

PB1(BS1400 PB1)

PHOSPHOR BRONZE ALLOY

PRODUCT DESCRIPTION

A continuously cast copper-based alloy which contains 10-12% tin, **PB1 (BS1400 PB1)** combines good ductility, corrosion resistance, wear resistance and high mechanical strength. The alloy can be successfully soldered and brazed whilst offering good resistance to shock load though the performance of wrought grades is superior. PB1 is traditionally used in heavy load applications run at high speeds.

KEY FEATURES

- High Fatigue strength
- Excellent seawater corrosion resistance
- High mechanical strength
- High wear resistance
- Good resistance to impact loading

APPLICATIONS

- Flanges, hydraulics, marine ultrasonics
- Linear bearings, worms and gears under high loads
- Bushes and bearings, pump and valve components



AVAILABILITY

Round bar, hollow bar, flat bar, plate

MATERIAL SPECIFICATIONS

BS1400 PB1 | BS1400 PB2 | CC481K
SigmaBronze12

MACHINABILITY

Good / fair

CHEMICAL COMPOSITION (weight %)

	Cu	Sn	Zn	Ni	Pb	P	Al	Fe
Min	Rem	10.00				0.50		
Max	Rem	12.00	0.05	0.10	0.25	1.20	0.005	0.10

MECHANICAL PROPERTIES

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