

Application Guide

Reference Data

Physical Properties

of Solids, Liquids and Gases Properties of Metals in Liquid State—Ref. 134

Continued

Material	Melting Point °F (°C)	Heat of Fusion Btu/lb.	Temperature °F	Density lb./ft ³	Specific Heat Capacity Btu lb.-°F	Thermal Conductivity Btu-in. hr.-ft ² -°F
Aluminum	1220.4 (660.2)	173	1220 1292 1454	148.6 147.7	0.26 0.26 0.26	717 842
Bismuth	520 (271)	21.6	572 752 1112	626.2 618.7 603.1	0.034 @ 520°F 0.0354 0.0376	119 107.4 107.4
Cadmium	609 (321)	23.8	626 662 680 752	500 498.8 495	0.0632 0.0632 0.0632 0.0632	307.7 305
Gold	1945 (1063)	26.9	2012	1076	0.0355	
Lead	621 (327.4)	10.6	700 932	655.5 648.7	0.038 0.037	111.6 107.4
Lithium	354 (179)	284.4	392 752	31.7 31	1.0 1.0	262
Magnesium	1204 (651)	148	1204 1328 1341	98 94.3	0.317 0.321	
Mercury	-38 (-38.9)	5	32 212 320 392	833.6 818.8	0.03334 0.03279 0.03245	57 81
Potassium	147 (63.8)	26.3	300 752	50.6 46.6	0.1901 0.1826	312 277.5
Silver	1761 (960.5)	44.8	1761 1832 2000	580.6 578.1 574.4	0.0692 0.0692 0.0692	
Sodium	208 (97.8)	48.7	212 400 752	57.9 56.2 53.3	0.331 0.320 0.301	596.5 556.8 493.8
Tin	449 (231.9)	26.1	482 768 783	426.6	0.058	229.3
Zinc	787 (419.5)	43.9	787 932 1112	432 425	0.12 0.117	400.6 394.8
Solder 0.5 Sn, 0.5Pb 0.6 Sn, 0.4Pb	421 (216) 375 (190.6)	17 28			0.0556 0.0584	

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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