



James Coppel Lee

PB1 AS-1565 Grade C90710 (PHOS BRONZE)

SAND AND CHILL CASTINGS

ABOUT

PB1 has good machining properties, high strength, and good corrosion resistance to seawater and brine, making it suitable for pump and valve components.

PB1 is suitable for bearings having medium to high loads and speeds and good resistance to impact loading or pounding. PB1 bearings must have adequate lubrication and alignment.

PB1 is suitable for heavy duty gears and worm wheels with high working loads and high speeds and adequate lubrication and alignment.

EQUIVALENT TO

Britain	BS1400 PB1
USA	SAE 65 ASTM 505-B271- C90700
Japan	JIS H5113-PBC2C * near spec
Germany	DIN 1705 G – CUSn10

NOMINAL CHEMICAL ANALYSIS

CHEMICAL COMPOSITION (Maximum % Unless Otherwise Listed)									OTHER ELEMENTS (*NOTES)
Copper Cu	Tin Sn	Zinc Zn	Nickel Ni	Lead Pb	Phos P	Alum Al	Iron Fe	Mang Mn	
84.0- 86.0	10.2- 12.0	0.05	0.10	0.25	0.6- 1.2	0.005	0.10		*Ni max. incl. Co.

TENSILE (MPa)		ELONGATION (5-65/50% MIN.)		.2% PROOF (MPa)		HARDNESS (RB)	
Sand Cast	Chill Cast	Sand Cast	Chill Cast	Sand Cast	Chill Cast	Sand Cast	Chill Cast
230	270	5	5	130	140	70	90

Compressive Strength 0.1% Permanent Set	130 MPa
Specific Gravity	8.8
Machinability Rating (Free Machining Brass=100)	30
Max. Operating Temperature	250oC (482oF)
Stress Relieving Temperature	260oC (500oF)
Time at Temperature	1 hour per 25mm of section thickness

APPLICATIONS

- Bushes and Bearings
- Worm, Gears
- Pump & Valve Components
- Flanges
- Marine
- Rock Drill Parts
- Crusher Bearings
- Hose Nozzles
- Irrigation Equipment
- Rollers
- Washers
- Wear Rings