

Table Thermodynamique R 422D

	Liquide	Vapeur	Liquide	Vapeur	Liquide	Vapeur	Liquide	Vapeur
Temperature	Pression	Pression	Densité	Densité	Enthalpie	Enthalpie	Entropie	Entropie
(°C)	(bar abs)	(bar abs)	(Kg/M ³)	(Kg/M ³)	(KJ/Kg)	(KJ/Kg)	(KJ/Kg-K)	(KJ/Kg-K)
-80	0.12056	0.075836	1515.5	0.52256	102.16	309.95	0.57932	1.6754
-79	0.12935	0.082052	1512.5	0.56271	103.32	310.57	0.58532	1.6726
-78	0.13866	0.088688	1509.5	0.60534	104.48	311.18	0.59129	1.6699
-77	0.14853	0.095765	1506.5	0.6506	105.65	311.79	0.59723	1.6673
-76	0.15896	0.10331	1503.4	0.69858	106.81	312.4	0.60315	1.6647
-75	0.16999	0.11133	1500.4	0.74941	107.98	313.02	0.60904	1.6622
-74	0.18165	0.11987	1497.4	0.80323	109.14	313.63	0.6149	1.6598
-73	0.19395	0.12895	1494.3	0.86014	110.31	314.25	0.62074	1.6574
-72	0.20693	0.13858	1491.3	0.9203	111.48	314.86	0.62655	1.6551
-71	0.22062	0.1488	1488.3	0.98383	112.64	315.48	0.63234	1.6528
-70	0.23503	0.15964	1485.2	1.0509	113.81	316.1	0.6381	1.6506
-69	0.25021	0.17112	1482.2	1.1216	114.98	316.72	0.64384	1.6485
-68	0.26618	0.18326	1479.1	1.196	116.15	317.33	0.64956	1.6464
-67	0.28297	0.19611	1476.1	1.2745	117.33	317.95	0.65526	1.6443
-66	0.30062	0.20968	1473	1.357	118.5	318.57	0.66093	1.6423
-65	0.31915	0.22402	1470	1.4438	119.67	319.19	0.66658	1.6404
-64	0.33859	0.23914	1466.9	1.535	120.85	319.81	0.6722	1.6385
-63	0.35899	0.25509	1463.8	1.6307	122.03	320.43	0.67781	1.6366
-62	0.38037	0.27189	1460.7	1.7312	123.2	321.05	0.6834	1.6348
-61	0.40276	0.28958	1457.7	1.8366	124.38	321.67	0.68896	1.633
-60	0.42621	0.3082	1454.6	1.9471	125.56	322.29	0.6945	1.6313
-59	0.45075	0.32777	1451.5	2.0628	126.75	322.91	0.70003	1.6297
-58	0.47641	0.34834	1448.4	2.1839	127.93	323.53	0.70553	1.628
-57	0.50323	0.36994	1445.3	2.3106	129.11	324.15	0.71102	1.6265
-56	0.53126	0.39261	1442.2	2.4432	130.3	324.77	0.71648	1.6249
-55	0.56052	0.41639	1439.1	2.5817	131.49	325.39	0.72193	1.6234
-54	0.59105	0.44131	1435.9	2.7263	132.68	326.01	0.72736	1.622
-53	0.62291	0.46742	1432.8	2.8774	133.87	326.63	0.73277	1.6205
-52	0.65612	0.49475	1429.7	3.035	135.06	327.25	0.73816	1.6192
-51	0.69072	0.52335	1426.5	3.1993	136.25	327.87	0.74354	1.6178
-50	0.72676	0.55325	1423.4	3.3707	137.45	328.49	0.74889	1.6165
-49	0.76428	0.58451	1420.2	3.5492	138.64	329.11	0.75423	1.6152
-48	0.80333	0.61716	1417.1	3.7351	139.84	329.73	0.75956	1.614
-47	0.84394	0.65125	1413.9	3.9286	141.04	330.34	0.76486	1.6128
-46	0.88615	0.68681	1410.7	4.1299	142.25	330.96	0.77016	1.6116
-45	0.93002	0.72391	1407.5	4.3393	143.45	331.58	0.77543	1.6105
-44	0.97559	0.76257	1404.3	4.5569	144.66	332.19	0.78069	1.6094
-43	1.0229	0.80286	1401.1	4.7831	145.86	332.81	0.78593	1.6083
-42	1.072	0.84481	1397.9	5.018	147.07	333.42	0.79116	1.6072
-41	1.1229	0.88847	1394.6	5.2619	148.28	334.04	0.79638	1.6062
-40	1.1758	0.93389	1391.4	5.515	149.5	334.65	0.80158	1.6052
-39	1.2305	0.98113	1388.2	5.7775	150.71	335.26	0.80676	1.6043
-38	1.2872	1.0302	1384.9	6.0498	151.93	335.87	0.81193	1.6033
-37	1.346	1.0812	1381.6	6.3321	153.15	336.48	0.81709	1.6024
-36	1.4068	1.1342	1378.3	6.6246	154.37	337.09	0.82223	1.6015

