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## Alloy 60 Precision Resistance

<b>ASTM:</b>	<b>UNS: C70500</b>
<b>Ω/cir. mil. ft.: 60</b>	<b>Weight/Density: .321 lbs/in<sup>2</sup> (8.9 g/cm<sup>3</sup>)</b>
<b>Chemical Composition %: Ni 6.0%, Cu-Balance</b>	<b>Conductivity: 91 w/mK</b>
<b>Temp. Coeff. of Resistance: 0.0005</b>	<b>Specific Gravity: 8.92</b>
<b>Coeff. of Lin. Expansion, X 10<sup>-6</sup>: 16 (20-500°C)</b>	<b>Specific Heat: .092 cal./gm @ 20°C</b>
<b>Melting Point: ~1,100°C (~2,012°F)</b>	<b>Elongation: 15-30%</b>
<b>Max Operating Temp: ~600°C (~1,112°F)</b>	<b>Yield Point: 15,000-35,000</b>
<b>Soft Tensile: 30,000-50,000 PSI</b>	

Diameter			Resistance @ 68° F/20° C Ω/ft	Sq. in./Ω 68°F	Weight Lb./1000 ft	Ω/lb.	Ft/Lb.	Cross sectional area (in <sup>2</sup> )
B&S	Inches	Mm						
13	0.072	1.83	0.012	234.5	15.7	0.74	63.75	0.00407
14	0.064	1.63	0.015	164.7	12.4	1.18	80.58	0.00322
15	0.057	1.45	0.018	116.4	9.87	1.87	101.4	0.00256
16	0.051	1.29	0.023	83.35	7.82	2.95	127.8	0.00203
17	0.045	1.15	0.030	57.26	6.21	4.78	161.2	0.00161
18	0.04	1.02	0.038	40.21	4.86	7.72	205.9	0.00126
19	0.036	0.912	0.046	29.31	3.93	11.78	254.4	0.00102
20	0.032	0.812	0.059	20.59	3.10	18.87	322.0	0.000804
21	0.0285	0.723	0.074	14.55	2.46	29.99	406.0	0.000638
22	0.0253	0.644	0.094	10.18	1.94	48.27	515.0	0.000507
23	0.0226	0.573	0.117	7.253	1.54	75.89	646.0	0.000401
24	0.0201	0.51	0.149	5.102	1.21	122.5	825.0	0.000314
25	0.0179	0.455	0.187	3.604	0.971	192.7	1,029	0.000254
26	0.0159	0.405	0.237	2.526	0.766	310.0	1,305	0.000199
27	0.0142	0.361	0.298	1.799	0.611	485.0	1,636	0.000158
28	0.0126	0.321	0.378	1.257	0.481	783.0	2,078	0.000125
29	0.0113	0.286	0.470	0.907	0.386	1,216	2,584	0.000100
30	0.01	0.255	0.600	0.628	0.303	1,980	3,300	0.0000785
31	0.0089	0.227	0.757	0.443	0.240	3,153	4,166	0.0000626
32	0.008	0.202	0.938	0.322	0.193	4,831	5,156	0.0000496
33	0.0071	0.18	1.190	0.225	0.152	7,789	6,546	0.0000394
34	0.0063	0.16	1.512	0.157	0.120	12,554	8,314	0.0000312
35	0.0056	0.143	1.913	0.110	0.0950	20,097	10,522	0.0000247
36	0.005	0.127	2.400	0.0785	0.0750	31,680	13,200	0.0000196
37	0.0045	0.113	2.963	0.0573	0.0610	48,236	16,296	0.0000152
38	0.004	0.101	3.750	0.0402	0.0480	77,343	20,625	0.0000126
39	0.0035	0.09	4.898	0.0269	0.0370	131,726	26,938	0.00000979
40	0.0031	0.08	6.243	0.0187	0.0290	214,275	34,339	0.00000779
41	0.00275	0.07	7.934	0.0131	0.0237	334,185	42,121	0.00000616
42	0.0025	0.063	9.600	0.00982	0.0188	511,474	53,279	0.00000487
43	0.00225	0.057	11.85	0.00716	0.0146	809,253	68,281	0.00000380
44	0.0020	0.051	15.00	0.00503	0.0121	1,239,490	82,633	0.00000314
45	0.00175	0.044	19.59	0.00337	0.0094	2,091,946	106,776	0.00000243
46	0.0015	0.038	26.67	0.00212	0.0077	3,442,344	129,088	0.00000201
47	0.0014	0.036	30.61	0.00172	0.0059	5,157,699	168,485	0.00000154
48	0.0013	0.033	35.50	0.00138	0.0047	7,613,086	214,435	0.00000121