

R22 冷媒飽和性質表 (Saturated Properties Table of R22 Refrigerant)

冷媒(refrigerant) : R22		臨界溫度(critical temperature) : 369.3 K 臨界壓力(critical Pressure) : 4990 kPa 莫爾質量(molar mass) : 86.5 kg/kmol																	
溫度 (temp.)	壓力 (press.)	比容 (specific volume)		比焓 (specific enthalpy)		比熵 (spec. entropy)		定壓比熱 (isobaric sp. heat)		定容比熱 (isochoric sp. heat)		黏度 (viscosity)		熱傳導率 (thermal conductivity)		聲速 (speed of sound)		表面張力 (surface tension)	
°C	kPa	m <sup>3</sup> /kg		kJ/kg		kJ/(kgK)		kJ/(kgK)		kJ/(kgK)		mPa·s		W/(mK)		m/s		m-N/m	
相(phase)		液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)
-62	33.4	0.0007	0.5979	131.1	377.6	0.72	1.88	1.07	0.56	0.66	0.45	459.0	8.83	0.1236	0.0060	949.2	155.5	21.6	21.6
-60	37.5	0.0007	0.5368	133.3	378.6	0.73	1.88	1.07	0.56	0.66	0.46	446.0	8.91	0.1226	0.0061	939.9	156.0	21.2	21.2
-58	42.0	0.0007	0.4831	135.4	379.6	0.74	1.87	1.07	0.57	0.65	0.46	433.6	9.00	0.1216	0.0062	930.6	156.5	20.9	20.9
-56	46.9	0.0007	0.4357	137.6	380.5	0.75	1.86	1.07	0.57	0.65	0.46	421.7	9.08	0.1206	0.0063	921.3	156.9	20.6	20.6
-54	52.3	0.0007	0.3939	139.7	381.5	0.76	1.86	1.08	0.58	0.65	0.47	410.3	9.16	0.1197	0.0064	912.0	157.4	20.2	20.2
-52	58.2	0.0007	0.3568	141.9	382.5	0.77	1.85	1.08	0.58	0.65	0.47	399.3	9.24	0.1187	0.0065	902.7	157.9	19.9	19.9
-50	64.5	0.0007	0.3238	144.0	383.4	0.78	1.85	1.08	0.58	0.65	0.47	388.8	9.32	0.1177	0.0066	893.4	158.3	19.6	19.6
-48	71.4	0.0007	0.2945	146.2	384.4	0.78	1.84	1.08	0.59	0.65	0.48	378.7	9.40	0.1168	0.0067	884.1	158.7	19.2	19.2
-46	78.9	0.0007	0.2684	148.4	385.3	0.79	1.84	1.08	0.59	0.65	0.48	369.0	9.49	0.1158	0.0068	874.8	159.1	18.9	18.9
-44	87.0	0.0007	0.2450	150.5	386.3	0.80	1.83	1.09	0.60	0.65	0.48	359.6	9.57	0.1149	0.0069	865.5	159.5	18.6	18.6
-42	95.8	0.0007	0.2240	152.7	387.2	0.81	1.83	1.09	0.60	0.65	0.49	350.6	9.65	0.1139	0.0070	856.2	159.9	18.3	18.3
-40	105.2	0.0007	0.2052	154.9	388.1	0.82	1.82	1.09	0.61	0.65	0.49	342.0	9.73	0.1130	0.0071	846.9	160.3	17.9	17.9
-38	115.4	0.0007	0.1883	157.1	389.1	0.83	1.82	1.09	0.61	0.66	0.50	333.6	9.81	0.1120	0.0072	837.6	160.6	17.6	17.6
-36	126.3	0.0007	0.1730	159.3	390.0	0.84	1.81	1.10	0.62	0.66	0.50	325.5	9.89	0.1111	0.0073	828.2	160.9	17.3	17.3
-34	138.0	0.0007	0.1593	161.5	390.9	0.85	1.81	1.10	0.62	0.66	0.50	317.7	9.97	0.1102	0.0074	818.9	161.2	17.0	17.0
-32	150.5	0.0007	0.1468	163.7	391.8	0.86	1.81	1.10	0.63	0.66	0.51	310.2	10.05	0.1093	0.0075	809.6	161.5	16.7	16.7
-30	163.9	0.0007	0.1355	165.9	392.7	0.87	1.80	1.10	0.63	0.66	0.51	302.9	10.13	0.1084	0.0076	800.3	161.8	16.3	16.3
