



SULPHUR COPPER

EQUIVALENT SPECIFICATIONS

SPECIFICATIONS	DESIGNATION
ISO	Cu-DHP
European	Cu-DHP
BS	C-106
JIS	C 1220
M1 f	M1 f

C111 / CW114C is a free machining sulphur copper with a machinability rating of approximately 80% (free machining brass = 100%). The addition of sulphur to the copper creates Cu₂S copper sulphide within the microstructure that acts as a chip breaker and forms the basis of the free machining capacity.

Sulphur copper is de-oxidised during its manufacture by adding phosphorus, and as a result the material offers a freedom from hydrogen embrittlement. Other benefits of C111 / CW114C are high corrosion resistance, a very good formability and can be joined easily by soldering.

Related Specifications

- BS2874 C111
- BS EN12164 CW114C
- C14700
- CuSP

CHEMICAL COMPOSITION

	Cu+Ag	Sulphur	Ph
Min/Max	99.8% min	0.3 - 0.60%	0.003-0.012%

PHYSICAL PROPERTIES

Product Property	Metric
Coefficient of Thermal Expansion	(20-200 °C) 17 x 10 ⁻⁶ per °C
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Density	8.94 gm/cm ³ @ 20 C
Electrical Conductivity	93% IACS
Electrical Resistivity	0.0181 microhm m
Melting Point Liquid US	1079 C
Modulus of Elasticity in Tension	12500 Kg/mm ²
Specific Heat Capacity	385 J/Kg °K
Thermal Conductivity	347 W/m

SIZES AVAILABLE :

HOLLOW RODS	Min Bore Size 20 mm and Max OD 100 mm
ROUND RODS	8mm To 100 mm
HEX	10mm To 60mm
SQUARE	10mm To 60mm
FLAT	10mm Min Thickness and max Width 120mm
BILLETS	Up to 200 mm
INGOTS	As per Specification

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