

Key Features

- High ductility and material strength
- High conductivity
- Good to excellent corrosion resistance
- Excellent for soldering

Common Applications

- Connectors
- Transformers
- General electronics
- Busbars
- Motor components
- Building fascias
- Heatsinks
- Cable strips

Material Description

Copper C101, also known as oxygen-free electronic (OFE) copper or tough pitch copper, is a high-purity copper alloy. It offers excellent electrical conductivity, thermal conductivity, and corrosion resistance and is often used in electrical and electronic applications where high conductivity is essential, such as electrical wiring, busbars, connectors, and printed circuit boards (PCBs). Its purity and low levels of impurities make it suitable for applications requiring high reliability and minimal electrical losses. Additionally, Copper C101 can be readily fabricated through processes such as machining, welding, and soldering, making it a versatile material for various industrial and commercial applications.

Chemical Composition (%)

	Cu	O								
Min.	99.99									
Max.		0.0005								

Mechanical Properties

Ultimate Tensile Strength	43,000 – 52,000 PSI
Tensile Yield Strength	41,000 – 50,000 PSI
Hardness	Rockwell 30T 54 – 62
Elongation at Break	3 – 16%

Physical Properties

Density	0.323 lb/in ³ (8.94 g/cm ³)
Thermal Conductivity	390.8W/m.K
Modulus of elasticity	17,000 KSI (117 GPa)
Melting Point	1,980°F (1,083 °C)

Technical Assistance

Our knowledgeable staff, supported by our in-house team of expert metallurgists and engineers, is ready to assist you with any technical inquiries.

InstaVoxel™ – On-Demand Manufacturing Expert

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InstaVoxel's quality control system is ISO-9001 certified, and all our partners hold relevant certifications.



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