

Product Description

Dycotec DM-GRA-9002 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. The ink is based on single layer graphene (< 1 nm thick) of lateral diameter $\leq 0.5 \mu\text{m}$.

Product Benefits

- No requirement for reducing atmosphere
- High graphene content after cure
- Single layer graphene
- Increased transparency compared to few 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	0.934 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	4-13 $\text{k}\Omega/\square$ (45 to 70%T at 660 nm)

Storage and shelf-life

Containers should be stored as specified with lids 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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