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(°C)	(bar abs)	(bar abs)	(Kg/M ³)	(Kg/M ³)	(KJ/Kg)	(KJ/Kg)	(KJ/Kg-K)	(KJ/Kg-K)
-35	1.4698	1.1892	1375	6.9276	155.6	337.7	0.82736	1.6007
-34	1.5349	1.2462	1371.7	7.2414	156.82	338.31	0.83248	1.5999
-33	1.6022	1.3054	1368.4	7.5662	158.05	338.92	0.83758	1.5991
-32	1.6719	1.3667	1365.1	7.9023	159.28	339.52	0.84267	1.5983
-31	1.7438	1.4302	1361.8	8.2501	160.51	340.12	0.84775	1.5975
-30	1.8182	1.4961	1358.4	8.6097	161.74	340.73	0.85281	1.5968
-29	1.895	1.5642	1355	8.9815	162.98	341.33	0.85786	1.5961
-28	1.9742	1.6348	1351.7	9.3658	164.22	341.93	0.8629	1.5954
-27	2.056	1.7078	1348.3	9.7629	165.46	342.53	0.86793	1.5947
-26	2.1404	1.7833	1344.9	10.173	166.71	343.12	0.87295	1.5941
-25	2.2274	1.8613	1341.5	10.597	167.95	343.72	0.87795	1.5934
-24	2.3172	1.942	1338	11.034	169.2	344.32	0.88295	1.5928
-23	2.4097	2.0253	1334.6	11.485	170.45	344.91	0.88793	1.5922
-22	2.505	2.1114	1331.1	11.951	171.71	345.5	0.8929	1.5917
-21	2.6032	2.2002	1327.6	12.432	172.96	346.09	0.89787	1.5911
-20	2.7043	2.2919	1324.2	12.927	174.22	346.68	0.90282	1.5906
-19	2.8084	2.3865	1320.6	13.438	175.48	347.26	0.90776	1.59
-18	2.9155	2.4841	1317.1	13.965	176.75	347.85	0.91269	1.5895
-17	3.0257	2.5847	1313.6	14.508	178.01	348.43	0.91761	1.5891
-16	3.1391	2.6884	1310	15.067	179.28	349.01	0.92253	1.5886
-15	3.2557	2.7953	1306.4	15.644	180.55	349.59	0.92743	1.5881
-14	3.3756	2.9053	1302.9	16.237	181.83	350.16	0.93232	1.5877
-13	3.4988	3.0187	1299.2	16.849	183.11	350.74	0.93721	1.5873
-12	3.6254	3.1354	1295.6	17.478	184.39	351.31	0.94209	1.5868
-11	3.7554	3.2555	1292	18.127	185.67	351.88	0.94695	1.5864
-10	3.889	3.379	1288.3	18.794	186.96	352.45	0.95181	1.5861
-9	4.0261	3.5061	1284.6	19.48	188.25	353.01	0.95666	1.5857
-8	4.1669	3.6368	1280.9	20.187	189.54	353.57	0.96151	1.5853
-7	4.3114	3.7712	1277.2	20.914	190.84	354.13	0.96634	1.585
-6	4.4596	3.9093	1273.4	21.661	192.14	354.69	0.97117	1.5846
-5	4.6116	4.0512	1269.7	22.43	193.44	355.25	0.97599	1.5843
-4	4.7676	4.1969	1265.9	23.221	194.74	355.8	0.98081	1.584
-3	4.9275	4.3466	1262.1	24.034	196.05	356.35	0.98562	1.5837
-2	5.0914	4.5003	1258.2	24.87	197.36	356.9	0.99042	1.5834
-1	5.2593	4.658	1254.4	25.729	198.68	357.44	0.99521	1.5831
0	5.4315	4.8199	1250.5	26.613	200	357.98	1	1.5828
1	5.6078	4.986	1246.6	27.521	201.32	358.52	1.0048	1.5825
2	5.7884	5.1564	1242.7	28.454	202.65	359.05	1.0096	1.5822
3	5.9733	5.3311	1238.7	29.413	203.98	359.58	1.0143	1.582
4	6.1627	5.5102	1234.7	30.398	205.31	360.11	1.0191	1.5817
5	6.3565	5.6938	1230.7	31.41	206.65	360.63	1.0239	1.5814
6	6.5549	5.882	1226.7	32.45	207.99	361.15	1.0286	1.5812
7	6.7578	6.0748	1222.6	33.519	209.34	361.67	1.0334	1.5809
8	6.9655	6.2723	1218.5	34.617	210.69	362.18	1.0381	1.5807
9	7.1779	6.4746	1214.4	35.744	212.04	362.69	1.0429	1.5805

