



PROPERTIES OF METALS

¹ At or near room temperature

To convert to kg/m³ multiply lb/ft³ by 16.02

To convert to kJ/kg multiply Btu/lb by 2.326

To convert to kJ/kg-°C multiply Btu/lb-°F by 4.187

To convert to W/m-°C multiply Btu-in/hr-ft²-°F by 0.1442

Material	¹ Density lb/ft ³	Specific Heat Btu ---- lb-°F	¹ Thermal Conductivity Btu-in ---- hr-ft ² -°F	Melting Point °F (Lowest)	Latent Heat of Fusion Btu/lb	Thermal Expansion in/in/°F X10 ⁻⁶
Aluminum 1100-0	169	0.24	1536	1190	169	13.1
Aluminum 2024	173	0.24	1344	935	167	12.6
Antimony	413	0.049	131	1166	69	
Babbitt-Lead Base	640	0.039	165.6	470		
Babbitt-Tin Base	462	0.071	278.4	465		
Barium	225	0.068		1562		
Beryllium	113.5	0.052	1121	2345		
Bismuth	610	0.031	59	520	22.4	
Boron	144	0.309		4172		
Brass (80-20)	535	0.091	82	1700±		
Brass (70-30)	525	0.10	672	1700±		
Brass (Yellow)	529	0.096	828	1710		11.2
Bronze (75% Cu, 25% Sn)	541	0.082	180	1832	75	
Cadmium	540	0.055	660	610	23.8	
Calcium	96.7	0.149	912	1564	140	
Carboly (Cemented Carbide)	875	0.052	420 636	> 6422		
Chromium	450	0.11	484	2822		
Cobalt	554	0.099	499	2696	115.2	
Constantan (55% Cu, 45% Ni)	555	0.098				
Copper	559	0.10	2688	1981	91	9.8
German Silver	537	0.109	168	1761		
-			204			
Gold	1203	0.030	2028	1945	29	7.9
Incoloy® 800	501	0.12	97	2475		7.9
Inconel® 600	525	0.11	109	2470		5.8
Invar 36% Ni	506	0.126	73	2600		
Iron, Cast	450	0.13	396	2300±	40	6.0
Iron, Wrought	480	0.12	432	2800±		
Lead	708	0.032	240	620	9.8	16.4
Linotype	627	0.04		480		