

Product Description

Dycotec DM-SIA-3301 is a nanosilver ink designed for use with the Optomec Aerosol Jet with pneumatic atomiser systems. The ink is compatible with a range of different types of substrates and can be processed anywhere between 100 to 200°C. It offers exceptional levels of electrical conductivity and adhesion.

Product Benefits

- Low temperature cure (100°C)
- Excellent electrical conductivity <6 mΩ/□/25 μm at 100°C and <3 mΩ/□/25 μm at 200°C
- Excellent adhesion (5B) on a broad range of substrates
- Developed for use with Optomec aerosol jet printing

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.

Properties of the Uncured Ink

Test	Properties
Solids	60-65 %
Viscosity (Cone & Plate, 500s ⁻¹)	40-100 cPs
Density	1.5 - 1.6 g/cm ³
Colour	Silver grey

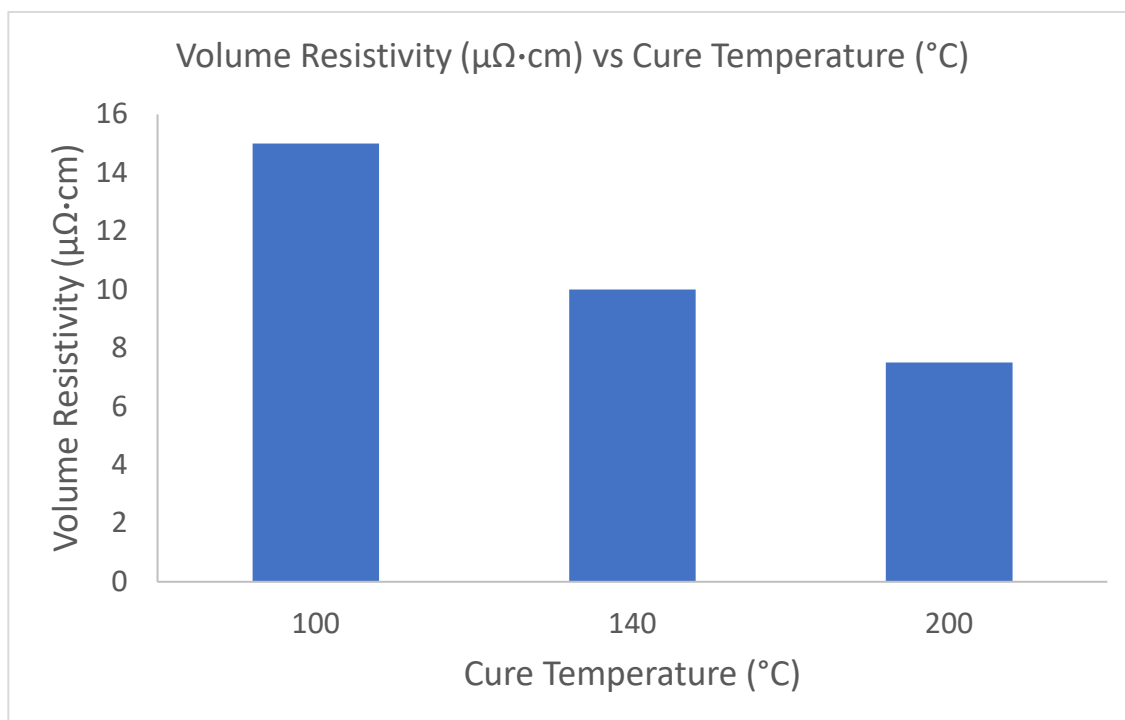
Ink Processing Conditions

Test	Typical Properties
Substrate compatibility	PET, PI, PEKK
Atomiser	Pneumatic
Cure Temperature	100-200°C
Cure Time	5 - 30 min

For pneumatic atomiser processing tested using 300 μm nozzle, sheath gas = 80 sccm, mist = 40 sccm, PA = 600 sccm. A PGME passive bubbler is used for compensating solvent loss in atomiser.

Properties of the Cured Ink

Test	Properties
Adhesion	5B
Sheet Resistivity	<4 mΩ/□/25 μm (140°C)
Volume Resistivity (ASTM D257)	<10 μΩ.cm (140°C)



Storage and Shelf-life

Containers should be stored in a fridge at a storage temperature between 4-7°C with lids tightly sealed. The ink shelf-life for an unopened container is 6 months from date of shipment.

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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