

# Micromax™ ME802

## Electronic Inks and Pastes

### Transparent Conductor

Micromax™ ME802 is part of the Micromax™ suite of materials developed for In Mold Electronic applications. Micromax™ ME802 is a transparent conductive ink capable of withstanding thermoforming and overmolding temperatures. This composition is intended to be used for Capacitive Switch applications.

### Product benefits

- Highly transparent
- High elongation with minimal/no cracking after thermoforming
- Excellent stability at 85 °C/85% RH
- Very good white light/LED stability

### Product information

Colour	Blue
Solid content	2.9 - 5.9 <sup>[1]</sup> %
[1]: 150 °C	

### Rheological properties

Viscosity	30 - 60 <sup>[2]</sup> Pa.s
[2]: Brookfield DVII-Pro Cone plate at shear force 0.2/sec, 25 °C	

### Application technique

Mask mesh	325 <sup>[3]</sup>
Drying time	5 <sup>[4]</sup> min
Drying temperature	120 <sup>[4]</sup> °C
Recommended film thickness, dried	0.3 - 0.7 <sup>[5]</sup> µm
[3]: Screen Types: Stainless steel	
[4]: box oven	
[5]: 325 mesh stainless steel	

### Electrical properties

Surface resistivity	≤500000 mOhm per square
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### Storage and stability

Shelf life

6<sup>[6]</sup> months

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

### Additional information

How to use

### Processing

- **Substrates**
  - Polycarbonate, surface-treated polyester
- **Screen types**
  - Polyester, stainless steel
- **Printing**
  - Reel-to-reel, semi-automatic or manual
  - Polyester or steel mesh can be used. A water and solvent resistant emulsion is recommended.
  - If gelatinous particulate phase is present, gentle stirring and avoiding air entrapment will return the ink to a homogeneous state. Best print results are obtained with minimal squeegee pressure, a higher print speed and with a print/flood mode on the printer setting.
- **Typical circuit line thickness**
  - 0.3 - 0.7 µm
  - Printed with SD 56/28 (325mesh) stainless steel or 77-48 PET Screen
- **Work life**
  - > 1 hour
- **Clean-up solvent**
  - Ethylene glycol diacetate
- **Drying**
  - Box oven : 120°C for 5 minutes
  - Reel-to-reel : 120°C for 3 minutes
  - Dry in a well-ventilated box oven or belt/conveyor furnace. Air flow and extraction rates should be optimized to ensure complete removal of solvent from the paste. A strong air flow may help to reduce the drying temperature combination. It will also aid in achieving the lowest as-printed resistance.

### Properties

Typical Physical Properties

Test	Properties
OD Absorbance	< 0.05

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%VLT	≥ 90
Low Haze	< 0.3% after 1000hrs at 85/85% humidity

Information in this datasheet shows anticipated typical physical properties for Micromax™ ME802 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.

### Safety and handling

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

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