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Alloy 30 Resistance

ASTM: B267	UNS: C70201
Ω/cir. mil. ft.: 30	Weight/Density: .31 lbs/in ² (8.9 g/cm ³)
Chemical Composition %: Ni 2%, Cu Balance	Conductivity: 116 w/mK
Temp. Coeff. of Resistance: 0.0013	Specific Gravity: 8.92
Coeff. of Lin. Expansion, X 10⁻⁶: 16.5 (20-100°C)	Specific Heat: .092 cal./gm @ 20°C
Melting Point: ~1,100°C (~2,012°F)	Elongation: 15-30%
Max Operating Temp: ~600°C (~1,112°F)	Yield Point:
Soft Tensile: 25,000-40,000 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	0.006	469.0	15.7	0.37	63.79	0.00407
14	0.064	1.63	0.007	329.4	12.4	0.59	80.62	0.00322
15	0.057	1.45	0.009	232.7	9.86	0.94	101.4	0.00256
16	0.051	1.29	0.012	166.7	7.82	1.48	127.9	0.00203
17	0.045	1.15	0.015	114.5	6.20	2.39	161.2	0.00161
18	0.04	1.02	0.019	80.42	4.85	3.86	206.0	0.00126
19	0.036	0.912	0.023	58.63	3.93	5.89	254.5	0.00102
20	0.032	0.812	0.029	41.18	3.10	9.46	322.9	0.000804
21	0.0285	0.723	0.037	29.09	2.46	15.03	406.9	0.000638
22	0.0253	0.644	0.047	20.35	1.95	24.00	512.0	0.000507
23	0.0226	0.573	0.059	14.51	1.54	38.03	647.4	0.000401
24	0.0201	0.51	0.074	10.20	1.21	61.39	826.8	0.000314
25	0.0179	0.455	0.094	7.207	0.978	95.70	1,022	0.000254
26	0.0159	0.405	0.119	5.037	0.767	155.2	1,305	0.000199
27	0.0142	0.361	0.148	3.617	0.609	243.2	1,643	0.000158
28	0.0126	0.321	0.189	2.513	0.482	392.5	2,077	0.000125
29	0.0113	0.286	0.243	1.753	0.385	630.8	2,596	0.000100
30	0.01	0.255	0.300	1.257	0.302	992.1	3,307	0.0000785
31	0.0089	0.227	0.387	0.867	0.241	1,605	4,147	0.0000626
32	0.008	0.202	0.469	0.643	0.191	2,455	5,234	0.0000496
33	0.0071	0.18	0.595	0.450	0.152	3,920	6,589	0.0000394
34	0.0063	0.16	0.755	0.315	0.120	6,282	8,321	0.0000312
35	0.0056	0.143	0.956	0.221	0.0951	10,048	10,510	0.0000247
36	0.005	0.127	1.200	0.1571	0.0755	15,894	13,245	0.0000196
37	0.0045	0.113	1.490	0.1139	0.0586	25,448	17,079	0.0000152
38	0.004	0.101	1.870	0.0806	0.0485	38,529	20,604	0.0000126
39	0.0035	0.09	2.440	0.0541	0.0377	64,702	26,517	0.00000979
40	0.0031	0.08	3.122	0.0374	0.0300	104,034	33,325	0.00000779
41	0.00275	0.07	3.967	0.0261	0.0237	167,182	42,144	0.00000616
42	0.0025	0.063	4.800	0.01963	0.0188	255,874	53,307	0.00000487
43	0.00225	0.057	5.926	0.01431	0.0146	404,843	68,317	0.00000380
44	0.0020	0.051	7.500	0.01005	0.0121	620,077	82,677	0.00000314
45	0.00175	0.044	9.796	0.00673	0.0094	1,046,532	106,833	0.00000243
46	0.0015	0.038	13.333	0.00424	0.0077	1,722,092	129,157	0.00000201
47	0.0014	0.036	15.306	0.00345	0.0059	2,580,229	168,575	0.00000154
48	0.0013	0.033	17.751	0.00276	0.0047	3,808,578	214,550	0.00000121