DuPont™ Kapton™ KA802

Polyimide Silver Conductor

Product Description

DuPont™ Kapton™ KA802 is a screen printable and nozzle dispensable polyimide silver conductor paste. This composition is particularly suited for applications where high operating temperatures, high electrical conductivity and high chemical resistance are required.

Product Benefits

- Ag for high temperature operation up to 300°C for 150 hours
- Excellent conductivity
- Good thermal/chemical stability
- Excellent adhesion to a variety of substrates
- Good crease resistance
- Good flexibility
- Solderable with assistance of Ni plating

*Thermal/Chemical stability varies depending on operating temperature/time

Processing

Substrates
Kapton™ FPC, Kapton™ RS, FR-4, Aluminum, Alumina, glass

Screen Printing Equipment
Automatic reel-to-reel/Semi-automatic flat-bed

Screens
325-mesh stainless steel (7 - 10µm)

Drying
- 1st step: 180°C-200°C for 10 – 30 minutes for solvent removal
  - Box oven with good airflow
  - Reel-to-reel : 180°C-200°C for 3 – 5 minutes
- 2nd step: Curing at 250°C-300°C to increase conductivity

*Equipment dependent

Clean-Up Solvent
- DuPont™ 8246
- THF
- Cyrene™

Table 1 - Composition Properties

Test	Properties
Solids (Wt%) @ 180°C, 3h	68 – 71.5
Viscosity (Pa.s) [Brookfield 0.5 x RVT, #14 Spindle 10 RPM, 25°C]	20 – 30 Pa-sec
Dried Print Thickness	5 – 9 µm
Thinner	DuPont™ 8246

Table 2 - Typical Physical Properties

Test	Properties
Resistivity (mΩ/sq/mil) @180°C (1st step drying) @300°C (2nd step curing)	 ≤ 8mΩ/sq/mil ≤ 5mΩ/sq/mil
Abrasion Resistance (H) [ASTM Pencil Hardness]	5H
Adhesion [ASTM Cross Hatch]	5
Crease Resistance [ASTM F1683]	≤ 10% ΔR (Ω)

Tables 1 and 2 show anticipated typical physical properties for DuPont™ KA802 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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For more information on DuPont™ Kapton™ KA802 or other DuPont products, please visit our website.

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