Celanese
The chemistry inside innovation™

Micromax™ 9169

Microcircuit and Component Materials

Silver Conductor

Micromax™ 9169 silver conductor is a polymer based conductor used for Indium Tin Oxide (ITO) and other transparent conductive oxide substrates.

Product benefits

- Excellent Conductivity
- Fine line print capability

Product information

Solvent or thinner	Micromax™ 8210	
Solid content	76.5 - 79[1]	%

[1]: 750 °C

Rheological properties

Viscosity	30 - 55[2]	Pa.s

[2]: Brookfield RVT, #14 spindle &UC, 10 rpm, 25 °C

Application technique

Mask mesh	325	
Drying time	5 - 30	min
Drying temperature	120 - 170	°C
Theoretical coverage	120 - 150[3]	cm^2/g
Recommended film thickness, dried	10 - 12	µm

[3]: at 25µm dried thickness

Electrical properties

Surface resistivity	≤18[4]	mOhm per square

[4]: at 25µm thickness, on 127µm polyester film

Storage and stability

Shelf life	6[5]	months

[5]: in unopened containers, from date of shipment, at temperature <25° C

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Additional information

How to use

Processing

- Screen types
  - Stainless steel or polyester
- Printing
  - May be printed using reel-to-reel, semi-automatic, or manual printers
- Typical circuit line thickness
  - Printed with 325-mesh stainless steel screen : 10 - 12 µm
- Clean-up solvent
  - Ethylene glycol diacetate
- Curing
  - Depending on the temperature tolerance of the substrate, Micromax™ 9169 may be cured at temperatures between 120°C and 170°C. Cure times can vary from 5 minutes to 30 minutes. Longer cure times and higher cure temperatures improve adhesion, Resistivity and abrasion resistance.

Properties

Typical Physical Properties (on 127µm Polyester Film)

Test	Properties
Abrasion Resistance, Pencil Hardness (ASTM D3363-74) [H]	2
Soldering	Not Recommended

Information in this datasheet shows anticipated typical physical properties for Micromax™ 9169 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 room temperature (<25°C). Shelf life of material in unopened containers is six months from date of shipment. Some settling of solids may occur and compositions should be thoroughly mixed prior to use.

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Safety and handling

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

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