

Product Description

Dycotec Materials DM-ENC-2500 is a screen printable encapsulation coating that is used in stretchable applications such as wearable devices, sensors and medical devices. The paste can be applied to elastomeric and textile substrates. The paste is cured at temperatures between 120-200°C.

Product Benefits

- Low temperature sintering temperature (120-200°C)
- Stretchable
- Compatible with a wide variety of substrates
- Compatible with Dycotec Materials stretchable conductive pastes

Paste Preparation

DM-ENC-2500 is a single part paste system. Once the paste has been removed from the container for printing, this may introduce contamination. Please do not replace the paste in the container. The paste should be gently stirred before use avoiding incorporation of air bubbles.

Properties of the Uncured Paste

Test	Properties
Viscosity after mixing (Pa.s) <i>(Cone and plate 50s⁻¹, 20°C)</i>	10-20
Screen residence time	1 hour
Thinner	For slight adjustments in viscosity, use DM-ENC-2500-DT
Solids Content	30-34 %

Paste Processing Conditions

Parameter	Typical Properties
Substrate	Textiles, elastomer films
Screen	325 SS, 13 µm emulsion
Print speed	30 mm/s
Squeegee type	60-70A Shore

The paste can be dried using either a convection oven or using IR heating. Typical drying parameters used are 120°C-200°C for 10 mins. Drying times may be reduced to achieve the optimum resistivity depending on manufacturing process set-up.

Properties of the Cured Paste

Test	Properties
Adhesion	5B (depending on substrate)
Mechanical hardness	2B-5B – depending on curing temperature

Conductive Layers

Please contact Dycotec Materials regarding suitable stretchable conductive layers for your application.

Clean-Up

Equipment can be cleaned using ketones such as acetone.

Storage and Shelf-life

For optimum results, the containers should be stored in a fridge (4°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 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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