

PHOSPHOR BRONZE to BS 1400: PB2

PB2 Phosphor Bronze, offering good shock resistance, coupled with good strength and machinability, plus good corrosion resistance

Typical Applications:

Heavy duty gears, bearings, bushes, worm wheels, general engineering components requiring good strength coupled with high shock resistance.

Production Range:

Continuous Cast: Solid & Hollow

Outside diameter 12mm – 305mm

Inside diameter 12mm – 254mm

Length 305mm – 3100mm

In multiples of 305mm – 1000mm

Round/hexagon/octagon

Rectangular: Solid only

Centrifugal Cast: Hollow only

Outside diameter 330mm – 560mm

Inside diameter 175mm – 500mm

Length 305mm – 1000mm

NB: Smaller I/D produced to order

Chemical Composition

Copper	(Cu)	Remainder
Tin	(Sn)	11 – 13%
Zinc	(Zn)	0.30% max
Nickel	(Ni)	0.50% max
Lead	(Pb)	0.25% max
Phosphorus	(P)	0.15 – 0.8%
Aluminium	(Al)	0.005% max
Iron	(Fe)	0.15% max

Related Specifications:

AS 1565-1985	C90810
AS 1565-1974	907C
SAE	65
UNS	C90800

Electrical conductivity – 9%

Freezing range 920-980°C (approx)

Other:

Activity	Rating
Machinability	2
Pressure Tightness	3
Weldability (Mig)	3

1 – 4 in decreasing order of merit

Typical Mechanical Properties – for guidance only

Casting	0.2% Proof Stress MPa	Tensile Strength MPa	Elongation %	Hardness HB
Continuous	170 min	310 min	5 min	100 min
Centrifugal	170 min	270 min	3 min	100 min