

Product Information Sheet

ISSUE A

ALLOY LG2 Low Lead

A. W. Fraser Alloy LG2 Low Lead is a general purpose leaded gunmetal conforming to the requirements of B.S. 1400 - 1985 alloy LG2. It has a modified lead range of 4.0 to 4.5 making it suitable for use with potable water.

LG2 Low Lead has excellent machining properties, medium strength, good pressure tightness and is not subject to dezincification (Category I alloy), and has reasonable corrosion resistance to seawater and brine, making it suitable for pump and valve components.

LG2 Low Lead is suitable for bearings having light loads and low to medium speeds with adequate lubrication, and for very light duty gears when loading is negligible.

The composition of A. W. Fraser alloy LG2 Low Lead is strictly controlled as are the casting conditions. LG2 Low Lead products are manufactured using the latest continuous and centrifugal casting technology.

ALLOY LG2 Low Lead - LEADED GUNMETAL (85-5-4-5) SUMMARY OF PROPERTIES

Chemical Composition - percent

Element		Nominal	
Tin	Sn	4.0 - 6.0	4.4
Lead	Pb	4.0 - 4.5	4.3
Zinc	Zn	4.0 - 6.0	5.5
Nickel	Ni	1.0 maximum	
Iron	Fe	0.30 maximum	
Aluminium	Al	0.005 maximum	
Antimony	Sb	0.25 maximum	
Cadmium	Cd	0.05 maximum	
Copper	Cu	Balance	
Total Impurities		0.80 maximum	

Mechanical Properties [Typical]

	Continuous Cast	Centrifugal Cast
Yield Strength	120 MPa (17,400 psi)	120 MPa (17,400 psi)
Ultimate Tensile Strength	300 MPa (43,500 psi)	270 MPa (39,000 psi)
Elongation	20%	20%
Typical Hardness	75 BHN	75 BHN
Compressive Strength 0.1% Permanent Set	100 MPa (15,000 psi)	
Specific Gravity	8.8	
Machinability Rating (Free Machining Brass=100)	84	
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

BS1400 - LG2; AS1565 83600; ASTM B505, B271 - 83600; SAE 40; JIS (Japan) H5111 - BC6; DIN (Germany) 1705 - RG5; ISO 1338 - CuPb5Sn5Zn5