

BS 1400 PB1

COPPER ALLOY

PHOSPHOR BRONZE PB1

BS1400: PB1 / CC481K is the standard grade of continually cast phosphor bronze or tin bronze used within Europe. Essentially a 10-12% tin containing copper alloy it has a small phosphorus content added to increase fluidity and de-oxidise the material during casting. The high tin content of the PB1 / CC481K imparts a very good corrosion resistance in marine environments and brine, while also improving the strength and wear resistance. It also offers a good resistance to shock loading although the wrought grades can outperform the PB1 in this area. PB1 / CC481K can be soldered and brazed and has traditionally been utilised in the manufacture of pump and valves, gears, worm wheels, bushes and bearings for medium to heavy loading at high speed.

Chemical Properties

Cu	Sn	Zn	Pb	P
88.75	10.5	0.05	0.25	0.75

Mechanical Properties

Yield strength	Tensile strength	Elongation	Hardness
Min 0.2% Mpa	Min Mpa	Min %	HRB
170	360-500	6.0-25	100-150

Equivalent Designation

UNS C90700
 BS 1400 PB1
 Din CuSn10
 EN CuSn11P/CC481K
 CC481K
 C907

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