

TABLE 5. PROPERTIES OF SATURATED WATER VAPOR WITH AIR AT LOW TEMPERATURES^a (CONTINUED)

Temp., F.	PRESSURE OF SATURATED VAPOR $\times 10^{-4}$		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 $\times 10^{-4}$	Grains	Pounds $\times 10^{-4}$	Grains					
-60	101.4	49.808	0.20993	0.01470	2.108	0.14756	10.07	10.07	-14.48	1032.2	-14.46
-59	108.8	53.443	0.22469	0.01573	2.262	0.15834	10.09	10.09	-14.23	1032.7	-14.21
-58	116.3	57.127	0.23958	0.01677	2.418	0.16926	10.12	10.12	-13.99	1033.1	-13.97
-57	124.8	61.302	0.25645	0.01795	2.595	0.18165	10.14	10.14	-13.75	1033.6	-13.72
-56	133.4	65.626	0.27344	0.01914	2.773	0.19411	10.17	10.17	-13.50	1034.0	-13.47
-55	143.0	70.242	0.29239	0.02047	2.973	0.20811	10.19	10.19	-13.26	1034.5	-13.23
-54	153.0	75.154	0.31207	0.02184	3.181	0.22267	10.22	10.22	-13.02	1034.9	-12.99
-53	163.5	80.311	0.33267	0.02329	3.399	0.23793	10.24	10.24	-12.78	1035.4	-12.74
-52	174.9	85.911	0.35499	0.02485	3.636	0.25452	10.27	10.27	-12.53	1035.8	-12.49
-51	187.0	91.854	0.37862	0.02650	3.898	0.27216	10.29	10.29	-12.29	1036.3	-12.25
-50	199.9	98.191	0.40376	0.02826	4.159	0.29092	10.32	10.32	-12.05	1036.7	-12.01
-49	213.0	104.93	0.42917	0.03004	4.429	0.31066	10.34	10.34	-11.81	1037.2	-11.76
-48	227.9	111.94	0.45508	0.03187	4.738	0.33168	10.37	10.37	-11.57	1037.6	-11.52
-47	243.1	119.41	0.48144	0.03375	5.084	0.35378	10.40	10.40	-11.32	1038.1	-11.27
-46	259.5	127.47	0.50905	0.03563	5.395	0.37765	10.42	10.42	-11.08	1038.5	-11.02
-45	276.7	135.92	0.53213	0.03865	5.753	0.40271	10.45	10.45	-10.84	1039.0	-10.78
-44	295.0	144.90	0.55722	0.04111	6.133	0.42891	10.47	10.47	-10.60	1039.4	-10.54
-43	314.7	154.68	0.62493	0.04375	6.543	0.45801	10.50	10.50	-10.35	1039.9	-10.28
-42	335.3	164.70	0.66426	0.04650	6.971	0.48797	10.52	10.52	-10.11	1040.3	-10.04
-41	357.6	175.65	0.70672	0.04947	7.435	0.52045	10.55	10.55	-9.872	1040.8	-9.795
-40	380.3	186.80	0.7498	0.05249	7.907	0.55349	10.57	10.57	-9.629	1041.2	-9.547
-39	405.5	199.18	0.7976	0.05583	8.431	0.59017	10.60	10.60	-9.388	1041.7	-9.300
-38	431.2	211.81	0.8461	0.05922	8.965	0.62755	10.62	10.62	-9.148	1042.1	-9.053
-37	459.2	225.60	0.8959	0.06292	9.548	0.66836	10.65	10.65	-8.905	1042.6	-8.805
-36	488.4	239.90	0.9388	0.06677	10.16	0.71120	10.67	10.67	-8.663	1043.0	-8.557
-35	519.5	255.18	0.9785	0.07085	10.80	0.75800	10.69	10.69	-8.422	1043.5	-8.309
-34	552.4	271.34	1.0738	0.07517	11.49	0.80430	10.72	10.72	-8.180	1043.9	-8.090
-33	586.5	288.96	1.1374	0.07962	12.20	0.85400	10.75	10.75	-7.939	1044.3	-7.812
-32	623.7	306.36	1.2047	0.08447	12.97	0.90790	10.77	10.77	-7.698	1044.8	-7.562
-31	661.8	325.08	1.2774	0.08942	13.76	0.96320	10.80	10.80	-7.457	1045.3	-7.313
-30	701.0	344.37	1.3499	0.09449	14.58	1.02065	10.82	10.82	-7.216	1045.7	-7.064
-29	742.2	364.57	1.4260	0.09982	15.43	1.08011	10.85	10.85	-6.975	1046.2	-6.814
-28	791.2	388.64	1.5166	0.10616	16.45	1.15155	10.87	10.87	-6.734	1046.6	-6.562
-27	841.0	413.10	1.6083	0.11268	17.49	1.2243	10.90	10.90	-6.493	1047.1	-6.310
-26	892.1	438.20	1.7021	0.11914	18.55	1.2985	10.92	10.92	-6.251	1047.5	-6.057

