Celanese
The chemistry inside innovation™

Micromax™ CB200

Electronic Inks and Pastes

Copper Conductor

Micromax™ CB200 copper conductor is primarily used to provide on-board electromagnetic interference/radio frequency interference (EMI/RFI) shielding on rigid circuits. It can also be used to fabricate low-voltage circuitry or jumpers in certain applications. Micromax™ CB200 is compatible with manual or automatic screen printing equipment.

Product benefits

- Conductivity comparable to silver
- Strong adhesion to a wide variety of substrates
- Excellent printing properties

Product information

Solvent or thinner	Micromax™ 9245

Rheological properties

Viscosity	75 - 85[1]	Pa.s

[1]: Brookfield RVT, #7 spindle &UC, 10 rpm, 25 °C

Application technique

Mask mesh	200[2]	
Drying time	30[3]	min
Drying temperature	160[3]	°C
Theoretical coverage	100 - 140	cm^2/g
Recommended film thickness, dried	20 - 25[4]	µm

[2]: Screen Types: Stainless steel

[3]: box oven

[4]: 200-mesh stainless steel

Typical mechanical properties

Adhesion, pull tape	no material transfer[5]	class

[5]: 3M Scotch Tape #600

Electrical properties

Surface resistivity	20 - 30	mOhm per square

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Storage and stability

Shelf life	3[6] months

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

Additional information

How to use

Processing

- Substrates
  - Epoxy glass, phenolic paper, other rigid substrates
- Screen types
  - Stainless steel or polyester
- Printing
  - Semi-automatic, manual
- Typical circuit line thickness
  - Printed with 200-mesh stainless steel screen
  - 20 - 25 µm
- Work life
  - > 2 hours
- Clean-up solvent
  - Solfit® (3-methoxyl-3-methyl-1-butanol), Acetone
- Drying
  - Box oven : 160 °C (320 °F) for 30 min
  - IR curing : 200 °C (392 °F) for 5 min

Properties

Typical Physical Properties

Test	Properties
Abrasion Resistance, Pencil Hardness (ASTM D3363-74) [H]	> 5
Solderability	Not Recommended
Change in Physical Properties after Environmental Tests	Insignificant
Change in Electrical Properties after Environmental Test (%)	
Thermal Aging (85 °C, 2000hr)	ΔR < 30
Heat/Humidity (60 °C/95% RH/3000hr)	ΔR < 45

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Thermal Cycling (-55 to 125°C, 500 cycles)	ΔR < 30
Solder Dip (260°C, 10 sec, 3 cycles)	ΔR < 5
Pressure Cooker Test (121°C, 100% RH, 2 atm) 8hr	ΔR < 4
Pressure Cooker Test (121°C, 100% RH, 2 atm) 24hr	ΔR < 25

Information in this datasheet shows anticipated typical physical properties for Micromax™ CB200 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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