

TDI Mixed Isomers Vapor Pressure Chart

The following chart provides vapor pressures of TDI (80% 2,4-TDI; 20% 2,6-TDI) for temperatures ranging from 38 °C to 260 °C (100 °F to 500 °F). For temperatures outside the range of the chart, the vapor pressure (VP) can be calculated using the following formula (Antoine's equation):

$$\text{Log (TDI VP in mm mercury)} = 8.7218 - 2,852.8 / \text{Temperature in } ^\circ\text{K}$$

$$(\text{Temperature in } ^\circ\text{K} = \text{temperature in } ^\circ\text{C} + 247.315)$$

The constants in this formula were derived from data in: R. Perry and D. Green (1984). *Perry's Chemical Engineers' Handbook 6th. Edition*. McGraw-Hill.

Note: "E-XX" stands for 10 to the negative XX power. For example, 5.4E-06 = 5.4×10^{-6} or 0.0000054.

"E+YY" stands for 10 to the positive YY power. For example, 1.3E+01 = 1.3×10^1 or 13.

Vapor Pressure		Temperature		Vapor Pressure		Temperature	
PSI	mm Hg	°C	°F	PSI	mm Hg	°C	°F
2.973E-05	0.001537	0	32.0	8.147E-02	4.212	105	221.0
3.679E-05	0.001902	2	35.6	1.058E-01	5.468	110	230.0
4.537E-05	0.002346	4	39.2	1.363E-01	7.047	115	239.0
5.577E-05	0.002884	6	42.8	1.745E-01	9.019	120	248.0
6.834E-05	0.003533	8	46.4	2.218E-01	11.47	125	257.0
8.346E-05	0.004315	10	50.0	2.802E-01	14.49	130	266.0
1.016E-04	0.005254	12	53.6	3.519E-01	18.19	135	275.0
1.234E-04	0.006378	14	57.2	4.393E-01	22.71	140	284.0
1.493E-04	0.007720	16	60.8	5.452E-01	28.19	145	293.0
1.802E-04	0.009318	18	64.4	6.731E-01	34.80	150	302
2.169E-04	0.011214	20	68.0	8.267E-01	42.74	155	311
2.377E-04	0.012289	21	69.8	1.010E+00	52.23	160	320
2.603E-04	0.013458	22	71.6	1.228E+00	63.51	165	329
2.849E-04	0.01473	23	73.4	1.487E+00	76.86	170	338
3.116E-04	0.01611	24	75.2	1.791E+00	92.61	175	347
3.406E-04	0.01761	25	77.0	2.149E+00	111.1	180	356
3.720E-04	0.01923	26	78.8	2.567E+00	132.7	185	365
4.061E-04	0.02100	27	80.6	3.054E+00	157.9	190	374
4.429E-04	0.02290	28	82.4	3.619E+00	187.1	195	383
4.829E-04	0.02497	29	84.2	4.273E+00	220.9	200	392
5.261E-04	0.02720	30	86.0	5.026E+00	259.8	205	401
5.729E-04	0.02962	31	87.8	5.891E+00	304.5	210	410
6.779E-04	0.03505	33	91.4	8.010E+00	414.1	220	428
7.368E-04	0.03809	34	93.2	9.295E+00	480.6	225	437
8.689E-04	0.04492	36	96.8	1.075E+01	555.9	230	446
9.427E-04	0.04874	37	98.6	1.240E+01	641.2	235	455
1.022E-03	0.05285	38	100.4	1.426E+01	737.4	240	464
1.200E-03	0.06203	40	104.0	1.635E+01	845.5	245	473
1.405E-03	0.07266	42	107.6	1.870E+01	966.9	250	482
1.520E-03	0.07857	43	109.4	2.133E+01	1102	255	491
1.642E-03	0.08491	44	111.2	2.426E+01	1254	260	500
2.229E-03	0.1152	48	118.4	3.117E+01	1611	270	518
2.589E-03	0.1338	50	122.0	3.519E+01	1820	275	527
3.731E-03	0.1929	55	131.0	3.965E+01	2050	280	536
4.008E-03	0.2072	56	132.8	4.457E+01	2304	285	545
5.313E-03	0.2747	60	140.0	5.000E+01	2585	290	554
7.481E-03	0.3868	65	149.0	6.251E+01	3232	300	572
1.042E-02	0.5387	70	158.0	1.056E+02	5459	325	617
1.437E-02	0.7427	75	167.0	1.707E+02	8826	350	662
1.961E-02	1.014	80	176.0	2.655E+02	13730	375	707
2.653E-02	1.371	85	185.0	3.992E+02	20640	400	752
3.556E-02	1.838	90	194.0	8.264E+02	42720	450	842
4.726E-02	2.443	95	203.0	1.552E+03	80240	500	932
6.229E-02	3.220	100	212.0	4.380E+03	226400	600	1112