

DuPont 5524

SILVER CARBON CONDUCTIVE COMPOSITION

Technical Data Sheet

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 1minutes
- **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

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

Table 2
Composition Properties

Viscosity (Pa.S) [Brookfield HAT, 5rpm #14 spindle, 25°C]	200 - 425
Solids (750°C)[%]	53 - 56
Coverage (cm ² /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).

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