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TACK-FREE FILM
ESP8350

**Stress Free
 Tack Free
 Electrically Conductive
 Epoxy Film Adhesive**

IDEAL FOR:

- Substrate and Component**
- Reworkability**
- Mismatched CTE's**
- Automated Assemblies**

DESCRIPTION:

Tack-Free ESP8350 is a reworkable, silver-filled, epoxy film adhesive. It is designed for bonding component and substrate to a mismatched substrate or carrier. This novel, B-staged electrically conductive adhesive offers excellent reworkability from 80 to 150°C. The dry, tack-free handling of the film makes it suitable for an automated assembly.

ESP8350 has excellent thermal conductivity. Its low Tg adhesive imposes minimum thermal stress on bonded parts during thermal cycling or shock testing. This film is reinforced with 1.5 mil fiberglass.

AVAILABILITY:

ESP8350 is available in sheet sizes or as custom preforms. Standard thicknesses are 0.006" and 0.008" Special thicknesses are available.

APPLICATION PROCEDURE

- (1) Remove film from protective paper.
- (2) Cut to desired size.
- (3) Place on substrate and cure according to one of the recommended schedules.

TYPICAL PROPERTIES*

Electrical Resistivity (150 °C/ 60 minutes)	<4x10 ⁻⁴ ohm-cm
Dielectric Strength (Volts/mil)	Not Applicable
Glass Transition Temp.(°C)	-25
Current Carrying Capabilities	Not Available
Lap-Shear Strength	Not Applicable
Device Push-off Strength	1200 psi
	8.3 N/mm ²
Hardness (Type)	82 (A)
Cured Density (gm/cc)	3.5
Thermal Conductivity	45 Btu-in/hr-ft ² -°F
	6.4 W/m-°C
Linear Thermal Expansion	110
Coeff. (ppm/°C)	
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:

<u>Temperature</u>	<u>Time</u>	<u>Pressure</u>
80°C	8 hr	5-10 psi
100°C	4 hr	5-10 psi
125°C	2 hr	5-10 psi
150°C	1 hr	5-10 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:

<u>Storage temperature</u>	<u>Shelf Life</u>
0-5°C	1 yr in sealed package

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