

SigmaBronze 12

PHOSPHOR BRONZE ALLOY

PRODUCT DESCRIPTION

SigmaBronze 12 is an attractive alternative to PB1 or PB2 in a variety of 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 offers a combination of good corrosion resistance, ductility and wear resistance with high mechanical strength. SigmaBronze 12 is a continuously cast copper-based alloy known as a phosphor bronze.

KEY FEATURES

- High wear resistance
- Available in metric sizes
- High tin content promotes self-lubrication
- High fatigue strength and mechanical strength
- Good machinability

APPLICATIONS

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



AVAILABILITY

Bar, tube & flat bar

MATERIAL SPECIFICATIONS

SigmaBronze 12 | BS1400 PB1 | BS1400 PB2

MACHINABILITY

Good

CHEMICAL COMPOSITION (weight %)

	Cu	Al	Fe	Ni	Mn	P	Pb	Si	Sn	Zn	S	Sb
Min	85.00								10.50			
Max	89.00	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	min. 90
Tensile Strength (N/mm ²)	min. 300
Yield Point (N/mm ²)	min. 150
Elongation at break (%)	min. 6