

## NON-FERROUS METALS

## PHOSPHOR BRONZE to BS 1400: PB1

PB1 Phosphor Bronze, offering good shock resistance, coupled with good strength and machinability, plus good corrosion resistance.

### TYPICAL APPLICATIONS:

Gears, bearings, heavy load bushes, worm wheels, general engineering components etc; requiring good strength coupled with high shock resistance.

### PRODUCTION RANGE:

<b>Continuous Cast:</b>	<b>Solid &amp; Hollow</b>
Outside diameter	12mm – 305mm
Inside diameter	12mm – 254mm
Length	305mm – 3100mm
In multiples of	305mm – 1000mm
Round/hexagon/octagon	
Rectangular:	Solid only

<b>Centrifugal Cast:</b>	<b>Hollow only</b>
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)	10 - 12%
Zinc	(Zn)	0.05% max
Nickel	(Ni)	0.10% max
Lead	(Pb)	0.25% max
Phosphorus	(P)	0.5 – 1.2%
Aluminium	(Al)	0.005% max
Iron	(Fe)	0.10% max

### RELATED SPECIFICATIONS:

AS 1565-1985	C90710
ASTM B505 & B271	907
SAE	65
UNS	C90700

Electrical conductivity 9%

Freezing range 845 - 1000°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	360 min	6 min	100 min
Centrifugal	170 min	330 min	4 min	95 min

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