



Adhesive Films and Preforms

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CI 1001

Electrically Conductive Silver Ink

Description:

TechFilm CI 1001 is a low resistivity electrically conductive ink.

Applications:

TechFilm CI 1001 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	32,000
TFTEST001B	22,800

Cured Properties:

Color

Method

Visual

Value Obtained

Silver

Volume Resistivity at 25°C, Ohm-cm, 4 point probe

MIL-STD-883
Method 50112.6 x 10⁻⁴

Volume Resistivity at 25°C, Ohm-cm, 4 point probe after 1200 hours at 150°C

MIL-STD-883
Method 50116.7 x 10⁻⁴

Volume Resistivity at 25°C, Ohm/square cm*

Coated on 5 mil Mylar ® 2" wide x 12" long

TFTEST004C

6 x 10⁻³

Volume Resistivity at 25°C, Ohm/square cm*

Coated on 5 mil Mylar ® 2" wide x 12" long after 180° bend

TFTEST004C

6 x 10⁻³

Volume Resistivity at 25°C, Ohm/square cm*

Coated on 1 mil Kapton®, 2" wide x 12" long

TFTEST004C

9 x 10⁻³

Volume Resistivity at 25°C, Ohm/square cm*

Coated on 1 mil Kapton® 2" wide x 12" long, after 180° bend

TFTEST004C

8 x 10⁻³

Pencil Hardness, on 0.005" Mylar®

ASTM D3365

2H

Pencil Hardness, on 0.001" Kapton®

ASTM D3365

2H

Glass Transition Temperature, °C, 20°C/min

ASTM E1545

35 / 129²Weight Loss at 150°C, TGA, 20°C/min, N₂, %
at 200°C

ASTMD 3850

0.6

ASTMD 3850

1.0

Decomposition Temperature, TGA, 20°C/min, N₂, %, °C

ASTMD 3850

410

1 - 2 mil lay down thickness

2 - Biphase 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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