Copper C101 | CU OFE

Copper C101 provides high electrical and thermal conductivity.

Mechanical properties

Ultimate tensile strength	220 - 280 MPa
Yield strength	60 - 240 MPa
Young's modulus (modulus of elasticity)	125 - 135 GPa
Elongation at break	9 - 30 %

Physical properties

Magnetism	Semi-magnetic
Weldability	Poor

Thermal properties

Maximum service temperature	77 - 87 °C
Thermal expansion coefficent	16.8 - 17.3 10^-6/ºC
Thermal conductivity	390 - 398 W/(m·°C)

Electrical properties

Electrical resistivity	1.7 - 1.74 µΩ*cm

Post treatments

Anodizing compatibility	Not suitable

Common applications

Electronics	
Automotive	
Domestic Appliances	

Cold formed components

Copper C101 (CU OFE) CNC Machining Applications & Parts

Copper C101 (Oxygen-Free Electronic Copper) provides the highest level of electrical and thermal conductivity with excellent ductility and absence of oxygen content. Our precision machining capabilities deliver components with superior electrical performance and reliability for critical applications.

Typical Parts We Machine from Copper C101:

- **High-Frequency Electronics:** Waveguides, RF components, microwave circuit parts
- **Vacuum & Aerospace:** Seals, gaskets, components for vacuum systems and space applications
- **Semiconductor Manufacturing:** Wafer processing components, sputtering targets, chamber parts
- **Precision Instruments:** Scientific instrument components, cryogenic equipment parts

Our Machining Advantage:

Our controlled machining environment and specialized techniques prevent contamination and work hardening, ensuring Copper C101 maintains its exceptional conductivity and purity throughout the manufacturing process.

Get an Instant Quote for your custom Copper C101 parts today.