DUPONT™ ME801

TRANSPARENT CONDUCTOR

PRODUCT DESCRIPTION

ME801 is part of the DuPont suite of materials developed for In Mold Electronic applications. ME801 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 light transmission
- Excellent stability at 85°C/85% RH
- Very good white light/LED stability

PROCESSING CONDITIONS

Substrates

Polycarbonate, surface-treated polyester

Screen Printing Equipment

Reel-to-reel, semi-automatic or manual

Ink Residence Time on Screen

>1 Hour

Screen Types

Polyester, stainless steel

Typical Drying Conditions

Box oven: 120°C for 5 minutes
Reel-to-reel: 120°C for 3 minutes

Typical Circuit Line Thickness

1 Micron
Printed with SD 56/36 (280mesh) stainless steel or 77 – 48 PET Screen

Clean-Up Solvent

Ethylene glycol diacetate

Table 1. Composition Properties

Test	Properties
Solids (%) @ 150°C	2.5 – 5.5
Viscosity (mPa.s) [Brookfield DVII-Pro Cone plate at shear force 0.2/sec]	8000 – 40000
Color	Blue
Shelf Life (months)	6

Table 2. Typical Physical Properties

Test	Properties
Surface Resistivity (Ω/sq)	≤500
SER OD	<15
%VLT	≥90
Low Haze	<0.3% after 1000hrs at 85/85% humidity

Tables 1 and 2 show anticipated typical physical properties for DuPont™ ME801 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

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.

DRYING

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.

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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).

FOR MORE INFORMATION ON DUPONT™ ME801 OR OTHER DUPONT MICROCIRCUIT MATERIALS, PLEASE CONTACT YOUR LOCAL REPRESENTATIVE:

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