BRONZE

LG2 – Leaded Gunmetal

Typical Analysis (Ave. values %)	Cu	Pb	Sn	Zn	P	Ni	Al	Fe
	85.0	5.0	5.0	5.0	0.025	1.0	0.002	0.30

NEAREST STANDARD	AS	BS	ASTM	SAE
	83600	LG2	83600	40

DESCRIPTION	LG2 has Excellent machining properties. Medium strength, good pressure toughness and is not subject to dezincification and has reasonable corrosion resistance to sea water 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.

APPLICATIONS	Pressure tight requirements, Valve bodies, Pump bodies

MECHANICAL PROPERTIES	Manufacturing Process	Tensile Strength MPa	Yield Strength 0.2% MPa	Elongation %	Hardness range HB
	Continuous Cast	270	100	13	75
	Centrifugal Cast	220	110	8	80

GENERAL PROPERTIES	Specific Gravity	8.8
	Compressive strength 0.1% Permanent set	100 MPa
	Machinability rating Free machining brass = 100	84
	Operating temperature, max	230^{O}C
	Stress relieve	260^{O}C

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ONE STEP AHEAD.

SIZE RANGE	Round	12.7 to 304.8 mm
	Hollow	25.4 OD x 19.05 ID to 330.2 OD x 279.4 ID

PB1 – Phosphorus Bronze

Typical Analysis (Ave. values %)	Cu	Pb	Sn	Ni	Zn	Sb	P	Al
	88.0	0.25	11.0	0.10	0.05	0.20	1.00	0.005
NEAREST STANDARD	AS		BS		SAE		ASTM	
	90710		PB1		65		C90700	

DESCRIPTION	PB1 has good machining properties, high strength and good corrosion resistance to sea water and brine, making it suitable for pump and valve components. PB1 is suitable for heavy load gears, worm wheels and bearings having medium to high loads and speeds with good resistance to impact loading or pounding. PB1 must have good lubrication and alignment.

APPLICATIONS	Gears, Bearings, Heavy load bushes.

MECHANICAL PROPERTIES	Manufacturing Process	Tensile Strength MPa	Yield Strength 0.2% MPa	Elongation %	Hardness range HB
	Continuous Cast	360	170	8	80
	Centrifugal Cast	340	170	7	80

GENERAL PROPERTIES	Specific Gravity	8.80
	Machinability rating Free machining brass = 100	30
	Operating temperature, max	250^{O}C
	Stress relieve	260^{O}C

SIZE RANGE	Round	19.05 to 152.4 mm
	Hollow	38.1 OD x 19.05 ID to 165.1 OD x 50.8 ID

954 – Aluminium Bronze

Typical Analysis (Ave. values %)	Cu	Fe	Ni	Mn	Al
	83.0	4.0	1.5	0.50	11.0

NEAREST STANDARD	AS	ASTM	SAE
	95400	C95400	J461/J462

DESCRIPTION	954 is very hard and abrasive resistant has excellent strength and wear resistance with reasonable machining properties. These physical properties remain good at elevated temperatures. General corrosion resistance is good, but under some circumstances may suffer dealuminifation.

APPLICATIONS	High strength bearings, Good impact resistance, Poor anti-seizure properties.

MECHANICAL PROPERTIES	Manufacturing Process	Tensile Strength MPa	Yield Strength 0.2% MPa	Elongation %	Hardness range HB
	Continuous Cast	586	221	12	180
	Centrifugal Cast	515	205	12	170

GENERAL PROPERTIES		
	Specific Gravity	7.45
	Compressive strength 0.1% Permanent set	265 MPa
	Machinability rating Free machining brass = 100	60
	Operating temperature, max	260^{O}C
	Stress relieve	316^{O}C

SIZE RANGE		
	Round	19.05 to 152.4 mm
	Hollow	31.75 OD x 19.05 ID to 203.2 OD x 152.4 ID

Notes