



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 FILM
TC8750

Stress Free
Reworkable
Electrically Conductive
B-Staged Epoxy Film Adhesive

IDEAL FOR:

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

DESCRIPTION:

TC8750 is a reworkable, silver-filled, B-staged epoxy film adhesive, designed for bonding component and substrate to a mismatched substrate or carrier. TC8750 offers excellent reworkability at 80-150°C.

Designed to meet the hybrid adhesive specification MIL-STD-883; Method 5011.4. TC8750 exhibits low outgassing at 125°C and passes NASA outgassing requirements. It has excellent thermal conductivity and its low Tg adhesive imposes minimum thermal stress on bonded parts during thermal cycling or shock testing. The adhesive film typically can be used for most applications at temperature from -65 to 150°C. Customers must test the adhesive for their specific application(s) to confirm its suitability.

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.
- (2) Cut to desired size. Remove one side of the release paper by peeling up a corner of the release liner
- (3) Fold the release liner over to 180°. Pull quickly removing it with one stroke before applying to the application. Then, release other liner.
- (4) This film adhesive can be B-staged at 60°C for 2-3 hours to achieve less adhesive flow.

TYPICAL PROPERTIES*

Electrical Resistivity (150°C/ 60 min.)	5×10^{-4} ohm-cm
Dielectric Strength (Volts/mil)	Not Applicable
Glass Transition Temp.(°C)	0
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)
Cured Density (gm/cc)	3.5
Thermal Conductivity	45 Btu-in/hr-ft ² -°F 6.4 W/m-°C
Linear Thermal Expansion Coeff. (ppm/°C)	110
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 150°C for 16 hours is required for MIL-STD 883; Method 5011.4 applications. The die or component can also be tacked on the substrate with 5 psi, at 80°C or higher. 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
-40°C	1 yr

CAUTION: This product may cause skin irritation. Avoid skin contact. If contact does occur, wash immediately with soap and water. Please refer to MSDS 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 A.I. Technology be liable for accidental, consequential or other damages arising from the use or handling of this product.

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(5) Cure according to the recommended schedules.

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