

## C52480 Phosphorus Bronze

C52480 is a Phosphor Bronze Alloy which has Good to excellent corrosion resistance, Good cold workability for blanking, forming and bending and shearing.

### TYPICAL APPLICATIONS:

Typical applications include Welding rods, Fasteners, Cotter - Pins, lock washers, Architecture Bridge bearing plates, Industrial Heavy Bars and Plates, Fittings and Expansion Plates for Bridges.



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### Equivalent Specifications:

Specifications	ASTM	BS	EN	JIS	DIN	ISO	IS
Designations	C52480	-	-	-	-	-	-

### Chemical Composition:

	Cu	Fe	Pb	Zn	Ni	Sn	P
Min/Max %	REM.	0.05-0.20	0.05	0.30	0.05-0.20	9.0-11.0	0.01-0.35

### Specifications:

Product	Specification
Strip	ASTM B888/B88M

**Fabrication Properties:**

Joining Technique	Suitability
Soldering	Excellent
Brazing	Excellent
Oxyacetylene Welding	Fair
Gas Shielded Arc Welding	Good
Coated Metal Arc Welding	Fair
Spot Weld	Good
Seam Weld	Fair
Butt Weld	Excellent
Capacity for Being Cold Worked	Good
Machinability Rating	20

**Physical Properties:**

Melting Point - Liquidus	1830 °F
Melting Point - Solidus	1550 °F
Density	0.317 lb/cu in. at 68°F
Specific Gravity	8.78
Electrical Conductivity	11 % IACS at 68°F
Thermal Conductivity	29 Btu/ sq ft/ ft hr/ °F at 68°F
Coefficient of Thermal Expansion 68-572	10.2 10 <sup>-6</sup> per °F (68 – 572°F)
Specific Heat Capacity	0.09 Btu/ lb /°F at 68°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