

Bronze Alloy

Typical Applications

- High performance gears
- Aerospace & Marine fasteners
- Shafts & Spindles
- Bearing components
- Pump components
- Thrust washers
- Nuts & Bolts
- Engine valve guides

Product Description

PB104 is a high performance wrought phosphor bronze generally used in more demanding applications. Like PB102 it offers superb spring qualities as well as high corrosion resistance that is close to that of aluminium bronzes in a range of atmospheric conditions. Its 8% tin content gives this bronze exceptional wear and bearing properties and offers a good cold formability rating.

Weldability

Good.

Related material specifications

- CW453K
- CuSn8
- DTD265A

Chemical Composition (weight %)

	Cu	Sn	P	Zn	Ni	Fe	Pb	Total Imps
min	Rem	7.50	0.02					
max	Rem	9.00	0.40	0.30	0.30	0.10	0.05	0.30

Mechanical Properties *

Proof Stress	300 - 400 N/mm ²
Ultimate Tensile Strength	450 - 500 N/mm ²
Elongation (%)	15 - 20

Key features

- Excellent wear resistance
- Good spring properties
- Very good corrosion resistance
- Good cold forming properties
- Very high mechanical properties
- Good resistance to shock loading

Availability

Round bar, hexagon.

Cut to size capability

There are thirty power saws within the Smiths group including a fully automated magazine feed CNC rod blanking line. We can economically cut from one off blanks to the largest production run for immediate or just in time deliveries.

Corrosion Resistance

Excellent

Machinability

Good.

Physical Properties

Density	8.8 g/cm ³
Melting Point	1040 °C
Modulus of Elasticity	105,000 N/mm ²
Thermal Conductivity	46 W/m °C
Electrical Resistivity	12% IACS

Technical Assistance

Our knowledgeable staff backed up by our resident team of qualified metallurgists and engineers, will be pleased to assist further on any technical topic.

UK Service Centres:

Smiths Belfast	02895 908 897
Smiths Biggleswade	01767 604 704
Smiths Birmingham	0121 728 4940
Smiths Bristol	0117 971 2800
Smiths Chelmsford	01245 466 664
Smiths Gateshead	0191 469 5428
Smiths Horsham	01403 261 981

Smiths Leeds	0113 307 5167
Smiths Manchester	0161 794 8650
Smiths Norwich	01603 789 878
Smiths Nottingham	0115 925 4801
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Quality & Testing:



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