

Kormax SAE660/932 Lead Bronze

Material Data Sheet

Lead Bronze C93200 or SAE 660 is a general-purpose leaded tin bronze bearing and bushing material. It has excellent machining properties, good hardness, strength, and wear resistance with excellent anti-frictional qualities. The alloy is not subject to dezincification and has good corrosion resistance to seawater and brine, making it suitable for pump and valve components. 932 is suitable for bearings having medium loads and speeds with adequate lubrication.

The composition of 932 is strictly controlled as the casting conditions. All Kormax bronze is manufactured using finely controlled continuous or centrifugal casting techniques to ensure that hardness and strength are superior to sand-casting methods. Also, ensuring the material has a fine grain structure and is free from porosity.

Chemical Composition (%)

Element			Nominal
Tin	Sn	6.3-7.5	7.0
Lead	Pb	6.0-8.0	7.0
Zinc	Zn	2.0-4.0	3.0
Nickel	Ni	1.0 maximum	
Iron	Fe	0.20 maximum	
Aluminium	Al	0.005 maximum	
Antimony	Sb	0.35 maximum	
Phosphorus	P	.15 maximum	
Copper	Cu	Balance	

Mechanical Properties

	Continuous Cast	Centrifugal Cast
Yield Strength	150 MPa (22,000 psi)	135 MPa (20,000 psi)
Ultimate Tensile Strength	300 MPa (43,000 psi)	240 MPa (35,000 psi)
Elongation	20%	20%
Typical Hardness	60 BHN	60 BHN
Specific Gravity	8.9	
Machinability Rating (Free Machining Brass=100)	70	
Max. Operating Temperature	230°C (450°F)	
Stress Relieving Temperature	260°C (500°F)	
Time at Temperature	1 hour per 25mm of section thickness	

Comparative Specifications

AS1565 C93200; ASTM B505, B271- C93200; SAE 660

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