

Kormax 630 Nickel Aluminium Bronze

Material Data Sheet

Alloy C63000 is a high quality extruded material widely used in challenging, demanding and corrosive environments. Its exceptional toughness means it is used in applications such as bushings for aircraft landing gear, and hydraulic bushings for earthmoving equipment.

The nickel content in this material means that it has superior corrosion resistance to marine conditions. Nickel aluminium also has high strength and good wear resistance, making it suitable for bearings, gears and other components with heavy loads and slow speeds. Adequate lubrication and alignment are essential in bushing applications to ensure optimum performance.

The chemical composition of C63000 is very similar to AB2 Bronze. However, being extruded means it has superior tensile strength, hardness and ductility. A further advantage of the material being extruded, is that the diameter quoted is "on size" and has a clean surface finish, making it an ideal solution for marine fasteners and fittings, such as keel bolts, studs and other parts.

Chemical Composition (%)

Element			Nominal
Copper	Cu	77.25-85.00	
Aluminium	Al	9.0-11.0	10.0
Nickel	Ni	4.0-5.5	5.0
Iron	Fe	2.0-4.0	3.0
Manganese	Mn	1.5 maximum	
Tin	Sn	0.20 maximum	
Zinc	Zn	0.30 maximum	
Silicon	Si	0.25 maximum	

Mechanical Properties

	Metric Values	Imperial Values
Tensile Strength Min	760 N/mm ²	110000 psi
Yield Strength Min	414 N/mm ²	60000 psi
Elongation Min	10%	10%
Hardness Min	222 BHN	222 BHN
Density	7.58 g/cm ³ (at 20°C)	

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