DuPont 5064H

SILVER CONDUCTOR

Technical Data Sheet

Product Description

DuPont 5064H silver conductor was developed for applications where cost efficient properties are required. This product uses a unique combination of Ag powder and resin technology providing superior conductivity and performance. This composition is solvent based and was designed to be screen printed in semi-automatic or high volume reel-to-reel applications.

Product Benefits

- Good printability
- Outstanding electrical conductivity
- High paste coverage
- Excellent adhesion to various substrates

Processing

- **Screen Printing Equipment**
  reel-to-reel, semi-automatic, manual
- **Substrates**
  Polyester, paper, card
- **Screen Type**
  Polyester, stainless steel
- **Typical Drying Conditions**
  Static Box Oven: 130°C/10-20min
  Reel-to-reel : 140°C/ 2min
- **Typical Circuit Line Thickness**
  Printed with 200mesh polyester screen: 9µm
- **Clean-up Solvent**
  Ethylene diacetate or Methyl propasol acetate

Table 1
Composition Properties

Test	Properties
Solids (%)	63 - 66
Viscosity (Pa.S) [RVT, spindle#14, 10rpm]	10 - 20
Thinner	DuPont 8260
Shelf Life (months)	6

Table 2
Typical Physical Properties Printed on 125µm PET film

Resistivity (mΩ/sq/25µm)	≤ 6
Coverage (cm^2/g) [using screen type 200 mesh polyester]	170
Abrasion Resistance (H) [ASTM Pencil Hardness]	5
Adhesion (B) [ASTM x-hatch, no material removal]	5

Table 1 & 2 show anticipated typical physical properties for DuPont 5064 based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of which are available upon request.

Drying

Dry in a well ventilated box oven or belt/conveyor furnace. Air flow and extraction rates should be optimized to ensure complete removal of solvent from the paste. A strong air flow may help to reduce the drying temperature/time considerable and to achieve the lowest as-printed resistance. Typical drying conditions Static Box oven: 130ºC/10-20 min; Reel-to-reel: 140ºC/2 min.

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).

Caution: Do not use in medical applications involving implantation in the human body or contact with internal body fluids or tissue unless the product is provided by DuPont under a formal written contract consistent with the DuPont Policy Regarding Medical Applications of DuPont Materials H-50103-2 ("Medical Applications Policy") and which expressly acknowledges the contemplated use. For additional information, please request a copy of DuPont Medical Caution Statement H-50102-2 and the DuPont Medical Applications Policy.

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