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Alloy 430 Stainless Steel

ASTM:	UNS: S43000
Ω/cir. mil. ft.: 360	Weight/Density: .282 lbs/in ² (7.8 g/cm ³)
Chemical Composition %: Cr 16-18%, C .12% max, Si 1% max, Mn 1% max, Fe - Balance	
Coeff. of Lin. Expansion, X 10⁻⁶: 10.4 (100°C), 11.0 (300°C), 11.2 (500°C), 11.9 (800°C)	
Conductivity: 24 w/mK	Specific Heat: .11 cal./gm @ 20°C
Temp. Coeff. of Resistance:	Specific Gravity: 7.65
Melting Point: ~1,510°C (~2,750°F)	Elongation: 15-30%
Max Operating Temp: ~815°C (~1,500°F)	Yield Point: 40,000-60,000 PSI
Soft Tensile: 64,000-79,000 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	0.069	39.09	13.8	5.04	72.61	0.00407
14	0.064	1.63	0.088	27.45	10.9	8.07	91.77	0.00322
15	0.057	1.45	0.111	19.39	8.66	12.79	115.4	0.00256
16	0.051	1.29	0.138	13.89	6.87	20.15	145.6	0.00203
17	0.045	1.15	0.178	9.543	5.45	32.63	183.5	0.00161
18	0.04	1.02	0.225	6.702	4.26	52.77	234.5	0.00126
19	0.036	0.912	0.278	4.886	3.45	80.48	289.7	0.00102
20	0.032	0.812	0.352	3.431	2.72	129.2	367.5	0.000804
21	0.0285	0.723	0.443	2.424	2.16	205.3	463.2	0.000638
22	0.0253	0.644	0.562	1.696	1.72	327.8	582.9	0.000507
23	0.0226	0.573	0.705	1.209	1.36	519.4	736.9	0.000401
24	0.0201	0.51	0.891	0.850	1.06	838.6	941.1	0.000314
25	0.0179	0.455	1.124	0.601	0.860	1,307	1,163	0.000254
26	0.0159	0.405	1.424	0.421	0.673	2,115	1,485	0.000199
27	0.0142	0.361	1.785	0.300	0.535	3,339	1,870	0.000158
28	0.0126	0.321	2.268	0.209	0.423	5,361	2,364	0.000125
29	0.0113	0.286	2.819	0.151	0.338	8,331	2,955	0.000100
30	0.01	0.255	3.600	0.105	0.266	13,552	3,764	0.0000785
31	0.0089	0.227	4.545	0.074	0.212	21,454	4,721	0.0000626
32	0.0077	0.202	6.072	0.048	0.168	36,175	5,958	0.0000496
33	0.0071	0.18	7.141	0.037	0.133	53,562	7,500	0.0000394
34	0.0063	0.16	9.070	0.026	0.106	85,909	9,471	0.0000312
35	0.0056	0.143	11.48	0.018	0.0836	137,341	11,964	0.0000247
36	0.005	0.127	14.40	0.0131	0.0663	217,108	15,077	0.0000196
37	0.0045	0.113	17.78	0.0095	0.0514	345,624	19,441	0.0000152
38	0.004	0.101	22.50	0.0067	0.0426	527,693	23,453	0.0000126
39	0.0035	0.09	29.39	0.0045	0.0331	887,061	30,185	0.00000979
40	0.0031	0.08	37.46	0.0031	0.0264	1,421,056	37,934	0.00000779
41	0.00275	0.07	47.60	0.0022	0.0208	2,283,632	47,972	0.00000616
42	0.0025	0.063	57.60	0.00164	0.0165	3,495,129	60,679	0.00000487
43	0.00225	0.057	71.11	0.00119	0.0129	5,529,979	77,765	0.00000380
44	0.0020	0.051	90.00	0.00084	0.0106	8,469,982	94,111	0.00000314
45	0.00175	0.044	117.55	0.00056	0.0082	14,295,185	121,608	0.00000243
46	0.0015	0.038	160.00	0.00035	0.0068	23,523,047	147,019	0.00000201
47	0.0014	0.036	183.67	0.00029	0.0052	35,244,825	191,888	0.00000154
48	0.0013	0.033	213.02	0.00023	0.0041	52,023,560	244,222	0.00000121