THAMES STOCKHOLDERS
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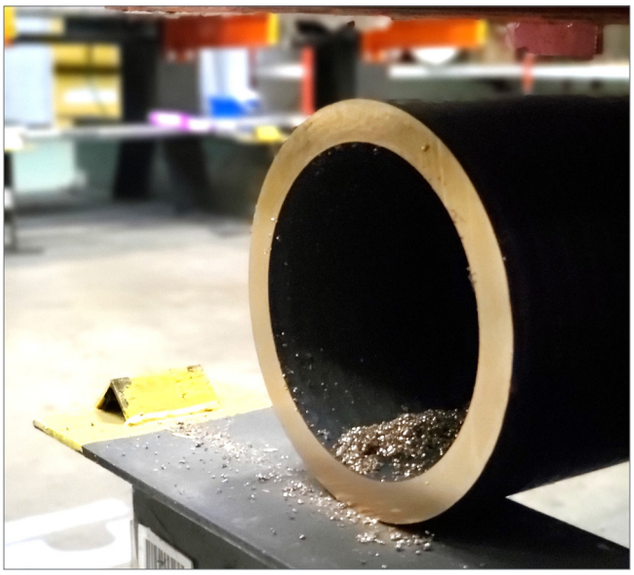
SigmaBronze 12™

PHOSPHOR BRONZE ALLOY



Product Overview

SigmaBronze 12 represents an attractive alternative to PB1 or PB2 in various applications as it is available in metric sizes and has the advantage of higher tin content which offers a degree of self-lubrication.

The alloy combines good corrosion and wear resistance with high mechanical strength and ductility. SigmaBronze 12 is a continuously cast copper-based alloy known as phosphor bronze. Our material also provides good machinability.

Availability:

- Bar, tube & flat bar

Key Features

- High wear resistance & self-lubricating
- Available in metric sizes
- High fatigue strength and mechanical strength
- Good machinability

Applications

- Marine ultrasonics
- Hydraulics, linear bearings, bushes & bearings
- Worms and gears under high working loads
- Excavators and cranes

Chemical Composition (weight, %)

	Cu	Al	Fe	Ni	Mn	P	Pb	Si	Sn	Zn	S	Sb	
Min.	85.00								11.00				
Max.	88.50	0.01	0.20	2.00	0.20	0.60	0.70	0.01	13.00	0.50	0.05	0.15	

Mechanical Properties (actual properties according to specification chosen)

Hardness Brinell	90 min.
Tensile Strength (N/mm^2)	300 min.
Yield Point (N/mm^2)	150 min.
Elongation at break (%)	6 min.

Material Specifications:

BS1400 PB1, BS1400 PB2, SigmaBronze 12

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