



Adhesive Films and Preforms

31 Dunham Road
Billerica, MA 01821Toll Free: (888) 832-4345
Fax: (978) 670-4956Email: info@techfilm.com
www.techfilm.com

CI 2001

Electrically Conductive Silver Ink

Description:

TechFilm CI 2001 is a low resistivity electrically conductive ink.

Applications:

TechFilm CI 2001 is formulated for screen printing conductive traces on Mylar®, Kapton®, FR4 and ceramic surfaces.

Shelf Life:

6 months @ 25°C

Cure Schedules:

Cure Schedule: 3 min. @ 150°C

Alternate Cure Schedules: 5 min. @ 135°C

Uncured Properties:

Viscosity at 25°C, RV-TD, 1RPM, cP

Viscosity at 25°C, RV-TD, 10RPM, cP

<u>Method</u>	<u>Value Obtained</u>
TFTEST001B	64,000
TFTEST001B	32,000

Cured Properties:

	<u>Method</u>	<u>Value Obtained</u>
Color	Visual	Silver
Volume Resistivity at 25°C, Ohm-cm, 4 point probe	MIL-STD-883 Method 5011	1.8×10^{-4}
Volume Resistivity at 25°C, Ohm-cm, 4 point probe, after 1200 hours at 150°C	MIL-STD-883 Method 5011	5.0×10^{-5}
Volume Resistivity at 25°C, Ohm/square cm* Coated on 5 mil Mylar ® 2" wide x 12" long	TFTEST004C	4×10^{-3}
Volume Resistivity at 25°C, Ohm/square cm* Coated on 5 mil Mylar ® 2" wide x 12" long after 180° bend	TFTEST004C	4×10^{-3}
Volume Resistivity at 25°C, Ohm/square cm* Coated on 1 mil Kapton®, 2" wide x 12" long	TFTEST004C	5×10^{-3}
Volume Resistivity at 25°C, Ohm/square cm* Coated on 1 mil Kapton® 2" wide x 12" long, after 180° bend	TFTEST004C	4×10^{-3}
Pencil Hardness, on 0.005" Mylar®	ASTM D3365	2H
Pencil Hardness, on 0.001" Kapton®	ASTM D3365	3H
Glass Transition Temperature, °C, 20°C/min	ASTM E1545	63 / 120 ²
Weight Loss at 150°C, TGA, 20°C/min, N ₂ , % at 200°C	ASTMD 3850	1.0
	ASTMD 3850	1.4
Decomposition Temperature, TGA, 20°C/min, N ₂ , %, °C 1 - 2 mil lay down thickness	ASTMD 3850	325

2 – Biphasic glass transition temperature

All values reported above are typical values from the recommended cure, and are reported as a means of reference. Individual testing should be done to determine actual results, tested at specific conditions.

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