

DuPont 5069

WATER-BASED SILVER CONDUCTIVE COMPOSITION

Technical Data Sheet

Product Description

DuPont 5069 is a silver ink designed for providing highly conductive coating on varied surfaces. It can be applied by spraying or flexographic printing. It is designed to meet low volatile organic compound (VOC) requirements for waterborne coating compositions.

Product Benefits

- Low VOC of less than 1.4lb/gal
- High electrical conductivity
- Excellent adhesion to plastics and paper
- Good coating hardness
- Stable electrical and film hardness after heat and humidity aging (85°C, 85% RH for 48 hours)

Processing

Mixing and Dilution

Thoroughly mix DuPont 5069 with a paint shaker or a high speed propeller agitator before use. When thinning add thinner with mixing.

Spraying & Printing

Spraying can be done with a conventional or HVLP spray-gun with a 7-9 psi atomization pressure at a 30 sec ink viscosity. Printing can be done on a gravure or flexographic press. A circulating feed system should be used to maintain a uniform composition during spraying or printing.

Drying

Sprayed parts should be baked @70°C for 2-5 minutes immediately after spraying or printing. Avoid air-drying which may lead to inferior coating hardness.

Table 1
Typical Physical Properties

Test	Properties
Sheet Resistivity(Ω /sq/mil) (Draw Down Solid)	< 0.45
Density (lbs/gal)	14.5
Solderability	Not Recommended
Drying (min@70°C)	2 - 5

Table 2
Composition Properties

Viscosity (seconds) #2 Zahn cup	23 - 33
Solids (150°C)(%)	46.0 - 51.0
Coverage (ft ² /gal) [Draw Down Solid]	235 @ 1 mil coating
Thinner	DuPont 8243

Table 1 & 2 show anticipated typical physical properties for DuPont 5069 based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of which are available upon request.

Cleaning

Use Propylene-propyl ether (Arcosolv PNP) or Dowanol DPM for cleaning processing.

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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