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## **MATERIAL DATA SHEET**

## PB1 BRONZE

Commonly known as:- PB1; Phosphor Bronze 90/10; conforms to BS 1400

**Typical Applications:-**. Good machining properties, high strength and good corrosion resistance make this bronze suitable for bearings requiring good impact resistance, gears and worm wheels with high loads and speeds

## Chemical Composition %

Element		Nominal
Copper	Cu	Balance
Tin	Sn	10.0 – 11.0
Phosphorus	Р	0.5 – 1.0
Iron	Fe	0.10 max
Aluminium	AI	0.01 max
Nickel	Ni	0.10 max
Lead	Pb	0.25 max
Zinc	Zn	0.05 max
Other		0.60 max

## Mechanical Properties – Continuous Cast (typical)

Ultimate Tensile Strength	360 MPa	
Yield Strength	170 MPa	
Elongation	10%	
Typical Hardness	100-150 BHN	
Machinability	30 % (free machining brass = 100%)	

Similar Specifications:- BS 1400-PB1; AS1565 90710; ASTM B505; B271 C90700; SAE 65; JIS H5113-PBC2C

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