



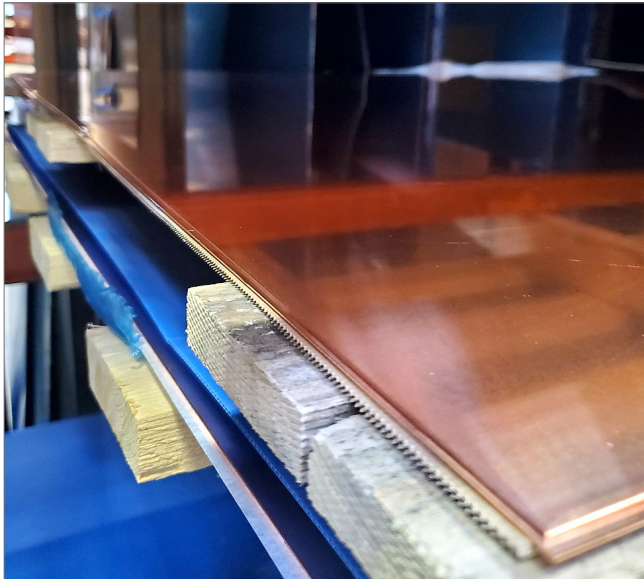
# THAMES

## STOCKHOLDERS

# C103 (CW008A)

## COPPER ALLOY

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### Key Features

- Outstanding thermal conductivity
- Excellent electrical conductivity
- Excellent formability
- Highest electrical conductivity (commercially pure)

### Chemical Composition (weight, %)

	Cu	Pb	Bi	Impurities
Min.	99.95			
Max.		0.005	0.0005	0.03

\* Properties as per BS EN 13601

### Physical Properties

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

### Product Overview

Offering outstanding thermal conductivity and high electrical conductivity, **C103 (CW008A)** 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). The alloy offers dimensional stability in hydrogen atmospheres which could feature in specific engineering applications. C103 also provides excellent joining capabilities

### Availability:

- Bar & Sheet

### Applications

- Electronic instruments
- Large generators, rotor conductors
- Switchgear, vacuum engineering
- Transformers & motors

### Material Specifications:

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

### Other Properties

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



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