

DuPont™ LuxPrint® 8155

ELECTROLUMINESCENT MATERIAL

Technical Data Sheet

Product Description

DuPont™ LuxPrint® 8155 electroluminescent material is a solvent-based vehicle used as a screen-printable carrier for electroluminescent phosphor powder. It possesses excellent hydrophobic properties, and as such, functions as a moisture encapsulant for the phosphor powder when cured.

Processing

Luxprint® 8155 is designed to be mixed with electroluminescent powders to the following general ink composition:

Phosphor 55-70% by weight
Luxprint® 8155 45-30% by weight

The final ink should be compatible for screen-printing and thinning should not be needed. DuPont 8210 may be used if necessary. When formulated, the electroluminescent ink is best processed in the following manner:

Screen Printing Equipment

Semi-automatic and manual

Substrates

Polyester Film, ITO-Polyester, glass 80-200Ω/sq
ITO-Polyester highly recommended

Ink Residence Time on Screen

> 2 hours

Screen Types

Stainless steel: 200 mesh (lines/sq in)
Polyester: 66T (lines/sq cm)
20 - 25µm emulsion
12 - 15 Ω emulsion

Typical Cure Conditions

Box oven: 130°C/10 min
Reel-to-reel; 130°C for 60 sec.

Clean up Solvent

Ethylene diacetate, Acetone

Target layer thickness

25 - 35µm (dry)

Table 1
Composition Properties

Test	Properties
Viscosity (Pa.s) [Brookfield ½RVT #14 @ 10rpm, 25°C]	3.0 - 6.0
Solids (150°C)(%)	35.0 - 38.0

Table 1 shows anticipated typical physical properties for LuxPrint® 8155 based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of which are available upon request.

General

Yields and performance will depend to a large degree on the care exercised during processing, particularly in screen printing. Scrupulous care should be taken to keep the composition, printing screens and other tools free of metal contamination. Dust, lint and other particulate matter may also contribute to poor yields.

Compatibility

LuxPrint® 8155 is fully compatible with other members of the DuPont™ LuxPrint® Electroluminescent System. While DuPont has tested this composition with specified materials and under the recommended processing conditions, it is impossible or impractical to cover every combination of materials, customer processing conditions and circuit layout. It is therefore essential that customers thoroughly evaluate this material in their specific situations, in order to completely satisfy themselves as to the overall quality and suitability of the composition for its intended application(s).

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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