

Product Information Sheet

ISSUE C

ALLOY LB2

A. W. Fraser Alloy LB2 is a leaded tin bronze conforming to the requirements of B.S. 1400 - 1985 alloy LB2.

LB2 has excellent machining properties, medium strength and good corrosion resistance and will withstand mild acids as found in mine water.

Bearings manufactured from LB2 have excellent wear resistance under conditions of high speed, heavy pressure and vibration, have low friction and can be used where lubrication is less than adequate and there may be minor misalignment. LB2 bearings require a hardened shaft and maximum shaft surface speeds of 4 m/sec can be tolerated.

The composition of A. W. Fraser alloy LB2 is strictly controlled as are the casting conditions. Alloy LB2 products are manufactured using the latest continuous and centrifugal casting technology.

ALLOY LB2 - LEADED BRONZE (80-10-10)	SUMMARY OF PROPERTIES
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Chemical Composition - percent

Element		Nominal	
Tin	Sn	9.0 - 11.0	10.0
Lead	Pb	8.5 - 11.0	10.0
Zinc	Zn	1.0 maximum	
Nickel	Ni	2.0 maximum	
Iron	Fe	0.15 maximum	
Aluminium	Al	0.01 maximum	
Phosphorus	P	0.10 maximum	
Antimony	Sb	0.5 maximum	
Copper	Cu	Balance	
Total Impurities		0.5 maximum	

Mechanical Properties [Typical]

	Continuous Cast	Centrifugal Cast
Yield Strength	160 MPa (23,000 psi)	140 MPa (20,000 psi)
Ultimate Tensile Strength	280 MPa (40,500 psi)	230 MPa (33,000 psi)
Elongation	15% minimum	15% minimum
Typical Hardness	80 BHN	80 BHN
Compressive Strength 0.1% Permanent Set	125 MPa	
Specific Gravity	9.0	
Machinability Rating (Free Machining Brass=100)	95	
Max. Operating Temperature	230°C (446°F)	
Stress Relieving Temperature	260°C (500°F)	
Time at Temperature	1 hour per 25mm of section thickness	

Comparative Specifications

BS1400 - LB2; AS1565 93700; ASTM B505, B271 - C93700; SAE 64; JIS H5121 - CAC603C (LBC3C);
DIN 1716 - G - CuPb10Sn; ISO 1338 - CuPb10Sn