



AI TECHNOLOGY INC
 70 Washington Road
 Princeton Jct., NJ 08550
 (609) 799-9388 fax (609) 799-9308
 E-Mail: ait@aitechnology.com
 Internet: http://www.aitechnology.com

TACK-FREE FILM
ESP7675

Electrically Insulating Epoxy Film Adhesive

IDEAL FOR:

- Automated Assemblies
- Component Attach
- Lid-Sealing
- High Temperature Laminate
- High Temperature Conductivity

DESCRIPTION:

ESP7675 is an alumina filled, high-bond strength epoxy film adhesive. It is designed for bonding component and substrate to substrate and carrier with matched thermal coefficients of expansion. ESP7675 has good thermal conductivity. The dry, tack-free handling of the film makes it suitable for an automated assembly.

AVAILABILITY:

ESP7675 is available in sheet sizes or as custom preforms. Standard thicknesses are 0.003" and 0.006". Special thicknesses are available.

APPLICATION PROCEDURE

- (1) Keep product at room temperature for 15 minutes before using.
- (2) Before using, remove protective liner from film.
- (3) Cut to desired size.
- (4) Place on substrate and cure according to one of the recommended schedules.

TYPICAL PROPERTIES*

Electrical Resistivity (150 °C/ 60 minutes)	>1x10 ¹⁴ ohm-cm
Dielectric Strength (Volts/mil)	> 750
Glass Transition Temp.(°C)	190
Current Carrying Capabilities	Not Applicable
Lap-Shear Strength	Not Applicable
Device Push-off Strength	2000 psi
	13.8 N/mm ²
Hardness (Type)	88 (A)
Cured Density (gm/cc)	2.2
Thermal Conductivity	>12 Btu-in/hr-ft ² -°F
	>1.7 W/m-°C
Linear Thermal Expansion Coeff. (ppm/°C)	30
Maximum Continuous Operation Temp. (°C)	150

* Properties given are typical values and not intended for use in preparing specifications. The user is advised to evaluate the product in the manner the product is intended to be used in manufacturing and in the final product.

CURE SCHEDULES:

Temperature	Time	Pressure
80°C	8 hr	3-5 psi
100°C	4 hr	3-5 psi
125°C	2 hr	3-5 psi
150°C	1 hr	3-5 psi
200°C	20 min	3-5 psi

The die or component can also be tacked on the substrate at 80°C or higher with 5 psi. When a fillet around the edge of the die or component is observed, the pressure can be released for the rest of the bonding cycle.

SHELF LIFE:

Storage temperature	Shelf Life
0°C	1yr in sealed package

The information contained herein is believed to be reliable. All recommendations or suggestions are made without guarantee inasmuch as conditions and methods of commercial use are beyond our control. Properties given are typical values and not intended for use in preparing specifications. The user is advised to evaluate the product in the manner the product is to be used in manufacturing and in the final product. Under no circumstance shall A.I. Technology be liable for accidental, consequential or other damages arising from the use or handling of this product.

While AI Technology owns all proprietary rights of material formulations of its products, specific usage in the manufacturing of certain products may involve patent rights of other companies.