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Stress Free
 High Thermal Conductivity
 Reworkable
 Epoxy Film Adhesive

IDEAL FOR:

- Large Area Die Attach
- Substrate and Component
- Reworkability
- Mismatched CTE's

DESCRIPTION:

Tack-film TK7758 is a reworkable, aluminum nitride-filled, electrically insulating epoxy film adhesive. It is designed for bonding die, 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.

TK7758 has excellent thermal conductivity. Its low Tg adhesive imposes minimum thermal stress on bonded parts during thermal cycling or shock testing.

AVAILABILITY:

TK7758 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 package, as received, at ambient for 15 minutes.
- (2) Cut to desired size. Clean contact surfaces if needed.
- (3) Remove one side of the release liner by peeling up a corner of the release liner. Fold the release liner over, approaching a 180° angle.
- (4) Pull the release liner quickly, removing it with one stroke. Apply to substrate, then remove other side of release liner and attach die or component.
- (5) Cure using one of the recommended cure schedules.

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.

While AI Technology owns all proprietary rights of material formulations of its products, specific usage in the manufacturing of certain products may involve patent rights of other companies.

TACK FILM
TK7758

TYPICAL PROPERTIES*

Electrical Resistivity (150 °C/ 60 minutes)	>1x10 ¹⁴ ohm-cm
Dielectric Strength (Volts/mil)	>750 ±10%
Glass Transition Temp.(°C)	-25 ±10%
Lap-Shear Strength	1000 psi ±10% 6.9 N/mm ² ±10%
Device Push-off Strength	2400 psi ±10% 16.6 N/mm ² ±10%
Hardness (Type)	82 (A) ±10%
Cured Density (gm/cc)	2.3 ±10%
Thermal Conductivity	25 Btu-in/hr-ft ² -°F ±10% 3.6 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

Pot Life ~ 72 hrs @ 25°C

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