

DuPont 7112

Platinum/Carbon Composition

Technical Data Sheet

Product Description

DuPont 7112 is a Platinum/Carbon composition designed for working electrodes in biosensor and polymer thick film (PTF) sensors. It provides high signal to noise ratios (high sensitivity) in a multiplicity of designs. It can be used on both flatbed and reel-to-reel manufacturing lines.

Product Benefits

- Good Printability
- High Sensitivity
- Strong Adhesion to a variety of polyethylene terephthalate (PET) substrates

Processing

Screen Printing Equipment

Reel-to-reel, semi-automatic or manual

Ink Residence Time on Screen

2 hour

Screen Type

Polyester, stainless steel

Typical Cure/Drying Conditions

Box Oven: 130°C for 5 - 10 minutes

Reel-to-reel: 140°C for 1 minute

Typical Circuit Line Thickness Printed with 200-mesh stainless screen

8 - 12 microns

Clean-up Solvent

Ethylene diacetate or methyl propyl acetate

**Table 1
Cured Properties**

Test	Properties
Sheet Resistivity(Ω /sq/mil): cured thickness ?	200 - 400
Adhesion (Treated PET 5 mil) (B)	5
Abrasion Resistance (H), Pencil Hardness [ASTM D3363-74]	4
Solder	Not Recommended

**Table 2
Composition Properties
(on 5 mil Polyester Film)**

Solids % (150oC)	34.0-38.0
Viscosity (Pa.s) [Brookfield RVT, spindle#14, 10rpm, 25°C]	40-80
Coverage (cm ² /g/mil) (sqft/gal/mil)	152 430
Density (g/cc)	1.60
Thinner	DuPont 8210

This table shows anticipated typical physical properties for DuPont 7112 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: 130°C for 5 - 10 minutes

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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