

Material type

Metal

Material name

Copper C110 | CU ETP

Alternative names

Oxygen-free high thermal conductivity (OFHC) copper

Process compatibility

CNC machining

Mechanical properties

Ultimate tensile strength	220 - 280 MPa
Yield strength	60 - 240 MPa
Young's modulus (modulus of elasticity)	115 - 120 GPa
Elongation at break	9 - 30 %

Thermal properties

Thermal expansion coefficient	17 - 17.7 $10^{-6}/^{\circ}\text{C}$
Thermal conductivity	380 - 388 $\text{W}/(\text{m}\cdot^{\circ}\text{C})$

Post treatments

Anodizing compatibility	Not suitable
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Physical properties

Weldability	Moderate to Poor
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Electrical properties

Electrical resistivity	1.71 - 1.76 $\mu\Omega\cdot\text{cm}$
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Common applications

Circuit breakers

Electrical instruments

Vacuum capacitors

Magnetrons

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