

## Product Description

Dycotec DM-AS-1000IS is a silver epoxy based conductive adhesive that is used for thin film PV, sensors and general printed electronics applications. The paste is compatible with manual and syringe application.

## Product Benefits

- Excellent electrical conductivity
- Low temperature curing process
- Compatible with a range of deposition processes
- High mechanical hardness

## Paste Preparation

DM-AS-1000IS is a two part silver epoxy based conductive adhesive system. It requires mixing of the Part B, DM-AS-1000IB and the Part A, DM-AS-1000IA in the correct ratios to form the DM-AS-1000IS paste. The contents of one container of the Part B, DM-AS-1000IB system must be added completely to a pot of DM-AS-1000IA. The combined pastes should then be mixed slowly. Avoid rapid stirring to prevent air entrapment during the stirring process. As soon as the product is activated, the material should be used immediately.

## Properties of Uncured Paste

Test	Properties
Pot life	>30 mins
Solids Content	88-90 %
Solvent	4%

## Paste Processing Conditions

The paste can be dried using either a convection oven, IR heating or a hot gun. Typical drying parameters used are 140°C for 60 mins for a convection oven and 1-2 mins for hot air gun processing. Drying times may be reduced to achieve the optimum resistivity depending on manufacturing process set-up.

## Properties of Cured Paste

Test	Properties
Sheet Resistance	<20 mΩ/□/mil (hot air gun) <80 mΩ/□/mil (120°C, 60 mins) <40 mΩ/□/mil (140°C, 60 mins)
Volume Resistivity	<0.0001 Ω.cm (hot air gun) <0.0002 Ω.cm (90°C, 60 mins)
Pull Strength (ASTMD4541-02)	>8 Kg/cm <sup>2</sup>
Pencil Hardness	8H

## Clean-Up

Equipment can be cleaned using isopropanol alcohol or acetone.

## Storage and shelf-life

Containers should be stored at room temperature with lids tightly sealed. The paste shelf-life for an unopened container is 6 months from date of shipment. Avoid introduction of water into the paste. Dycotec Materials cannot assume responsibility for a paste that has not been stored in appropriate conditions or where the pastes have been contaminated following use.

## Safety and Handling

For safe use of this product, please review relevant material safety and datasheet (MSDS).

For more information, please contact:

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All information reported in the datasheet is for experimental work undertaken in our laboratories and illustrates typical values only. Processing conditions may vary depending on customers' experience and their application requirements and manufacturing process equipment set-up.

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