

## Product Description

Dycotec DM-CAP-433 IS is a single part screen printable carbon paste for general electronic application use where a printed resistive structure is required. The paste is cured at low temperature with a resulting sheet resistance of 1000  $\Omega/\square$ /mil.

## Product Benefits

- Good printability
- Low temperature curing
- Good screen residence time
- Compatibility with low temperature substrates such as PET and paper

## Paste Preparation

The paste is a single part system. 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.

## Properties of the Uncured Paste

Test	Properties
Viscosity, 20 °C	~ 2-4 Pa.s (50 s <sup>-1</sup> shear rate)
Thinner	This should normally not be required. If necessary, use DM-CAP-4030-DT for slight adjustments in viscosity.
Coverage	350 cm <sup>2</sup> /g

## Paste Processing Conditions

Parameter	Typical Properties
Substrate	PET, Paper
Screen	13 $\mu$ m emulsion, 325 DPI, stainless steel
Flood Speed	50 mm/s
Print Speed	50 mm/s
Squeegee hardness	80 Durometer Shore A
Squeegee pressure	2 kg (squeegee length of 220 mm)
Squeegee angle	45°
Print gap	1.5 mm

Guideline curing parameters are box oven cured at 140°C for 30-60 min.

## Properties of the Cured Paste

Test	Properties
Thickness	10 – 15 $\mu$ m
Sheet Resistance	~1000 $\Omega/\square$ /mil
Adhesion	5B
Pencil hardness scale	6H

## Clean-Up

Equipment can be cleaned using alcohols such as propanol.

## Storage and Shelf-life

Containers should be stored at room temperature (10 – 25°C) with lids tightly sealed. The paste shelf-life for an unopened container is 6 months from date of shipment. The material should not be stirred at temperature below 0°C or greater than 30°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.

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