Appendix G: Properties of structural materials[a]

Material	Composition	Density (g/cm^3)
Aluminum	pure	2.70
Copper	pure	8.93
Iron	pure	7.85
Stainless steel	type 304	8.02
Carbon steel	type 1020	7.86
Brass	70 Cu, 30 Zn	8.5
Lucite	$(C_5H_8O_2)n$	1.18
G-10	glass-filled epoxy	1.82
Glass	Pyrex	2.23

[a] Approximate values at room temperature.
[b] In tension.

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Thermal conductivity ($mW/cm^2 \cdot K \cdot cm$)	Thermal expansion ($\times 10^{-6}\ K^{-1}$)	Resistivity ($\mu\Omega$-cm)	Elastic modulus (Mpsi)
2370	25	2.74	10
3980	16.6	1.70	17
803	12	9.8	30
300	17	72	28
1000	12	10	30
2200	19	7	15
2	70	$>10^{20}$	0.4[b]
3	25	$>10^{20}$	3[b]
16	3.2	$>10^{18}$	9.3

Source: Handbook of Chemistry and Physics, 64th ed., Boca Raton: CRC Press, 1983; *Physics Vade Mecum,* New York: American Institute of Physics, 1981; *Modern Plastics Encyclopedia,* New York: McGraw-Hill, 1976; Catalog, Oriel Corp., Stratford, CT.

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