

# Copper C101

Copper C101 is also known as HC or high conductivity copper. It has a nominal conductivity of 100% and has high thermal conductivity making it a popular choice for all types of electrical components and conductors. It also offers high ductility and impact strength, making it a versatile and useful material.

## Applications

Typical applications include electronic components, magnetrons, automotive rectifiers, coaxial cables and tubes, microwave tubes, connectors, heatsinks, motor components, spray nozzles, radar components, switchgears, transformers, and domestic appliances.

## Key Product Benefits

- Corrosion Resistance
- High Thermal and Electrical Conductivity
- High Ductility
- High Impact Strength
- Visually Striking

## Properties

Property	Value
Tensile Strength	34,000-42,000 psi
Yield Strength (0.5% ext.)	10,000-36,000 psi
Elongation (in 2")	14-45%
Rockwell F Hardness	45-80
Melting Point - Liquidus	1,981°F
Melting Point - Solidus	1,981°F
Density (@ 68°F)	0.323 lb/in <sup>3</sup>
Electrical Conductivity (@ 68°F)	101% IACS (in annealed condition)
Thermal Conductivity (@ 68°F)	226 BTU/ft <sup>2</sup> /ft/hr/°F
Coefficient of Thermal Expansion per °F (@ 68-572°F)	9.8 × 10 <sup>-6</sup>
Modulus of Elasticity in Tension	17,000 ksi
Modulus of Rigidity	6,400 ksi