C101 Copper (CW004A)

Smiths High Performance

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For electrical components

C101 copper (CW004A) is a highly versatile engineering material we supply as HDHC (hard drawn, high conductivity).

The material finds typical use in all conductors and electrical components and benefits from high-impact strength, good ductility and superior corrosion resistance.

With a content of 99.9%, C101 is almost pure and forms the basis of many brass and bronze alloys. The material also provides excellent soldering capabilities.

Applications:

- Motor components
- General electronics
- Heatsinks
- Connectors, transformers

Chemical Composition (nominal wt. %)

	Cu	Bi	О	Pb	Others	
Min. Max.	Bal Bal	0.0005	0.040	0.005	0.03	

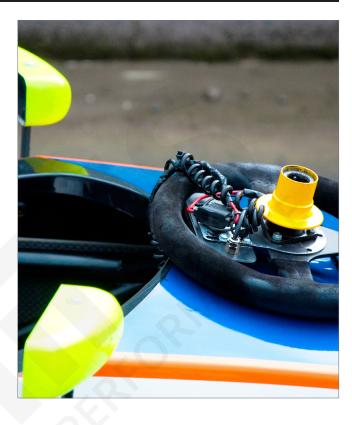
^{*} Properties as per BS EN 13601

Mechanical Properties

Tensile properties as per R250 (10 - 30mm)					
Tensile Strength (MPa)	250 min				
Proof Stress 0.2% (MPa)	180 min				
Elongation A5 (%)	15 min				
Hardness as per H065					
Brinell (HBW)	65 - 90				
Vickers (HV)	70 - 95				

^{*} Properties as per BS EN 13601

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Physical Properties

Density
Melting Point
Modulus of Elasticity
Electrical Resistivity
Thermal Conductivity
Thermal Expansion

8.92 g/cm³ 1083° C 117 GPa 0.0171x10⁻⁶ Ω.m 391.1 W/m.K 16.9 x10⁻⁶/K



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