

AMS 4590

Additional Information

AMS 4590 has similarities to the following standard designations and specification

ASTM B150 C63020 TQ30

Chemical Properties

Element	Chemical Composition %
Copper (Cu)	Balance
Aluminium (Al)	10.7
Iron (Fe)	5.3
Nickel (Ni)	5.3
Manganese (Mn)	0.9

Mechanical Properties

Condition	Typical Size Range (in)	0.2 Proof Rp0,2 (ksi)	UTS Rm (ksi)	Elongation 4D (%)	Hardness (HRC)
TQ30/TQ50 Solution heat treated and aged	Rod 24" length 1.0 - <3.0	90 - 113	130 - 145	6 - 10	26 - 34
	Hollow 3.0 - 6.0	90 - 109	130 - 145	6 - 10	26 - 34

Physical Properties

Property	Value
Young's Modulus	18,000 ksi
Density	0.267 lb/in ³
Melting Range	1940 - 1965 °F
Coefficient of Expansion (68 - 572 °F)	9.4 ⁻⁶ in/in °F
Thermal Conductivity	26 Btu/ft h °F
Electrical Conductivity	6.3% IACS
Electrical Resistivity	0.27 Ω (circ mil/ft)
Relative Magnetic Permeability	1.75

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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