.94	2.2598	88	0.36217	500.72	2.2314
70	1.04940	485.00	2.2991	80	0.60021	493.77	2.2649	90	0.36423	502.58	2.2365
72	1.05560	486.80	2.3043	82	0.60367	495.60	2.2701	92	0.36629	504.45	2.2416
74	1.06180	488.60	2.3095	84	0.60713	497.43	2.2753	94	0.36835	506.32	2.2467
76	1.06800	490.41	2.3147	86	0.61058	499.28	2.2804	96	0.37041	508.20	2.2518
78	1.07410	492.22	2.3199	88	0.61404	501.13	2.2855	98	0.37247	510.08	2.2569
80	1.08030	494.04	2.3251	90	0.61750	502.98	2.2907	100	0.37452	511.97	2.2620
82	1.08650	495.87	2.3302	92	0.62095	504.84	2.2958	102	0.37658	513.87	2.2671
84	1.09270	497.70	2.3354	94	0.62440	506.71	2.3009	104	0.37864	515.77	2.2721
86	1.09890	499.54	2.3405	96	0.62786	508.58	2.3060	106	0.38069	517.68	2.2772
88	1.10500	501.39	2.3456	98	0.63131	510.46	2.3111	108	0.38275	519.60	2.2822
90	1.11120	503.24	2.3507	100	0.63476	512.35	2.3161	110	0.38480	521.52	2.2873

Sat -30 C [1.6157 bar]				Sat -20 C [2.4821 bar]				Sat -10 C [3.6717 bar]			
Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]	Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]	Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]
-30	0.14445	398.5	1.8429	-20	0.09599	403.86	1.8236	-10	0.065856	408.91	1.8068
-28	0.14595	400.2	1.8497	-18	0.09702	405.60	1.8305	-8	0.066594	410.77	1.8138
-26	0.14744	401.8	1.8564	-16	0.09803	407.34	1.8373	-6	0.067324	412.60	1.8207
-24	0.14891	403.5	1.8630	-14	0.09904	409.08	1.8440	-4	0.068044	414.43	1.8275
-22	0.15038	405.1	1.8696	-12	0.10004	410.80	1.8507	-2	0.068756	416.24	1.8342
-20	0.15183	406.7	1.8761	-10	0.10103	412.52	1.8572	0	0.069462	418.05	1.8409
-18	0.15328	408.4	1.8825	-8	0.10201	414.23	1.8637	2	0.070160	419.85	1.8474
-16	0.15472	410.0	1.8889	-6	0.10299	415.95	1.8701	4	0.070853	421.64	1.8539
-14	0.15615	411.7	1.8953	-4	0.10396	417.66	1.8765	6	0.071540	423.43	1.8604
-12	0.15757	413.3	1.9016	-2	0.10492	419.36	1.8828	8	0.072221	425.22	1.8668
-10	0.15899	414.9	1.9078	0	0.10588	421.07	1.8891	10	0.072898	427.00	1.8731
-8	0.16040	416.6	1.9140	2	0.10683	422.78	1.8953	12	0.073570	428.78	1.8793
-6	0.16181	418.2	1.9202	4	0.10778	424.49	1.9015	14	0.074238	430.56	1.8856
-4	0.16321	419.9	1.9263	6	0.10872	426.20	1.9077	16	0.074902	432.34	1.8917
-2	0.16460	421.5	1.9324	8	0.10966	427.90	1.9138	18	0.075563	434.12	1.8979
0	0.16599	423.2	1.9385	10	0.11059	429.62	1.9198	20	0.076219	435.90	1.9040
2	0.16737	424.8	1.9445	12	0.11153	431.33	1.9259	22	0.076872	437.68	1.9100
4	0.16876	426.5	1.9505	14	0.11245	433.04	1.9318	24	0.077523	439.46	1.9160
6	0.17013	428.1	1.9565	16	0.11338	434.76	1.9378	26	0.078169	441.24	1.9220
8	0.17151	429.8	1.9624	18	0.11430	436.48	1.9437	28	0.078814	443.02	1.9279
10	0.17287	431.4	1.9683	20	0.11521	438.20	1.9496	30	0.079455	444.80	1.9338
12	0.17424	433.1	1.9742	22	0.11613	439.92	1.9555	32	0.080094	446.59	1.9397
14	0.17560	434.8	1.9800	24	0.11704	441.65	1.9613	34	0.080730	448.38	1.9455
16	0.17696	436.5	1.9858	26	0.11795	443.38	1.9671	36	0.081364	450.17	1.9514
18	0.17832	438.1	1.9916	28	0.11885	445.12	1.9729	38	0.081995	451.96	1.9571
20	0.17967	439.8	1.9974	30	0.11976	446.86	1.9787	40	0.082624	453.76	1.9629
22	0.18102	441.5	2.0031	32	0.12066	448.60	1.9844	42	0.083252	455.56	1.9686
24	0.18237	443.2	2.0088	34	0.12155	450.34	1.9901	44	0.083877	457.36	1.9743
26	0.18371	444.9	2.0145	36	0.12245	452.09	1.9958	46	0.084500	459.16	1.9800
28	0.18506	446.6	2.0202	38	0.12334	453.85	2.0014	48	0.085121	460.97	1.9856
