

**PB102** PHOSPHOR BRONZE ALLOY

Page: 1 of 1



## **Key Features**

- Good spring properties and low magnetic permeability
- High mechanical properties
- Superior corrosion resistance
- Excellent cold-forming capabilities

#### \* Chemical Composition (weight, %)

# **Product Overview**

Due to its suitability in a broad range of general-purpose engineering applications, **PB102** is the most common wrought phosphor bronze grade currently available in the UK.

The spring qualities of the alloy are superb due to the tin content used in the alloying process. Offering good mechanical and superior cold-forming properties, PB102 benefits from high corrosion resistance in a wide range of atmospheric conditions, coming close to the performance of aluminium bronzes. PB102 also provides good machinability.

## Availability:

Round bar, hexagonal bar

# Applications

- Pump and valve spindles
- Shafts and springs
- Connectors, switches & electronic componentsBushes and bearings

	Cu	Sn	Р	Zn	Ni	Fe	Pb	Total Impurities
Min.	Bal	4.00	0.02					
Max.	Bal	5.50	0.40	0.30	0.30	0.10	0.02	0.50

\* Properties as per BS 2874

## \* Mechanical Properties

\* Properties as per BS 2874 (18-40mm)

**Tensile Strength Proof Stress** Elongation A50 mm 460 MPa min. 380 MPa min. 12%

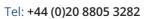
### **Physical Properties**

Density 8.85 g/cm<sup>3</sup> Melting Point 930 °C Modulus of Elasticity 121 GPa Thermal Conductivity 63 W/m.K Electrical Resistivity 0.096 x10<sup>-6</sup> Ω.m

THAMES STOCKHOLDERS

# Thames Stockholders

Unit 5W. Woodall Road, Redburn Industrial Estate Ponders End, Enfield, Middlesex EN3 4LQ







sales@thamesstock.com

www.thamesstock.com

All information in our data sheet is based on approximate testing and is stated to the best of our knowledge and belief. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of trading