**Product Description**

DuPont 5028 silver conductor is used to fabricate low-voltage circuitry, especially on flexible substrates. This composition is particularly suited for applications requiring high conductivity and/or fast curing. It can be used with reel-to-reel, semiautomatic, and manual printers, and offers excellent residence time on the screen.

**Product Benefits**

- Excellent conductivity

**Processing**

- **Screen Printing Equipment**
  - Reel-to-reel, Semi-automatic, manual

- **Ink Residence Time on Screen**
  - >1 hours

- **Screen Types**
  - Polyester, stainless steel

- **Typical Cure Conditions**
  - Box oven: 120 - 130°C for 6 minutes
  - Reel-to-reel: 140°C for 1-1.5 minutes

- **Typical Circuit Line Thickness Printed with 325-mesh Stainless Steel Screen**
  - 8-10 microns

- **Clean up Solvent**
  - Ethylene glycol diacetate

- **Substrate**
  - Polyester, paper, epoxy glass

### Table 1

<table>
<thead>
<tr>
<th>Test</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheet Resistivity (mΩ/sq/mil @25µm thickness)</td>
<td>≤ 12</td>
</tr>
<tr>
<td>Resistivity after Flex (mΩ/sq/mil) 15 sec after test Crease (180°, 1 cycle)</td>
<td>&lt;100</td>
</tr>
<tr>
<td>Abrasion/Tape Pull (3M Scotch Tape #600)</td>
<td>No Ag Transfer</td>
</tr>
<tr>
<td>Abrasion Resistance, Pencil Hardness (H) (ASTM D3363-74) [H]</td>
<td>≥ 2</td>
</tr>
<tr>
<td>Operating Use Temperature (°C)</td>
<td>≤ 110</td>
</tr>
<tr>
<td>Solderability</td>
<td>Not Recommended</td>
</tr>
<tr>
<td>Change in Physical Properties After Environmental Test†</td>
<td>Insignificant</td>
</tr>
<tr>
<td>Change in Electrical Properties After Environmental Tests† [%]</td>
<td>&lt; 10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environmental Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal Shock (+65°C to -40°C, 30 min, each, 5 cycles)</td>
</tr>
<tr>
<td>Dry Heat (+85°C, 20 days)</td>
</tr>
<tr>
<td>Humidity (+60°C, 95% RH, 1,000 hr) (MIL Standard 202E, method 103, cond. A)</td>
</tr>
<tr>
<td>Salt Spray (+30°C, 5% salt, 10 days) (ASTM B117)</td>
</tr>
<tr>
<td>Silver Migration (1V DC/mil gap, +40°C, 90% RH, 500 hr, tested on 40- and 7-mil gaps)</td>
</tr>
<tr>
<td>Sulfur Dioxide (+45°C, 90% RH, 500 hr in a 9-liter chamber containing 500 mg of flowers of sulfur)</td>
</tr>
</tbody>
</table>

Table 1 & 2 show anticipated typical physical properties for DuPont 5028 based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of which are available upon request.
Dry
Dry and cure in a well ventilated oven or conveyor dryer where the exhaust meets environmental regulations.

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).

Table 2
Composition Properties

<table>
<thead>
<tr>
<th>Test</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (Pa.S)</td>
<td>15 - 30</td>
</tr>
<tr>
<td>[Brookfield HBT, 10 rpm #14, 25ºC]</td>
<td></td>
</tr>
<tr>
<td>Solids (150ºC) [%]</td>
<td>69 - 71</td>
</tr>
<tr>
<td>Coverage (cm²/g)</td>
<td>230 - 320</td>
</tr>
<tr>
<td>[Dependent on print thickness]</td>
<td></td>
</tr>
<tr>
<td>Thinner</td>
<td>DuPont 3610</td>
</tr>
</tbody>
</table>

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