

TABLE 5. PROPERTIES OF SATURATED WATER VAPOR WITH AIR, 0 F TO 200 F^a

Temp., F	PRESSURE OF SATURATED VAPOR		WEIGHT OF SATURATED VAPOR				VOLUME IN Cu Ft BAROMETER, 29.92 In. Hg		HEAT CONTENT PER Lb		
	In. of Hg	Lb per Sq In.	per Cu Ft		per lb of Dry Air		of 1 lb of Dry Air	of 1 lb of Dry Air + Vapor to Saturate it	Dry Air 0 F Datum	Vapor 32 F Datum	Dry Air with Vapor to Saturate it
			Pounds	Grains	Pounds	Grains					
0	0.03773	0.01833	0.00007914	0.475	0.0007352	5.50	11.58	11.59	0.0000	1089.2	0.8317
1	0.03975	0.1963	0.00071393	5.70	0.0008272	5.70	11.52	11.52	0.0001	1089.7	1.117
2	0.04166	0.2066	0.00075021	5.95	0.0008719	6.10	11.43	11.43	0.0002	1090.1	1.404
3	0.04349	0.2168	0.00078551	6.25	0.0009176	6.43	11.35	11.35	0.0003	1090.6	1.692
4	0.04525	0.2262	0.00082890	6.50	0.0009671	6.77	11.28	11.28	0.0004	1091.0	1.986
5	0.04696	0.2358	0.00087005	6.80	0.0010171	7.12	11.20	11.20	0.0005	1091.5	2.280
6	0.04861	0.2457	0.00091399	7.09	0.0010711	7.50	11.13	11.13	0.0006	1091.9	2.577
7	0.05021	0.2558	0.00095955	7.39	0.0011277	7.89	11.05	11.05	0.0007	1092.4	2.877
8	0.05176	0.2662	0.0010070	7.69	0.0011866	8.30	10.98	11.80	0.0008	1092.8	3.180
9	0.05326	0.2768	0.0010572	7.99	0.0012477	8.73	10.90	11.83	0.0009	1093.3	3.486
10	0.05471	0.2875	0.0011090	8.29	0.0013111	9.18	10.83	11.85	0.0010	1093.7	3.795
11	0.05611	0.2983	0.0011634	8.59	0.0013799	9.65	10.76	11.88	0.0011	1094.2	4.108
12	0.05746	0.3092	0.0012206	8.89	0.0014500	10.15	10.69	11.91	0.0012	1094.6	4.424
13	0.05876	0.3202	0.0012794	9.19	0.0015233	10.66	10.62	11.93	0.0013	1095.1	4.742
14	0.06001	0.3311	0.0013410	9.49	0.0016000	11.20	10.55	11.96	0.0014	1095.5	5.064
15	0.06121	0.3421	0.0014062	9.79	0.0016822	11.77	10.48	11.99	0.0015	1096.0	5.392
16	0.06236	0.3531	0.0014732	1.031	0.0017696	12.36	10.41	12.01	0.0016	1096.4	5.722
17	0.06346	0.3641	0.0015430	1.061	0.0018625	12.95	10.34	12.04	0.0017	1096.9	6.058
18	0.06451	0.3751	0.0016147	1.091	0.0019607	13.54	10.27	12.07	0.0018	1097.3	6.397
19	0.06551	0.3861	0.0016885	1.121	0.0020643	14.13	10.20	12.10	0.0019	1097.8	6.741
20	0.06646	0.3971	0.0017647	1.151	0.0021734	14.72	10.13	12.13	0.0020	1098.2	7.088
21	0.06736	0.4081	0.0018430	1.181	0.0022881	15.31	10.06	12.16	0.0021	1098.7	7.443
22	0.06821	0.4191	0.0019234	1.211	0.0024084	15.90	9.99	12.19	0.0022	1099.1	7.802
23	0.06901	0.4301	0.0020066	1.241	0.0025343	16.49	9.92	12.22	0.0023	1099.6	8.166
24	0.06976	0.4411	0.0020926	1.271	0.0026666	17.08	9.85	12.25	0.0024	1070.0	8.536
25	0.07046	0.4521	0.0021816	1.301	0.0028054	17.67	9.78	12.28	0.0025	1070.5	8.912
26	0.07111	0.4631	0.0022734	1.331	0.0029501	18.26	9.71	12.31	0.0026	1071.0	9.292
27	0.07171	0.4741	0.0023681	1.361	0.0031016	18.85	9.64	12.34	0.0027	1071.4	9.682
28	0.07226	0.4851	0.0024656	1.391	0.0032598	19.44	9.57	12.37	0.0028	1071.8	10.075
29	0.07276	0.4961	0.0025657	1.421	0.0034238	20.03	9.50	12.40	0.0029	1072.3	10.477
30	0.07321	0.5071	0.0026684	1.451	0.0035938	20.62	9.43	12.43	0.0030	1072.7	10.886
31	0.07361	0.5181	0.0027737	1.481	0.0037699	21.21	9.36	12.46	0.0031	1073.2	11.302
32	0.07396	0.5291	0.0028819	1.511	0.0039521	21.80	9.29	12.49	0.0032	1073.6	11.728
33	0.07426	0.5401	0.0029924	1.541	0.0041404	22.39	9.22	12.52	0.0033	1074.1	12.159
34	0.07451	0.5511	0.0031054	1.571	0.0043349	22.98	9.15	12.55	0.0034	1074.5	12.596