30	0.18640	448.3	2.0258	40	0.12424	455.60	2.0071	50	0.085741	462.79	1.9913
32	0.18773	450.0	2.0315	42	0.12513	457.37	2.0127	52	0.086359	464.60	1.9969
34	0.18907	451.7	2.0371	44	0.12602	459.13	2.0183	54	0.086975	466.42	2.0025
36	0.19040	453.5	2.0427	46	0.12690	460.90	2.0238	56	0.087590	468.25	2.0080
38	0.19174	455.2	2.0482	48	0.12779	462.68	2.0294	58	0.088203	470.07	2.0135
40	0.19307	456.9	2.0538	50	0.12867	464.46	2.0349	60	0.088815	471.90	2.0191
42	0.19439	458.7	2.0593	52	0.12955	466.24	2.0404	62	0.089426	473.74	2.0246
44	0.19572	460.4	2.0648	54	0.13043	468.03	2.0459	64	0.090035	475.58	2.0300

Sat -30 C [1.6157 bar]				Sat -20 C [2.4821 bar]				Sat -10 C [3.6717 bar]			
Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]	Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]	Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]
46	0.19704	462.14	2.0703	56	0.13131	469.83	2.0513	66	0.090642	477.42	2.0355
48	0.19837	463.90	2.0758	58	0.13219	471.63	2.0568	68	0.091249	479.27	2.0409
50	0.19969	465.65	2.0812	60	0.13306	473.43	2.0622	70	0.091854	481.13	2.0463
52	0.20101	467.42	2.0867	62	0.13394	475.24	2.0676	72	0.092458	482.98	2.0517
54	0.20233	469.19	2.0921	64	0.13481	477.06	2.0730	74	0.093061	484.85	2.0571
56	0.20364	470.96	2.0975	66	0.13568	478.87	2.0784	76	0.093663	486.71	2.0625
58	0.20496	472.74	2.1029	68	0.13655	480.70	2.0838	78	0.094263	488.59	2.0678
60	0.20627	474.53	2.1083	70	0.13742	482.53	2.0891	80	0.094863	490.46	2.0731
62	0.20759	476.32	2.1136	72	0.13829	484.36	2.0945	82	0.095462	492.34	2.0785
64	0.20890	478.11	2.1190	74	0.13916	486.20	2.0998	84	0.096060	494.23	2.0838
66	0.21021	479.91	2.1243	76	0.14003	488.05	2.1051	86	0.096657	496.12	2.0890
68	0.21152	481.72	2.1296	78	0.14089	489.90	2.1104	88	0.097253	498.02	2.0943
70	0.21283	483.53	2.1349	80	0.14176	491.75	2.1156	90	0.097848	499.92	2.0995
72	0.21413	485.35	2.1402	82	0.14262	493.62	2.1209	92	0.098442	501.82	2.1048
74	0.21544	487.18	2.1455	84	0.14348	495.48	2.1261	94	0.099035	503.73	2.1100
76	0.21674	489.01	2.1507	86	0.14434	497.35	2.1314	96	0.099628	505.65	2.1152
78	0.21805	490.84	2.1560	88	0.14520	499.23	2.1366	98	0.100220	507.57	2.1204
80	0.21935	492.68	2.1612	90	0.14606	501.11	2.1418	100	0.100810	509.50	2.1256
82	0.22065	494.53	2.1664	92	0.14692	503.00	2.1470	102	0.101400	511.43	2.1307
84	0.22195	496.38	2.1716	94	0.14778	504.90	2.1521	104	0.101990	513.36	2.1359
86	0.22325	498.24	2.1768	96	0.14864	506.79	2.1573	106	0.102580	515.31	2.1410
88	0.22455	500.11	2.1820	98	0.14950	508.70	2.1624	108	0.103170	517.25	2.1461
90	0.22585	501.98	2.1872	100	0.15035	510.61	2.1676	110	0.103760	519.20	2.1512
92	0.22715	503.85	2.1923	102	0.15121	512.53	2.1727	112	0.104340	521.16	2.1563
94	0.22845	505.73	2.1974	104	0.15206	514.45	2.1778	114	0.104930	523.12	2.1614
96	0.22974	507.62	2.2026	106	0.15292	516.37	2.1829	116	0.105520	525.09	2.1665
98	0.23104	509.51	2.2077	108	0.15377	518.31	2.1880	118	0.106100	527.07	2.1715
100	0.23234	511.41	2.2128	110	0.15462	520.24	2.1930	120	0.106690	529.04	2.1766
102	0.23363	513.32	2.2179	112	0.15547	522.19	2.1981	122	0.107270	531.03	2.1816
104	0.23492	515.23	2.2230	114	0.15633	524.14	2.2031	124	0.107850	533.02	2.1866
106	0.23622	517.14	2.2280	116	0.15718	526.09	2.2082	126	0.108440	535.01	2.1917
108	0.23751	519.07	2.2331	118	0.15803	528.05	2.2132	128	0.109020	537.01	2.1967
