



Properties of Metals in Liquid State

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

Reference Data

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