



Adhesive Films and Preforms

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## TF T2731F

### ELECTRICALLY INSULATIVE FILM

#### **Description:**

TechFilm T2731F is a high performance modified epoxy, electrically insulative, B-staged film adhesive. It features a relatively low coefficient of thermal expansion moderately high glass transition temperature and good adhesion to various metals including gold. TechFilm T2731F will cure at temperatures above 90°C. T2731 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)**

5 days @ 20°C    two weeks @ 10°C    Six months @ -10°C    One year @ -40°C

#### **Cure Schedules:**

Cure Schedule                      90 minutes at 130°C  
 Alternate Cure Schedules            15 minutes at 150°C  
     180 minutes at 110°C

#### **Cured Properties:**

<b><u>Property</u></b>	<b><u>Method</u></b>	<b><u>Value Obtained</u></b>
Color	Visual	Grey
Thermal diffusivity, thickness = 1.0 mm, cm <sup>2</sup> /s-°K	ASTM E1461	0.0043
Specific Heat Capacity, J/g-°K	ASTM E1461	1.00
Thermal Conductivity W/M-°K	ASTM E1461	0.75
Specific Gravity	ASTMD 790	2.1
Dielectric Constant at 25°C, 1 kHz	ASTM D1531/D150	5.69
Dissipation Factor at 25°C, 1 kHz	ASTM D1531/D150	0.044
Dielectric Constant at 25°C, 1 MHz	ASTM D1531/D150	5.02
Dissipation Factor at 25°C, 1 MHz	ASTM D1531/D150	0.053
Volume Resistivity at 25°C, Ohm-cm	ASTMD 257	>1.0 x 10 <sup>14</sup>
Lap Shear Strength to Aluminum at 25°C, psi	ASTMD 1002	2550
Lap Shear Strength to 260 Brass at 25°C, psi	ASTMD 1002	2050
Weight Loss at 150°C, TGA, 20°C/min, N <sub>2</sub> , %	ASTMD 3850 &	0.15
at 200°C	MIL-STD-883	0.58
Glass Transition Temperature, DSC, 20°C/min, °C	ASTMD E1356	102

**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.**

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