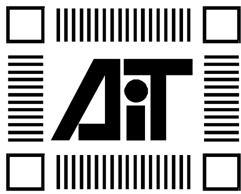

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Film Adhesive
ESP7660-HK-FG

High Moisture Resistance
Electrically Insulating
Epoxy Film Adhesive

IDEAL FOR:

- High Volume, Automated Assemblies
- Large Area Panel Structural Bonding
- High Tempeature with Stress Absorbing

DESCRIPTION:

ESP7660-HK-FG is a fiber-glass reinforced version of ESP7660-HK. It is a high-bond strength epoxy film adhesive. It combines the property of high bond strength and stress absorbing capability. It is also moisture resistant and maintain high bond strength even after extended moisture-temperature exposure

It is designed for bonding component and substrate to substrate and carrier with matched thermal coefficients of expansion. ESP7660-HK-FG has good thermal stability. The dry, tack-free handling of the film makes it suitable for an automated assembly.

AVAILABILITY:

ESP7660-HK-FG is available in sheet sizes or rolls. Standard thicknesses of the adhesive film portion, ESP7660-HK-FG are 0.005" and 0.010". Special thicknesses are available.

APPLICATION PROCEDURES:

(1) Keep product in protective bag when not in use.
(2) Before using, remove protective liners from film adhesive.
(3) Place adhesive between the bonding surfaces.
(4) Laminate and cure according to one of the curing schedule.

TYPICAL PROPERTIES*

Property	Value
Electrical Resistivity (150 ºC/ 60 minutes)	>1x10 ^{15} ohm-cm
Dielectric Strength (Volts/mil)	> 750
Glass Transition Temp.(ºC)	125 ±10%
Current Carrying Capabilities	N/A
Lap-Shear Strength	>1500 psi > 14.0 N/mm²
Device Push-off Strength	>4000 psi >37.4 N/mm²
Hardness (Type)	85 (D) ±10%
Cured Density (gm/cc)	1.6 ±10%
Thermal Conductivity	2 Btu-in/hr-ft²-ºF ±10% 0.3 W/m-ºC ±10%
Linear Thermal Expansion Coeff. (ppm/ºC)	22 ±15%
Maximum Continuous Operation Temp. (ºC)	<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
125ºC	60 min	5-15 psi
150ºC	30 min	5-15 psi
175ºC	5 min	5-15 psi

The component can also be tacked on the substrate at 100ºC or higher with 10 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
25ºC	1 yr

in sealed package

CAUTION: This product may cause skin irritation. Avoid skin contact. If contact does occur, wash immediately with soap and water. Please refer SDS for more details.

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