



# 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 ( $\Omega$ /sq)	$\leq 500$
SER OD	<15
%VLT	$\geq 90$
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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CAUTION: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see "DuPont Medical Caution Statement," H-50102-5 K-28949 (11/15)