-28	178.2	0.0007	0.1253	168.1	393.6	0.88	1.80	1.11	0.64	0.66	0.51	295.8	10.21	0.1074	0.0077	791.0	162.0	16.0	16.0
-26	193.4	0.0007	0.1160	170.3	394.5	0.89	1.79	1.11	0.65	0.66	0.52	289.0	10.30	0.1065	0.0078	781.6	162.3	15.7	15.7
-24	209.7	0.0007	0.1075	172.6	395.3	0.90	1.79	1.12	0.65	0.66	0.52	282.4	10.38	0.1056	0.0079	772.3	162.5	15.4	15.4
-22	227.0	0.0007	0.0997	174.8	396.2	0.90	1.79	1.12	0.66	0.66	0.53	275.9	10.46	0.1047	0.0081	763.0	162.7	15.1	15.1
-20	245.3	0.0007	0.0927	177.0	397.1	0.91	1.78	1.12	0.67	0.66	0.53	269.7	10.54	0.1038	0.0082	753.6	162.8	14.8	14.8
-18	264.8	0.0007	0.0862	179.3	397.9	0.92	1.78	1.13	0.67	0.66	0.53	263.7	10.62	0.1029	0.0083	744.3	163.0	14.4	14.4
-16	285.4	0.0007	0.0803	181.6	398.7	0.93	1.78	1.13	0.68	0.66	0.54	257.8	10.70	0.1020	0.0084	734.9	163.1	14.1	14.1
-14	307.3	0.0008	0.0749	183.8	399.6	0.94	1.77	1.13	0.69	0.66	0.54	252.0	10.78	0.1011	0.0085	725.6	163.2	13.8	13.8
-12	330.4	0.0008	0.0699	186.1	400.4	0.95	1.77	1.14	0.69	0.66	0.55	246.5	10.86	0.1002	0.0086	716.2	163.3	13.5	13.5
-10	354.8	0.0008	0.0653	188.4	401.2	0.96	1.77	1.14	0.70	0.67	0.55	241.1	10.95	0.0992	0.0088	706.8	163.3	13.2	13.2
-8	380.5	0.0008	0.0610	190.7	402.0	0.97	1.76	1.15	0.71	0.67	0.55	235.8	11.03	0.0983	0.0089	697.5	163.4	12.9	12.9
-6	407.7	0.0008	0.0571	193.0	402.8	0.97	1.76	1.15	0.71	0.67	0.56	230.6	11.11	0.0974	0.0090	688.1	163.4	12.6	12.6
-4	436.3	0.0008	0.0535	195.3	403.5	0.98	1.76	1.16	0.72	0.67	0.56	225.6	11.19	0.0965	0.0091	678.7	163.4	12.3	12.3
-2	466.4	0.0008	0.0502	197.7	404.3	0.99	1.75	1.16	0.73	0.67	0.57	220.7	11.28	0.0956	0.0093	669.3	163.4	12.0	12.0
0	498.0	0.0008	0.0471	200.0	405.0	1.00	1.75	1.17	0.74	0.67	0.57	216.0	11.36	0.0947	0.0094	659.9	163.3	11.7	11.7
2	531.2	0.0008	0.0442	202.4	405.8	1.01	1.75	1.17	0.75	0.67	0.58	211.3	11.45	0.0938	0.0095	650.5	163.2	11.4	11.4
4	566.1	0.0008	0.0416	204.7	406.5	1.02	1.74	1.18	0.76	0.67	0.58	206.8	11.53	0.0929	0.0097	641.0	163.1	11.1	11.1
6	602.6	0.0008	0.0391	207.1	407.2	1.03	1.74	1.19	0.77	0.68	0.59	202.3	11.62	0.0920	0.0098	631.6	163.0	10.8	10.8
8	640.9	0.0008	0.0368	209.5	407.9	1.03	1.74	1.19	0.78	0.68	0.59	198.0	11.71	0.0911	0.0100	622.1	162.8	10.5	10.5
10	680.9	0.0008	0.0347	211.9	408.6	1.04	1.74	1.20	0.79	0.68	0.60	193.7	11.80	0.0902	0.0101	612.7	162.6	10.2	10.2
12	722.9	0.0008	0.0327	214.3	409.2	1.05	1.73	1.21	0.80	0.68	0.60	189.5	11.89	0.0893	0.0103	603.2	162.4	9.9	9.9
