

## Product Description

Dycotec DM-GRA-900I graphene ink is designed for either inkjet printing or spray application for versatile use in electronic applications. The ink is designed to be cured at 300-350°C. Graphene is based on few layer graphene ( $\leq 3$  nm thick) of lateral diameter of  $\leq 1$   $\mu\text{m}$ .

## Product Benefits

- No requirement for reducing atmosphere
- High graphene content after cure
- Cost effective compared to single layer graphene
- Compatible with inkjet, spin-coat and spray deposition

## Ink Preparation

Stir (not shake) the ink thoroughly before use to ensure the product is well mixed whilst care should be taken to avoid introducing air bubbles. Do not replace used ink in the container. This ink is designed for drop-on-demand print-heads.

## Properties of Uncured Ink

Test	Typical Properties
Solids	1 mg/mL
Density	0.933 g/mL
Viscosity	10-12 cP at 25°C
Surface Tension	32.4 mN/m
Substrate compatibility	High temperature substrates such as glass

## Ink Deposition and Curing Conditions

Test	Properties
Deposition Technique	Inkjet, spray, spin-coating
Sintering Technique Compatibility	Convection oven or hot-plate

## Properties of the Cured Ink

Test	Properties
Sheet Resistivity	2-100 $\text{k}\Omega/\square$ (5 to 60%T at 660 nm)

## Storage and shelf-life

Containers should be stored between 10-25°C with lid tightly sealed. We cannot assume responsibility for an ink that has not been stored in appropriate conditions or where the ink has been contaminated following use. Inkjet heads can be cleaned using solvents such as iso-propanol.

## 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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