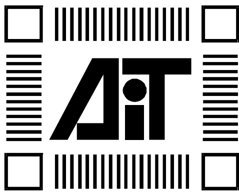

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DRY EPOXY FILM

ESP7670-WL

High Moisture Resistance Electrically Insulating Epoxy Film Adhesive

IDEAL FOR:

High Volume, Automated Assemblies

Substrate Attach

Lid-Sealing

DESCRIPTION:

ESP7670-WL is a high-bond strength epoxy film adhesive. It is designed for bonding component and substrate to substrate and carrier with matched thermal coefficients of expansion. ESP7670-WL has good thermal stability. The dry, tack-free handling of the film makes it suitable for an automated assembly.

AVAILABILITY:

ESP7670-WL 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*

Property	Value
Electrical Resistivity (150 ºC/ 60 minutes)	>1x10 ^{14} ohm-cm
Dielectric Strength (Volts/mil)	> 750
Glass Transition Temp.(ºC)	130
Current Carrying Capabilities	Not Applicable
Lap-Shear Strength	Not Applicable
Device Push-off Strength	>7000 psi >48 N/mm²
Hardness (Type)	85 (A)
Cured Density (gm/cc)	1.6
Thermal Conductivity	2 Btu-in/hr-ft²-ºF 0.3 W/m-ºC
Linear Thermal Expansion Coeff. (ppm/ºC)	25
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
80ºC	4 hr	3-5 psi
100ºC	2 hr	3-5 psi
125ºC	1 hr	3-5 psi
150ºC	30 min	3-5 psi
200ºC	10 min	3-5 psi

The die or component can also be tacked on the substrate at 80ºC 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
0-5ºC	1 yr 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.

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