

PB-1 PHOSPHOR BRONZE

PB-1 is a phosphor bronze in accordance with BS1400 (1985). It has good machining properties and combines high strength with good corrosion resistance to saltwater and brine. This makes it ideally suitable for pump and valve components. PB-1 is also suitable for bearings with medium to high loads but must have adequate lubrication and good alignment. It is also ideally suited for heavy duty gears and wormwheels with high working loads and speeds providing adequate lubrication and alignment is considered.

Sizes Available	Solid	3/4" – 8" Ø
	Hollow	1" – 8" O/D

Related Specifications

United Kingdom	BS1400 PB-1
UNS	C90700/C90710
German	CuSn10
Japan	CAC502C (PBC2C)
USA	ASTM B505 SAE 65

Chemical Composition*

	Min. %	Max %
Tin	10.0	11.0
Phosphorous	0.50	1.0
Lead		0.25
Copper	Balance	

Typical Mechanical Properties – (For Guidance Only)

Tensile Strength (Mpa)	340-360 MPa
Yield Strength (Mpa)	170 MPa
Elongation (%)	10%
Hardness (Brinell BHN)	100-150 BHN

Other Information

Specific Gravity	8.8
Maximum Recommended Operating Temperature	250 Deg C
Stress Relieving Temperature	260 Deg C
Time at Temperature	1 hour per 25mm of section thickness