

Kormax Alloy AB2 NICKEL ALUMINIUM BRONZE

Material Data Sheet

Kormax Alloy AB2 is a nickel aluminium bronze (NAB) conforming to the requirements of B.S. 1400 - 1985 alloy AB2.

AB2 is widely used for marine applications having superior corrosion resistance to marine conditions, high strength, good wearing and erosion resistance. Corrosion resistance can be further enhanced by annealing of the components [675°C (1250°F) for 6 hours minimum followed by air cooling] before being put into service.

AB2 is suitable for gears with heavy loads and slow speeds and having good lubrication and alignment. The composition of Kormax alloy AB2 is strictly controlled as are the casting conditions. Alloy AB2 products are manufactured using the latest continuous and centrifugal casting technology.

Chemical Composition (%)

Element		Nominal
Aluminium	Al	8.8 - 10.0 9.5
Iron	Fe	4.0 - 5.5 4.8
Nickel	Ni	4.0 - 5.5 5.0
Manganese	Mn	3.0 maximum
Tin	Sn	0.1 maximum
Lead	Pb	0.03 maximum
Zinc	Zn	0.50 maximum
Copper	Cu	Balance

Mechanical Properties

	Continuous Cast	Centrifugal Cast
Yield Strength	280 MPa (40,500 psi)	260 MPa (37,500 psi)
Ultimate Tensile Strength	700 MPa (101,500 psi)	680 MPa (98,500 psi)
Elongation	15%	15%
Typical Hardness	170 BHN	160 BHN
Specific Gravity	7.6	
Machinability Rating (Free Machining Brass=100)	50	
Max. Operating Temperature	260°C (500°F)	
Stress Relieving Temperature	260°C (500°F)	
Time at Temperature	316°C (600°F)	
	1 hour per 25mm of section thickness	

Comparative Specifications

BS1400 - AB2; AS1565 C95810*; ASTM B505, B271 - C95800*; JIS H5121 - CAC703C (A1BC3)*;
DIN 1714 - G-CuAl10Ni*; ISO 1338 - CuAl10Fe5Ni5 ; BS EN 1982 CuAl10Fe5Ni5*

*Similar but not identical

Notes for the user: The values given in this data sheet are based on a sheet with a 40mm thickness. Depending on the thickness the technical values may vary during processing.

The technical data given in this sheet correspond to our current state of knowledge and should not be construed as an agreement or guarantee regarding certain properties of our products. The decision on the suitability of a particular material for a specific application is up to the user. We reserve the right to modify the given data. Errors of the given data are reserved. The document was produced by machine and is valid without signature.