



PRODUCT DATASHEET

ALLOY 500

Grade

Monel Alloy 500 (K500, BS 3076 NA18, N05500, ASTM B865, QQ-N-286)

Type

Precipitation hardened nickel copper alloy

Overview

Excellent marine corrosion resistance, strength and hardness up to 650°C. Also suitable for cryogenic applications.

Typical use: Marine engineering pump and propeller shafts, impellers, oil field tools, springs and fasteners, electronic component applications and pump and valves components used in chemical processing industries

Property	Values
0.2% Yield Strength	95 KSI min (655 MPA min)
Ultimate Tensile Strength	135 KSI min (931 MPA min)
Elongation	20
Hardness	35 HRC max

Notes: Alternatively can be cold worked. Or supplied annealed and age hardened.

Composition

Element	Weight%
Carbon	0.18 max
Silicon	0.5 max
Manganese	1.5 max
Phosphorus	0.02 max
Sulphur	0.01 max
Nickel (plus Cobalt)	63 min (plus Cobalt)
Aluminium	2.3 - 3.15
Titanium	0.35 - 0.85
Manganese	1.5 max
Copper	27 - 33

Mechanical Properties

Hot finished and precipitation (age) hardened