



Adhesive Films and Preforms

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TF T2121F

ELECTRICALLY INSULATIVE FILM

Description:

TechFilm T2121F is a high performance urethane modified epoxy, electrically insulative, B-staged film adhesive. It features a relatively low coefficient of thermal expansion, fairly high glass transition temperature and good adhesion to plastics substrates. TechFilm T2121F will cure at temperatures above 90°C. T2121F comes standard containing a 1.5 or 3.0 mil non-woven glass reinforcement for ease of handling but can be supplied without a reinforcing layer.

Shelf Life: (Stored in dry conditions)

7 days @ 20°C Four weeks @ 10°C Six months @ -10°C One year @ -40°C

Cure Schedules:

Cure Schedule	30 minutes at 150°C
Alternate Cure Schedules	20 minutes at 160°C
	120 minutes at 110°C

Cured Properties:

<u>Property</u>	<u>Method</u>	<u>Value Obtained</u>
Color	Visual	Cream
Thermal Conductivity, W/m-°K	Estimate	0.4
Specific Gravity	ASTMD 790	1.9
Volume Resistivity at 25°C, Ohm-cm	ASTMD 257	>2.0 x 10 ¹⁴
Lap Shear Strength to Aluminum at 25°C, psi	ASTMD 1002	3000
Linear Coefficient of Thermal Expansion, x 10 ⁻⁶ /°C		
Alpha 1 (below Tg)	ASTME 831	65
Alpha 2 (above Tg)	ASTME 831	312
Glass Transition Temperature, DSC, 20°C/min, °C	ASTMD E1356	107

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. Data should not be used for material specification purposes.