



Adhesive Films and Preforms

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TECHNICAL DATA

TF I2701F

Electrically Insulating Film adhesive

Description:

TechFilm I2701F is a high performance electrically isolating B-staged film adhesive specially formulated for bonding at lower temperatures. It is typically supplied at a thickness of less than 0.003 inches.

Advantages and Applications:

TechFilm I2701F will cure at temperatures above 90°C. It features good chemical, heat, and moisture resistance.

Shelf Life:

Two days @ 20°C Two weeks @ 10°C Two months @ -10°C TBD @ -40°C

Cure Schedules:¹

Cure Schedule	180 minutes at 100°C
Alternate Cure Schedules	60 minutes at 130°C
	5 minutes at 120°C plus 15 min at 150°C
	240 minutes at 90°C

Cured Properties:

Property	Method	Value Obtained
Color	Visual	Transparent/translucent
Specific Gravity	TFTEST002B	1.2
Volume Resistivity at 25°C, Ohm-cm	ASTM D257	>1.0 x 10 ¹²
Lap Shear Strength to Aluminum at 25°C, psi	ASTMD 1002	2350
Lap Shear Strength to Aluminum at 25°C, psi*	ASTMD 1002	2500*
Lap Shear Strength to 101 Copper at 25°C, psi	ASTMD 1002	3050
Glass Transition Temperature, °C	ASTME 1545	110
Glass Transition Temperature, °C*	ASTME 1545	111*
Weight Loss at 150°C, TGA, 20°C/min, N ₂ , %	ASTMD 3850	0.35
at 200°C	and MIL-STD-883E	0.95
Weight Loss at 150°C, TGA, 20°C/min, N ₂ , %*	ASTMD 3850	0.41*
at 200°C*	and MIL-STD-883E	0.62*

* Values using alternate cure schedule of 1 hour at 130°C.

1 Higher performance properties may sometimes be achieved at higher cure temperatures or longer times
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 test specification purposes.

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