

Unit of Humidity Conversion Table



Dew point (°Cdp)	Frost point (°Cdp)	Vapour pressure Pa	RH% (at25°C)	g/m3 (at25°C)	ppmv	ppmw Air	ppmw H2	ppmw N2	ppmw CO2	ppmw Ar	ppmw O2
-100	-95.22	0.004	0.000	0.000	0.036	0.022	0.32	0.023	0.015	0.038	0.020
-98	-93.20	0.005	0.000	0.000	0.053	0.033	0.47	0.034	0.022	0.056	0.030
-96	-91.18	0.008	0.000	0.000	0.077	0.048	0.69	0.049	0.031	0.081	0.043
-94	-89.16	0.011	0.000	0.000	0.111	0.069	0.99	0.071	0.045	0.112	0.063
-92	-87.15	0.016	0.001	0.000	0.16	0.10	1.42	0.10	0.065	0.17	0.090
-90	-85.14	0.023	0.001	0.000	0.23	0.14	2.03	0.15	0.093	0.24	0.128
-88	-83.13	0.032	0.001	0.000	0.32	0.20	2.86	0.21	0.13	0.34	0.180
-86	-81.13	0.045	0.001	0.000	0.45	0.28	4.00	0.29	0.18	0.47	0.252
-84	-79.14	0.063	0.002	0.000	0.62	0.39	5.56	0.40	0.25	0.66	0.350
-82	-77.14	0.087	0.003	0.001	0.86	0.53	7.66	0.55	0.35	0.91	0.483
-80	-75.16	0.12	0.004	0.001	1.17	0.73	10.49	0.75	0.48	1.24	0.661
-78	-73.17	0.16	0.005	0.001	1.60	0.99	14.26	1.03	0.65	1.69	0.899
-76	-71.20	0.22	0.007	0.002	2.16	1.34	19.27	1.39	0.88	2.28	1.21
-74	-69.22	0.29	0.009	0.002	2.90	1.80	25.85	1.86	1.18	3.07	1.63
-72	-67.26	0.39	0.012	0.003	3.86	2.40	34.48	2.48	1.58	4.09	2.17
-70	-65.29	0.52	0.016	0.004	5.12	3.18	45.70	3.29	2.09	5.42	2.88
-68	-63.33	0.68	0.022	0.005	6.74	4.19	60.22	4.33	2.76	7.14	3.79
-66	-61.38	0.90	0.028	0.007	8.84	5.49	78.90	5.68	3.61	9.36	4.97
-64	-59.43	1.17	0.037	0.008	11.51	7.15	102.8	7.40	4.71	12.19	6.48
-62	-57.49	1.51	0.048	0.011	14.92	9.27	133.2	9.59	6.10	15.80	8.39
-60	-55.55	1.95	0.061	0.014	19.23	11.95	171.7	12.36	7.86	20.36	10.82
-58	-53.62	2.50	0.079	0.018	24.66	15.32	220.2	15.85	10.09	26.11	13.87
-56	-51.69	3.19	0.10	0.023	31.47	19.55	281.0	20.22	12.87	33.32	17.70
-54	-49.77	4.05	0.13	0.029	39.96	24.83	356.8	25.68	16.34	42.31	22.48
-52	-47.85	5.12	0.16	0.037	50.51	31.39	451.0	32.46	20.66	53.48	28.41
-50	-45.94	6.44	0.20	0.047	63.55	39.49	567.4	40.84	25.99	67.28	35.74
-48	-44.04	8.07	0.25	0.059	79.60	49.46	710.7	51.15	32.55	84.28	44.77
-46	-42.14	10.06	0.32	0.073	99.27	61.69	886.3	63.79	40.60	105.1	55.84
-44	-40.24	12.49	0.39	0.091	123.3	76.61	1101	79.23	50.42	130.5	69.35
-42	-38.35	15.45	0.49	0.11	152.5	94.75	1361	97.99	62.36	161.4	85.77
-40	-36.47	19.03	0.60	0.14	187.8	116.7	1677	120.7	76.83	198.9	105.7
-38	-34.59	23.35	0.74	0.17	230.5	143.2	2058	148.1	94.27	244.1	129.7
-36	-32.72	28.55	0.90	0.21	281.8	175.1	2516	181.1	115.2	298.3	158.5
-34	-30.85	34.77	1.10	0.25	343.2	213.3	3064	220.5	140.4	363.4	193.0
-32	-28.99	42.20	1.33	0.31	416.5	258.8	3718	267.6	170.3	441.0	234.3
-30	-27.13	51.03	1.61	0.37	503.6	313.0	4497	323.7	206.0	533.3	283.3
-28	-25.28	61.50	1.94	0.45	607.0	377.2	5419	390.1	248.3	642.7	341.4
-26	-23.44	73.87	2.33	0.54	729.1	453.1	6510	468.5	298.2	772.0	410.1
-24	-21.60	88.45	2.79	0.64	872.9	542.4	7794	560.9	357.0	924.2	491.0
-22	-19.77	105.6	3.33	0.77	1042	647.4	9301	669.5	426.1	1103	586.0
-20	-17.94	125.6	3.96	0.91	1239	770.2	11066	796.5	506.9	1312	697.2
-18	-16.12	149.0	4.70	1.08	1470	913.6	13127	944.8	601.3	1557	827.0
-16	-14.31	176.2	5.56	1.28	1739	1080	15525	1117	711.1	1841	978.0
-14	-12.50	207.8	6.55	1.51	2050	1274	18308	1318	838.6	2171	1153
-12	-10.69	244.3	7.71	1.77	2411	1498	21529	1550	986.2	2553	1356
-10	-8.90	286.5	9.04	2.08	2828	1757	25248	1817	1157	2994	1591
-8	-7.11	335.1	10.57	2.43	3307	2055	29529	2125	1353	3502	1860
-6	-5.32	390.9	12.33	2.84	3858	2397	34447	2479	1578	4085	2170
-4	-3.54	454.8	14.35	3.30	4489	2790	40080	2885	1836	4753	2525
-2	-1.77	527.9	16.65	3.83	5210	3238	46518	3348	2131	5517	2931
