



Adhesive Films and Preforms

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T3321

HIGH TEMPERATURE ADHESIVE

(preliminary)

Description:

TechFilm T3321 is a high performance liquid adhesive that is specially formulated for bonding to gold or gold plated substrates. It features good chemical, heat, and moisture resistance.

Applications:

TechFilm T3321 is a liquid adhesive that is designed for high temperature environments.

Shelf Life:

Two days @ 25°C Two weeks @ 10°C Two months @ -10°C One year @ -40°C

Cure Schedules:

Cure Schedule 15 minutes at 140°C plus 30 minutes at 225°C
 Alternate Cure Schedules 60 minutes at 180°C
 10 minutes at 150°C plus 15 minutes at 225°C

Cured Properties:

<u>Property</u>	<u>Method</u>	<u>Value Obtained</u>
Color	Visual	Tan
Specific Gravity	ASTM D790	1.9
Lap Shear Strength to Aluminum at 25°C, psi	ASTM D1002	1900
Lap Shear Strength to Gold at 25°C, psi	ASTM D1002	800
Glass Transition, DSC, °C	ASTM E1356	170
Volume Resistivity, Ohm-cm at 25°C	ASTM D257	6 x 10 ¹⁴
Dielectric Constant at 25°C, 1 kHz	ASTM D1531/D150	5.2
Dissipation Factor at 25°C, 1 kHz	ASTM D1531/D150	0.007
Dielectric Constant at 25°C, 1 MHz	ASTM D1531/D150	4.9
Dissipation Factor at 25°C, 1 kHz	ASTM D1531/D150	0.033
Weight Loss at 150°C, TGA, 20°C/min, N ₂ , %	ASTM D3850	0.18
at 200°C	and MIL-STD-883	0.11
at 250°C	Section 3.8.5.1	0.17
at 300°C		0.23

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.

Rev. 11/10/06-LM

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Liquid Properties:

T3321 in its uncured state has the following properties:

Stroke Cure at 160°C, seconds	Visual	95
Viscosity at 25°C, TE at 1 RPM, cP	TFTEST001B	950,000
Viscosity at 25°C, TE at 10 RPM, cP	TFTEST001B	370,000
Thixotropic Index	TFTEST001B	2.5

Warnings:

Use with adequate ventilation. Wear protective clothing and safety goggles.

Medical Conditions Aggravated by Exposure: Exposure may aggravate preexisting skin conditions and/or eye disorders.

Eye Contact: Contains materials that may cause moderate eye irritation. Use good hygiene, wear protective gloves and do not touch eyes. Molten material may cause thermal burns.

Skin Contact: Contains materials that cause moderate skin irritation. Prolonged or repeated exposure to the film may cause dermatitis in susceptible individuals. This product may cause skin sensitization/allergic skin reactions that may be severe, symptoms may include rash, swelling, itching and hives.

Inhalation: At ambient conditions vapors are unlikely to cause harm. Heating can generate vapors that could cause respiratory irritation if inhaled. If abraded dust may cause irritation of the respiratory passages.

Ingestion: Harmful if swallowed.

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