

DuPont 7105

CARBON CONDUCTIVE COMPOSITION

Technical Data Sheet

Product Description

DuPont 7105 is used as conductor in designs that tolerate high resistivity. Its major benefits include low cost and excellent screen life as well as excellent high-temp stability. It can be used with semi-automatic and manual printers. DuPont 7105 may be blended with DuPont 5000 silver conductor to meet specific resistance requirements.

Product Benefits

- High abrasion resistance
- High stability
- Lowest resistivity carbon
- High activity biomedical applications

Processing

- **Screen Printing Equipment**
Semi-automatic or manual
- **Ink Residence Time on Screen**
Longer than two hours
- **Screen Type**
Polyester, stainless steel
- **Typical Cure Conditions**
Box Oven: 120 - 130°C for 5 minutes
IR oven : 130°C/ 2 - 3 minutes
- **Typical Circuit Line Thickness Printed with 200-mesh stainless screen**
9 - 15 microns
- **Clean-up Solvent**
Ethylene diacetate or methyl propasol acetate

Table 1
Composition Properties

Test	Properties
Solids (150°C) (%)	32.5 - 36.5
Viscosity (Pa.S) [Brookfield HBT, spindle#14, 10rpm, 25°C]	15 - 70
Coverage (in ² /g/mil) (cm ² /g/mil)	16 103
Thinner	DuPont 8260

Table 2
Typical Physical Properties on 5-mil Polyester Film

Sheet Resistivity (Ω/sq/mil)	< 20
Resistivity after Flex (Ω/sq/mil) 15 sec after test Crease (180°C, 1 cycle)	50
Abrasion Resistance (H), Pencil Hardness [ASTM D3363-74]	3
Solder	Not Recommended

Table 1 & 2 show anticipated typical physical properties for DuPont 7105 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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