110	0.23880	520.99	2.2381	120	0.15888	530.02	2.2182	130	0.109600	539.02	2.2016
112	0.24009	522.93	2.2432	122	0.15973	531.99	2.2232	132	0.110180	541.03	2.2066
114	0.24138	524.87	2.2482	124	0.16058	533.96	2.2282	134	0.110770	543.04	2.2116
116	0.24267	526.81	2.2532	126	0.16142	535.95	2.2332	136	0.111350	545.06	2.2165
118	0.24396	528.76	2.2582	128	0.16227	537.94	2.2382	138	0.111930	547.09	2.2215
120	0.24525	530.72	2.2632	130	0.16312	539.93	2.2431	140	0.112510	549.12	2.2264

Sat 0 C [5.2577 bar]				Sat 10 C [7.3198 bar]				Sat 20 C [9.9454 bar]			
Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]	Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]	Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]
0	0.046383	413.61	1.7918	10	0.033367	417.84	1.7780	20	0.024400	421.51	1.7648
2	0.046937	415.57	1.7990	12	0.033799	419.94	1.7853	22	0.024749	423.76	1.7724
4	0.047481	417.52	1.8060	14	0.034221	422.01	1.7926	24	0.025091	425.99	1.7799
6	0.048018	419.45	1.8129	16	0.034637	424.06	1.7997	26	0.025425	428.18	1.7873
8	0.048548	421.36	1.8198	18	0.035046	426.09	1.8067	28	0.025752	430.34	1.7945
10	0.049071	423.27	1.8265	20	0.035449	428.11	1.8136	30	0.026074	432.49	1.8016
12	0.049588	425.16	1.8332	22	0.035847	430.11	1.8204	32	0.026391	434.61	1.8086
14	0.050100	427.05	1.8398	24	0.036240	432.10	1.8271	34	0.026703	436.72	1.8155
16	0.050607	428.92	1.8463	26	0.036628	434.08	1.8337	36	0.027010	438.82	1.8223
18	0.051109	430.80	1.8527	28	0.037011	436.04	1.8403	38	0.027313	440.90	1.8290
20	0.051607	432.66	1.8591	30	0.037391	438.01	1.8468	40	0.027613	442.96	1.8356
22	0.052100	434.53	1.8655	32	0.037767	439.96	1.8532	42	0.027908	445.02	1.8422
24	0.052590	436.39	1.8717	34	0.038139	441.91	1.8596	44	0.028201	447.07	1.8486
26	0.053077	438.24	1.8780	36	0.038509	443.85	1.8659	46	0.028490	449.12	1.8551
28	0.053560	440.10	1.8842	38	0.038875	445.79	1.8722	48	0.028777	451.15	1.8614
30	0.054039	441.95	1.8903	40	0.039238	447.73	1.8784	50	0.029061	453.18	1.8677
32	0.054516	443.80	1.8964	42	0.039598	449.66	1.8845	52	0.029342	455.20	1.8740
34	0.054990	445.65	1.9024	44	0.039956	451.59	1.8906	54	0.029620	457.22	1.8801
36	0.055461	447.51	1.9084	46	0.040311	453.52	1.8967	56	0.029897	459.24	1.8863
38	0.055930	449.36	1.9144	48	0.040664	455.45	1.9027	58	0.030171	461.25	1.8924
40	0.056396	451.21	1.9203	50	0.041014	457.38	1.9087	60	0.030443	463.26	1.8984
42	0.056860	453.06	1.9262	52	0.041363	459.30	1.9146	62	0.030713	465.27	1.9044
44	0.057321	454.92	1.9321	54	0.041709	461.23	1.9205	64	0.030981	467.27	1.9104
46	0.057780	456.77	1.9379	56	0.042054	463.16	1.9264	66	0.031247	469.28	1.9163
48	0.058238	458.63	1.9437	58	0.042396	465.08	1.9322	68	0.031512	471.28	1.9222
50	0.058693	460.49	1.9495	60	0.042737	467.01	1.9380	70	0.031774	473.28	1.9281
52	0.059147	462.35	1.9552	62	0.043076	468.94	1.9438	72	0.032036	475.28	1.9339
54	0.059598	464.21	1.9610	64	0.043414	470.87	1.9495	74	0.032296	477.28	1.9397
56	0.060048	466.08	1.9666	66	0.043750	472.80	1.9553	76	0.032554	479.28	1.9454
58	0.060497	467.95	1.9723	68	0.044084	474.73	1.9609	78	0.032811	481.29	1.9511
60	0.060944	469.82	1.9779	70	0.044417	476.66	1.9666	80	0.033067	483.29	1.9568
62	0.061389	471.69	1.9835	72	0.044749	478.60	1.9722	82	0.033321	485.29	1.9625
64	0.061833	473.57	1.9891	74	0.045079	480.54	1.9778	84	0.033574	487.30	1.9681
