

2. 飽和蒸気表

a. 水の飽和表(圧力基準)

圧 力 MPa	温 度 ℃	比体積 (m³/kg)		密度 (kg/m³)	比エンタルピ (kJ/kg)			比エントロピ kJ (kg・K)		
		v'	v''	ρ''	h'	h''	$r = h'' - h'$	s'	s''	$r/T = s'' - s'$
0.0010	6.983	0.00100007	129.209	0.0077394	29.335	2 514.4	2 485.0	0.10604	8.97667	8.87062
0.0015	13.036	0.00100057	87.9821	0.011366	54.715	2 525.5	2 470.7	0.19567	8.82883	8.63316
0.0020	17.513	0.00100124	67.0061	0.014924	73.457	2 533.6	2 460.2	0.26065	8.72456	8.46390
0.0025	21.096	0.00100196	54.2562	0.018431	88.446	2 540.2	2 451.7	0.31191	8.64403	8.33213
0.0030	24.100	0.00100266	45.6673	0.021898	101.003	2 545.6	2 444.6	0.35436	8.57848	8.22412
0.005	32.90	0.00100523	28.1944	0.035468	137.772	2 561.6	2 423.8	0.47626	8.39596	7.91970
0.01	45.83	0.00101023	14.6746	0.068145	191.832	2 584.8	2 392.9	0.64925	8.15108	7.50183
0.02	60.09	0.00101719	7.64977	0.13072	251.453	2 609.9	2 358.4	0.83207	7.90943	7.07735
0.03	69.12	0.00102232	5.22930	0.19123	289.302	2 625.4	2 336.1	0.94411	7.76953	6.82542
0.04	75.89	0.00102651	3.99342	0.25041	317.650	2 636.9	2 319.2	1.02610	7.67089	6.64480
0.05	81.35	0.00103009	3.24022	0.30862	340.564	2 646.0	2 305.4	1.09121	7.59472	6.50352
0.07	89.96	0.00103612	2.36473	0.42288	376.768	2 660.1	2 283.3	1.19205	7.48040	6.28834
0.10	99.63	0.00104342	1.69373	0.59041	417.510	2 675.4	2 257.9	1.30271	7.35982	6.05711
0.101325	100.00	0.00104371	1.67300	0.59773	419.064	2 676.0	2 256.9	1.30687	7.35538	6.04851
0.15	111.37	0.00105303	1.15904	0.86279	467.125	2 693.4	2 226.2	1.43361	7.22337	5.78976
0.2	120.23	0.00106084	0.885441	1.1294	504.700	2 706.3	2 201.6	1.53008	7.12683	5.59675
0.3	133.54	0.00107350	0.605562	1.6514	561.429	2 724.7	2 163.2	1.67164	6.99090	5.31926
0.4	143.62	0.00108387	0.462224	2.1635	604.670	2 737.6	2 133.0	1.77640	6.89433	5.11793
0.5	151.84	0.00109284	0.374676	2.6690	640.115	2 747.5	2 107.4	1.86036	6.81919	4.95883
0.6	158.84	0.00110086	0.315474	3.1698	670.422	2 755.5	2 085.0	1.93083	6.75754	4.82671

