Kormax Alloy 954
ALUMINIUM BRONZE

Material Data Sheet

Kormax Alloy 954 is a high strength aluminium bronze conforming to the requirements of ASTM B505 for Continuous Cast and ASTM B271 for Centrifugal Cast alloy 95400.
Alloy 954 is very hard and abrasion resistant, having excellent strength and wear resistance with reasonable machining properties. These physical properties remain good at elevated temperatures.
General corrosion resistance is good but under some circumstances may suffer dealuminification.
Alloy 954 is suitable for high strength bearings, and has good impact resistance, but poor anti seizure properties requiring reliable full film lubrication to prevent metal to metal contact and possible scoring.
The composition of Kormax alloy 954 is strictly controlled as are the casting conditions. Alloy 954 products are manufactured using the latest continuous and centrifugal casting technology.

Chemical Composition (%)

Element			Nominal
Aluminium	Al	10.0 - 11.5	10.5
Iron	Fe	3.0 - 5.0	4.0
Nickel	Ni	1.5 maximum	0.5 maximum
Manganese	Mg	0.5 maximum	
Copper	Cu	Balance	
Total Impurities		0.5 Maximum	

Mechanical Properties

	Continuous Cast	Centrifugal Cast
Yield Strength (minimum)	221 MPa (32,000 psi).	205 MPa (29,500 psi)
Ultimate Tensile Strength (minimum)	586 MPa (84,500 psi).	515 MPa (74,500 psi)
Elongation	12%	12% min.
Hardness (Typical)	180 BHN	170 BHN
Shear Strength (Typical)	324 MPa (46,500 psi)	
Compressive Strength 0.1” set/inch (Typical)	689 MPa (100,000 psi)	
Specific Gravity	7.45	
Machinability Rating (Free Machining Brass=100)	60	
Max. Operating Temperature	260°C (500°F)	
Stress Relieving Temperature	316°C (600°F)	
Time at Temperature	1 hour per 25mm of section thickness	

Comparative Specifications

AS1565 95400; ASTM B505, B271 - C95400; SAE J461, J462; DIN 1714 - G-CuAl11Fe4;
UNI 5274 – CuAl11Fe4;

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.