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## Alloy NPS 20% Nickel Plated Steel

<b>ASTM:</b>	<b>UNS:</b> G10060
<b>Ω/cir. mil. ft.:</b> 80	<b>Weight/Density:</b> .293 lbs/in <sup>2</sup> (8.1 g/cm <sup>3</sup> )
<b>Chemical Composition %:</b> Core: C .06 max Low Carbon Steel (AISI/SAE 1006) Plate: 99.95% Pure Nickel 20% Free from all other trace elements	
<b>Coeff. of Lin. Expansion, X 10<sup>-6</sup>:</b> 13.5 (20-500°C) <b>Conductivity:</b>	
<b>Specific Heat:</b> .115 cal./gm @ 20°C	<b>Temp. Coeff. of Resistance:</b>
<b>Specific Gravity:</b> 8.11	<b>Melting Point:</b>
<b>Elongation:</b> 20% MIN	<b>Max Operating Temp:</b>
<b>Yield Point:</b>	<b>Soft Tensile:</b> 45,000-60,000 PSI

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	0.015	175.9	14.3	1.08	69.88	0.00407
14	0.064	1.63	0.020	123.5	11.3	1.73	88.33	0.00322
15	0.057	1.45	0.025	87.27	9.00	2.74	111.1	0.00256
16	0.051	1.29	0.031	62.51	7.14	4.31	140.1	0.00203
17	0.045	1.15	0.040	42.94	5.66	6.98	176.7	0.00161
18	0.04	1.02	0.050	30.16	4.43	11.3	225.7	0.00126
19	0.036	0.912	0.062	21.99	3.59	17.2	278.8	0.00102
20	0.032	0.812	0.078	15.44	2.83	27.6	353.7	0.000804
21	0.0285	0.723	0.098	10.91	2.24	43.9	445.8	0.000638
22	0.0253	0.644	0.125	7.631	1.78	70.1	561.0	0.000507
23	0.0226	0.573	0.157	5.440	1.41	111.1	709.3	0.000401
24	0.0201	0.51	0.198	3.827	1.10	179.4	905.8	0.000314
25	0.0179	0.455	0.250	2.703	0.893	279.6	1,120	0.000254
26	0.0159	0.405	0.316	1.894	0.700	452.3	1,429	0.000199
27	0.0142	0.361	0.397	1.349	0.556	714.2	1,800	0.000158
28	0.0126	0.321	0.504	0.943	0.440	1,147	2,275	0.000125
29	0.0113	0.286	0.627	0.680	0.352	1,782	2,844	0.000100
30	0.01	0.255	0.800	0.471	0.276	2,898	3,623	0.0000785
31	0.0089	0.227	1.01	0.332	0.220	4,589	4,543	0.0000626
32	0.008	0.202	1.25	0.241	0.174	7,168	5,734	0.0000496
33	0.0071	0.18	1.59	0.169	0.139	11,456	7,219	0.0000394
34	0.0063	0.16	2.02	0.118	0.110	18,374	9,116	0.0000312
35	0.0056	0.143	2.55	0.083	0.0868	29,374	11,515	0.0000247
36	0.005	0.127	3.20	0.0589	0.0689	46,435	14,511	0.0000196
37	0.0045	0.113	3.95	0.0429	0.0534	73,922	18,711	0.0000152
38	0.004	0.101	5.00	0.0302	0.0443	112,863	22,573	0.0000126
39	0.0035	0.09	6.53	0.0202	0.0344	189,724	29,051	0.00000979
40	0.0031	0.08	8.32	0.0140	0.0274	303,935	36,510	0.00000779
41	0.00275	0.07	10.58	0.0098	0.0217	488,422	46,171	0.00000616
42	0.0025	0.063	12.80	0.00736	0.0171	747,536	58,401	0.00000487
43	0.00225	0.057	15.80	0.00537	0.0134	1,182,749	74,846	0.00000380
44	0.0020	0.051	20.00	0.00377	0.0110	1,811,555	90,578	0.00000314
45	0.00175	0.044	26.12	0.00253	0.0085	3,057,446	117,043	0.00000243
46	0.0015	0.038	35.56	0.00159	0.0071	5,031,095	141,500	0.00000201
47	0.0014	0.036	40.82	0.00129	0.0054	7,538,142	184,684	0.00000154
48	0.0013	0.033	47.34	0.00104	0.0043	11,126,768	235,053	0.00000121