66	0.062275	475.45	1.9947	76	0.045408	482.48	1.9834	86	0.033826	489.30	1.9737
68	0.062716	477.33	2.0002	78	0.045736	484.42	1.9889	88	0.034077	491.31	1.9793
70	0.063156	479.22	2.0057	80	0.046062	486.37	1.9945	90	0.034327	493.32	1.9848
72	0.063594	481.11	2.0112	82	0.046388	488.32	2.0000	92	0.034575	495.33	1.9904
74	0.064031	483.00	2.0167	84	0.046712	490.27	2.0054	94	0.034823	497.34	1.9958

Sat 0 C [5.2577 bar]				Sat 10 C [7.3198 bar]				Sat 20 C [9.9454 bar]			
Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]	Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]	Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]
76	0.064468	484.90	2.0222	86	0.047036	492.22	2.0109	96	0.03507	499.36	2.0013
78	0.064902	486.80	2.0276	88	0.047358	494.18	2.0163	98	0.03532	501.38	2.0068
80	0.065336	488.71	2.0330	90	0.047679	496.14	2.0218	100	0.03556	503.40	2.0122
82	0.065769	490.62	2.0384	92	0.047999	498.11	2.0271	102	0.03581	505.42	2.0176
84	0.066201	492.53	2.0438	94	0.048319	500.07	2.0325	104	0.03605	507.45	2.0230
86	0.066632	494.45	2.0491	96	0.048637	502.04	2.0379	106	0.03629	509.48	2.0284
88	0.067062	496.37	2.0544	98	0.048955	504.02	2.0432	108	0.03653	511.51	2.0337
90	0.067491	498.29	2.0598	100	0.049272	506.00	2.0485	110	0.03677	513.54	2.0390
92	0.067919	500.23	2.0651	102	0.049588	507.98	2.0538	112	0.03701	515.58	2.0443
94	0.068346	502.16	2.0703	104	0.049903	509.97	2.0591	114	0.03725	517.62	2.0496
96	0.068772	504.10	2.0756	106	0.050218	511.96	2.0644	116	0.03749	519.67	2.0549
98	0.069198	506.04	2.0809	108	0.050531	513.95	2.0696	118	0.03773	521.71	2.0601
100	0.069623	507.99	2.0861	110	0.050845	515.95	2.0748	120	0.03797	523.77	2.0654
102	0.070047	509.94	2.0913	112	0.051157	517.95	2.0801	122	0.03820	525.82	2.0706
104	0.070470	511.90	2.0965	114	0.051469	519.96	2.0853	124	0.03844	527.88	2.0758
106	0.070893	513.86	2.1017	116	0.051780	521.97	2.0904	126	0.03867	529.94	2.0810
108	0.071315	515.83	2.1069	118	0.052090	523.99	2.0956	128	0.03891	532.01	2.0861
110	0.071736	517.80	2.1120	120	0.052400	526.01	2.1008	130	0.03914	534.08	2.0913
112	0.072156	519.78	2.1172	122	0.052709	528.03	2.1059	132	0.03938	536.15	2.0964
114	0.072576	521.76	2.1223	124	0.053018	530.06	2.1110	134	0.03961	538.23	2.1015
116	0.072996	523.75	2.1274	126	0.053326	532.09	2.1161	136	0.03984	540.31	2.1066
118	0.073415	525.74	2.1325	128	0.053633	534.13	2.1212	138	0.04008	542.40	2.1117
120	0.073833	527.73	2.1376	130	0.053940	536.17	2.1263	140	0.04031	544.49	2.1168
122	0.074250	529.73	2.1427	132	0.054247	538.22	2.1313	142	0.04054	546.58	2.1218
124	0.074667	531.74	2.1478	134	0.054553	540.27	2.1364	144	0.04077	548.68	2.1269
126	0.075084	533.75	2.1528	136	0.054859	542.32	2.1414	146	0.04100	550.78	2.1319
128	0.075500	535.77	2.1579	138	0.055164	544.38	2.1465	148	0.04123	552.89	2.1369
130	0.075915	537.79	2.1629	140	0.055468	546.45	2.1515	150	0.04146	555.00	2.1419
132	0.076330	539.81	2.1679	142	0.055772	548.52	2.1565	152	0.04169	557.12	2.1469
134	0.076745	541.84	2.1729	144	0.056076	550.59	2.1614	154	0.04192	559.24	2.1519
136	0.077159	543.88	2.1779	146	0.056379	552.67	2.1664	156	0.04215	561.36	2.1568
138	0.077573	545.92	2.1829	148	0.056682	554.75	2.1714	158	0.04237	563.49	2.1618
140	0.077986	547.97	2.1878	150	0.056985	556.84	2.1763	160	0.04260	565.62	2.1667
142	0.078399	550.02	2.1928	152	0.057287	558.94	2.1813	162	0.04283	567.76	2.1717