14	766.7	0.0008	0.0309	216.7	409.9	1.06	1.73	1.21	0.81	0.68	0.60	185.5	11.98	0.0884	0.0104	593.7	162.2	9.6	9.6
16	812.4	0.0008	0.0291	219.1	410.5	1.07	1.73	1.22	0.82	0.68	0.61	181.5	12.07	0.0875	0.0106	584.2	161.9	9.4	9.4

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°C	kPa	m <sup>3</sup> /kg		kJ/kg		kJ/(kgK)		kJ/(kgK)		kJ/(kgK)		mPa·s		W/(mK)		m/s		m-N/m	
相(phase)		液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)
18	860.2	0.0008	0.0275	221.6	411.1	1.08	1.73	1.23	0.83	0.68	0.61	177.5	12.17	0.0866	0.0107	574.6	161.6	9.1	9.1
20	910.0	0.0008	0.0260	224.1	411.7	1.08	1.72	1.24	0.84	0.69	0.62	173.7	12.26	0.0857	0.0109	565.1	161.3	8.8	8.8
22	961.9	0.0008	0.0246	226.5	412.2	1.09	1.72	1.24	0.85	0.69	0.62	169.9	12.36	0.0848	0.0111	555.5	161.0	8.5	8.5
24	1016.0	0.0008	0.0232	229.0	412.8	1.10	1.72	1.25	0.87	0.69	0.63	166.2	12.46	0.0839	0.0112	545.9	160.6	8.2	8.2
26	1072.4	0.0008	0.0220	231.5	413.3	1.11	1.72	1.26	0.88	0.69	0.63	162.6	12.56	0.0830	0.0114	536.2	160.2	7.9	7.9
28	1130.9	0.0008	0.0208	234.1	413.8	1.12	1.71	1.27	0.89	0.69	0.64	159.0	12.67	0.0821	0.0116	526.5	159.7	7.7	7.7
30	1191.9	0.0009	0.0197	236.6	414.3	1.13	1.71	1.28	0.91	0.70	0.65	155.5	12.77	0.0812	0.0118	516.8	159.2	7.4	7.4
32	1255.2	0.0009	0.0187	239.2	414.7	1.13	1.71	1.29	0.92	0.70	0.65	152.0	12.85	0.0803	0.0120	507.1	158.7	7.1	7.1
34	1321.0	0.0009	0.0177	241.8	415.1	1.14	1.71	1.30	0.94	0.70	0.66	148.6	12.96	0.0794	0.0122	497.3	158.2	6.8	6.8
36	1389.2	0.0009	0.0168	244.4	415.5	1.15	1.70	1.31	0.96	0.70	0.66	145.2	13.07	0.0785	0.0124	487.4	157.6	6.6	6.6
38	1460.1	0.0009	0.0159	247.0	415.9	1.16	1.70	1.33	0.98	0.70	0.67	141.9	13.18	0.0775	0.0126	477.6	157.0	6.3	6.3
40	1533.6	0.0009	0.0151	249.6	416.2	1.17	1.70	1.34	0.99	0.71	0.67	138.7	13.30	0.0766	0.0128	467.6	156.4	6.0	6.0
42	1609.8	0.0009	0.0143	252.3	416.6	1.17	1.70	1.35	1.02	0.71	0.68	135.5	13.42	0.0757	0.0131	457.6	155.7	5.8	5.8
44	1688.7	0.0009	0.0136	255.0	416.8	1.18	1.69	1.37	1.04	0.71	0.68	132.3	13.54	0.0747	0.0133	447.6	155.0	5.5	5.5
46	1770.4	0.0009	0.0129	257.7	417.1	1.19	1.69	1.38	1.06	0.71	0.69	129.1	13.67	0.0738	0.0136	437.4	154.2	5.3	5.3
48	1855.1	0.0009	0.0123	260.5	417.3	1.20	1.69	1.40	1.09	0.72	0.70	126.0	13.80	0.0729	0.0139	427.2	153.4	5.0	5.0
50	1942.7	0.0009	0.0116	263.2	417.4	1.21	1.69	1.42	1.11	0.72	0.70	123.0	13.94	0.0719	0.0142	417.0	152.6	4.7	4.7
52	2033.3	0.0009	0.0110	266.0	417.6	1.22	1.68	1.44	1.14	0.72	0.71	119.9	14.09	0.0709	0.0145	406.6	151.7	4.5	4.5
