



Adhesive Films and Preforms

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Fax: (978) 670-4956Email: info@techfilm.com
www.techfilm.com**I2207****Electrically Insulating Adhesive****Description:**

TechFilm I2207 is a high performance B-staged film that features relatively high flow with good wetting properties, and a fairly high glass transition temperature. I2207 has good adhesion and high bond strengths to various substrates including gold, nickel and stainless steel. It also features good chemical, heat, and moisture resistance and low outgassing on cure. TechFilm I2207 will cure at temperatures above 115°C.

Shelf Life: (Store in dry conditions)

48 hours @ 20°C Two months @ -20°C One year @ -40°C

Cure Schedules:

Cure Schedule: 60 minutes at 140°C

Alternate Cure Schedules: 20 minutes at 155°C, 120 minutes at 130°C or 240 minutes at 115°C

Properties when Curing

<u>Property</u>	<u>Method</u>	<u>Value Obtained</u>
Weight Loss at 130°C, TGA, 10°C/min, N ₂ , %	ASTM D3850	0.54
at 140°C		0.60
at 150°C		0.68
at 160°C		0.70

Cured Properties:

<u>Property</u>	<u>Method</u>	<u>Value Obtained</u>
Color	Visual	Amber
Specific Gravity	ASTMD 790	1.2
Volume Resistivity at 25°C, Ohm-cm	ASTMD 257	>2 x 10 ¹⁵
Adhesive Shear Strength to Aluminum at 25°C, psi	ASTMD 1002	4000
Adhesive Shear Strength to Gold at 25°C, psi	ASTMD 1002	2600
Adhesive Strength to Nickel at 25°C, psi	ASTMD 1002	3600
Adhesive Strength to 101 Copper at 25°C, psi	ASTMD 1002 ¹	5000
Adhesive Strength to 316 Stainless Steel at 25°C, psi	ASTMD 1002 ¹	6400
Adhesive Strength to G10 at 25°C, psi	ASTMD 3163 ¹	3400
Adhesive Strength to PEEK at 25°C, psi	ASTMD 3163 ¹	600
Adhesive Strength to poly(phenylene oxide) (PPO/PPE) at 25°C, psi	ASTMD 3163 ^{1,2}	1000
Glass Transition Temperature, °C	ASTME 1356	115
Weight Loss at 200°C, TGA, 20°C/min, N ₂ , %	ASTM D3850	0.13
at 250°C	and MIL-STD-883	0.24
at 300°C	Section 3.8.5.1	0.55

1 - Measure using substrates 0.25 inches thick.

2 - Using alternate cure at 130°C due to plastic deformation at 140°C

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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