



# DUPONT™ ME901

## SILVER CONDUCTIVE ADHESIVE FOR LED-ATTACH

### PRODUCT DESCRIPTION

DuPont™ ME901 is part of DuPont's suite of materials developed for In Mold Electronic applications. ME901 is a stretchable silver conductive adhesive capable of withstanding thermoforming and overmolding temperatures. This composition can be used to attach LEDs and build capacitive switches on polycarbonate substrates coated with graphic inks and/or overglaze.

### PRODUCT BENEFITS

- Excellent adhesion directly on polycarbonate
- Excellent performance after thermoforming and injection molding

### 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

On polycarbonate, minimize the time between printing/drying:

Box oven: 120°C for 10 – 20 minutes

Reel-to-reel: 120°C for 2 – 4 minutes

#### Typical Circuit Line Thickness

12 Microns

Printed with SD 56/36 (280 mesh) stainless steel or 61 – 64 PET Screen

#### Clean-Up Solvent

Ethylene glycol diacetate

**Table 1-Composition Properties (Uncured)**

Test	Properties
Solids (%) @ 150°C	71.0 – 75.0
Viscosity (Pa.s) [Brookfield 0.5 x RVT, #14 Spindle, 10 RPM, 25°C]	25 – 60
Thinner	DuPont™ 8270
Shelf Life (months)	6

**Table 2-Typical Physical Properties (Cured)**

Test	Properties
Resistivity (mΩ/sq/mil)	≤50
Resistivity After Thermoforming (mΩ/sq/mil)	≤300*
Coverage (cm <sup>2</sup> /g) [using screen type 325 mesh stainless steel]	175
Abrasion Resistance (H) [ASTM pencil hardness]	≥H

Tables 1 and 2 show anticipated typical physical properties for DuPont™ ME901 based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of which are available upon request.

\*Results can vary some depending upon the degree of elongation after thermoforming.

### 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

### 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.



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### SAFETY AND HANDLING

For Safety and Handling information pertaining to this product, read the Material Safety Data Sheet (MSDS).

**FOR MORE INFORMATION ON DUPONT™ ME901 OR OTHER DUPONT MICROCIRCUIT MATERIALS PRODUCTS, 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-28974 (12/15)