Xerox® UV Curable Dielectric

The Xerox® UV Curable Dielectric is compatible with solution-based coating and printing methods. The material cures within seconds upon exposure to LED UV light. This material has a dielectric constant suitable for use in a variety of electronics and printed electronics applications and is compatible with Xerox® Silver Nanoparticle Inks.

**PRODUCT FEATURES**
- UV curable; 365 & 395 nm LED UV light
- 100% solids, no solvent
- Produces uniform coated films and printed traces
- Enables reliable crossovers and embedded structural electronics
- Available as a clear or tinted material
- Excellent latency in printhead

**PRODUCT PROPERTIES**

**Appearance:**
- XDI-UV1-C ...................... Colourless (clear)
- XDI-UV1-T ...................... Blue (tinted)

**Viscosity (at 65°C):** 9 – 13 cP∙s
**Viscosity (at 80°C):** 7 – 9 cP∙s

**Surface Tension:** 31 – 34 mN/m

**Solids Loading:** 100%*

**Cure (UV LED):** 395 nm, 12 W/cm²

**Storage:** Ambient conditions**
**Shelf Life:** > 4 months from date of shipment

**MATERIAL PERFORMANCE (POST CURE)**

Typical thickness after cure:
- Inkjet Printing ...................... ~10 µm
- Spin Coating ...................... 1 – 2 µm
- Draw-down Coating ............... 35 – 55 µm
  (1.4 – 2.2 mil)

**Dielectric Constant (at 1 kHz):** 3.5 – 5.0

**Dielectric Loss:** 0.006

**Capacitance/Area:**
- Thickness 1 – 2 µm .............. 2 – 4 nF/cm²
- Thickness 35 – 55 µm ........... 0.07 – 0.20 nF/cm²

**SAFETY AND HANDLING**

Safety and handling information is available in the product Safety Data Sheet (SDS).

**COMPATIBLE WITH XEROX® SILVER NANOPARTICLE INKS**

- Ultrasonic Aerosol Jet® ........ xcm-nsUA1
- Pneumatic Aerosol Jet® ........ xcm-nsPA1
- Piezo Inkjet ......................... xcm-nsIJ

**XEROX RESEARCH CENTRE OF CANADA**

With more than 40 years of delivering innovative materials options for Xerox, we have a proven track record for taking concepts from the lab to commercial viability.

Leveraging our broad expertise in materials research, development and engineering, along with our state-of-the-art facilities, we can help you navigate the technical challenges of bringing your product to the market.

* All formulation components are incorporated in the cured material
** Store away from heat and light sources

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