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10	7.3951	6.6818	1210.2	36.902	213.4	363.19	1.0476	1.5802
11	7.6172	6.8939	1206	38.092	214.76	363.69	1.0523	1.58
12	7.8442	7.111	1201.8	39.314	216.13	364.19	1.0571	1.5798
13	8.0763	7.3331	1197.5	40.569	217.5	364.68	1.0618	1.5795
14	8.3134	7.5605	1193.2	41.859	218.87	365.17	1.0665	1.5793
15	8.5557	7.793	1188.9	43.183	220.25	365.65	1.0713	1.5791
16	8.8033	8.0309	1184.5	44.543	221.64	366.12	1.076	1.5789
17	9.0561	8.2742	1180.1	45.94	223.03	366.6	1.0807	1.5786
18	9.3144	8.5229	1175.7	47.376	224.42	367.06	1.0854	1.5784
19	9.5781	8.7772	1171.2	48.85	225.82	367.52	1.0901	1.5782
20	9.8473	9.0371	1166.7	50.364	227.23	367.98	1.0949	1.5779
21	10.122	9.3027	1162.1	51.92	228.63	368.43	1.0996	1.5777
22	10.403	9.5742	1157.5	53.518	230.05	368.87	1.1043	1.5774
23	10.689	9.8515	1152.9	55.16	231.47	369.31	1.109	1.5772
24	10.981	10.135	1148.2	56.848	232.9	369.74	1.1137	1.5769
25	11.279	10.424	1143.4	58.582	234.33	370.16	1.1185	1.5767
26	11.583	10.719	1138.6	60.364	235.76	370.58	1.1232	1.5764
27	11.893	11.021	1133.8	62.196	237.21	370.99	1.1279	1.5761
28	12.209	11.329	1128.9	64.078	238.66	371.39	1.1326	1.5759
29	12.532	11.644	1124	66.014	240.11	371.78	1.1374	1.5756
30	12.86	11.964	1119	68.004	241.57	372.17	1.1421	1.5753
31	13.195	12.292	1113.9	70.051	243.04	372.55	1.1468	1.5749
32	13.537	12.626	1108.8	72.157	244.52	372.92	1.1516	1.5746
33	13.885	12.967	1103.6	74.323	246	373.29	1.1563	1.5743
34	14.24	13.314	1098.3	76.551	247.49	373.64	1.1611	1.5739
35	14.601	13.669	1093	78.845	248.99	373.98	1.1658	1.5736
36	14.97	14.031	1087.6	81.206	250.49	374.32	1.1706	1.5732
37	15.345	14.4	1082.2	83.638	252.01	374.65	1.1754	1.5728
38	15.727	14.776	1076.6	86.142	253.53	374.96	1.1802	1.5724
39	16.116	15.159	1071	88.722	255.06	375.27	1.185	1.572
40	16.512	15.55	1065.3	91.381	256.59	375.56	1.1898	1.5715
41	16.916	15.949	1059.5	94.122	258.14	375.84	1.1946	1.571
42	17.327	16.355	1053.7	96.949	259.7	376.11	1.1994	1.5706
43	17.745	16.769	1047.7	99.866	261.26	376.37	1.2042	1.57
44	18.171	17.191	1041.7	102.88	262.84	376.62	1.2091	1.5695
45	18.604	17.621	1035.5	105.98	264.43	376.85	1.2139	1.5689
46	19.045	18.058	1029.2	109.2	266.03	377.07	1.2188	1.5683
47	19.494	18.505	1022.9	112.52	267.63	377.27	1.2237	1.5677
48	19.951	18.959	1016.4	115.95	269.26	377.45	1.2286	1.5671
49	20.416	19.422	1009.8	119.5	270.89	377.63	1.2336	1.5664
50	20.889	19.894	1003	123.18	272.54	377.78	1.2385	1.5656
51	21.37	20.375	996.11	127	274.2	377.91	1.2435	1.5649
52	21.86	20.864	989.08	130.95	275.87	378.03	1.2485	1.5641
53	22.358	21.363	981.88	135.06	277.56	378.13	1.2536	1.5632
54	22.864	21.87	974.52	139.32	279.27	378.2	1.2586	1.5623

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55	23.379	22.387	966.98	143.76	280.99	378.25	1.2637	1.5613
56	23.903	22.914	959.25	148.38	282.73	378.28	1.2689	1.5603
57	24.436	23.45	951.32	153.19	284.49	378.28	1.274	1.5592
58	24.978	23.996	943.16	158.22	286.28	378.25	1.2792	1.5581
59	25.529	24.553	934.76	163.47	288.08	378.19	1.2845	1.5569
60	26.09	25.119	926.11	168.97	289.91	378.1	1.2898	1.5556