

LEADED BRONZE

LG2 - CC491K



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LG2 bronze, also known as CC491K and C83600, is a popular leaded gunmetal bronze alloy known for its excellent machining properties, good wear resistance and reasonable corrosion resistance. Its combination of properties makes it suitable for a wide range of applications. The presence of lead enhances its machinability, making it a preferred choice for components that require extensive machining and detailed manufacturing.

KEY FEATURES

- Outstanding Machinability
- Moderate Strength
- Good Corrosion Resistance
- Resistance to Dezincification
- Good Pressure Tightness

CHEMICAL PROPERTIES

| Copper (Cu) | Tin (Sn) | Lead (Pb) | Zinc (Zn) | Nickel (Ni) | Iron (Fe) | Phosphorus (P) |
|---------------|-------------|-------------|-------------|-------------|-------------|----------------|
| 83-88% | 4-6% | 4-6% | 2-4% | 1% | 0.2% | 0.1% |

MECHANICAL PROPERTIES

| | |
|---------------------------------------|----------------|
| Tensile strength (N/mm ²) | 200-310 |
| Yield strength (N/mm ²) | 70-140 |
| Elongation (%) | 10-25 |
| Hardness - Brinell (HB) | 65-90 |
| Hardness - Vickers (HV) | 80-130 |

PHYSICAL PROPERTIES

| | | |
|---------------------------------------|-------------------|-------------|
| Density (kg/m ³) | 8700 | |
| Modulus of elasticity (Gpa) | 105 | |
| Mean coefficient of thermal expansion | 0-100°C (µm/m/°C) | 19.0 |
| | 0-350°C (µm/m/°C) | 21.5 |
| | 0-538°C (µm/m/°C) | 23.3 |
| Thermal conductivity | at 100°C (W/m.K) | 55 |
| | at 500°C (W/m.K) | 35 |
| Specific Heat 0-100°C (J/kg.K) | 385 | |
| Electrical conductivity (IACS %) | 12 | |
| Melting point (°C) | 975 | |

MARKET SECTORS



Propeller shafts, fittings, valve components



Bushings, bearings, wear-resistant components



Gears in machinery, worm wheels, bearings, bushings



Electrical connectors, terminals, switch components



Valve bodies, seats, stems, fluid control valves



Door handles, architectural trim, decorative hardware