

Alloy 625

Chemical Properties

Element	Chemical Composition %
Aluminium (Al)	0.40 max
Carbon (C)	0.10 max
Chromium (Cr)	20.0 - 23.0 max
Iron (Fe)	5.0 max
Molybdenum (Mo)	8.0 - 10.0 max
Manganese (Mn)	0.5 max
Nickel (Ni)	58.0 min
Niobium (Nb)	3.15 - 4.15 max
Phosphorous (P)	0.015 max
Sulphur (S)	0.015 max
Silicon (Si)	0.50 max
Titanium (Ti)	0.4 max

Mechanical Properties

Property	Value
Ultimate Tensile Strength	760-830 N/mm ²
0.2% Proof Stress	345-415 N/mm ²
Elongation	25-30%
Hardness HRC (max)	35

Physical Properties

Property	Value
Density (Kg/m ⁻³)	84.4
Magnetic Permeability (20°C)	<1.001
Young's Modulus (N/mm ²)	205 x 10
Specific Heat, 20°C	410
Specific Electrical Resistance, 20°C	1.29
Thermal conductivity, 20°C	9.9
Mean coefficient of thermal expansion, 20-100 °C	12.8 x 10

Product Forms

Round Bar

Disclaimer

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