



Ph 07 3423 5300  
www.georgeweston.com.au

## 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		Typical
Copper	Cu	Balance
Tin	Sn	10.5
Phosphorus	P	0.7
Iron	Fe	0.10 max
Aluminium	Al	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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