144	0.078811	552.07	2.1977	154	0.057588	561.03	2.1862	164	0.04305	569.90	2.1766
146	0.079223	554.13	2.2026	156	0.057890	563.14	2.1911	166	0.04328	572.05	2.1815
148	0.079634	556.20	2.2076	158	0.058191	565.24	2.1960	168	0.04351	574.20	2.1864
150	0.080045	558.27	2.2125	160	0.058491	567.36	2.2009	170	0.04373	576.35	2.1912

Sat 30 C [13.23 bar]				Sat 40 C [17.282 bar]				Sat 50 C [22.226 bar]			
Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]	Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]	Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]
30	0.018052	424.4	1.7515	40	0.013440	426.37	1.7374	50	0.010001	426.95	1.7212
32	0.018346	426.9	1.7596	42	0.013699	429.10	1.7460	52	0.010242	430.08	1.7308
34	0.018632	429.3	1.7675	44	0.013949	431.76	1.7545	54	0.010470	433.09	1.7401
36	0.018911	431.7	1.7751	46	0.014190	434.36	1.7626	56	0.010689	436.01	1.7490
38	0.019183	434.0	1.7827	48	0.014424	436.90	1.7706	58	0.010899	438.84	1.7575
40	0.019449	436.3	1.7900	50	0.014652	439.40	1.7783	60	0.011101	441.60	1.7658
42	0.019710	438.6	1.7973	52	0.014874	441.86	1.7859	62	0.011297	444.30	1.7739
44	0.019966	440.8	1.8044	54	0.015091	444.29	1.7934	64	0.011487	446.95	1.7818
46	0.020217	443.1	1.8114	56	0.015304	446.68	1.8006	66	0.011672	449.55	1.7895
48	0.020465	445.3	1.8183	58	0.015512	449.05	1.8078	68	0.011852	452.12	1.7970
50	0.020708	447.5	1.8251	60	0.015716	451.39	1.8149	70	0.012028	454.64	1.8044
52	0.020948	449.6	1.8318	62	0.015916	453.72	1.8218	72	0.012200	457.14	1.8117
54	0.021185	451.8	1.8385	64	0.016114	456.02	1.8287	74	0.012369	459.61	1.8188
56	0.021419	454.0	1.8450	66	0.016308	458.31	1.8354	76	0.012535	462.05	1.8258
58	0.021650	456.1	1.8515	68	0.016499	460.58	1.8421	78	0.012697	464.47	1.8327
60	0.021878	458.2	1.8580	70	0.016688	462.83	1.8487	80	0.012857	466.87	1.8396
62	0.022104	460.4	1.8643	72	0.016874	465.08	1.8552	82	0.013014	469.25	1.8463
64	0.022327	462.5	1.8706	74	0.017058	467.31	1.8617	84	0.013169	471.62	1.8529
66	0.022548	464.6	1.8769	76	0.017239	469.53	1.8681	86	0.013322	473.97	1.8595
68	0.022767	466.7	1.8831	78	0.017419	471.75	1.8744	88	0.013473	476.31	1.8660
70	0.022984	468.8	1.8892	80	0.017596	473.95	1.8807	90	0.013621	478.63	1.8724
72	0.023199	470.9	1.8953	82	0.017772	476.15	1.8869	92	0.013768	480.94	1.8787
74	0.023413	473.0	1.9014	84	0.017946	478.34	1.8930	94	0.013913	483.25	1.8850
76	0.023624	475.1	1.9074	86	0.018118	480.53	1.8991	96	0.014057	485.54	1.8913
78	0.023834	477.2	1.9133	88	0.018289	482.71	1.9052	98	0.014199	487.83	1.8974
80	0.024043	479.3	1.9192	90	0.018458	484.88	1.9112	100	0.014339	490.10	1.9036
82	0.024249	481.3	1.9251	92	0.018626	487.05	1.9171	102	0.014478	492.38	1.9096
84	0.024455	483.4	1.9310	94	0.018792	489.22	1.9231	104	0.014616	494.64	1.9157
86	0.024659	485.5	1.9368	96	0.018957	491.39	1.9289	106	0.014752	496.90	1.9216
88	0.024862	487.6	1.9425	98	0.019121	493.55	1.9348	108	0.014887	499.15	1.9276
90	0.025063	489.7	1.9483	100	0.019284	495.71	1.9406	110	0.015021	501.40	1.9334
92	0.025264	491.7	1.9540	102	0.019446	497.86	1.9463	112	0.015154	503.65	1.9393
94	0.025463	493.8	1.9596	104	0.019606	500.02	1.9521	114	0.015286	505.89	1.9451
96	0.025661	495.9	1.9653	106	0.019765	502.17	1.9578	116	0.015417	508.13	1.9509
98	0.025858	498.0	1.9709	108	0.019924	504.33	1.9634	118	0.015547	510.37	1.9566
100	0.026054	500.0	1.9765	110	0.020081	506.48	1.9691	120	0.015676	512.61	1.9623
