

**COPPER UNS - C12100**  
**(PHOS DEOXIDISED COPPER, LOW RESIDUAL PHOS)**  
**WROUGHT PRODUCT-EXTRUDED ROD & BAR**



**ABOUT**

Has very good thermal and electrical conductivity. This Copper has an extremely wide range of applications based on its very good e conductivity, corrosion resistance,

**EQUIVALENT TO**

Britain

USA

ASTM -B-C12100

**APPLICATIONS :**

- Electrical Conductors
- Anodes
- Resisting Welding Equipt

Nominal Composition		Typical Mechanical Properties		Temper: Drawn		
Copper %	99.9		Size	Up to	13 to	Over
Phosphorus %	0.004 – 0.012			13 mm	50 mm	50 mm
Silver %	0.014 max	Tensile	MPa	310	280	250
		0.2% Proof Stress	MPa	265	200	135
		Elongation % ( 5.65 )		25	33	40
		Hardness	HV	110	95	80
		Shear Strength	MPa	185	155	130

Typical Physical Properties			Corrosion Resistance	
Melting Point °C	1083		Rural Atmosphere	Excellent
Density kg/m3	8940		Industrial Atmosphere	Excellent
Electrical Conductivity % IACS	98-101		Marine Atmosphere	Excellent
Modulus of Elasticity MPa	117000		Sea Water	Good
			Drinking Water	Excellent
Fabrication Data			Joining	
Machinability ( brass = 100% )	20%		Oxy- Acetylene welding	Not Recommended
Riveting & Peening	Excellent		Coated Metal Arc Welding	Not Recommended
Thread Rolling	Excellent		Carbon Arc Welding	Fair
Cold Heading	Excellent		Gas Sheilded Arc Welding (Tig & Mig)	Fair
Bending ( cold )	Excellent		Soft Soldering	Excellent
Hot Forging	Good		Silver Soldering	Good
Hot Forging Temp °C	875			
Annealing °C	470			
Stress Relieving °C	175			