

## Product Description

Dycotec DM-SIP-3061S is a screen printable silver paste that is used for membrane display, thin film PV and general printed electronics applications. The paste is compatible with low temperature substrates such as polycarbonate and PET due to its low curing temperature (60-140°C).

## Product Benefits

- High hardness
- Low temperature sintering
- Excellent adhesion
- Excellent electrical conductivity

## Paste Preparation

DM-SIP-3061S is a single part paste system. The material should be used within 6 hours of removing the paste from its container. After 6 hours, quality cannot be guaranteed. Once the paste has been removed from the container for printing, this may introduce contamination. Please do not replace the paste in the container.

## Properties of Uncured Paste

Test	Properties
Viscosity after mixing (Pa.s) (Cone & plate, 50s <sup>-1</sup> , 20°C)	5-15
Thinner	For slight adjustments in viscosity use DM-SIP-3061-DT
Coverage	160 cm <sup>2</sup> /g
Solids Content	75-78 %

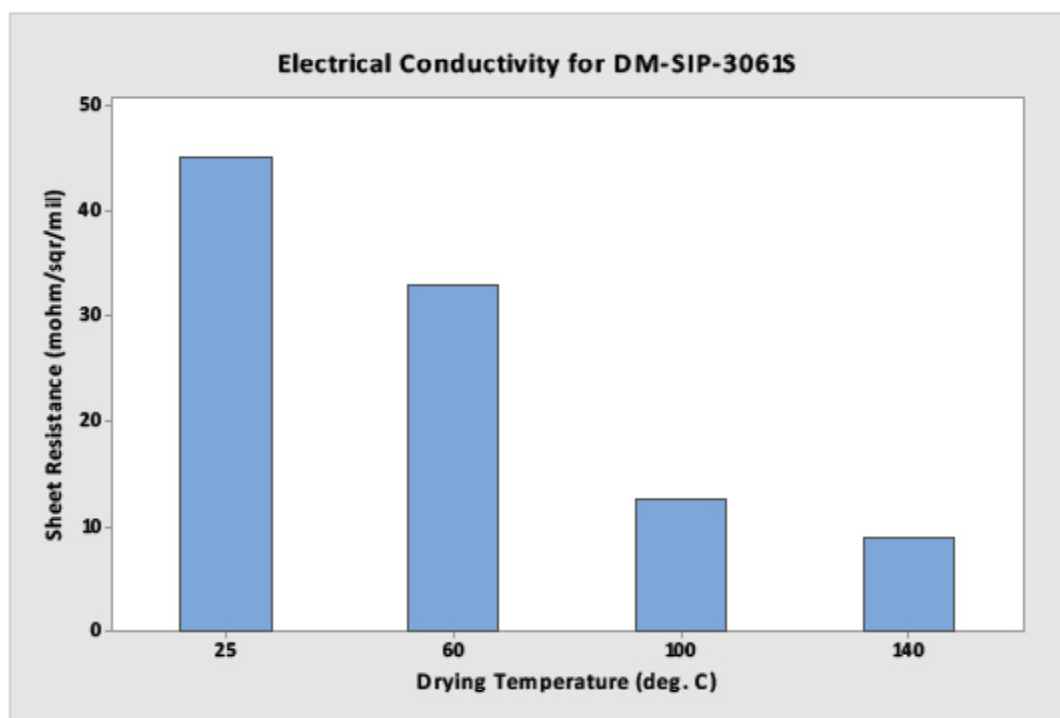
## Paste Processing Conditions

Parameter	Typical Properties
Substrate	PC, PET
Screen	325 SS, 13 µm emulsion
Flood speed	50 mm/s
Print speed	50 mm/s
Squeegee type	90A Shore
Squeegee Pressure	3.5 Kg
Squeegee holding angle	60°
Squeegee Length	220 mm

Once printed the silver paste should be left in ambient for 5min to allow levelling. The paste can be dried using either a convection oven or using IR heating. Typical drying parameters used are 90°C for 30 mins or 120°C-140°C for 10 mins. Drying times may be reduced to achieve the optimum resistivity depending on manufacturing process set-up.

## Properties of Cured Paste

Test	Typical Properties
Sheet Resistance	<8 mΩ/□/mil
Volume Resistivity	<22 µΩ.cm
Adhesion	5B
Resolution (L/S)	100 µm



## Clean-Up

Equipment can be cleaned using ketones such as acetone.

## Storage and shelf-life

Containers should be stored at room temperature (<25°C) with lids tightly sealed. The paste shelf-life for an unopened container is 6 months from date of shipment. Please ensure the material has time to reach room temperature before use. 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 and safety 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. More detailed information can be obtained via [info@dycotecmaterials.com](mailto:info@dycotecmaterials.com).

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