

MATERIAL DATA SHEET

PB1 BRONZE – GRADE PBPB1

Commonly known as:- PB1; Phosphor Bronze 90/10

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	11.0 – 13.0
Phosphorus	P	0.05 – 0.4
Iron	Fe	0.10 max
Aluminium	Al	0.01 max
Nickle	Ni	0.10 max
Lead	Pb	0.25 max
Zinc	Zn	0.05 max
Other		0.60 max

Mechanical Properties

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

Similar Standards:- BS 1400 –PB1; AS1565 90710; ASTM B505; B271 C90700; SAE 65; JIS

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