DM-SIP-3060S

DYCOTEC MATERIALS

Product Description

DM-SIP-3060S is a screen printable silver paste for membrane, thin film PV and general printed electronics applications. The paste is compatible with low temperature substrates such as PET due to its low curing temperature (25-140°C).

Product Benefits

- High flexibility
- Low temperature processing
- Excellent adhesion
- Excellent electrical conductivity

Paste Preparation

DM-SIP-3060S is a single part paste system. Gently stir before use, avoiding introduction of air bubbles. 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, $50s^{-1}$, 20°C)	5-15
Thinner	For slight adjustments in viscosity use DM-SIP-3060-DT
Coverage	185 cm^2/g at 10 µm cured thickness
Solids Content	61-66 %
Density	2.25 g/ml

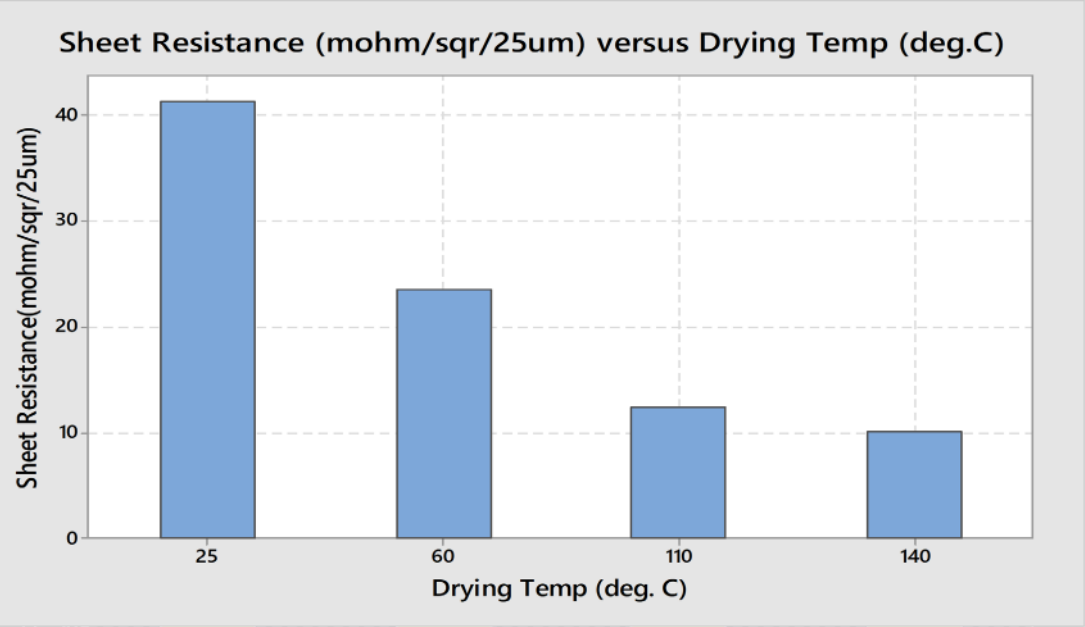
Paste Processing Conditions

Parameter	Typical Properties
Substrate	PET, PI, Paper
Screen	325 SS, 13 µm emulsion
Print Method	Print - Flood
Print speed	30-70 mm/s
Squeegee type	80A Shore
Screen Residence Time	>1 hour

For print process conditions specified above, typical print thickness is 6-8 µm. The paste can be dried using either a convection oven or using IR heating. Typical drying parameters are 80°C-140°C for 20 mins. Drying times may be reduced to achieve the optimum resistivity depending on manufacturing process set-up. For low temperature drying, extended drying times should be used, for example, for 25°C, drying times >6 hours should be used.

Properties of Cured Paste

Test	Typical Properties
Sheet Resistance	<10 mΩ/□/mil (140°C cure temperature)
Volume Resistivity	<28 µΩ.cm (140°C cure temperature)
Adhesion	5B
Resolution (L/S)	100/250 µm



Clean-Up

Equipment can be cleaned using propylene glycol methyl ether acetate.

Storage and shelf-life

Containers should be stored in a fridge (4-7˚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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