

Heavy Film Magnet Wire Table (Reference NEMA MW1000)

AWG Size	Maximum Outside Diameter Over Insulation in Inches	Nominal Resistance, Ω /1000 ft. at 20°C (68°F)	Nominal Bare Wire Diameter in Mils ¹	Nominal Bare Wire Cross Sectional Area in Circular Mils ²
10	0.1061	0.9988	101.9	10380
11	0.0948	1.26	90.7	8230
12	0.0847	1.59	80.8	6530
13	0.0757	2.00	72.0	5180
14	0.0682	2.52	64.1	4110
15	0.0609	3.18	57.1	3260
16	0.0545	4.02	50.8	2580
17	0.0488	5.05	45.3	2050
18	0.0437	6.39	40.3	1620
19	0.0391	8.05	35.9	1290
20	0.0351	10.1	32.0	1020
21	0.0314	12.8	28.5	812
22	0.0281	16.2	25.3	640
23	0.0253	20.3	22.6	511
24	0.0227	25.7	20.1	404
25	0.0203	32.4	17.9	320
26	0.0182	41.0	15.9	253
27	0.0164	51.4	14.2	202
28	0.0147	65.3	12.6	159
29	0.0133	81.2	11.3	128
30	0.0119	104	10.0	100
31	0.0108	131	8.9	79.2
32	0.0098	162	8.0	64.0
33	0.0088	206	7.1	50.4
34	0.0078	261	6.3	39.7
35	0.0070	331	5.6	31.4
36	0.0063	415	5.0	25.0
37	0.0057	512	4.5	20.2
38	0.0051	648	4.0	16.0
39	0.0045	847	3.5	12.2
40	0.0040	1080	3.1	9.61
41	0.0036	1320	2.8	7.84
42	0.0032	1660	2.5	6.25
43	0.0029	2140	2.2	4.84
44	0.0027	2590	2.0	4.00

¹A mil is 0.001 inch.
²A circular mil is the area of a circle which is 1 mil in diameter.