

C53400 Phosphorus Bronze

C53400 Phosphor Bronze is characterized by a good combination of strength and hardness. At the same time Cold formability and Corrosion resistance also makes it application particular against industrial and marine atmospheres.

TYPICAL USES FOR C53400 PHOSPHOR BRONZE:

It is mainly used for various components and especially in the Electrical, Automotive (servo motors, fuel injection systems, etc.), Marine Engineering, etc.



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Equivalent Specifications:

Specifications	ASTM	BS	EN	JIS	DIN	ISO	IS
Designations	C53400	-	CW458K	H3270(92) C5341 B	CuSn5Pb1	CuSn5Pb1	-

Chemical Composition:

	Cu	Pb	Sn	Zn	Fe	P
Min	-	0.8	3.5	-	-	0.03
Max	Rem.	1.2	5.8	0.3	0.1	0.35

Specifications:

Product	Specification
Bar	ASTM B103
Bearings & Bushings	MILITARY MIL-B-13501
Plate	ASTM B103
Rod	ASTM B139/B139M
Shapes	ASTM B139/B139M
Sheet	ASTM B103
Strip	ASTM B103

Fabrication Properties:

Joining Technique	Suitability
Brazing	Good
Butt Weld	Good
Capacity for Being Cold Worked	Good
Capacity for Being Hot Formed	Poor
Coated Metal Arc Welding	Poor
Gas Shielded Arc Welding	Fair
Machinability Rating	70
Oxyacetylene Welding	Poor
Seam Weld	Fair
Soldering	Excellent
Spot Weld	Fair

Physical Properties:

Melting Point - Liquidus	1920°F
Melting Point - Solidus	1750°F
Density	0.32 lb/cu in. at 68°F
Specific Gravity	8.91
Electrical Conductivity	15 % IACS at 68°F
Thermal Conductivity	40 Btu/ sq ft/ ft hr/ °F at 68°F
Coefficient of Thermal Expansion 68-572	9.9 10 ⁻⁶ per °F (68 – 572°F)
Modulus of Elasticity in Tension	16000 ksi
Modulus of Rigidity	6000 ksi

Sizes Available:

TUBES	6.35 mm to 110mm
ROUND WIRES	1 mm to 11mm
ROUND RODS	1.2 to 250 mm
HEX RODS	Min. 5 mm to Max. 60 mm
SQUARE RODS	Min. 4 mm to Max. 60 mm
FLATS	Min. 4 mm thickness and max width of 120mm
PROFILES	As per customer drawings
HOLLOW RODS	Min Bore Size 20mm and Max OD 130mm