

TABLE 6. THERMODYNAMIC PROPERTIES OF MOIST AIR^a, 29.921 IN. HG

TEMP DEG F	SATURATION HUMIDITY RATIO W _s WEIGHT OF WATER PER LB OF DRY AIR		VOLUME CU FT PER LB DRY AIR		ENTHALPY BTU PER LB DRY AIR		SPECIFIC ENTHALPY OF WATER BTU PER LB h _w	SATURATION PRESSURE P _s × 10 ³		TEMP DEG F		
	Pounds × 10 ³	Grains	Dry Air v _a	v _{as} (v _a - v _s)	Saturated Mixture v _s	Dry Air h _a		h _{as} (h _a - h _s)	Saturated Mixture h _s		In. of Hg	Lb per Sq In.
-60	2.108	0.14756	10.07	0.00	10.07	-14.48	0.02	-14.46	101.4	49.808	-60	
-59	2.293	0.16834	10.09	0.00	10.09	-14.23	.02	-14.21	108.8	53.443	-59	
-58	2.418	0.18928	10.12	0.00	10.12	-13.99	.02	-13.97	116.3	57.127	-58	
-57	2.595	0.21165	10.14	0.00	10.14	-13.75	.03	-13.72	124.8	61.302	-57	
-56	2.773	0.23511	10.17	0.00	10.17	-13.50	.03	-13.47	133.4	65.526	-56	
-55	2.973	0.25911	10.19	0.00	10.19	-13.26	0.03	-13.23	143.0	70.242	-55	
-54	3.181	0.28267	10.22	0.00	10.22	-13.02	.03	-12.99	153.0	75.154	-54	
-53	3.399	0.30793	10.24	0.00	10.24	-12.78	.04	-12.74	163.5	80.311	-53	
-52	3.636	0.33462	10.27	0.00	10.27	-12.53	.04	-12.49	174.9	85.911	-52	
-51	3.888	0.37216	10.29	0.00	10.29	-12.29	.04	-12.25	187.0	91.854	-51	
-50	4.156	0.42092	10.32	0.00	10.32	-12.05	0.04	-12.01	199.9	98.191	-50	
-49	4.428	0.47398	10.34	0.00	10.34	-11.81	.05	-11.76	213.0	104.63	-49	
-48	4.738	0.53166	10.37	0.00	10.37	-11.57	.05	-11.52	227.9	111.94	-48	
-47	5.054	0.59578	10.40	0.00	10.40	-11.32	.06	-11.27	243.1	119.41	-47	
-46	5.395	0.67765	10.42	0.00	10.42	-11.08	.06	-11.02	259.5	127.47	-46	
-45	5.753	0.77800	10.45	0.00	10.45	-10.84	0.06	-10.78	276.7	135.92	-45	
-44	6.133	0.89331	10.47	0.00	10.47	-10.60	.07	-10.54	295.0	144.90	-44	
-43	6.543	1.02401	10.50	0.00	10.50	-10.35	.07	-10.28	314.7	154.58	-43	
-42	6.971	1.17120	10.52	0.00	10.52	-10.11	.07	-10.04	335.3	164.70	-42	
-41	7.435	1.33605	10.55	0.00	10.55	-9.872	.07	-9.795	357.6	175.65	-41	
-40	7.907	1.52045	10.57	0.00	10.57	-9.629	0.08	-9.547	380.3	186.80	-40	
-39	8.431	1.72517	10.60	0.00	10.60	-9.388	.08	-9.300	405.5	199.18	-39	
-38	8.965	1.95175	10.62	0.00	10.62	-9.146	.09	-9.053	431.2	211.81	-38	
-37	9.548	2.20136	10.65	0.00	10.65	-8.905	.10	-8.805	459.2	225.56	-37	
-36	10.16	2.47520	10.67	0.00	10.67	-8.663	.10	-8.557	488.4	239.90	-36	
-35	10.80	2.78000	10.69	0.00	10.69	-8.422	0.11	-8.309	519.5	255.18	-35	
-34	11.49	3.11430	10.72	0.00	10.72	-8.180	.12	-8.060	552.4	271.34	-34	
-33	12.20	3.48400	10.75	0.00	10.75	-7.939	.12	-7.812	586.5	288.09	-33	
-32	12.97	3.89760	10.77	0.00	10.77	-7.698	.13	-7.562	623.7	306.36	-32	
-31	13.76	4.35720	10.80	0.00	10.80	-7.457	.14	-7.313	661.8	325.08	-31	
-30	14.58	4.86800	10.82	0.00	10.82	-7.216	0.15	-7.064	701.0	344.33	-30	
-29	15.43	5.43160	10.85	0.00	10.85	-6.975	.16	-6.814	742.2	364.57	-29	
-28	16.30	6.05040	10.87	0.00	10.87	-6.734	.17	-6.562	784.6	385.64	-28	
-27	17.19	6.72560	10.90	0.00	10.90	-6.493	.18	-6.317	828.1	408.10	-27	
-26	18.55	7.45880	10.92	0.00	10.92	-6.251	.19	-6.057	882.1	432.20	-26	

