

Saturation pressure of water vapour as a function of temperature

Temperature in degrees Celsius t	Water vapor saturation pressure in hPa $p_{sat}(t)$	Temperature in degrees Celsius t	Water vapor saturation pressure in hPa $p_{sat}(t)$
-60	0.001	29	40.05
-40	0.13	30	42.43
-20	1.03	31	44.92
-18	1.5	32	47.55
-15	1.9	33	50.3
-12	2.4	34	53.19
-10	2.6	35	56.23
-9	3	36	59.41
-7	3.7	37	62.75
-4	4.6	38	66.25
-1	5.6	39	69.92
0	6.11	40	73.75
2	7.06	41	77.78
4	8.13	42	81.99
6	9.35	43	86.39
8	10.73	44	91.01
10	12.28	45	95.83
11	13.12	46	100.86
12	14.02	47	106.12
13	14.97	48	111.60
14	15.98	49	117.35
15	17.05	50	123.34
16	18.18	51	129.59
17	19.37	52	136.11
18	20.63	53	142.92
19	21.97	54	150.00
20	23.38	55	157.37
21	24.87	56	165.05
22	26.43	57	173.08
23	28.09	58	181.43
24	29.83	59	190.12
25	31.67	60	199.16
26	33.6	61	208.56
27	35.64	62	218.34
28	37.8	63	228.49
		64	239.06
		65	250.03

These values are not calculated with mathematical formulas, but are experimental, i.e. they come from experiments carried out in laboratories.

There are, however, empirical formulas that give the saturation pressure over a certain temperature range, but the word "empirical" means that these formulas have been obtained by adjusting experimental data to simplify calculator programming.

Link to parent page :

Air humidity - Calculators and tables

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