

AMS 4640

Chemical Properties

Element	Chemical Composition %
Copper (Cu)	Balance
Aluminium (Al)	10
Nickel (Ni)	4.8
Iron (Fe)	3.7
Manganese (Mn)	0.3

Mechanical Properties

Condition	Typical Size Range (in)	Yield 0.5% eul (ksi)	UTS Rm (ksi)	Elongation (%)	Hardness (HB)
Ext. & Drawn	3/8" - 3"	54 - 87	107 - 123	12 - 20	195 - 255
Rolled	3" - 7"	46 - 73	102 - 116	15 - 25	180 - 240
Forged	>7"	46 - 73	102 - 116	15 - 25	180 - 240

Physical Properties

Property	Value
Young's Modulus	17,400 ksi
Density	0.274 lb/in ³
Melting Range	1920 - 1960 °F
Coefficient of Expansion (68 - 572 °F)	9.4-6in/in °F
Thermal Conductivity	26.5 Btu/ft h °F
Electrical Conductivity	8% IACS
Electrical Resistivity	130 Ωs (circ mil/ft)
Relative Magnetic Permeability	1.4
Specific Heat	0.09 Btu/lb °F

Disclaimer

This data is indicative only and as such is not to be relied upon in place of the full specification. In particular, mechanical property requirements vary widely with temper, product and product dimensions. All information is based on our present knowledge and is given in good faith. No liability will be accepted by the Company in respect of any action taken by any third party in reliance thereon.

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