

Wire Table, Standard Annealed Copper
at 20° C (68° F)

AWG gauge	Diameter (mils*)	Cross Section (circular mils** (sq. inches)		Ohms/ 1000 ft	Pounds/ 1000 ft	Feet/ Pound	Feet/ Ohm	Ohm/ Pound
0000	460.0	211600	0.1662	0.0490	640.5	1.561	20400	0.00007652
000	409.6	167800	0.1318	0.0618	507.9	1.968	16180	0.0001217
00	364.8	133100	0.1045	0.0779	402.8	2.482	12830	0.0001935
0	324.9	105500	0.08289	0.0983	319.5	3.130	10180	0.0003076
1	289.3	83690	0.06573	0.1239	253.3	3.947	8070	0.0004891
2	257.6	66370	0.05213	0.1563	200.9	4.977	6400	0.0007778
3	229.4	52640	0.04134	0.1970	159.3	6.276	5075	0.001237
4	204.3	41740	0.03278	0.2485	126.4	7.914	4025	0.001966
5	181.9	33100	0.02600	0.3133	100.2	9.980	3192	0.003127
6	162.0	26250	0.02062	0.3951	79.46	12.58	2531	0.004972
7	144.3	20820	0.01635	0.4982	63.02	15.87	2007	0.007905
8	128.5	16510	0.01297	0.6282	49.98	20.01	1592	0.01257
9	114.4	13090	0.01028	0.7921	39.63	25.23	1262	0.01999
10	101.9	10380	0.008155	0.9989	31.43	31.82	1001	0.03178
11	90.74	8234	0.006467	1.260	24.92	40.12	794.0	0.05053
12	80.81	6530	0.005129	1.588	19.77	50.59	629.6	0.08035
13	71.96	5178	0.004067	2.003	15.68	63.80	499.3	0.1278
14	64.08	4107	0.003225	2.525	12.43	80.44	396.0	0.2032
15	57.07	3257	0.002558	3.184	9.858	101.4	314.0	0.3230
16	50.82	2583	0.002028	4.016	7.818	127.9	249.0	0.5136
17	45.26	2048	0.001609	5.064	6.200	161.3	197.5	0.8167
18	40.30	1624	0.001276	6.385	4.917	203.4	156.6	1.299
19	35.89	1288	0.001012	8.051	3.899	256.5	124.2	2.065
20	31.96	1022	0.0008023	10.15	3.092	323.4	98.50	3.283
21	28.46	810.1	0.0006363	12.80	2.452	407.8	78.11	5.221
22	25.35	642.4	0.0005046	16.14	1.945	514.2	61.95	8.301
23	22.57	509.5	0.0004002	20.36	1.542	648.4	49.13	13.20
24	20.10	404.0	0.0003173	25.67	1.223	817.7	38.96	20.99
25	17.90	320.4	0.0002517	32.37	0.9699	1031	30.90	33.37
26	15.94	254.1	0.0001996	40.81	0.7692	1300	24.50	53.06
27	14.20	201.5	0.0001583	51.47	0.6100	1639	19.43	84.37
28	12.64	159.8	0.0001255	64.90	0.4837	2067	15.41	134.2
29	11.26	126.7	0.00009953	81.83	0.3836	2607	12.22	213.3
30	10.03	100.5	0.00007894	103.2	0.3042	3287	9.691	339.2
31	8.928	79.7	0.00006260	130.1	0.2413	4145	7.685	539.3
32	7.950	63.21	0.00004964	164.1	0.1913	5227	6.095	857.6
33	7.080	50.13	0.00003937	206.9	0.1517	6591	4.833	1364
34	6.305	39.75	0.00003122	260.9	0.1203	8310	3.833	2168
35	5.615	31.52	0.00002476	329.0	0.09542	10480	3.040	3448
36	5.000	25.00	0.00001964	414.8	0.07568	13210	2.411	5482
37	4.453	19.83	0.00001557	523.1	0.06001	16660	1.912	8717
38	3.965	15.72	0.00001235	659.6	0.04759	21010	1.516	13860
39	3.531	12.47	0.000009793	831.8	0.03774	26500	1.202	22040
40	3.145	9.888	0.000007766	1049	0.02993	33410	0.9534	35040

* 1 mil = 0.001 inch

** circular mils = (diameter in mils)²