^aCompiled by W. M. Sawdon, vapor pressures converted from *International Critical Tables*.TABLE 5. PROPERTIES OF SATURATED WATER VAPOR WITH AIR AT LOW TEMPERATURES^a (CONCLUDED)

Temp., F.	PRESSURE OF SATURATED VAPOR $\times 10^{-4}$		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 $\times 10^{-4}$	Grains	Pounds $\times 10^{-4}$	Grains					
-25	946.4	464.87	1.8016	0.12611	19.68	1.3776	10.95	10.95	-6.011	1048.0	-5.805
-24	1003	492.67	1.9049	0.13334	20.86	1.4602	10.97	10.97	-5.770	1048.4	-5.551
-23	1064	522.64	2.0162	0.14113	22.13	1.5491	11.00	11.00	-5.529	1048.9	-5.297
-22	1126	553.09	2.1287	0.14901	23.42	1.6394	11.02	11.02	-5.288	1049.3	-5.042
-21	1192	585.51	2.2484	0.15739	24.79	1.7353	11.05	11.05	-5.047	1049.8	-4.787
-20	1262.0	619.89	2.3750	0.16625	26.25	1.8375	11.07	11.07	-4.807	1050.2	-4.531
-19	1337	656.73	2.5105	0.17574	27.81	1.9467	11.10	11.10	-4.566	1050.7	-4.271
-18	1416	695.84	2.6527	0.18569	29.45	2.0615	11.13	11.13	-4.325	1051.1	-4.015
-17	1496	734.84	2.7963	0.19574	31.12	2.1784	11.15	11.15	-4.085	1051.6	-3.758
-16	1584	778.08	2.9542	0.20679	32.85	2.3065	11.18	11.18	-3.844	1052.0	-3.497
-15	1675.0	822.76	3.1168	0.21818	34.84	2.4398	11.21	11.21	-3.604	1052.5	-3.237
-14	1772	870.41	3.2899	0.23029	36.86	2.5826	11.23	11.23	-3.363	1052.9	-2.975
-13	1874	920.41	3.4714	0.24300	38.98	2.7302	11.25	11.25	-3.123	1053.4	-2.712
-12	1984	972.58	3.6596	0.25617	41.19	2.8833	11.28	11.28	-2.883	1053.8	-2.449
-11	2099	1028.1	3.8559	0.27019	43.54	3.0478	11.30	11.30	-2.642	1054.3	-2.183
-10	2210.0	1085.6	4.0666	0.28466	45.98	3.2186	11.33	11.33	-2.402	1054.7	-1.917
-9	2335	1147.0	4.2871	0.30009	48.53	3.4006	11.35	11.35	-2.162	1055.2	-1.649
-8	2463	1209.8	4.5120	0.31584	51.25	3.5875	11.38	11.38	-1.921	1055.6	-1.380
-7	2502	1259.0	4.6734	0.32014	52.09	3.6442	11.40	11.40	-1.681	1056.1	-1.131
-6	2745	1348.3	5.0066	0.35046	57.12	3.9984	11.43	11.43	-1.441	1056.5	-0.875
-5	2898.0	1423.5	5.2738	0.36917	60.30	4.2210	11.45	11.45	-1.201	1057.0	-0.5636
-4	3055	1500.6	5.5473	0.38831	63.57	4.4499	11.48	11.48	-0.964	1057.4	-0.2882
-3	3222	1582.6	5.8379	0.40865	67.05	4.6935	11.50	11.50	-0.7293	1057.9	-0.01098
-2	3397	1668.6	6.1414	0.42990	70.69	4.9483	11.53	11.53	-0.4892	1058.3	+0.2679
-1	3580	1758.5	6.4583	0.45208	74.50	5.2150	11.55	11.57	-0.2491	1058.8	+0.5487
0	3773.0	1853.3	6.7914	0.47500	78.52	5.5000	11.58	11.59	0	1059.2	+0.8317

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