0	0.00	611.2	19.28	4.44	6032	3749	53859	3876	2467	6387	3393
2	1.76	706.0	22.27	5.13	6967	4330	62209	4477	2850	7377	3919
4	3.52	813.5	25.66	5.91	8029	4989	71686	5160	3284	8501	4516
6	5.27	935.3	29.51	6.79	9231	5736	82418	5932	3775	9774	5192
8	7.01	1073	33.85	7.79	10589	6580	94545	6805	4331	11212	5956
10	8.75	1228	38.74	8.92	12121	7532	108221	7789	4957	12834	6818
12	10.48	1403	44.25	10.19	13844	8603	123610	8897	5662	14659	7787
14	12.21	1599	50.44	11.61	15780	9806	140893	10141	6454	16708	8876
16	13.93	1819	57.38	13.21	17950	11154	160264	11535	7341	19005	10097
18	15.65	2065	65.13	14.99	20377	12662	181934	13095	8334	21575	11462
20	17.35	2339	73.80	16.99	23087	14346	206130	14836	9442	24445	12986
22	19.06	2645	83.45	19.21	26107	16223	233098	16777	10678	27643	14685
24	20.75	2986	94.19	21.68	29467	18311	263100	18936	12052	31201	16575
26	22.45	3364		24.43	33199	20630	296419	21335	13578	35152	18674
28	24.13	3783		27.47	37336	23201	333357	23993	15270	39532	21002
30	25.81	4247		30.84	41915	26047	374240	26936	17143	44381	23577
32	27.48	4760		34.56	46974	29191	419414	30187	19212	49738	26423
34	29.15	5325		38.67	52556	32659	469248	33774	21495	55647	29563
36	30.81	5948		43.19	58703	36479	524136	37724	24010	62156	33021
38	32.47	6633		48.16	65464	40680	584498	42069	26775	69315	36823
40	34.12	7385		53.63	72887	45293	650779	46839	29811	77175	40999
42	35.77	8210		59.61	81026	50351	723450	52070	33140	85793	45577
44	37.41	9113		66.17	89937	55889	803013	57796	36784	95228	50590
46	39.04	10100		73.34	99680	61943	889998	64057	40769	105543	56070
48	40.67	11178		81.16	110316	68552	984963	70892	45119	116805	62053
50	42.29	12353		89.69	121912	75758	1088501	78344	49862	129083	68576
52	43.91	13632		98.98	134538	83604	1201234	86458	55026	142452	75678
54	45.52	15023		109.1	148268	92136	1323817	95281	60641	156989	83401
56	47.13	16534		120.1	163178	101402	1456942	104862	66739	172776	91787
58	48.73	18173		132.0	179349	111451	1601333	115255	73354	189899	100884
60	50.32	19948		144.8	196868	122337	1757751	126513	80519	208449	110738
62	51.91	21868		158.8	215823	134116	1926993	138694	88271	228519	121401
64	53.50	23944		173.9	236308	146846	2109895	151858	96650	250209	132923
66	55.07	26184		190.1	258421	160587	2307330	166068	105694	273622	145362
68	56.65	28600		207.7	282264	175404	2520211	181390	115445	298867	158773
70	58.22	31202		226.6	307943	191361	2749491	197893	125948	326057	173218
72	59.78	34002		246.9	335571	208530	2996166	215647	137248	355310	188758
74	61.34	37010		268.7	365262	226981	3261270	234728	149392	386748	205460
76	62.89	40240		292.2	397139	246789	3545884	255212	162429	420500	223391
78	64.44	43704		317.3	431326	268034	3851128	277182	176412	456699	242621
80	65.98	47416		344.3	467955	290796	4178170	300721	191393	495482	263225
82	67.52	51388		373.1	507161	315159	4528220	325915	207428	536994	285278
84	69.05	55636		404.0	549084	341211	4902534	352856	224574	581383	308860
86	70.58	60174		436.9	593871	369042	5302416	381638	242892	628804	334052
88	72.10	65017		472.1	641672	398747	5729215	412356	262443	679417	360941
90	73.62	70182		509.6	692645	430422	6184327	445113	283290	733388	389613
92	75.13	75685		549.6	746950	464168	6669197	480011	305501	790888	420159
94	76.64	81542		592.1	804756	500090	7185318	517158	329143	852094	452675
96	78.14	87771		637.3	866234	538294	7734232	556666	354288	917189	487257
98	79.64	94391		685.4	931564	578891	8317532	598648	381008	986361	524005
100	81.13	101419		736.4	1000928	621995	8936858	643224	409378	1058086	563022