

Product Information Sheet

ISSUE D

ALLOY LG2

A. W. Fraser Alloy LG2 is a general purpose leaded gunmetal conforming to the requirements of B.S. 1400 - 1985 alloy LG2. (BS EN 1982 CuSn5Zn5Pb5)

LG2 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 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 is strictly controlled as are the casting conditions. LG2 products are manufactured using the latest continuous and centrifugal casting technology.

ALLOY LG2 - LEADED GUNMETAL (85-5-5-5)

SUMMARY OF PROPERTIES

Chemical Composition - percent

| Element | | Nominal | |
|------------------|----|---------------|-----|
| Tin | Sn | 4.0 - 6.0 | 4.4 |
| Lead | Pb | 4.0 - 6.0 | 5.5 |
| 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 | |
| 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) H5121 - CAC402C (BC6); DIN (Germany) 1705 - RG5; ISO 1338 - CuPb5Sn5Zn5; BS EN 1982 CuSn5Zn5Pb5