

# DuPont 5876

SCREEN-PRINTABLE SILVER/SILVER CHLORIDE PASTE FOR SCREEN PRINTING

## Technical Data Sheet

### Product Description

DuPont 5876 is solvent-based silver/silver chloride screen-printable paste. It can be printed on polyester films and is best used as a cathode for electrochemical and biochemical sensors.

### Product Benefits

- Fast drying
- Low electrode polarization
- High solids for thick prints

### Processing

#### Storage

The silver/silver chloride paste is packaged in black jars to avoid exposure to light. Container of DuPont 5876 should be stored in stable environment at room temperature with lids tightly sealed. Storage in freezers is NOT recommended as this could cause irreversible changes to the material.

#### Compatibility

Only print-treated polyester film substrate should be used. For best results, the paste can also be printed over a silver (DuPont 5000 and DuPont 5025) underlay. Care should also be taken to avoid contacting the silver/silver chloride paste with reactive metals, such as aluminum, brass and steel.

#### Thinner

DuPont 3610 should be used sparingly to make viscosity adjustments or to compensate for solvent loss due to evaporation.

#### Printing

The paste should be mixed thoroughly before use with a plastic spatula. If severe settling is found after long storage, mix and then jar roll sample overnight before use.

**Table 1**  
**Typical Physical Properties**

Test	Properties
Density (g/cc)	2.7
Cross Hatch Adhesion (B) [ASTM Norm D3359078]	5
Coat Weigh (mg/cm <sup>2</sup> ) [165-mesh screen]	8 - 11
Silver Chloride Depletion (Cathode)	> 60 min

**Table 2**  
**Composition Properties**

Viscosity (Pa.S) [Brookfield 0.5 RVT, Utility cup & spindle SC4-14/6R, 10 rpm, 25°C]	23 - 35
Solids (150°C)[%]	81.5 - 85.5
Thinner	DuPont 3610
Ag:AgCl ratio	32/68

Table 1 & 2 show anticipated typical physical properties for DuPont 5876 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

Box oven: 120°C for 3-5 minutes

Reel-to-reel: 140°C for 1-1.5 minutes

#### Clean-up Solvent

Ethylene glycol diacetate or dipropylene glycol methyl ether.

#### Silver Chloride Depletion

Minutes to reach 1 volt (cell voltage) at 0.5 mA/cm<sup>2</sup> with 8.5 mg/cm<sup>2</sup> coat weight.

## 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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