

Alloy K500

Chemical Properties

Element	Chemical Composition %
Aluminium (Al)	2.30 - 3.15 max
Carbon (C)	0.18 max
Copper (Cu)	27.0 - 33.0 max
Iron (Fe)	2.0 max
Manganese (Mn)	1.5 max
Nickel (Ni)	63.0 min
Sulphur (S)	0.010 max
Silicon (Si)	0.50 max
Titanium (Ti)	0.85 max

Mechanical Properties

Property	Value
Ultimate Tensile Strength	830-970 N/mm ²
0.2% Proof Stress	550-689 N/mm ²
Elongation	15% min
Hardness HRC (max)	35

Physical Properties

Property	Value
Density (Kg/m ³)	84.3
Magnetic Permeability (20°C)	<1.005
Young's Modulus (N/mm ²)	179 x 10 ³
Specific Heat, 20°C	418
Specific Electrical Resistance, 20°C	0.62
Thermal conductivity, 20°C	17.5
Mean coefficient of thermal expansion, 20-100 °C	13.4 x 10 ⁻⁶

Product Forms

Round Bar

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.

The information provided in this datasheet has been drawn from various recognised sources, including EN Standards, recognised industry references (printed & online) and manufacturers' data. No guarantee is given that the information is from the latest issue of those sources or about the accuracy of those sources.

Material supplied by the Company may vary significantly from this data, but will conform to all relevant and applicable standards.

As the products detailed may be used for a wide variety of purposes and as the Company has no control over their use; the Company specifically excludes all conditions or warranties expressed or implied by statute or otherwise as to dimensions, properties and/or fitness for any particular purpose, whether expressed or implied.

Advice given by the Company to any third party is given for that party's assistance only and without liability on the part of the Company. All transactions are subject to the Company's current Conditions of Sale. The extent of the Company's liabilities to any customer is clearly set out in those Conditions; a copy of which is available on request.