

MDI Vapor Pressure Chart

The following chart provides vapor pressures of 4,4'-MDI for temperatures ranging from 20°C to 207 °C (68.0 °F to 404.6 °F). For temperatures outside the range of the chart, the vapor pressure (VP) can be calculated using the following formula (Antoine's equation):

$$\text{Log (MDI VP in mm mercury)} = 11.15 - 4809.8 / \text{Temperature in } ^\circ\text{K}$$

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

For the vapor pressure of PMDI, see the adjustment factors chart below.

Source: *MDI/Polymeric MDI Emissions Reporting Guidelines For the Polyurethane Industry*, Alliance for the Polyurethanes Industry, American Plastics Council, Arlington, VA, 1999 (available at http://www.polyurethane.org/news_pubs/api_literature/mdi_reporting.pdf).

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.

Temperature	Temperature	Vapor Pressure	Temperature	Temperature	Vapor Pressure
°F	°C	mmHg	°F	°C	mmHg
68.0	20	5.424E-06	152.6	67	1.008E-03
69.8	21	6.168E-06	154.4	68	1.109E-03
71.6	22	7.008E-06	156.2	69	1.220E-03
73.4	23	7.956E-06	158.0	70	1.340E-03
75.2	24	9.024E-06	159.8	71	1.472E-03
77.0	25	1.023E-05	161.6	72	1.616E-03
78.8	26	1.158E-05	163.4	73	1.774E-03
80.6	27	1.310E-05	165.2	74	1.945E-03
82.4	28	1.481E-05	167.0	75	2.132E-03
84.2	29	1.673E-05	168.8	76	2.335E-03
86.0	30	1.888E-05	170.6	77	2.557E-03
87.8	31	2.130E-05	172.4	78	2.798E-03
89.6	32	2.400E-05	174.2	79	3.061E-03
91.4	33	2.702E-05	176.0	80	3.346E-03
93.2	34	3.040E-05	177.8	81	3.656E-03
95.0	35	3.418E-05	179.6	82	3.993E-03
96.8	36	3.840E-05	181.4	83	4.358E-03
98.6	37	4.310E-05	183.2	84	4.755E-03
100.4	38	4.835E-05	185.0	85	5.186E-03
102.2	39	5.420E-05	186.8	86	5.652E-03
104.0	40	6.071E-05	188.6	87	6.158E-03
105.8	41	6.795E-05	190.4	88	6.706E-03
107.6	42	7.600E-05	192.2	89	7.299E-03
109.4	43	8.494E-05	194.0	90	7.941E-03
111.2	44	9.487E-05	195.8	91	8.635E-03
113.0	45	1.06E-04	197.6	92	9.386E-03
114.8	46	1.181E-04	199.4	93	1.020E-02
116.6	47	1.316E-04	201.2	94	1.107E-02
118.4	48	1.466E-04	203.0	95	1.202E-02
120.2	49	1.632E-04	204.8	96	1.304E-02
122.0	50	1.815E-04	206.6	97	1.414E-02
123.8	51	2.018E-04	208.4	98	1.533E-02
125.6	52	2.242E-04	210.2	99	1.661E-02
127.4	53	2.489E-04	212.0	100	1.799E-02
129.2	54	2.761E-04	213.8	101	1.948E-02
131.0	55	3.062E-04	215.6	102	2.108E-02
132.8	56	3.393E-04	217.4	103	2.280E-02
134.6	57	3.757E-04	219.2	104	2.466E-02
136.4	58	4.158E-04	221.0	105	2.665E-02
138.2	59	4.599E-04	222.8	106	2.879E-02
140.0	60	5.083E-04	224.6	107	3.109E-02
141.8	61	5.616E-04	226.4	108	3.356E-02
143.6	62	6.200E-04	228.2	109	3.622E-02
145.4	63	6.841E-04	230.0	110	3.906E-02
147.2	64	7.544E-04	231.8	111	4.212E-02
149.0	65	8.314E-04	233.6	112	4.540E-02
150.8	66	9.158E-04	235.4	113	4.891E-02

Temperature	Temperature	Vapor Pressure	Temperature	Temperature	Vapor Pressure
°F	°C	mmHg	°F	°C	mmHg
237.2	114	5.267E-02	321.8	161	1.168E+00
239.0	115	5.670E-02	323.6	162	1.239E+00
240.8	116	6.102E-02	325.4	163	1.313E+00
242.6	117	6.564E-02	327.2	164	1.392E+00
244.4	118	7.059E-02	329.0	165	1.475E+00
246.2	119	7.588E-02	330.8	166	1.562E+00
248.0	120	8.153E-02	332.6	167	1.654E+00
249.8	121	8.758E-02	334.4	168	1.752E+00
251.6	122	9.404E-02	336.2	169	1.854E+00
253.4	123	1.009E-01	338.0	170	1.962E+00
255.2	124	1.083E-01	339.8	171	2.075E+00
257.0	125	1.162E-01	341.6	172	2.195E+00
258.8	126	1.246E-01	343.4	173	2.321E+00
260.6	127	1.335E-01	345.2	174	2.454E+00
262.4	128	1.430E-01	347.0	175	2.593E+00
264.2	129	1.532E-01	348.8	176	2.740E+00
266.0	130	1.641E-01	350.6	177	2.894E+00
267.8	131	1.756E-01	352.4	178	3.057E+00
269.6	132	1.879E-01	354.2	179	3.227E+00
271.4	133	2.010E-01	356.0	180	3.407E+00
273.2	134	2.149E-01	357.8	181	3.595E+00
275.0	135	2.298E-01	359.6	182	3.793E+00
276.8	136	2.455E-01	361.4	183	4.001E+00
278.6	137	2.623E-01	363.2	184	4.220E+00
280.4	138	2.801E-01	365.0	185	4.449E+00
282.2	139	2.990E-01	366.8	186	4.690E+00
284.0	140	3.192E-01	368.6	187	4.942E+00
285.8	141	3.405E-01	370.4	188	5.207E+00
287.6	142	3.632E-01	372.2	189	5.485E+00
289.4	143	3.872E-01	374.0	190	5.776E+00
291.2	144	4.128E-01	375.8	191	6.082E+00
293.0	145	4.398E-01	377.6	192	6.402E+00
294.8	146	4.686E-01	379.4	193	6.738E+00
296.6	147	4.990E-01	381.2	194	7.090E+00
298.4	148	5.312E-01	383.0	195	7.458E+00
300.2	149	5.654E-01	384.8	196	7.844E+00
302.0	150	6.016E-01	386.6	197	8.249E+00
303.8	151	6.399E-01	388.4	198	8.672E+00
305.6	152	6.805E-01	390.2	199	9.115E+00
307.4	153	7.234E-01	392.0	200	9.578E+00
309.2	154	7.688E-01	393.8	201	1.006E+01
311.0	155	8.169E-01	395.6	202	1.057E+01
312.8	156	8.677E-01	397.4	203	1.110E+01
314.6	157	9.213E-01	399.2	204	1.166E+01
316.4	158	9.781E-01	401.0	205	1.224E+01
318.2	159	1.038E+00	402.8	206	1.284E+01
320.0	160	1.101E+00	404.6	207	1.348E+01