

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 $\Omega/\square/\text{mil}$.

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 ⁻¹ shear rate)
Thinner	This should normally not be required. If necessary, use DM-CAP-4030-DT for slight adjustments in viscosity.
Coverage	350 cm ² /g

Paste Processing Conditions

Parameter	Typical Properties
Substrate	PET, Paper
Screen	13 μm 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 μm
Sheet Resistance	~1000 $\Omega/\square/\text{mil}$
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:

Dycotec Materials Ltd

Unit 12, Star West
Westmead, Westlea
Swindon, Wiltshire
SN5 7SW 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.

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 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 Material's 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 license under any Dycotec Material 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 of or more UK or foreign patents or patent applications.