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Alloy 316L Stainless Steel

ASTM:	UNS: S31603
Ω/cir. mil. ft.: 67	Weight/Density: .289 lbs/in ² (7.9 g/cm ³)
Chemical Composition %: Ni 10-14%, C .03% max, Cr 16-18%, Mn 2%, P .045%, S .03%, Si 1%, Mo 2-3%	
Coeff. of Lin. Expansion, X 10⁻⁶: 16.5 (100°C), 18.2 (500°C), 19.5 (1,000°C)	
Conductivity: 14.6 w/mK	Specific Heat: .108 cal./gm @ 20°C
Temp. Coeff. of Resistance:	Specific Gravity: 7.9
Melting Point: ~1,400°C (~2,550°F)	Elongation: 20-40%
Max Operating Temp: ~925°C (~1,700°F)	Yield Point: 20,000-40,000 PSI
Soft Tensile: 85,000-115,000 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	0.086	31.62	14.1	6.08	70.85	0.00407
14	0.064	1.63	0.109	22.21	11.2	9.73	89.55	0.00322
15	0.057	1.45	0.137	15.69	8.88	15.4	112.6	0.00256
16	0.051	1.29	0.171	11.24	7.04	24.3	142.0	0.00203
17	0.045	1.15	0.220	7.720	5.58	39.4	179.1	0.00161
18	0.04	1.02	0.278	5.422	4.37	63.6	228.8	0.00126
19	0.036	0.912	0.343	3.953	3.54	97.1	282.7	0.00102
20	0.032	0.812	0.435	2.776	2.79	155.9	358.6	0.000804
21	0.0285	0.723	0.548	1.961	2.21	247.6	452.0	0.000638
22	0.0253	0.644	0.695	1.372	1.76	395.4	568.7	0.000507
23	0.0226	0.573	0.871	0.978	1.39	626.5	719.1	0.000401
24	0.0201	0.51	1.101	0.688	1.09	1,011	918.3	0.000314
25	0.0179	0.455	1.389	0.486	0.881	1,577	1,135	0.000254
26	0.0159	0.405	1.760	0.341	0.690	2,551	1,449	0.000199
27	0.0142	0.361	2.207	0.243	0.548	4,028	1,825	0.000158
28	0.0126	0.321	2.803	0.169	0.434	6,466	2,307	0.000125
29	0.0113	0.286	3.485	0.122	0.347	10,049	2,884	0.000100
30	0.01	0.255	4.450	0.085	0.272	16,346	3,673	0.0000785
31	0.0089	0.227	5.618	0.060	0.217	25,878	4,606	0.0000626
32	0.008	0.202	6.953	0.043	0.172	40,422	5,814	0.0000496
33	0.0071	0.18	8.828	0.030	0.137	64,605	7,319	0.0000394
34	0.0063	0.16	11.21	0.021	0.108	103,620	9,242	0.0000312
35	0.0056	0.143	14.19	0.015	0.0857	165,656	11,674	0.0000247
36	0.005	0.127	17.80	0.0106	0.0680	261,869	14,712	0.0000196
37	0.0045	0.113	21.98	0.0077	0.0527	416,881	18,970	0.0000152
38	0.004	0.101	27.81	0.0054	0.0437	636,488	22,885	0.0000126
39	0.0035	0.09	36.33	0.0036	0.0340	1,069,947	29,454	0.00000979
40	0.0031	0.08	46.31	0.0025	0.0270	1,714,037	37,015	0.00000779
41	0.00275	0.07	58.84	0.0018	0.0214	2,754,450	46,810	0.00000616
42	0.0025	0.063	71.20	0.00132	0.0169	4,215,722	59,210	0.00000487
43	0.00225	0.057	87.90	0.00096	0.0132	6,670,099	75,882	0.00000380
44	0.0020	0.051	111.25	0.00068	0.0109	10,216,245	91,831	0.00000314
45	0.00175	0.044	145.31	0.00045	0.0084	17,242,433	118,663	0.00000243
46	0.0015	0.038	197.78	0.00029	0.0070	28,372,810	143,458	0.00000201
47	0.0014	0.036	227.04	0.00023	0.0053	42,511,275	187,241	0.00000154
48	0.0013	0.033	263.31	0.00019	0.0042	62,749,294	238,306	0.00000121