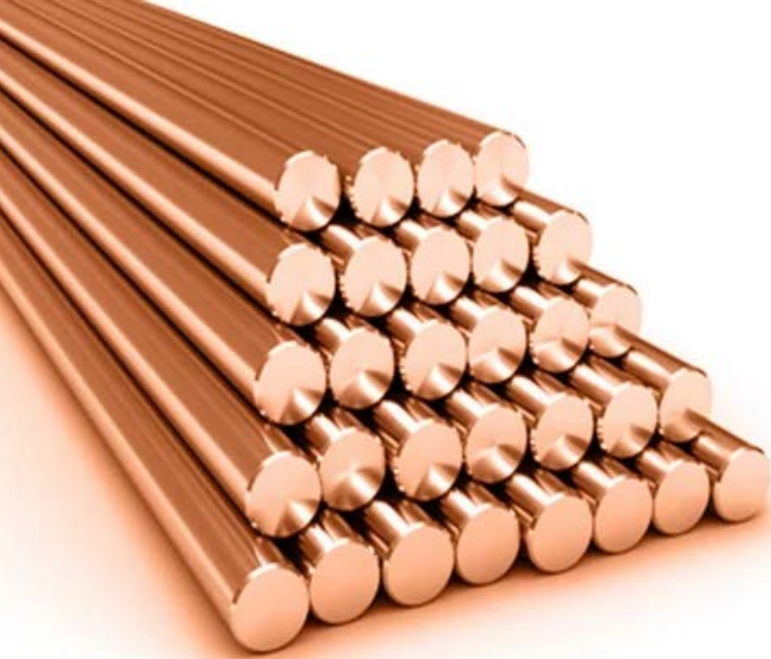


COPPER

C106 - CW024A



C106 - CW024A

Copper C106, also known as phosphorus-deoxidised, non-arsenical copper, is a high-purity copper alloy with excellent thermal and electrical conductivity, good corrosion resistance and high ductility. It is commonly used in applications that require forming, welding and brazing. C106 can be used for plating and polishing, with aesthetic value for use in architectural applications.

KEY FEATURES

- Excellent thermal and electrical conductivity
- Good resistance to corrosion
- High ductility and malleability
- Good welding and brazing properties

CHEMICAL PROPERTIES

Copper (Cu)	Phosphorus (P)	Other Impurities
99.85-99.9%	0.015-0.04%	0.06%

MECHANICAL PROPERTIES

	Soft	1/2 Hard	Hard
Tensile strength (N/mm ²)	200	250	300
Yield strength (N/mm ²)	50	110	140
Elongation (% at break)	30	12	5
Hardness (HV)	45	70	90
Proof stress 0.2% (MPa)	50	110	140

PHYSICAL PROPERTIES

Density (kg/m ³)	8940
Modulus of elasticity (Gpa)	119
Mean coefficient of thermal expansion	0-100°C (µm/m/°C) 16.8
	0-350°C (µm/m/°C) 17.8
	0-538°C (µm/m/°C) 18.5
Thermal conductivity	at 100°C (W/m.K) 330
	at 500°C (W/m.K) 290
Specific Heat 0-100°C (J/kg.K)	393
Electrical resistivity (nΩ.m)	172
Melting point (°C)	1083

MARKET SECTORS



Electrical Industry

Wiring, cables, connectors, terminals, PCBs



Automotive Industry

Vehicle wiring harnesses, connectors, terminals, radiators



Industrial & Manufacturing

Heat exchangers, machined parts, metal working



Medical Devices

Medical equipment, diagnostic instruments



Architecture & Construction

Roofing, cladding, gutters, plumbing pipes and fittings



Aerospace Industry

Spacecraft, aircraft components, communication systems