CAMK14500 TECHNICAL DATA

CORAM

Material Designation

GB	QTe0.5
UNS	C14500
EN	CW118C/CuTeP
JIS	C1450

Chemical Composition

Copper, Cu	Rem.
Tellurium, Te	0.40-0.70%
Phosphorus, P	0.004-0.012%

(Cu + Sum of Named Elements 99.5% min.)

Physical Properties

Density	8.94 g/cm3
Electrical Conductivity	Min. 93 %IACS
Thermal Conductivity	355 W/(m·K)
Coefficiency of Thermal Expansion	17.5 μm/(m·K)
Specific Heat Capacity	393.5 J/(kg·K)
Modulus of Elasticity	115 Gpa

Characteristics

CAMK14500 is classified as a free-machining copper. The copper telluride precipitations in the microstructure affects the cutting chips into short pieces, thus enabling a much higher machining speed than with pure copper.

1. CAMK14500 has a machinability rating scale of 85%, compared to pure copper of 20%, thus longer tool life.
2. The high conductivity of tellurium copper makes it a suitable material for electrical applications.

Application

CAMK14500 is used where high-insertion loads or high cycles are required.such as socket connectors for high-voltage power sources, welding tips, plumbing fittings, soldering coppers, transistor bases, furnace brazing, motor part, electrical switches on power semiconductors, transformer & circuit breaker terminals, fasteners, etc.

Mechanical Properties

Specification mm (up to)	Temper	Tensile Strength Min. MPa	Yield Strength Min. MPa	Elongation Min. A%	Hardness Min. HRB
φ1.6-6.35	H02	259	206	8	35-55
φ6.35-66.7	H02	259	206	12	35-55
R4.78-9.53	H02	289	241	10	35-55
R9.53-12.7	H02	275	220	10	35-55
R12.7-50.8	H02	227	124	12	/
R50.8-101.6	H02	220	103	12	/

Advantage

1. We actively respond to any questions from customers and provide shorter delivery times. If customers have urgent needs, we will fully cooperate.

2. We focus on controlling the production process so that the performance of each batch is as consistent as possible and the product quality is excellent.

3. We cooperate with the best domestic freight forwarders to provide customers with sea, rail and air transportation and combined transportation solutions, and have plans for transportation difficulties caused by natural disasters, epidemics, wars and other factors.

Ningbo Coram Material Co., Ltd.
dedicated to quality, dedicated to service.

2nd Floor, Building 045, No. 2, Lane 520, Tongning Road, Jiangbei District, Ningbo, 315020 – China

Tel: +86 180 5747 0820
Email: ryan@corammaterial.com
Web: www.corammaterial.com