圧 力 MPa	温 度 ℃	比体積 (m³/kg)		密度 (kg/m³)	比エンタルピ (kJ/kg)			比エントロピ kJ (kg・K)		
		v'	v''	ρ''	h'	h''	$r = h'' - h'$	s'	s''	$r/T = s'' - s'$
0.8	170.41	0.00111498	0.240257	4.1622	720.935	2 767.5	2 046.5	2.04572	6.65960	4.61388
1.0	179.88	0.00112737	0.194293	5.1469	762.605	2 776.2	2 013.6	2.13817	6.58281	4.44464
1.2	187.96	0.00113858	0.163200	6.1274	798.430	2 782.7	1 984.3	2.21606	6.51936	4.30331
1.4	195.04	0.00114893	0.140721	7.1063	830.073	2 787.8	1 957.7	2.28366	6.46509	4.18143
1.6	201.37	0.00115864	0.123686	8.0850	858.561	2 791.7	1 933.2	2.34361	6.41753	4.07391
1.8	207.11	0.00116783	0.110317	9.0648	884.573	2 794.8	1 910.3	2.39762	6.37507	3.97746
2.0	212.37	0.00117661	0.0995361	10.047	908.588	2 797.2	1 888.6	2.44686	6.33665	3.88979
2.5	223.94	0.00119718	0.0799053	12.515	961.961	2 800.9	1 839.0	2.55429	6.25361	3.69932
3.0	233.84	0.00121634	0.0666261	15.009	1 008.35	2 802.3	1 793.9	2.64550	6.18372	3.53822
3.5	242.54	0.00123454	0.0570255	17.536	1 049.76	2 802.0	1 752.2	2.72527	6.12285	3.39758
4	250.33	0.00125206	0.0497493	20.101	1 087.40	2 800.3	1 712.9	2.79652	6.06851	3.27198
5	263.91	0.00128582	0.0394285	25.362	1 154.47	2 794.2	1 639.7	2.92060	5.97349	3.05289
6	275.55	0.00131868	0.0324378	30.828	1 213.69	2 785.0	1 571.3	3.02730	5.89079	2.86349
7	285.79	0.00135132	0.0273733	36.532	1 267.41	2 773.5	1 506.0	3.12189	5.81616	2.69427
8	294.97	0.00138424	0.0235253	42.507	1 317.10	2 759.9	1 442.8	3.20762	5.74710	2.53947
9	303.31	0.00141786	0.0204953	48.792	1 363.73	2 744.6	1 380.9	3.28666	5.68201	2.39535
10	310.96	0.00145256	0.0180413	55.428	1 408.04	2 727.7	1 319.7	3.36055	5.61980	2.25926
12	324.65	0.00152676	0.0142830	70.013	1 491.77	2 689.2	1 197.4	3.49718	5.50022	2.00304
14	336.64	0.00161063	0.0114950	86.994	1 571.64	2 642.4	1 070.7	3.62424	5.38026	1.75601
16	347.33	0.00171031	0.0093075	107.44	1 650.54	2 584.9	934.3	3.74710	5.25314	1.50604
18	356.96	0.0018399	0.0074977	133.37	1 734.8	2 513.9	779.1	3.87654	5.11277	1.23623
20	365.70	0.0020370	0.0058765	170.17	1 826.5	2 418.3	591.9	4.01487	4.94120	0.92634
22	373.69	0.0026709	0.0037265	268.35	2 011.0	2 195.4	184.4	4.29451	4.57957	0.28506
22.12	374.15	0.0031700	0.0031700	315.46	2 107.4	2 107.4	0.0	4.44286	4.44286	0.0

b. 水の飽和表(温度基準)

温 度		圧 力 MPa	比体積 (m ³ /kg)		密度 (kg/m ³)	比エンタルピ (kJ/kg)			比エントロピ kJ (kg・K)		
℃	K		r'	r''		h'	h''	$r = h'' - h'$	s'	s''	$r/T = s'' - s'$
*0	273.15	0.0006108	<u>0.00100022</u>	<u>206.305</u>	<u>0.0018472</u>	<u>-0.042</u>	<u>2 501.6</u>	<u>2 501.6</u>	<u>-0.00015</u>	<u>9.15773</u>	<u>9.15788</u>
0.01	273.16	0.0006112	0.00100022	206.163	0.0048505	0.001	2 501.6	2 501.6	0.00000	9.15746	9.15746
5	278.15	0.0008718	0.00100003	147.163	0.0067952	21.007	2 510.7	2 489.7	0.07621	9.02690	8.95069
10	283.15	0.0012270	0.00100025	106.430	0.0093959	41.994	2 519.9	2 477.9	0.15099	8.90196	8.75097
15	288.15	0.0017039	0.00100083	77.9779	0.012824	62.941	2 529.1	2 466.1	0.22432	8.78257	8.55825
20	293.15	0.0023366	0.00100172	57.8383	0.017290	83.862	2 538.2	2 454.3	0.29630	8.66840	8.37210
25	298.15	0.0031660	0.00100289	43.4017	0.023041	104.767	2 547.3	2 442.5	0.36701	8.55916	8.19215
30	303.15	0.0042415	0.00100431	32.9289	0.030368	125.664	2 556.4	2 430.7	0.43651	8.45456	8.01805
35	308.15	0.0056216	0.00100595	25.2449	0.039612	146.557	2 565.4	2 418.8	0.50486	8.35434	7.84948
40	313.15	0.0073750	0.00100781	19.5461	0.051161	167.452	2 574.4	2 406.9	0.57212	8.25826	7.68613
50	323.15	0.012335	0.00101211	12.0457	0.083017	209.256	2 592.2	2 382.9	0.70351	8.07757	7.37406
60	333.15	0.019920	0.00101714	7.67853	0.13023	251.091	2 609.7	2 358.6	0.83099	7.91081	7.07982
70	343.15	0.031162	0.00102285	5.04627	0.19817	292.972	2 626.9	2 334.0	0.95482	7.75647	6.80165
80	353.15	0.047360	0.00102919	3.40909	0.29333	334.916	2 643.8	2 308.8	1.07525	7.61322	6.53796
90	363.15	0.070109	0.00103615	2.36130	0.42350	376.939	2 660.1	2 283.2	1.19253	7.47987	6.28734
100	373.15	0.101325	0.00104371	1.67300	0.59773	419.064	2 676.0	2 256.9	1.30687	7.35538	6.04851
110	383.15	0.14327	0.00105187	1.20994	0.82649	461.315	2 691.3	2 230.0	1.41849	7.23880	5.82031
120	393.15	0.19854	0.00106063	0.891524	1.1217	503.719	2 706.0	2 202.2	1.52759	7.12928	5.60169
130	403.15	0.27013	0.00107002	0.668136	1.4967	546.305	2 719.9	2 173.6	1.63436	7.02606	5.39170
140	413.15	0.36138	0.00108006	0.508493	1.9666	589.104	2 733.1	2 144.0	1.73899	6.92844	5.18945
150	423.15	0.47600	0.00109078	0.392447	2.5481	632.149	2 745.4	2 113.2	1.84164	6.83578	4.99414

