DuPont™ ME779
Crossover Dielectric

Product Description
DuPont™ ME779 is a part of the DuPont suite of materials developed for In-Mold Electronic applications. ME779 is a solvent based crossover dielectric designed to be used in complex, stretchable multilayer circuits. It performs well in thermoformed and over-molded applications due to its unique chemistry.

Product Benefits
- Excellent printability with minimal pin-holing
- High dielectric insulation properties with 2-3 printed layers
- High breakdown voltage
- High elongation with minimal/no cracking after thermoforming

Typical Physical and Electrical Properties

<table>
<thead>
<tr>
<th>Test</th>
<th>Properties</th>
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</thead>
<tbody>
<tr>
<td>Solids, (%) @ 150°C</td>
<td>65 – 67</td>
</tr>
<tr>
<td>Viscosity, (Pa.s) [Brookfield RVT #14 Spindle; 10 RPM, 25°C]</td>
<td>50 – 70</td>
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<tr>
<td>Thinner DuPont™ 3610</td>
<td></td>
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<tr>
<td>Coverage (cm²/gr @ 10µm thickness)</td>
<td>290</td>
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<tr>
<td>Recommended total crossover thickness (µm)</td>
<td>&gt;25</td>
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<tr>
<td>Dielectric Constant</td>
<td>18</td>
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<tr>
<td>Adhesion to Polycarbonate Scotch Tape #600, Crosshatch (ASTM D3359)</td>
<td>5</td>
</tr>
<tr>
<td>Breakdown Voltage [1mm traces at 90 degrees with &gt;= 25µm dielectric] (kV)</td>
<td>&gt; 2.5</td>
</tr>
<tr>
<td>Color</td>
<td>White</td>
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</tbody>
</table>

This table shows anticipated typical physical properties for DuPont™ ME779 based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of which are available upon request. Coverage value based on printing with a 280-030 (0.0012” wire diameter) stainless steel screen.

Processing

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 20 minutes in a well-ventilated oven
Reel-to-reel: 120°C for 4 minutes in a well-ventilated tunnel dryer

Typical Layer Thickness
7-10µm per layer; printed with a 280-030 (0.0012” wire diameter) stainless steel screen or 77-48 (threads/cm - wire diameter) PET screen.

Clean-Up Solvent
Ethylene glycol diacetate
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 Safety Data Sheet (SDS).