Technical

Properties of Metals

Table 1: Properties of Metals

Material	Density (at or near room temp.) (lb/cu.in.)	Average Specific Heat (BTU/lb/°F)	Thermal Conductivity (at or near room temp.) K(BTU/hr./sq.ft./°F)	Melting Point (°F)	Latent Heat of Fusion (BTU/lb)
Aluminum 2024-IT3	.100	.24	840	935	167
Aluminum 1100-00	.098	.24	1540	1190	169
Aluminum 30003	.099	.24	—	1190	167
Antimony	.245	.052	—	1166	25
Brass, Yellow	.306	.096	830	1710	—
Brass, Red	.316	.100	—	1877	—
Bronze	.318	.104	—	1832	75
Copper	.322	.095	2680	1981	91.1
Gold	.697	.030	—	1945	29
Incoloy 800	.290	.13	80	2475	—
Inconel 600	.304	.126	103	2500	—
Iron, Cast	.260	.12	346	2150	—
Iron, Wrought	.278	.12	—	2800	—
Lead, Solid	.410	.032	240	620	11.3
Lead, Liquid	.387	.037	108	—	—
Magnesium	.063	.27	1106	1202	160
Monel 400	.319	.11	151	2370	133
Monel 200	.321	.12	436	2615	133
Nickel 200	.321	.12	436	2615	133
Nickel Silver 18%80%NI20%CN	.314	.095	—	1931	—
Nichrome	.303	.11	—	2550	—
Platinum	.775	.032	—	3224	49
Silver	.379	.057	2900	1760	38
Solder 50%Pb 50%SN	.323	.051	310	361	17
Steel	.284	.122	460	2760	—
Stainless Steel 304	.286	.12	105	2550	—
Stainless Steel 316	.288	.118	108	2650	—
Stainless Steel 430	.275	.11	—	2650	—
Tin, Solid	.263	.065	455	450	26.1
Tin, Liquid	.253	.052	218	—	—
Titanium 99%	.164	.13	112	3035	—
Type Metal 85%Pb 15%Sb	.387	.040	—	500	14±