

Micromax™ 9145

Electronic Inks and Pastes

Electroluminescent Materials

Micromax™ 9145 electroluminescent material is a silver conductor designed for use with Micromax™ EL system for manufacturing screen-printed EL lamps. It is fully compatible with the phosphors, dielectrics and conductors of the system. Micromax™ 9145 features excellent adhesion to indium-tin oxide (ITO), and may be employed in front bus bars and contacts as well the rear electrode in an EL lamp build.

Product benefits

- Excellent adhesion to ITO
- High conductivity for high light intensity
- Low moisture affinity
- Compatible with the Micromax™ EL System

Product information

Solvent or thinner	Micromax™ 8211
Solid content	53 - 60 ^[1] %
[1]: 750 °C	

Rheological properties

Viscosity	20 - 100 ^[2] Pa.s
[2]: Brookfield RVT, #14 spindle, 10 rpm, 25 °C	

Application technique

Mask mesh	200 - 280
Mask emulsion	12 - 15 μm
Drying time	5 min
Drying temperature	130 °C
Recommended film thickness, dried	10 - 14 ^[3] μm
[3]: layer thickness	

Electrical properties

Surface resistivity	≤50 ^[4] mOhm per square
[4]: at 25 μm	

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Storage and stability

Shelf life

6^[5] months

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

Additional information

How to use

Processing

- **Substrates**
 - Polyester, ITO-Polyester, Micromax™ EL Dielectric, Glass
- **Screen types**
 - 200-280 mesh (line/sqin); 12-15µm emulsion
- **Printing**
 - Semi-automatic or manual
 - Micromax™ 9145 Silver Conductor should be thoroughly mixed before use. If it has been stored for several days, the paste may appear "coagulated". Simply hand stir with a clean, burr-free spatula (flexible plastic) for 1-2 minutes until paste appearance returns to normal. Care must be taken to avoid air entrapment. Printing should be carried out in a clean well ventilated area.
 - Note : Optimum printing characteristics of Micromax™ 9145 are generally achieved in the temperature range 20-30 °C. It is therefore important that the material, in its container, is at this temperature prior to commencement of printing.
- **Work life**
 - > 2 hours
- **Thinning**
 - Micromax™ 9145 is optimized for screen printing and thinning is not normally required. Micromax™ Electronics Composition Thinner 8211 may be used sparingly for slight adjustments to viscosity or to replace evaporation losses. However, the use of too much thinner or use of a non-recommended thinner may affect the rheological behavior of the material and its printing characteristics.
- **Clean-up solvent**
 - Carbitol acetate or Ethylene diacetate
- **Drying**
 - Box oven : 5 min. at 130 °C

Properties

- Information in this datasheet shows anticipated typical physical properties for Micromax™ 9145 based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of

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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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