DuPont 5524
SILVER CARBON CONDUCTIVE COMPOSITION

Product Description
DuPont 5524 Silver/carbon is a stable, one-part conductor specifically designed for high temperature applications where excursions to 105°C are required. The material has been used on flatbed and reel-to-reel manufacturing lines. When used with crossover dielectric such as DuPont 5018, a complete materials set is available for appliance circuitry. A heat seal composition (DuPont 5036) may be used, if desired.

Product Benefits
- Excellent high temperature stability

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°C for 5-6 minutes
  Reel-to-reel: 140°C for 1 minutes
- Typical Circuit Line Thickness Printed with 325-mesh stainless steel screen
  8-9 microns
- Clean up Solvent
  Ethylene glycol diacetate

Table 1
Typical Physical Properties on 5-mil Polyester Film

<table>
<thead>
<tr>
<th>Test</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheet Resistivity (mΩ/sq/mil @25µm thickness)</td>
<td>20 - 35</td>
</tr>
<tr>
<td>Abrasion /Tape Pull [3M Scotch Tape #600]</td>
<td>No Material Transfer</td>
</tr>
<tr>
<td>Abrasion Resistance, Pencil Hardness (H)[ASTM D3363-74]</td>
<td>3</td>
</tr>
<tr>
<td>Operating Use temperature (°C)</td>
<td>≤ 105</td>
</tr>
<tr>
<td>Solder</td>
<td>Not Recommended</td>
</tr>
</tbody>
</table>

Table 2
Composition Properties

| solids (750°C)[%]| 53 - 56 |
| Coverage (cm²/g) [dependent on print thickness] | 140 - 300 |
| Thinner | DuPont 3610 |

Table 1 & 2 show anticipated typical physical properties for DuPont 5524 based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of which are available upon request.
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).