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Alloy 212 Nickel

ASTM:	UNS: N02212
Ω/cir. mil. ft.: 67	Weight/Density: .320 lbs/in ² (8.9 g/cm ³)
Chemical Composition %: Ni 97% min, C .02% max, Cu .2%, Fe .25%, Mg .05%, Mn 1.5-2.5%, S .01%, Si .2%	
Coeff. of Lin. Expansion, X 10⁻⁶: 13.3(100°C), 13.9(200°C), 14.3(300°C), 14.6(400°C), 15.2(500°C)	
Conductivity: 44 w/mK	Specific Heat: .103 cal./gm @ 20°C
Temp. Coeff. of Resistance:	Specific Gravity: 8.9
Melting Point: ~1,450°C (~2,640°F)	Elongation: 20-40%
Max Operating Temp: ~500°C (~932°F)	Yield Point:
Soft Tensile: 50,000-70,000 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 ²)
B&S	Inches	Mm						
13	0.072	1.83	0.013	213.2	15.6	0.81	63.97	0.00407
14	0.064	1.63	0.016	149.7	12.4	1.30	80.85	0.00322
15	0.057	1.45	0.020	105.8	9.83	2.07	101.7	0.00256
16	0.051	1.29	0.025	75.77	7.80	3.25	128.2	0.00203
17	0.045	1.15	0.033	52.05	6.18	5.27	161.7	0.00161
18	0.04	1.02	0.041	36.56	4.84	8.52	206.6	0.00126
19	0.036	0.912	0.051	26.65	3.92	13.0	255.2	0.00102
20	0.032	0.812	0.064	18.72	3.09	20.9	323.8	0.000804
21	0.0285	0.723	0.081	13.22	2.45	33.2	408.1	0.000638
22	0.0253	0.644	0.103	9.250	1.95	52.9	513.5	0.000507
23	0.0226	0.573	0.129	6.593	1.54	83.9	649.2	0.000401
24	0.0201	0.51	0.163	4.638	1.21	135.4	829.1	0.000314
25	0.0179	0.455	0.206	3.276	0.976	211.1	1,025	0.000254
26	0.0159	0.405	0.261	2.296	0.764	341.5	1,308	0.000199
27	0.0142	0.361	0.327	1.636	0.607	539.3	1,648	0.000158
28	0.0126	0.321	0.416	1.143	0.480	865.8	2,083	0.000125
29	0.0113	0.286	0.517	0.824	0.384	1,346	2,603	0.000100
30	0.01	0.255	0.660	0.571	0.302	2,189	3,316	0.0000785
31	0.0089	0.227	0.833	0.403	0.240	3,465	4,159	0.0000626
32	0.008	0.202	1.031	0.292	0.191	5,413	5,249	0.0000496
33	0.0071	0.18	1.309	0.204	0.151	8,651	6,608	0.0000394
34	0.0063	0.16	1.663	0.143	0.120	13,876	8,344	0.0000312
35	0.0056	0.143	2.105	0.100	0.0949	22,183	10,540	0.0000247
36	0.005	0.127	2.640	0.0714	0.0753	35,067	13,283	0.0000196
37	0.0045	0.113	3.259	0.0521	0.0584	55,824	17,128	0.0000152
38	0.004	0.101	4.125	0.0366	0.0484	85,232	20,662	0.0000126
39	0.0035	0.09	5.388	0.0245	0.0376	143,276	26,593	0.00000979
40	0.0031	0.08	6.87	0.0170	0.0299	229,526	33,420	0.00000779
41	0.00275	0.07	8.73	0.0119	0.0237	368,847	42,264	0.00000616
42	0.0025	0.063	10.56	0.00892	0.0187	564,525	53,459	0.00000487
43	0.00225	0.057	13.04	0.00651	0.0146	893,189	68,512	0.00000380
44	0.0020	0.051	16.50	0.00457	0.0121	1,368,051	82,912	0.00000314
45	0.00175	0.044	21.55	0.00306	0.0093	2,308,924	107,138	0.00000243
46	0.0015	0.038	29.33	0.00193	0.0077	3,799,386	129,525	0.00000201
47	0.0014	0.036	33.67	0.00157	0.0059	5,692,659	169,055	0.00000154
48	0.0013	0.033	39.05	0.00125	0.0046	8,402,719	215,161	0.00000121