54	2127.0	0.0009	0.0105	268.9	417.6	1.22	1.68	1.46	1.17	0.72	0.71	116.9	14.25	0.0700	0.0148	396.2	150.8	4.2	4.2
56	2223.9	0.0010	0.0100	271.8	417.7	1.23	1.68	1.48	1.21	0.73	0.72	113.9	14.41	0.0690	0.0152	385.7	149.8	4.0	4.0
58	2324.0	0.0010	0.0094	274.7	417.6	1.24	1.67	1.51	1.25	0.73	0.73	110.9	14.58	0.0680	0.0155	375.0	148.8	3.8	3.8
60	2427.5	0.0010	0.0090	277.6	417.5	1.25	1.67	1.54	1.29	0.73	0.73	108.0	14.76	0.0670	0.0159	364.3	147.7	3.5	3.5
62	2534.3	0.0010	0.0085	280.6	417.4	1.26	1.67	1.57	1.33	0.73	0.74	105.1	14.96	0.0660	0.0164	353.5	146.6	3.3	3.3
64	2644.7	0.0010	0.0081	283.6	417.2	1.27	1.66	1.61	1.38	0.74	0.75	102.1	15.16	0.0650	0.0168	342.5	145.5	3.0	3.0
66	2758.6	0.0010	0.0076	286.7	416.9	1.28	1.66	1.65	1.44	0.74	0.75	99.2	15.38	0.0640	0.0173	331.4	144.2	2.8	2.8
68	2876.1	0.0010	0.0072	289.9	416.5	1.29	1.66	1.69	1.51	0.74	0.76	96.3	15.62	0.0630	0.0179	320.2	143.0	2.6	2.6
70	2997.4	0.0010	0.0068	293.1	416.1	1.29	1.65	1.74	1.58	0.75	0.77	93.3	15.88	0.0619	0.0185	308.8	141.7	2.4	2.4
72	3122.5	0.0010	0.0065	296.4	415.5	1.30	1.65	1.80	1.67	0.75	0.78	90.4	16.16	0.0609	0.0192	297.3	140.3	2.1	2.1
74	3251.6	0.0011	0.0061	299.7	414.9	1.31	1.64	1.87	1.77	0.75	0.79	87.4	16.46	0.0598	0.0199	285.6	138.9	1.9	1.9
76	3384.8	0.0011	0.0058	303.2	414.1	1.32	1.64	1.96	1.90	0.76	0.80	84.4	16.80	0.0588	0.0208	273.6	137.4	1.7	1.7
78	3522.2	0.0011	0.0054	306.8	413.1	1.33	1.64	2.06	2.05	0.76	0.81	81.4	17.17	0.0577	0.0217	261.3	135.8	1.5	1.5
80	3663.8	0.0011	0.0051	310.4	412.0	1.34	1.63	2.18	2.23	0.77	0.82	78.3	17.59	0.0566	0.0228	248.8	134.2	1.3	1.3
82	3809.9	0.0011	0.0048	314.3	410.7	1.35	1.62	2.34	2.47	0.77	0.83	75.1	18.07	0.0555	0.0241	235.8	132.4	1.1	1.1
84	3960.6	0.0012	0.0045	318.3	409.1	1.36	1.62	2.55	2.78	0.78	0.84	71.8	18.61	0.0544	0.0256	222.3	130.6	0.9	0.9
86	4116.1	0.0012	0.0042	322.5	407.2	1.37	1.61	2.84	3.22	0.79	0.85	68.3	19.26	0.0534	0.0274	208.2	128.8	0.7	0.7
88	4276.6	0.0012	0.0039	327.1	404.8	1.39	1.60	3.27	3.88	0.80	0.87	64.7	20.03	0.0526	0.0297	193.2	126.8	0.6	0.6
90	4442.3	0.0013	0.0036	332.1	401.9	1.40	1.59	3.98	4.97	0.81	0.88	60.7	20.99	0.0520	0.0328	177.0	124.6	0.4	0.4
92	4613.6	0.0013	0.0032	337.8	397.9	1.42	1.58	5.38	7.14	0.83	0.91	56.2	22.29	0.0521	0.0374	159.3	122.3	0.2	0.2
94	4791.1	0.0014	0.0029	344.8	392.0	1.43	1.56	9.47	13.47	0.86	0.94	50.6	24.28	0.0541	0.0460	139.4	119.7	0.1	0.1
96	4976.1	0.0017	0.0022	358.7	376.6	1.47	1.52	164.63	225.88	0.95	0.99	42.2	31.50	0.0953	0.1116	114.6	114.7	0.0	0.0

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