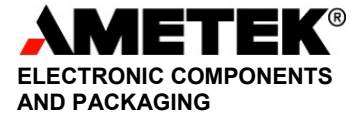




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## Copper: CDA 102 Oxygen-Free

### ASTM B152-152M

#### Physical Properties:

Composition	Cu 99.99% min Oxygen 0.0010% max
Solidus	1083°C (1981°F)
Density	8.90 kg/l
Thermal Conductivity	383-391 W.m <sup>-1</sup> .K <sup>-1</sup>
Electrical Conductivity	100% IACS
Electrical Resistivity	1.69-1.73 μΩ cm (at 20°C)
Coefficient of Thermal Expansion	17.0 ppm/°C (at 20°C)
Poisson Ratio	0.31
Hardness	75-90 Hv
UTS	215-254 (soft annealed) 261-441 (hard)
Yield Stress	49-78 MPa (varies with temper and cold work)
Elasticity Modulus	117GPa

**Applications:** Busbars, bus conductors, waveguides, hollow conductors, vacuum seals, transistor- and diode components, glass-to-metal seals, coaxial cables, klystrons, microwave tubes.

**Processing:** Excellent hot and cold workability; good forgeability. Fabricated by bending, coining, coppersmithing, drawing and upsetting, hot forging and pressing, knurling, roll threading, shearing, rolling, spinning, swaging and stamping.

**Corrosion resistance:** Good to excellent. Susceptible to galvanic corrosion when coupled with iron, aluminum, magnesium, lead, tin, and zinc. Good resistance to atmospheric, brackish water, sea water and non-oxidizing acid corrosion. Avoid heating in oxidizing atmospheres or exposing to oxidizing acids, moist halogens, sulfides, ammonia or solutions with ammonium ions.

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