

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 ⁻¹ , 20°C)	5-15
Thinner	For slight adjustments in viscosity use DM-SIP-3061-DT
Coverage	160 cm ² /g at 7.5 µm cured thickness
Solids Content	75-78 %

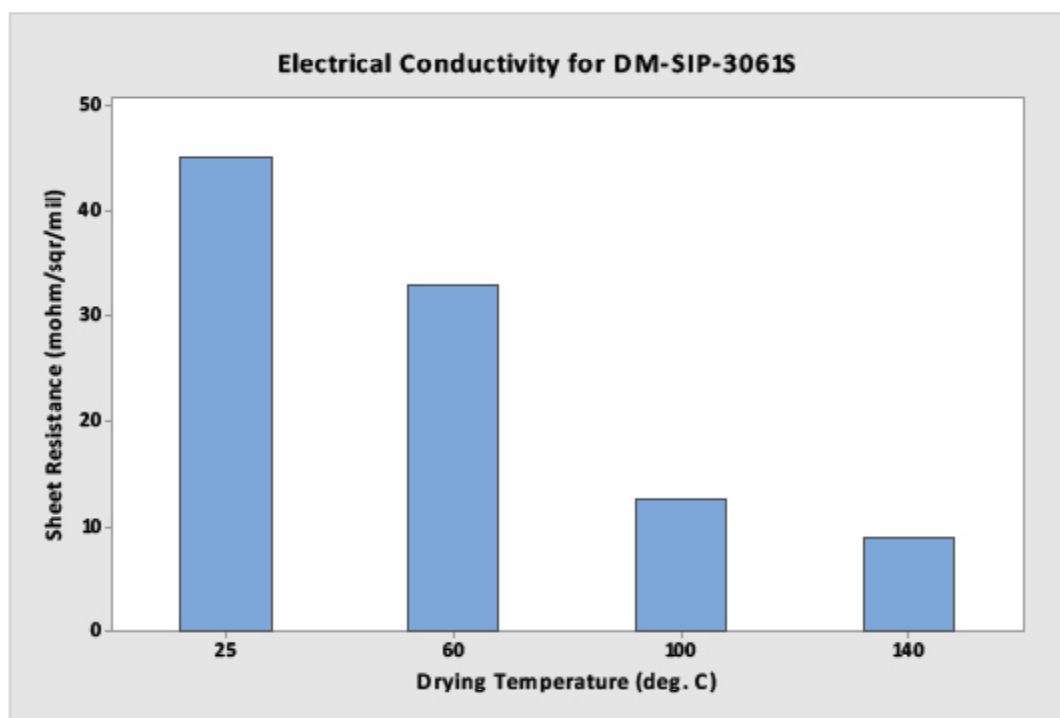
Paste Processing Conditions

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:

Dycotec Materials Ltd
Unit 12, Star West
Westmead Industrial Estate
Swindon SN5 7SW
Wiltshire, UK
Email: info@dycotecmaterials.com
Tel: +44 (0)1793 422598
www.dycotecmaterials.com

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.

Note: The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, Dycotec Materials specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale of use of Dycotec Materials' products. Dycotec Materials specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits. The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a licence under any Dycotec Materials' patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more UK or foreign patents or patent applications.