

Product Description

Dycotec DM-CAP-4400RS is a thermoplastic carbon paste for rotary screen printing. The paste allows fast drying at low temperature (130°C for 5 mins) with a sheet resistance of $\sim 40 \Omega/\square/25\mu\text{m}$.

Product Benefits

- Fast drying
- Good flexibility
- Low temperature drying
- Compatibility with low temperature substrates such as PET

Paste Preparation

Gently stir before use. Avoid rapid stirring to prevent air entrapment during the stirring process. Once the paste has been removed from the container for printing, this may introduce contamination. Please do not replace the paste in the original container and keep the lids tightly sealed with the inner cap after paste transfer to minimise solvent evaporation.

Properties of the Uncured Paste

Test	Typical Properties
Viscosity (Pa.S) (Lamy, Cone & plate, 50s ⁻¹ , 25°C)	5 - 10 Pa.s
Thinner	This should normally not be required. If necessary, use DM-CAP-4400-DT for slight adjustments in viscosity.
Solids Content (150°C)	42-45%

Paste Processing Conditions

Parameter	Typical Properties
Substrate	PET
Deposition Method	Rotary Screen

Print structures should be processed at 130°C in a convection oven for 5 mins

Properties of the Cured Paste

Test	Properties
Sheet Resistance	35-45 $\Omega/\square/25\mu\text{m}$
Adhesion	4B
Pencil hardness scale	3B
Flexibility (ASTM F1683, 5 cycles)	No resistance change after flex test (54mm diameter tube)

Clean-Up

Equipment can be cleaned using alcohols such as iso-propanol or acetone.

Storage and Shelf-life

Containers should be stored at room temperature (10 – 25°C) with lids tightly sealed. The material should not be stirred at temperature below 0°C or greater than 25°C. 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. More detailed information can be obtained via info@dycotecmaterials.com.

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