

MicromaxTM CB230

Electronic Inks and Pastes

Copper Conductor

Micromax[™] CB230 copper conductor is solderable composition formulated with silver-coated copper powder for enhanced solderability and leach resistance. It can be used to create additive circuitry, electrodes, and termination sites on a wide variety of substrates, including rigid ang flexible polymer laminates, glass and ceramic.

Product benefits

- Excellent solderability and leach resistance
- Strong adhesion to a wide variety of substrates
- Excellent printing properties
- · Excellent adhesion to aluminum

Product information

Solvent or thinner Micromax™ 9245

Rheological properties

Viscosity	65 - 75 ^[1] Pa.s
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[1]: Brookfield RVT, UC&SP, 10 rpm, 25 $^{\circ}\text{C}$

Application technique

Mask mesh	200 ^[2]
Drying time	30 ^[3] min
Drying temperature	170 ^[3] °C
Theoretical coverage	100 - 120 cm ² /g
Recommended film thickness, dried	25 - 30 ^[4] μm

[2]: Screen Types: Stainless steel

[3]: box oven

[4]: 200-mesh stainless steel

Typical mechanical properties

Adhesion, pull tape	no material o	class
	transfer ^[5]	

[5]: 3M Scotch Tape #600

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Electrical properties

Surface resistivity 65 - 75^[6] mOhm per square

[6]: at 25µm thickness

Storage and stability

Shelf life 3^[7] months

[7]: in unopened containers, from date of shipment, at temperature between 0-5°C

Additional information

How to use Processing

- Substrates
 - Epoxy glass, phenolic paper, Micromax™ Kapton®, glass, ceramic
- Screen types
 - Stainless steel or polyester
- Printing
 - · Semi-automatic, manual
- Typical circuit line thickness
 - o Printed with 200-mesh stainless steel screen
 - 25 30 μm
- Work life
 - ∘ > 2 hours
- Clean-up solvent
 - ∘ Thinner Micromax™ 9245, Arcosolv PNP, Ethylene diacetate
- Drying
 - Box oven: 170°C (338°F) for 30 min

Properties

Typical Physical Properties

Test	Properties
Abrasion Resistance, Pencil Hardness (ASTM D3363-74) [H]	> 5
Solderability*1 (%)	100
Change in Physical Properties after Environmental Tests	Insignificant
Change in Electrical Properties after	

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Environmental Test (%)	
Thermal Aging (85°C, 2000hr)	ΔR < 30
Heat/Humidity (60°C/95% RH/3000hr)	ΔR < 30
Thermal Cycling (-55 to 125°C, 500 cycles)	ΔR < 20
Solder Dip (260°C, 10 sec, 3 cycles)	ΔR < 10

^{*1} With eutectic or most other solders and mildly activated flux.

Information in this datasheet shows anticipated typical physical properties for MicromaxTM CB230 based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of which are available upon request.

Storage and shelf life

Containers should be stored, tightly sealed, in a clean, stable environment at 0 °C – 5 °C. Shelf life of material in unopened containers is three months from date of shipment. Some setting of solids may occur and compositions should be thoroughly mixed prior to use.

Safety and handling

For safety and handling information pertaining to this product, read Safety Data Sheet (SDS).

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