* この温度における状態は準安定な状態である。

温 度		圧 力 MPa	比体積 (m ³ /kg)		密度 (kg/m ³)	比エンタルピ (kJ/kg)			比エントロピ kJ (kg・K)		
℃	K		r'	r''		h'	h''	$r=h''-h'$	s'	s''	$r/T=s''-s'$
160	433.15	0.61806	0.00110223	0.306756	3.2599	675.474	2 756.7	2 081.3	1.94247	6.74749	4.80502
170	443.15	0.79202	0.00111446	0.242553	4.1228	719.116	2 767.1	2 047.9	2.04164	6.66303	4.62139
180	453.15	1.0027	0.00112752	0.193800	5.1599	763.116	2 776.3	2 013.1	2.13929	6.58189	4.44260
190	463.15	1.2551	0.00114151	0.156316	6.3973	807.517	2 784.3	1 976.7	2.23558	6.50361	4.26803
200	473.15	1.5549	0.00115650	0.127160	7.8641	852.371	2 790.9	1 938.6	2.33066	6.42776	4.09710
210	483.15	1.9077	0.00117260	0.104239	9.5934	897.734	2 796.2	1 898.5	2.42467	6.35393	3.92926
220	493.15	2.3198	0.00118996	0.0860378	11.623	943.673	2 799.9	1 856.2	2.51779	6.28172	3.76393
230	503.15	2.7976	0.00120872	0.0714498	13.996	990.265	2 802.0	1 811.7	2.61017	6.21074	3.60057
240	513.15	3.3478	0.00122908	0.0596544	16.763	1 037.60	2 802.2	1 764.6	2.70200	6.14059	3.43859
250	523.15	3.9776	0.00125129	0.0500374	19.985	1 085.78	2 800.4	1 714.7	2.79348	6.07083	3.27734
260	533.15	4.6943	0.00127563	0.0421338	23.734	1 134.94	2 796.4	1 661.5	2.88485	6.00097	3.11612
270	543.15	5.5058	0.00130250	0.0355880	28.099	1 185.23	2 789.9	1 604.6	2.97635	5.93045	2.95410
280	553.15	6.4202	0.00133239	0.0301260	33.194	1 236.84	2 780.4	1 543.6	3.06830	5.85863	2.79033
290	563.15	7.4461	0.00136595	0.0255351	39.162	1 290.01	2 767.6	1 477.6	3.16108	5.78478	2.62370
300	573.15	8.5927	0.00140406	0.0216487	46.192	1 345.05	2 751.0	1 406.0	3.25517	5.70812	2.45295
310	583.15	9.8700	0.00144797	0.0183339	54.544	1 402.39	2 730.0	1 327.6	3.35119	5.62776	2.27657
320	593.15	11.289	0.00149950	0.0154798	64.600	1 462.60	2 703.7	1 241.1	3.45000	5.54233	2.09233
330	603.15	12.863	0.00156147	0.0129894	76.986	1 526.52	2 670.2	1 143.6	3.55283	5.44901	1.89618
340	613.15	14.605	0.00163872	0.0107804	92.761	1 595.47	2 626.2	1 030.7	3.66162	5.34274	1.68112
350	623.15	16.535	0.00174112	0.0087991	113.65	1 671.94	2 567.7	895.7	3.78004	5.21766	1.43762
360	633.15	18.675	0.0018959	0.0069398	144.10	1 764.2	2 485.4	721.3	3.92102	5.06003	1.13901
370	643.15	21.054	0.0022136	0.0049728	201.10	1 890.2	2 342.8	452.6	4.11080	4.81439	0.70359
374.15	647.30	22.120	0.0031700	0.0031700	315.46	2 170.4	2 170.4	0.0	4.44286	4.44286	0.0