102	0.026249	502.1	1.9820	112	0.020238	508.63	1.9747	122	0.015804	514.84	1.9680
104	0.026443	504.2	1.9876	114	0.020393	510.79	1.9802	124	0.015932	517.07	1.9736

Sat 30 C [13.23 bar]				Sat 40 C [17.282 bar]				Sat 50 C [22.226 bar]			
Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]	Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]	Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]
106	0.026636	506.28	1.9931	116	0.020548	512.94	1.9858	126	0.016058	519.3	1.9792
108	0.026829	508.36	1.9985	118	0.020702	515.09	1.9913	128	0.016184	521.5	1.9848
110	0.027020	510.44	2.0040	120	0.020855	517.24	1.9968	130	0.016309	523.8	1.9903
112	0.027211	512.53	2.0094	122	0.021008	519.40	2.0023	132	0.016433	526.0	1.9958
114	0.027401	514.62	2.0148	124	0.021159	521.55	2.0077	134	0.016557	528.2	2.0013
116	0.027590	516.71	2.0202	126	0.021310	523.71	2.0131	136	0.016679	530.4	2.0068
118	0.027778	518.80	2.0256	128	0.021460	525.87	2.0185	138	0.016802	532.7	2.0122
120	0.027966	520.90	2.0309	130	0.021610	528.03	2.0239	140	0.016923	534.9	2.0176
122	0.028153	522.99	2.0362	132	0.021759	530.19	2.0292	142	0.017044	537.1	2.0230
124	0.028339	525.09	2.0415	134	0.021907	532.35	2.0346	144	0.017164	539.4	2.0284
126	0.028525	527.19	2.0468	136	0.022055	534.51	2.0399	146	0.017284	541.6	2.0337
128	0.028710	529.30	2.0521	138	0.022202	536.68	2.0451	148	0.017403	543.8	2.0390
130	0.028894	531.41	2.0573	140	0.022348	538.85	2.0504	150	0.017522	546.1	2.0443
132	0.029078	533.52	2.0626	142	0.022494	541.02	2.0556	152	0.017640	548.3	2.0496
134	0.029261	535.63	2.0678	144	0.022640	543.19	2.0609	154	0.017758	550.5	2.0548
136	0.029444	537.75	2.0729	146	0.022785	545.37	2.0661	156	0.017875	552.8	2.0600
138	0.029626	539.87	2.0781	148	0.022929	547.55	2.0713	158	0.017992	555.0	2.0652
140	0.029808	541.99	2.0833	150	0.023073	549.73	2.0764	160	0.018108	557.2	2.0704
142	0.029989	544.12	2.0884	152	0.023216	551.91	2.0816	162	0.018224	559.5	2.0756
144	0.030170	546.25	2.0935	154	0.023359	554.10	2.0867	164	0.018339	561.7	2.0807
146	0.030350	548.39	2.0986	156	0.023502	556.28	2.0918	166	0.018454	564.0	2.0859
148	0.030530	550.52	2.1037	158	0.023644	558.48	2.0969	168	0.018568	566.2	2.0910
150	0.030709	552.66	2.1088	160	0.023786	560.67	2.1020	170	0.018683	568.5	2.0961
152	0.030888	554.81	2.1138	162	0.023927	562.87	2.1070	172	0.018796	570.7	2.1012
154	0.031066	556.96	2.1189	164	0.024068	565.07	2.1121	174	0.018910	573.0	2.1062
156	0.031244	559.11	2.1239	166	0.024209	567.28	2.1171	176	0.019023	575.3	2.1113
158	0.031422	561.27	2.1289	168	0.024349	569.48	2.1221	178	0.019135	577.5	2.1163
160	0.031599	563.43	2.1339	170	0.024488	571.69	2.1271	180	0.019248	579.8	2.1213
162	0.031776	565.59	2.1389	172	0.024628	573.91	2.1321	182	0.019360	582.1	2.1263
164	0.031952	567.76	2.1439	174	0.024767	576.13	2.1371	184	0.019471	584.3	2.1313
166	0.032128	569.93	2.1488	176	0.024906	578.35	2.1421	186	0.019583	586.6	2.1362
168	0.032304	572.10	2.1538	178	0.025044	580.57	2.1470	188	0.019694	588.9	2.1412
170	0.032479	574.28	2.1587	180	0.025182	582.80	2.1519	190	0.019804	591.2	2.1461
172	0.032655	576.47	2.1636	182	0.025320	585.04	2.1568	192	0.019915	593.4	2.1510
174	0.032829	578.66	2.1685	184	0.025457	587.27	2.1617	194	0.020025	595.7	2.1559
176	0.033004	580.85	2.1734	186	0.025594	589.51	2.1666	196	0.020135	598.0	2.1608
178	0.033178	583.04	2.1783	188	0.025731	591.75	2.1715	198	0.020244	600.3	2.1657
