

REFRIGERANT R22 PROPERTIES TABLE

Temperature °C	Pressure MPa	Density kg/m ³ liquid	Volume m ³ /kg vapor	Enthalpy kJ/kg		Entropy kJ/kg.K	
				Liquid	Vapor	Liquid	Vapor
-100	0.00200	1571.7	8.2980	90.24	358.93	0.5027	2.0545
-90	0.00480	1545.1	3.6548	100.95	363.82	0.5629	1.9982
-80	0.01035	1518.3	1.7816	111.66	368.75	0.6197	1.9508
-70	0.02044	1491.1	0.94476	122.36	373.68	0.6738	1.9109
-60	0.03747	1463.6	0.53734	133.11	378.58	0.7253	1.8770
-50	0.06449	1435.5	0.32405	143.91	383.39	0.7748	1.8480
-48	0.07140	1429.8	0.29469	146.08	384.35	0.7844	1.8427
-46	0.07890	1424.1	0.26849	148.25	385.29	0.7940	1.8376
-44	0.08700	1418.4	0.24507	150.43	386.23	0.8035	1.8326
-42	0.09575	1412.6	0.22410	152.61	387.17	0.8130	1.8277
-40 ^{b)}	0.10132	1409.1	0.21256	153.93	387.72	0.8186	1.8249
-40	0.10518	1406.8	0.20526	154.80	388.09	0.8224	1.8230
-38	0.11533	1401.0	0.18832	156.99	389.01	0.8317	1.8184
-36	0.12623	1395.1	0.17306	159.19	389.93	0.8410	1.8140
-34	0.13793	1389.2	0.15927	161.40	390.84	0.8502	1.8096
-32	0.15045	1383.3	0.14680	163.61	391.74	0.8594	1.8054
-30	0.16384	1377.3	0.13551	165.82	392.63	0.8685	1.8013

-28	0.17815	1371.3	0.12525	168.04	393.52	0.8776	1.7973
-26	0.19340	1365.2	0.11593	170.27	394.39	0.8866	1.7934
-24	0.20965	1359.1	0.10744	172.51	395.26	0.8955	1.7896
-22	0.22693	1352.9	0.09970	174.75	396.12	0.9044	1.7859
-20	0.24529	1346.8	0.09262	177.00	396.67	0.9133	1.7822
-18	0.26477	1340.5	0.08615	179.26	397.81	0.9222	1.7787
-16	0.28542	1334.2	0.08023	181.53	398.64	0.9309	1.7752
-14	0.30728	1327.9	0.07479	183.81	399.46	0.9397	1.7719
-12	0.33040	1321.5	0.06979	186.09	400.27	0.9484	1.7686
-10	0.35482	1315.0	0.06520	188.38	401.07	0.9571	1.7653
-8	0.38059	1308.5	0.06096	190.69	401.85	0.9657	1.7621
-6	0.40775	1301.9	0.05706	193.00	402.63	0.9743	1.7590
-4	0.43636	1295.3	0.05345	195.32	403.39	0.9829	1.7560
-2	0.46646	1288.6	0.05012	197.66	404.14	0.9915	1.7530
0	0.49811	1281.8	0.04703	200.00	404.87	1.0000	1.7500
2	0.53134	1275.0	0.04417	202.35	405.59	1.0085	1.7471
4	0.56622	1268.1	0.04152	204.72	406.30	1.0170	1.7443
6	0.60279	1261.1	0.03906	207.10	406.99	1.0254	1.7415
8	0.64109	1254.0	0.03676	209.49	407.67	1.0338	1.7387
10	0.68119	1246.9	0.03463	211.89	408.33	1.0422	1.7360

12	0.72314	1239.7	0.03265	214.31	408.97	1.0506	1.7333
14	0.76698	1232.4	0.03079	216.74	409.60	1.0590	1.7306
16	0.81277	1225.0	0.02906	219.18	410.21	1.0673	1.7280
18	0.86056	1217.6	0.02744	221.63	410.80	1.0756	1.7254
20	0.91041	1210.0	0.02593	224.10	411.38	1.0840	1.7228
22	0.96236	1202.4	0.02451	226.59	411.93	1.0923	1.7202
24	1.0165	1194.6	0.02319	229.09	412.46	1.1006	1.7177
26	1.0728	1186.8	0.02194	231.60	412.98	1.1088	1.7151
28	1.1314	1178.8	0.02077	234.14	413.46	1.1171	1.7126
30	1.1924	1170.7	0.01968	236.69	413.93	1.1254	1.7101
32	1.2557	1162.5	0.01864	239.25	414.37	1.1336	1.7075
34	1.3215	1154.2	0.01767	241.84	414.79	1.1419	1.7050
36	1.3898	1145.7	0.01675	244.44	415.18	1.1501	1.7024
38	1.4606	1137.1	0.01589	247.06	415.54	1.1584	1.6999
40	1.5341	1128.4	0.01507	249.71	415.87	1.1667	1.6973
42	1.6103	1119.5	0.01430	252.37	416.17	1.1749	1.6947
44	1.6892	1110.4	0.01357	255.06	416.44	1.1832	1.6921
46	1.7709	1101.2	0.01288	257.77	416.68	1.1915	1.6894
48	1.8555	1091.8	0.01223	260.51	416.87	1.1998	1.6867
50	1.9431	1082.1	0.01161	263.27	417.03	1.2081	1.6840

55	2.1753	1057.1	0.01020	270.31	417.24	1.2291	1.6768
60	2.4274	1030.5	0.00895	277.56	417.14	1.2503	1.6692
65	2.7008	1001.8	0.00784	285.06	416.65	1.2718	1.6610
70	2.9967	970.4	0.00684	292.90	415.69	1.2940	1.6518
75	3.3168	935.3	0.00594	301.18	414.09	1.3169	1.6413
80	3.6627	894.8	0.00511	310.10	411.60	1.3413	1.6287
85	4.0368	845.1	0.00433	320.05	407.72	1.3680	1.6128
90	4.4416	777.5	0.00355	331.98	401.33	1.3998	1.5907
95	4.8820	665.4	0.00264	348.86	387.46	1.4442	1.5491
96.14 ^{c)}	4.9900	523.8	0.00191	366.59	366.59	1.4918	1.4918

Note! b = boiling point and ^{c)} = critical point

R417A is the zero ODP¹⁾ replacement for R22 suitable for new equipment and as a drop-in replacement for existing systems.

¹⁾ ODP - The ODP or Ozone Depletion Potential. The potential for a single molecule of the refrigerant to destroy the Ozone Layer. All refrigerants use R11 as a datum reference where R11 has an ODP of 1.0. The less the value of the ODP - the better the refrigerant is for the ozone layer and the environment.

²⁾ GWP - The GWP, or Global Warming Potential. A measurement (usually measured over a 100-year period) of how much effect a refrigerant will have on Global Warming in relation to Carbon Dioxide. CO₂ has a GWP of 1. The lower the value of GWP - the better the refrigerant is for the environment.