^aCompiled by W. M. Sawdon and extended by John A. Goff.TABLE 6. THERMODYNAMIC PROPERTIES OF MOIST AIR^a, 29.921 IN. HG (CONTINUED)

TEMP DEG F	SATURATION HUMIDITY RATIO W _s WEIGHT OF WATER PER LB OF DRY AIR		VOLUME CU FT PER LB DRY AIR		ENTHALPY BTU PER LB DRY AIR		SPECIFIC ENTHALPY OF WATER BTU PER LB h _w		SATURATION PRESSURE p _s × 10 ³		TEMP DEG F
	Pounds × 10 ³	Grains	Dry Air v _a	v _{as} (v _a - v _s)	Saturated Mixture v _s	Dry Air h _a	h _{as} (h _a - h _s)	Saturated Mixture h _s	In. of Hg	Lb per Sq In.	
-25	19.68	1.3776	10.95	0.00	10.95	-6.011	0.206	-5.805	946.4	464.87	-25
-24	20.96	1.4902	10.97	0.00	10.97	-5.770	.219	-5.551	1003.	492.67	-24
-23	22.13	1.5491	11.00	0.00	11.00	-5.529	.232	-5.297	1064.	522.64	-23
-22	23.42	1.6394	11.02	0.00	11.02	-5.288	.246	-5.042	1128.	553.09	-22
-21	24.79	1.7363	11.05	0.00	11.05	-5.047	.260	-4.787	1192.	585.51	-21
-20	26.25	1.8375	11.07	0.00	11.07	-4.807	0.276	-4.531	1262.0	619.89	-20
-19	27.81	1.9467	11.10	0.00	11.10	-4.566	.292	-4.274	1337.	656.73	-19
-18	29.45	2.0615	11.13	0.00	11.13	-4.325	.310	-4.015	1416.	695.54	-18
-17	31.12	2.1784	11.15	0.00	11.15	-4.085	.327	-3.758	1496.	734.84	-17
-16	32.95	2.3065	11.18	0.00	11.18	-3.844	.347	-3.497	1584.	778.06	-16
-15	34.84	2.4388	11.20	0.01	11.21	-3.604	0.367	-3.237	1675.0	822.76	-15
-14	36.86	2.5802	11.23	.01	11.24	-3.363	.388	-2.975	1772.	870.41	-14
-13	38.93	2.7286	11.25	.01	11.26	-3.123	.411	-2.712	1874.	920.51	-13
-12	41.19	2.8853	11.28	.01	11.29	-2.883	.434	-2.449	1980.	972.58	-12
-11	43.54	3.0478	11.30	.01	11.31	-2.642	.459	-2.183	2093.	1028.1	-11
-10	45.98	3.2186	11.33	0.01	11.34	-2.402	0.485	-1.917	2210.0	1085.6	-10
-9	48.58	3.4068	11.35	.01	11.36	-2.162	.513	-1.640	2335.	1147.0	-9
-8	51.25	3.5975	11.38	.01	11.39	-1.921	.541	-1.360	2463.	1209.8	-8
-7	52.06	3.6442	11.40	.01	11.41	-1.681	.570	-1.081	2592.	1276.8	-7
-6	57.12	3.9984	11.43	.01	11.44	-1.441	.603	-0.838	2746.	1348.3	-6
-5	60.30	4.2210	11.45	0.01	11.46	-1.201	0.637	-0.564	2898.0	1423.5	-5
-4	63.57	4.4499	11.48	.01	11.49	-0.960	.672	-0.288	3055.	1500.6	-4
-3	67.05	4.6935	11.50	.01	11.51	-0.720	.709	+0.011	3222.	1582.6	-3
-2	70.69	4.9483	11.53	.01	11.54	-0.480	.748	+0.268	3397.	1668.6	-2
-1	74.50	5.2150	11.55	.01	11.57	-0.240	.789	+0.549	3580.	1758.5	-1
0	78.52	5.5000	11.58	0.01	11.59	0	0.832	+0.832	3773.0	1853.3	0

^aCompiled by W. M. Sawdon and extended by John A. Goff.