180	0.033351	585.24	2.1832	190	0.025868	594.00	2.1764	200	0.020354	602.6	2.1706

Sat 60 C [28.217 bar]				Sat 70 C [35.481 bar]				Sat 80 C [44.539 bar]			
Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]	Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]	Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]
60	0.007359	425.44	1.7009	70	0.0052267	420.13	1.6719	80	0.003203	402.74	1.6112
62	0.007600	429.26	1.7123	72	0.0055026	425.44	1.6873	82	0.003682	414.66	1.6448
64	0.007822	432.84	1.7230	74	0.0057407	430.09	1.7007	84	0.003991	422.25	1.6661
66	0.008031	436.23	1.7330	76	0.005954	434.31	1.7129	86	0.004236	428.31	1.6831
68	0.008227	439.48	1.7426	78	0.0061492	438.23	1.7240	88	0.004447	433.54	1.6976
70	0.008415	442.61	1.7517	80	0.0063308	441.92	1.7345	90	0.004634	438.23	1.7105
72	0.008594	445.64	1.7605	82	0.0065014	445.44	1.7445	92	0.004805	442.56	1.7224
74	0.008766	448.58	1.7690	84	0.0066631	448.81	1.7539	94	0.004963	446.61	1.7335
76	0.008932	451.46	1.7773	86	0.0068172	452.06	1.7630	96	0.005111	450.44	1.7439
78	0.009093	454.27	1.7853	88	0.006965	455.21	1.7718	98	0.005251	454.10	1.7538
80	0.009249	457.03	1.7932	90	0.0071073	458.28	1.7802	100	0.005384	457.61	1.7632
82	0.009401	459.75	1.8008	92	0.0072447	461.28	1.7885	102	0.005512	461.01	1.7723
84	0.009549	462.42	1.8083	94	0.0073778	464.21	1.7965	104	0.005634	464.31	1.7811
86	0.009693	465.05	1.8157	96	0.007507	467.09	1.8043	106	0.005752	467.52	1.7896
88	0.009835	467.66	1.8229	98	0.0076328	469.92	1.8119	108	0.005866	470.66	1.7978
90	0.009973	470.23	1.8300	100	0.0077555	472.71	1.8194	110	0.005976	473.73	1.8059
92	0.010109	472.78	1.8370	102	0.0078753	475.45	1.8268	112	0.006083	476.74	1.8137
94	0.010243	475.30	1.8439	104	0.0079925	478.17	1.8340	114	0.006188	479.70	1.8214
96	0.010374	477.80	1.8507	106	0.0081073	480.85	1.8411	116	0.006290	482.62	1.8289
98	0.010503	480.28	1.8574	108	0.0082199	483.5	1.8481	118	0.006389	485.49	1.8362
100	0.010630	482.74	1.8640	110	0.0083304	486.13	1.8549	120	0.006487	488.33	1.8435
102	0.010755	485.19	1.8706	112	0.008439	488.74	1.8617	122	0.006582	491.13	1.8506
104	0.010879	487.62	1.8770	114	0.0085458	491.32	1.8684	124	0.006676	493.91	1.8576
106	0.011001	490.04	1.8834	116	0.008651	493.88	1.8750	126	0.006767	496.65	1.8645
108	0.011121	492.45	1.8897	118	0.0087546	496.43	1.8815	128	0.006858	499.37	1.8713
110	0.011240	494.84	1.8960	120	0.0088567	498.96	1.8880	130	0.006946	502.07	1.8780
112	0.011357	497.23	1.9022	122	0.0089574	501.48	1.8944	132	0.007034	504.74	1.8846
114	0.011473	499.60	1.9084	124	0.0090568	503.98	1.9007	134	0.007120	507.40	1.8911
116	0.011588	501.97	1.9145	126	0.009155	506.47	1.9069	136	0.007205	510.04	1.8976
118	0.011702	504.33	1.9205	128	0.009252	508.95	1.9131	138	0.007288	512.66	1.9040
120	0.011814	506.68	1.9265	130	0.0093479	511.42	1.9193	140	0.007371	515.27	1.9103
122	0.011926	509.02	1.9325	132	0.0094427	513.88	1.9254	142	0.007452	517.86	1.9166
124	0.012036	511.36	1.9384	134	0.0095365	516.33	1.9314	144	0.007532	520.44	1.9228
126	0.012146	513.70	1.9442	136	0.0096294	518.77	1.9374	146	0.007612	523.01	1.9289
128	0.012254	516.03	1.9501	138	0.0097213	521.2	1.9433	148	0.007691	525.57	1.9350
130	0.012362	518.36	1.9558	140	0.0098124	523.63	1.9492	150	0.007768	528.11	1.9411
132	0.012469	520.68	1.9616	142	0.0099027	526.05	1.9550	152	0.007845	530.65	1.9470
