DuPont™ LuxPrint® 9145

ELECTROLUMINESCENT MATERIALS

Technical Data Sheet

Product Description

DuPont™ LuxPrint® 9145 electroluminescent material is a silver conductor designed for use with DuPont™ LuxPrint® system for manufacturing screen-printed EL lamps. It is fully compatible with the phosphors, dielectrics and conductors of the system. LuxPrint® 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 DuPont™ EL System

Processing

- ***Screen Printing Equipment***
  Semi-automatic or manual

- ***Substrates***
  Polyester, ITO-Polyester, DuPont EL Dielectric, Glass
- ***Ink Residence Time On Screen***
  >2 Hours

- ***Screen Types***
  200-280 mesh (line/sqin); 12 - 15 µm emulsion

- ***Typical Cure Conditions***
  Box oven: 5 min. at 130°C

- ***Clean-up Solvent***
  Carbitol Acetate or Ethylene Diacetate

Typical Physical Properties

Test	Properties
Viscosity (Pa-s) (Brookfield RVT#14 Spindle @ 10 RPM, 25°C)	20 - 100
Solids (%)[@ 150ºC]	53 - 60
Thinner	DuPont 8211
Resistivity (mΩ/sq/25µm)	<50
Dry Layer Thickness (µm)	10 - 14

This table shows anticipated typical physical properties for LuxPrint® 9145 based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of which are available upon request.

Printing

LuxPrint® 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 taken to avoid air entrapment Printing should be carried out in a clean well ventilated area.

Note: optimum printing characteristics of LuxPrint® 9145 are generally achieved in the temperature range 20-23°C. It is therefore important that the material, in its container, is at this temperature prior to commencement of printing.

Thinner

DuPont Luxprint® 9145 is optimized for screen printing and thinning is not normally required. DuPont 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 the use of a non-recommended thinner may affect the rheological behavior of the material and its printing characteristics.

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 the Material Safety Data Sheet (MSDS).

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