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## Alloy 240 Brass And Bronze

<b>ASTM:</b>	<b>UNS:</b> C24000
<b><math>\Omega</math>/cir. mil. ft.:</b> 32.5	<b>Weight/Density:</b> .313 lbs/in <sup>2</sup> (8.7 g/cm <sup>3</sup> )
<b>Chemical Composition %:</b> Cu 78.5-81.5%, Fe .05% max, Pb .05% max, Zn balance	
<b>Coeff. of Lin. Expansion, X 10<sup>-6</sup>:</b> 19.1 (20-250°C) <b>Specific Heat:</b> .09 cal./gm @ 20°C	
<b>Conductivity:</b> 140 w/mK	<b>Specific Gravity:</b> 8.67
<b>Temp. Coeff. of Resistance:</b>	<b>Elongation:</b> 15-30%
<b>Melting Point:</b> ~1,000°C (~1,830°F)	<b>Yield Point:</b> 15,000-30,000 PSI
<b>Max Operating Temp:</b> ~900°C (~1,650°F)	<b>Soft Tensile:</b> 45,000-60,000 PSI

Diameter			Resistance @ 68° F/20° C $\Omega$ /ft	Sq. in./ $\Omega$ 68°F	Weight Lb./1000 ft	$\Omega$ /lb.	Ft/Lb.	Cross sectional area (in <sup>2</sup> )
B&S	Inches	Mm						
13	0.072	1.83	0.006	433.0	15.3	0.41	65.42	0.00407
14	0.064	1.63	0.008	304.1	12.1	0.66	82.68	0.00322
15	0.057	1.45	0.010	214.8	9.62	1.04	104.0	0.00256
16	0.051	1.29	0.012	153.9	7.62	1.64	131.2	0.00203
17	0.045	1.15	0.016	105.7	6.05	2.65	165.4	0.00161
18	0.04	1.02	0.020	74.24	4.73	4.29	211.3	0.00126
19	0.036	0.912	0.025	54.12	3.83	6.55	261.0	0.00102
20	0.032	0.812	0.032	38.01	3.02	10.5	331.1	0.000804
21	0.0285	0.723	0.040	26.85	2.40	16.7	417.3	0.000638
22	0.0253	0.644	0.051	18.78	1.90	26.7	525.1	0.000507
23	0.0226	0.573	0.064	13.39	1.51	42.2	663.9	0.000401
24	0.0201	0.51	0.080	9.420	1.18	68.2	847.9	0.000314
25	0.0179	0.455	0.101	6.653	0.954	106.3	1,048	0.000254
26	0.0159	0.405	0.129	4.663	0.747	172.0	1,338	0.000199
27	0.0142	0.361	0.161	3.321	0.593	271.6	1,685	0.000158
28	0.0126	0.321	0.205	2.320	0.470	436.0	2,130	0.000125
29	0.0113	0.286	0.255	1.674	0.376	677.6	2,662	0.000100
30	0.01	0.255	0.325	1.160	0.295	1,102	3,392	0.0000785
31	0.0089	0.227	0.410	0.818	0.235	1,745	4,253	0.0000626
32	0.008	0.202	0.508	0.594	0.186	2,726	5,368	0.0000496
33	0.0071	0.18	0.645	0.415	0.148	4,357	6,757	0.0000394
34	0.0063	0.16	0.819	0.290	0.117	6,988	8,533	0.0000312
35	0.0056	0.143	1.036	0.204	0.0928	11,171	10,779	0.0000247
36	0.005	0.127	1.300	0.1450	0.0736	17,659	13,584	0.0000196
37	0.0045	0.113	1.605	0.1057	0.0571	28,112	17,516	0.0000152
38	0.004	0.101	2.031	0.0742	0.0473	42,921	21,130	0.0000126
39	0.0035	0.09	2.653	0.0497	0.0368	72,150	27,195	0.00000979
40	0.0031	0.08	3.382	0.0346	0.0293	115,584	34,177	0.00000779
41	0.00275	0.07	4.298	0.0241	0.0231	185,743	43,221	0.00000616
42	0.0025	0.063	5.200	0.01812	0.0183	284,282	54,670	0.00000487
43	0.00225	0.057	6.420	0.01321	0.0143	449,789	70,063	0.00000380
44	0.0020	0.051	8.125	0.00928	0.0118	688,919	84,790	0.00000314
45	0.00175	0.044	10.61	0.00622	0.0091	1,162,721	109,564	0.00000243
46	0.0015	0.038	14.44	0.00391	0.0075	1,913,283	132,458	0.00000201
47	0.0014	0.036	16.58	0.00318	0.0058	2,866,692	172,884	0.00000154
48	0.0013	0.033	19.23	0.00255	0.0045	4,231,416	220,034	0.00000121