PRECISION WIRE TECHNOLOGIES

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

Alloy 201 Nickel

ASTM: ***UNS:*** *N02205*

Ω/cir. mil. ft.: *57* ***Weight/Density:*** *.321 lbs/in^2 (8.9 g/cm^3)*

Chemical Composition %: *Ni 99.6%, C .02% max, Cu .1%, Fe .2%, Mg .15%, Mn .3%,S .005%, Si .1%*

Coeff. of Lin. Expansion, X 10^{-6}: *14.5 (200˚C), 15.2 (400˚C), 15.5 (600˚C), 16.0 (800˚C)*

Conductivity: *75 w/mK* ***Specific Heat:*** *.109 cal./gm @ 20˚C*

Temp. Coeff. of Resistance: *0.0060* ***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:*** *15,000-35,000 PSI*

Soft Tensile: *50,000-70,000 PSI*

Diameter			Resistance @ 68º F/20º C	Sq. in./Ω	Weight	Ω/lb.	Ft/Lb.	Cross sectional
B&S	Inches	Mm	Ω/ft	68°F	Lb./1000 ft			area (in^2)
13	0.072	1.83	0.011	246.9	15.7	0.70	63.68	0.00407
14	0.064	1.63	0.014	173.4	12.4	1.12	80.49	0.00322
15	0.057	1.45	0.018	122.5	9.88	1.78	101.2	0.00256
16	0.051	1.29	0.022	87.73	7.83	2.80	127.7	0.00203
17	0.045	1.15	0.028	60.27	6.21	4.53	161.0	0.00161
18	0.04	1.02	0.036	42.33	4.86	7.33	205.7	0.00126
19	0.036	0.912	0.044	30.86	3.94	11.2	254.1	0.00102
20	0.032	0.812	0.056	21.67	3.10	17.9	322.4	0.000804
21	0.0285	0.723	0.070	15.31	2.46	28.5	406.2	0.000638
22	0.0253	0.644	0.089	10.71	1.96	45.5	511.2	0.000507
23	0.0226	0.573	0.112	7.635	1.55	72.1	646.3	0.000401
24	0.0201	0.51	0.141	5.371	1.21	116.5	825.4	0.000314
25	0.0179	0.455	0.178	3.793	0.980	181.5	1,020	0.000254
26	0.0159	0.405	0.225	2.659	0.768	293.6	1,302	0.000199
27	0.0142	0.361	0.283	1.894	0.610	463.7	1,640	0.000158
28	0.0126	0.321	0.359	1.323	0.482	744.4	2,073	0.000125
29	0.0113	0.286	0.446	0.954	0.386	1,157	2,592	0.000100
30	0.01	0.255	0.570	0.661	0.303	1,882	3,302	0.0000785
31	0.0089	0.227	0.720	0.466	0.242	2,979	4,140	0.0000626
32	0.008	0.202	0.891	0.339	0.191	4,654	5,225	0.0000496
33	0.0071	0.18	1.131	0.237	0.152	7,438	6,578	0.0000394
34	0.0063	0.16	1.436	0.165	0.120	11,930	8,307	0.0000312
35	0.0056	0.143	1.818	0.116	0.0953	19,072	10,493	0.0000247
36	0.005	0.127	2.280	0.0827	0.0756	30,149	13,223	0.0000196
37	0.0045	0.113	2.815	0.0603	0.0586	47,996	17,051	0.0000152
38	0.004	0.101	3.563	0.0423	0.0486	73,279	20,570	0.0000126
39	0.0035	0.09	4.653	0.0284	0.0378	123,184	26,474	0.00000979
40	0.0031	0.08	5.931	0.0197	0.0301	197,338	33,271	0.00000779
41	0.00275	0.07	7.537	0.0138	0.0238	317,122	42,074	0.00000616
42	0.0025	0.063	9.120	0.01033	0.0188	485,359	53,219	0.00000487
43	0.00225	0.057	11.26	0.00753	0.0147	767,933	68,205	0.00000380
44	0.0020	0.051	14.25	0.00529	0.0121	1,176,204	82,541	0.00000314
45	0.00175	0.044	18.61	0.00354	0.0094	1,985,134	106,657	0.00000243
46	0.0015	0.038	25.33	0.00223	0.0078	3,266,582	128,944	0.00000201
47	0.0014	0.036	29.08	0.00181	0.0059	4,894,353	168,297	0.00000154
48	0.0013	0.033	33.73	0.00145	0.0047	7,224,371	214,196	0.00000121