

Ref MA2

## METALLISATION - COPPER

### General properties :

*This material has excellent properties of electric and thermal conductivity.  
These are its prime advantages*

### Applications :

*Electro-technical industry : Contactors, circuit breakers, disconnect switches, conductor layers and brushes and resistance to carbon, welded high voltage connections, pantograph pick up shoes, electrical circuits on stencils, conductor rollers for delivery of power when solder finishing, electrode arrays*

*Electric industry : conductor layers on insulators and ceramic resistors, electrodes for machining by electro-erosion.*

*Nuclear industry : cores with molecular constriction*

*Automotive industry : shape copiers.*

*Heat treatments : protection against cementation.*

**TECHNICAL SHEET Ref MA2**

PROPERTIES	
Name	Copper
Symbol	Cu
Composition %	Cu = 99.9
Bulk density	
Average porosity %	
Hardness	
Coefficient of expansion	
Maximum working temperature °C	
Melting temperature °C	
Electrical resistivity 10 <sup>-6</sup> W cm	
Thermal conductivity Kcal dry -1° cm <sup>2</sup> cm	

MACHINING BY TOOL	BLANK	FINISH
Type of tool		
Depth of travel mm		
Travel mm / lathe		
Lubricant	None	
Cutting speed m/mn		
Ra µm		

ABRASIVE MACHINING	BLANK	FINISH
Abrasive		
Grain		
Grade		
Binding agent	vitrified	
Depth of travel µm		
Travel m/mn		
Lubricant	Water + detergent	
Speed of part m/mn		
Wheel speed m/s		
Ra µm		

TREATMENTS AND IMPREGNATIONS
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*The information provided may be subject to variation depending on individual supplies and applications.  
Therefore, any information detailed in this technical sheet is provided in good faith and for guidance only. We cannot be held liable.*