

C110 Copper (CW009A)

Smiths High Performance

SMITHS
HIGH PERFORMANCE

Revision: SHP/english/datasheets/c110/12.02.2025

Page: 1 of 1

High Purity Copper

C110 offers some of the highest conductivity values of any copper product.

C110 (CW009A) benefits from the highest thermal and electrical conductivity performance values.

The restriction of oxygen content creates a material free from hydrogen embrittlement after heating, making the product highly suitable for oil & gas applications.

Attractive performance characteristics include excellent formability (especially cold forming), joining capabilities and performance at cryogenic temperatures. Corrosion resistance is good in oxidising environments, salt water, alkalis and acids.

Suitability:

C110 (CW009A) finds typical use in applications requiring high electrical conductivity and low electrical resistance. Examples include the manufacture of electrical cables and wires.

Chemical Composition (nominal wt. %)

| | Cu | Ag | As | Bi | Cd | Fe | Mn | Ni |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|
| Min | 99.99 | | | | | | | |
| Max | | 0.0025 | 0.0005 | 0.0002 | 0.0001 | 0.001 | 0.0003 | 0.001 |
| | P | Pb | S | Sb | Se | Sn | Te | Zn |
| Max | 0.0003 | 0.0005 | 0.0015 | 0.0004 | 0.0002 | 0.0002 | 0.0002 | 0.0001 |

* Properties as per BS EN 13601

Physical Properties

| | |
|------------------------|---------------------------|
| Density | 8.94 g/cm ³ |
| Melting Point | 1083° C |
| Modulus of Elasticity | 118000 Kg/mm ² |
| Electrical Resistivity | 0.017 microhm m |
| Thermal Conductivity | 399 W/m°K |
| Thermal Expansion | 17.3 x10 ⁻⁶ /K |



Commercial Applications:

- Electrical instruments
- Wiring looms and harnesses
- Electrics at cryogenic temperature
- Circuit breakers


www.smithshp.com
info@smithshp.com
SMITHS
HIGH PERFORMANCE

 Unit 3, Juno Place
Stratton Business Park
Biggleswade SG18 8XP

Tel: +44 (0)1767 604 708



All information in our data sheet is based on approximate testing and is stated to the best of our knowledge and belief. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of trading.