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TACK FILM
TC8750

Stress Free
Reworkable
Electrically Conductive
B-Stage Epoxy Film Adhesive

IDEAL FOR:

- Substrate and Component
- Reworkability
- Mismatched CTE's

DESCRIPTION:

TC8750 is a silver-filled, B-staged epoxy film adhesive. It is designed for bonding component and substrate to a mismatched substrate or carrier. Its low Tg imposes minimum thermal stress on bonded parts during thermal cycling or shock testing. It has excellent thermal conductivity and can be used for most applications at temperatures from -65 to 150C. It is reworkable at 80-150°C. Customers must test the adhesive for their specific applications to confirm its suitability.

TC8750 is designed to meet the hybrid adhesive specification MIL-STD-883; Method 5011. It exhibits low outgassing at 125°C and passes NASA outgassing requirements.

AVAILABILITY:

TC8750 is available in sheet sizes or as custom preforms. Standard thicknesses are 0.003" and 0.006". Special thicknesses are available.

APPLICATION PROCEDURES:

(1) Let adhesive thaw in bag or plastic box for 30 min. Cut to desired size.

(2) Lift the corner of a release liner on one side of the tack film. Peel the release liner over to 180° and pull quickly to remove the liner in one stroke. Attach to components, and then peel the 2nd release liner.

***PLEASE NOTE: When this product is removed from the freezer, used and refrozen, the shelf life @ -40°C and pot life @ 25°C is lowered depending on the amount of time out of the -40°C freezer.

TYPICAL PROPERTIES*

Electrical Resistivity (150 °C/ 60 min.)	<5x10 ⁻⁴ ohm-cm
Dielectric Strength (Volts/mil)	N/A
Glass Transition Temp.(°C)	0 ±10%
Lap-Shear Strength	>890 psi >6.1 N/mm ²
Device Push-off Strength	>2400 psi >16.6 N/mm ²
Hardness (Type)	82 (A) ±10%
Cured Density (gm/cc)	3.5 ±10%
Thermal Conductivity	45 Btu-in/hr-ft ² -°F ±10% 6.4 W/m-°C ±10%
Linear Thermal Expansion Coeff. (ppm/°C)	110 ±15%
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

Post-curing at 125C for 24 hours is required to pass NASA outgassing testing. The die or component can be tacked on the substrate with 3-5 psi, at 80C to 100C. 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. Use 100C 1 hr prior to using the 125C and 150C cures. Pot life is 48 hrs @ 25C.

SHELF LIFE:

Storage temperature	Shelf Life
-40°C	12 months

in original 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. 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 AI Technology be liable for accidental, consequential or other damages arising from the use or handling of this product.

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