134	0.012574	523.00	1.9673	144	0.0099921	528.47	1.9609	154	0.007921	533.18	1.9530

Sat 60 C [28.217 bar]				Sat 70 C [35.481 bar]				Sat 80 C [44.539 bar]			
Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]	Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]	Temp [C]	Volume [litre/kg]	Enthalpy [kJ/kg]	Entropy [kJ/K-kg]
136	0.01268	525.31	1.9730	146	0.010081	530.88	1.9666	156	0.007997	535.7	1.9589
138	0.01278	527.62	1.9786	148	0.010169	533.28	1.9723	158	0.008071	538.2	1.9647
140	0.01289	529.94	1.9842	150	0.010256	535.68	1.9780	160	0.008145	540.7	1.9705
142	0.01299	532.24	1.9898	152	0.010343	538.08	1.9837	162	0.008219	543.2	1.9763
144	0.01309	534.55	1.9953	154	0.010428	540.48	1.9893	164	0.008292	545.7	1.9820
146	0.01320	536.86	2.0009	156	0.010514	542.87	1.9949	166	0.008364	548.2	1.9877
148	0.01330	539.16	2.0063	158	0.010598	545.26	2.0004	168	0.008435	550.7	1.9933
150	0.01340	541.47	2.0118	160	0.010683	547.64	2.0060	170	0.008506	553.2	1.9989
152	0.01350	543.77	2.0172	162	0.010766	550.03	2.0115	172	0.008577	555.7	2.0045
154	0.01360	546.07	2.0226	164	0.010849	552.41	2.0169	174	0.008647	558.1	2.0101
156	0.01369	548.37	2.0280	166	0.010932	554.79	2.0224	176	0.008716	560.6	2.0156
158	0.01379	550.68	2.0334	168	0.011014	557.17	2.0278	178	0.008785	563.1	2.0210
160	0.01389	552.98	2.0387	170	0.011095	559.55	2.0331	180	0.008853	565.5	2.0265
162	0.01399	555.28	2.0440	172	0.011176	561.93	2.0385	182	0.008921	568.0	2.0319
164	0.01408	557.59	2.0493	174	0.011257	564.31	2.0438	184	0.008989	570.5	2.0373
166	0.01418	559.89	2.0545	176	0.011337	566.68	2.0491	186	0.009056	572.9	2.0427
168	0.01428	562.20	2.0598	178	0.011417	569.06	2.0544	188	0.009123	575.4	2.0480
170	0.01437	564.50	2.0650	180	0.011496	571.44	2.0597	190	0.009189	577.8	2.0533
172	0.01447	566.81	2.0702	182	0.011575	573.82	2.0649	192	0.009255	580.3	2.0586
174	0.01456	569.12	2.0754	184	0.011653	576.19	2.0701	194	0.009321	582.7	2.0639
176	0.01466	571.43	2.0805	186	0.011732	578.57	2.0753	196	0.009386	585.2	2.0691
178	0.01475	573.74	2.0856	188	0.011809	580.95	2.0805	198	0.009451	587.6	2.0744
180	0.01484	576.05	2.0908	190	0.011887	583.33	2.0856	200	0.009516	590.1	2.0796
182	0.01494	578.37	2.0959	192	0.011964	585.71	2.0908	202	0.009580	592.6	2.0847
184	0.01503	580.69	2.1009	194	0.012041	588.09	2.0959	204	0.009644	595.0	2.0899
186	0.01512	583.01	2.1060	196	0.012117	590.47	2.1010	206	0.009708	597.5	2.0950
188	0.01521	585.33	2.1111	198	0.012193	592.86	2.1060	208	0.009771	599.9	2.1001
190	0.01530	587.65	2.1161	200	0.012269	595.24	2.1111	210	0.009834	602.4	2.1052
192	0.01540	589.98	2.1211	202	0.012345	597.63	2.1161	212	0.009897	604.8	2.1103
194	0.01549	592.30	2.1261	204	0.01242	600.02	2.1211	214	0.009959	607.3	2.1153
196	0.01558	594.63	2.1311	206	0.012495	602.41	2.1261	216	0.010022	609.7	2.1204
198	0.01567	596.97	2.1360	208	0.012569	604.8	2.1311	218	0.010084	612.2	2.1254
200	0.01576	599.30	2.1410	210	0.012644	607.19	2.1361	220	0.010145	614.6	2.1304
202	0.01585	601.64	2.1459	212	0.012718	609.59	2.1410	222	0.010207	617.1	2.1353
204	0.01594	603.98	2.1508	214	0.012792	611.99	2.1459	224	0.010268	619.6	2.1403
206	0.01603	606.32	2.1557	216	0.012865	614.38	2.1509	226	0.010329	622.0	2.1452
208	0.01612	608.67	2.1606	218	0.012939	616.79	2.1558	228	0.010390	624.5	2.1502
210	0.01621	611.02	2.1655	220	0.013012	619.19	2.1606	230	0.010450	627.0	2.1551