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TACK FILM
TK7755

Stress Free
Reworkable
High Thermal Conductivity
Epoxy Film Adhesive

IDEAL FOR:

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

DESCRIPTION:

Tack-film TK7755 is a reworkable, alumina-filled, epoxy film adhesive. It is designed for bonding component and substrate to a mismatched substrate or carrier. This B-Staged conductive adhesive offers excellent reworkability at 80-150°C and is storable at -40°C for one year.

Designed to meet the hybrid adhesive specification MIL-STD-883E/Method 5011.4. TK7755 exhibits low outgassing at 125°C. TK7755 has excellent thermal conductivity and its low Tg adhesive imposes minimum thermal stress on bonded parts during thermal cycling or shock testing.

AVAILABILITY:

TK7755 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, as received, at ambient for 15 minutes.
- (2) Cut to desired size.) Clean contact surfaces if needed.
- (4) Fold the release paper over, approaching a 180° angle. Pull the release paper quickly, removing it with one stroke.
- (5) Apply to substrate, then remove other side of release paper and attach die or component.
- (6) Cure using to one of the recommended schedules.

TYPICAL PROPERTIES*

Electrical Resistivity (150 °C/ 30 minut)	>1x10 ¹⁴ ohm-cm
Dielectric Strength (Volts/mil)	750
Glass Transition Temp.(°C)	-25
Lap-Shear Strength	1000 psi 6.9 N/mm ²
Device Push-off Strength	2400 psi 16.6 N/mm ²
Hardness (Type)	82 (A)
Cured Density (gm/cc)	2.3
Thermal Conductivity	12 Btu-in/hr-ft ² -°F 1.7 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	30 min	3-5 psi
200°C	10 min	3-5 psi
300°C	10 sec	3-5 psi

Post-curing at 150°C for 16 hours is required for MIL-STD 883E, Method 5011.4 applications. 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:

Storage temperature	Shelf Life
-40°C	1 yr
0°C	6 mo

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.

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