



6320 Highview Drive, Fort Wayne, IN 46818
 Phone: (260) 490-6477 Fax: (260) 490-8437
 Website: <http://www.precisionwiretech.com>

Alloy 200 Nickel

ASTM:	UNS: N02200
Ω/cir. mil. ft.: 60	Weight/Density: .321 lbs/in ² (8.9 g/cm ³)
Chemical Composition %: Ni 99.2%, C .1% max, Cu .25%, Fe .4%, Mg .15%, Mn .3%, S .005%, Si .2%	
Coeff. of Lin. Expansion, X 10⁻⁶: 13.9(200°C), 14.8(400°C), 15.5(600°C), 16.2(800°C), 16.9(1,000°C)	
Conductivity: 70 w/mK	Specific Heat: .109 cal./gm @ 20°C
Temp. Coeff. of Resistance: 0.00470	Specific Gravity: 8.9
Melting Point: ~1,450°C (~2,640°F)	Elongation: 20-40%
Max Operating Temp: ~1,100°C (~2,012°F)	Yield Point: 15,000-40,000 PSI
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	0.012	234.5	15.7	0.74	63.79	0.00407
14	0.064	1.63	0.015	164.7	12.4	1.18	80.62	0.00322
15	0.057	1.45	0.018	116.4	9.86	1.87	101.4	0.00256
16	0.051	1.29	0.023	83.35	7.82	2.95	127.9	0.00203
17	0.045	1.15	0.030	57.26	6.20	4.78	161.2	0.00161
18	0.04	1.02	0.038	40.21	4.85	7.73	206.0	0.00126
19	0.036	0.912	0.046	29.31	3.93	11.8	254.5	0.00102
20	0.032	0.812	0.059	20.59	3.09	19.0	324.1	0.000804
21	0.0285	0.723	0.074	14.55	2.43	30.4	411.4	0.000638
22	0.0253	0.644	0.094	10.18	1.95	48.2	513.8	0.000507
23	0.0226	0.573	0.117	7.253	1.54	76.3	649.5	0.000401
24	0.0201	0.51	0.149	5.102	1.22	121.9	821.0	0.000314
25	0.0179	0.455	0.187	3.604	0.966	194.0	1,036	0.000254
26	0.0159	0.405	0.237	2.526	0.762	311.0	1,313	0.000199
27	0.0142	0.361	0.298	1.799	0.608	489.8	1,646	0.000158
28	0.0126	0.321	0.378	1.257	0.479	789.6	2,090	0.000125
29	0.0113	0.286	0.470	0.907	0.379	1,241	2,642	0.000100
30	0.01	0.255	0.600	0.628	0.301	1,991	3,318	0.0000785
31	0.0089	0.227	0.757	0.443	0.239	3,174	4,189	0.0000626
32	0.008	0.202	0.938	0.322	0.193	4,861	5,185	0.0000496
33	0.0071	0.18	1.190	0.225	0.152	7,834	6,583	0.0000394
34	0.0063	0.16	1.512	0.157	0.120	12,640	8,364	0.0000312
35	0.0056	0.143	1.913	0.110	0.0945	20,240	10,580	0.0000247
36	0.005	0.127	2.400	0.0785	0.0753	31,850	13,270	0.0000196
37	0.0045	0.113	2.963	0.0573	0.0610	48,580	16,400	0.0000152
38	0.004	0.101	3.750	0.0402	0.0482	77,700	20,740	0.0000126
39	0.0035	0.09	4.898	0.0269	0.0369	132,800	27,110	0.00000979
40	0.0031	0.08	6.243	0.0187	0.0289	215,800	34,570	0.00000779
41	0.00275	0.07	7.934	0.0131	0.0228	347,958	43,840	0.00000616
42	0.0025	0.063	9.600	0.00982	0.0189	509,280	53,050	0.00000487
43	0.00225	0.057	11.85	0.00716	0.0153	776,530	65,530	0.00000380
44	0.0020	0.051	15.00	0.00503	0.0121	1,243,770	82,918	0.00000314
45	0.00175	0.044	19.59	0.00337	0.0094	2,093,064	106,833	0.00000243
46	0.0015	0.038	26.67	0.00212	0.0077	3,444,184	129,157	0.00000201
47	0.0014	0.036	30.61	0.00172	0.0059	5,160,457	168,575	0.00000154
48	0.0013	0.033	35.50	0.00138	0.0047	7,617,157	214,550	0.00000121