^aCompiled by W. M. Sawdon, vapor pressures converted from International Critical Tables.TABLE 5. PROPERTIES OF SATURATED WATER VAPOR WITH AIR, 0 F TO 200 F^a (CONTINUED)

Temp., F	PRESSURE OF SATURATED VAPOR		WEIGHT OF SATURATED VAPOR				VOLUME IN Cu Ft BAROMETER, 29.92 In. Hg		HEAT CONTENT PER Lb		
	In. of Hg	Lb per Sq In.	per Cu Ft		per lb of Dry Air		of 1 lb of Dry Air	of 1 lb of Dry Air + Vapor to Saturate it	Dry Air 0 F Datum	Vapor 32 F Datum	Dry Air with Vapor to Saturate it
			Pounds	Grains	Pounds	Grains					
35	0.20360	0.1000	0.0003394	2.376	0.004262	29.83	12.46	12.54	8.397	1075.0	12.979
36	0.21195	0.1041	0.0003527	2.469	0.004438	31.07	12.41	12.57	8.636	1075.4	13.409
37	0.22050	0.1083	0.0003662	2.563	0.004618	32.33	12.36	12.60	8.876	1075.9	13.845
38	0.22924	0.1126	0.0003799	2.660	0.004803	33.62	12.31	12.63	9.116	1076.3	14.283
39	0.23842	0.1171	0.0003943	2.760	0.004996	34.97	12.26	12.66	9.356	1076.8	14.736
40	0.24778	0.1217	0.0004090	2.863	0.005194	36.36	12.21	12.69	9.596	1077.2	15.191
41	0.25755	0.1265	0.0004243	2.970	0.005401	37.80	12.16	12.72	9.836	1077.7	15.657
42	0.26773	0.1315	0.0004401	3.081	0.005616	39.29	12.11	12.75	10.08	1078.1	16.13
43	0.27832	0.1367	0.0004566	3.196	0.005840	40.83	12.06	12.78	10.32	1078.6	16.62
44	0.28911	0.1420	0.0004735	3.315	0.006069	42.43	12.01	12.81	10.56	1079.0	17.11
45	0.30031	0.1475	0.0004909	3.436	0.006306	44.14	11.96	12.84	10.80	1079.5	17.61
46	0.31191	0.1532	0.0005088	3.562	0.006553	45.87	11.91	12.87	11.04	1080.0	18.12
47	0.32393	0.1591	0.0005274	3.692	0.006808	47.66	11.86	12.90	11.28	1080.4	18.64
48	0.33635	0.1652	0.0005465	3.826	0.007072	49.50	11.81	12.93	11.52	1080.8	19.16
49	0.34917	0.1715	0.0005663	3.964	0.007345	51.42	11.76	12.96	11.76	1081.3	19.70
50	0.36241	0.1780	0.0005866	4.106	0.007626	53.38	11.71	12.99	12.00	1081.7	20.25
51	0.37625	0.1848	0.0006078	4.255	0.007921	55.45	11.66	13.02	12.23	1082.2	20.80
52	0.39061	0.1918	0.0006296	4.407	0.008226	57.58	11.61	13.05	12.47	1082.6	21.36
53	0.40466	0.2003	0.0006516	4.561	0.008534	59.74	11.56	13.08	12.71	1083.1	21.93
54	0.42003	0.2063	0.0006746	4.722	0.008856	61.99	11.51	13.11	12.95	1083.5	22.50
55	0.43570	0.2140	0.0006984	4.889	0.009192	64.34	11.46	13.14	13.19	1084.0	23.15
56	0.45179	0.2219	0.0007228	5.060	0.009536	66.75	11.41	13.17	13.43	1084.4	23.77
57	0.46828	0.2300	0.0007477	5.234	0.009890	69.23	11.36	13.20	13.67	1084.9	24.40
58	0.48538	0.2384	0.0007735	5.415	0.010266	71.76	11.31	13.23	13.91	1085.3	25.05
59	0.50310	0.2471	0.0008003	5.602	0.010664	74.35	11.26	13.26	14.15	1085.8	25.70
60	0.52145	0.2561	0.0008278	5.795	0.011083	77.01	11.21	13.29	14.39	1086.2	26.37
61	0.54035	0.2654	0.0008562	5.993	0.011521	80.08	11.16	13.32	14.63	1086.7	27.06
62	0.55970	0.2749	0.0008852	6.196	0.011986	83.02	11.11	13.35	14.87	1087.1	27.76
63	0.57955	0.2848	0.0009153	6.407	0.012474	86.03	11.06	13.38	15.11	1087.6	28.48
64	0.60042	0.2949	0.0009460	6.622	0.012974	89.18	11.01	13.41	15.35	1088.0	29.21
65	0.62179	0.3054	0.0009778	6.845	0.013490	92.40	10.96	13.44	15.59	1088.5	29.96
66	0.64378	0.3162	0.010105	7.074	0.014028	95.76	10.91	13.47	15.83	1089.0	30.73
67	0.66638	0.3273	0.010440	7.308	0.014577	99.19	10.86	13.50	16.07	1089.4	31.51
68	0.68980	0.3388	0.010816	7.571	0.015136	102.8	10.81	13.53	16.31	1089.8	32.31
69	0.71382	0.3506	0.011140	7.798	0.015700	106.4	10.76	13.56	16.55	1090.3	33.12

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