

Product Description

Dycotec DM-INI-7003 is an ink-jet printable ink that is designed to provide an ultra durable insulator layer for electronics applications. The ink can be rapidly cured using UV-LED systems. The ink system offers excellent adhesion to many substrates including glass and ITO-glass. The ink can be overprinted with conductive inks provided by Dycotec Materials.

Product Benefits

- Good Printability
- High Abrasion Resistance
- Excellent Adhesion

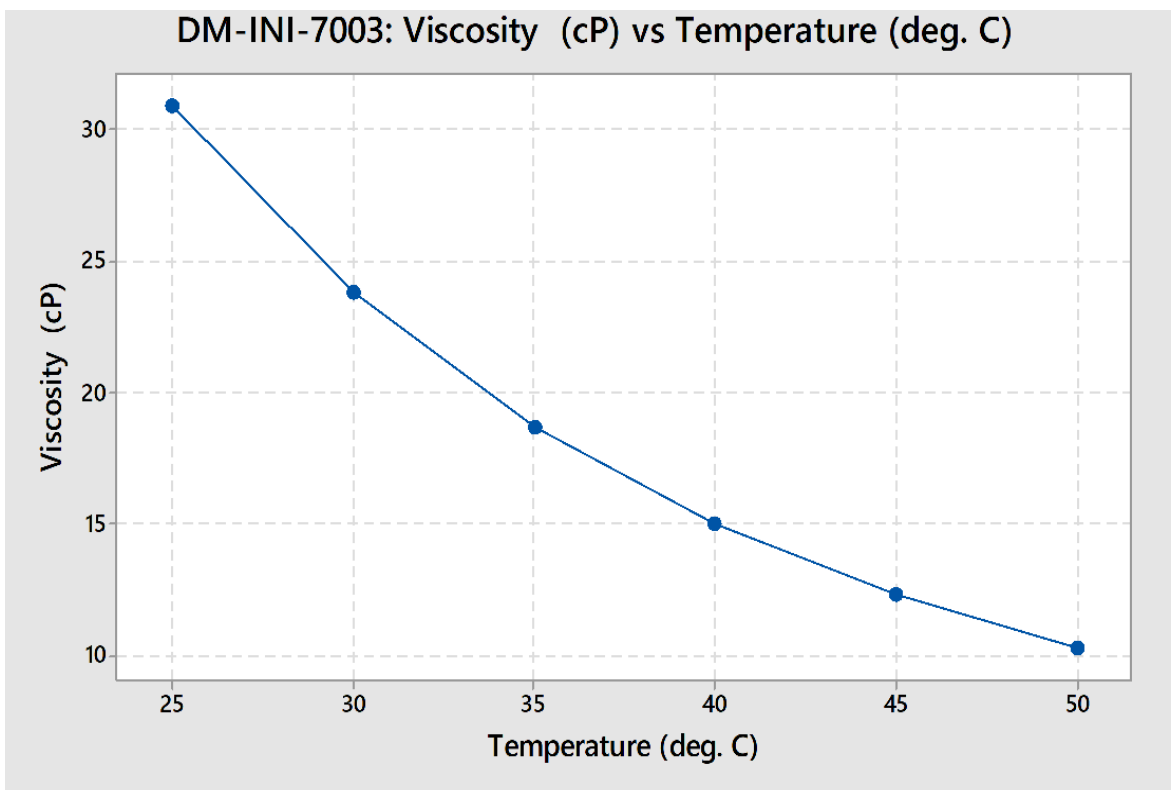
Ink Preparation

The ink is packaged to avoid all sources of UV light, sunlight, and fluorescent lights. Thoroughly swirl (not shake) the ink before use to ensure the product is well mixed and 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 the uncured ink

| Test | Properties |
|-------------------------|---------------------------------|
| Viscosity | 10-15 cP at >40°C |
| Surface Tension* | 30 mN/m |
| Density | 1.14 g/mL at 20°C |
| Substrate compatibility | Glass, ITO-Glass, Plastics, FR4 |

*Surface tension may be modified for particular applications. Please contact info@dycotecmaterials.com for more information.



Ink Curing Conditions

| Test | Properties |
|-------------------|--|
| UV LED Wavelength | Optimum 380 – 395 nm, will also cure at 365 nm |
| UV Curing Energy | 500-1000 mJ/cm ² |

Typical Properties of the Cured Ink

| Test | Properties |
|-----------------------|---|
| Pencil hardness scale | 8H |
| Adhesion | 5B |
| Optical | >99% (at 550 nm) |
| Haze | <0.05% |
| Dielectric Strength | >14 kV/mm |
| Volume Resistivity | $1.4 \times 10^{14} \Omega \cdot \text{cm}$ |
| Surface Resistivity | $8.2 \times 10^{12} \Omega / \square$ |

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. The inks can be stored for 6 months at 10-25°C from the date of shipment.

Cleaning

Equipment can be cleaned using alcohols such as isopropanol.

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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