



# C103 (CW1008A)

## COPPER ALLOY

### PRODUCT DESCRIPTION

Offering outstanding thermal conductivity and high electrical conductivity, **C103 (CW1008A)** copper is not susceptible to hydrogen embrittlement when heated in a reduced atmosphere. C103 copper has the highest electrical conductivity of any commercially pure copper on the market (greater than 100% IACS)

### KEY FEATURES

- Outstanding thermal conductivity
- Excellent electrical conductivity, excellent formability
- Highest electrical conductivity for commercially pure copper

### APPLICATIONS

- Electronic instruments, transformers & motors
- Large generators, rotor conductors
- Switchgears, vacuum engineering

### CHEMICAL COMPOSITION (weight %)

	Cu	Pb	Bi	Imps
Min	99.95			
Max		0.005	0.001	0.03



### AVAILABILITY

Bar and sheet

### MATERIAL SPECIFICATIONS

BS2874 / BS1433: C103 | BS EN13601: CW008A  
C10200 | Cu-OF

### FABRICATION PROPERTIES

Machining	Poor
Cold Working	Excellent
Electroplating	Excellent
Soft soldering	Excellent
Hot-Dip Tinning	Excellent
Resistance Welding	Fair
Gas Shield Arc Welding	Good

### PHYSICAL PROPERTIES

Melting Point	1083°C
Density	8.9 g/cm <sup>3</sup>
Specific heat	385J/Kg °K
Thermal conductivity (RT)	393W/m°K
Thermal expansion coefficient (20-200°C)	17.3 x10 <sup>-6</sup>
Electrical conductivity	100-101.5% IACS
Electrical Resistivity	0.01724 ohm mm <sup>2</sup> /m



## Thames Stockholders

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