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Stress-Free

Tacky Epoxy Film Adhesive
Diamond Filled, Ultra High
Thermal Conductivity

IDEAL FOR:

High Power Die Attach
 Substrate and Component

DESCRIPTION:

RTK7659 is a tack-film, reworkable, diamond-filled, epoxy film adhesive designed for bonding die, component and substrate to a mismatched substrate or carrier. This B-Staged, dielectric adhesive offers excellent reworkability at 80-150°C.

RTK7659 has excellent thermal conductivity and the low Tg of the adhesive imposes minimum thermal stress on bonded parts during thermal cycling or shock testing.

AVAILABILITY:

RTK7659 is available in reels, sheets, or as custom preforms. Standard thicknesses are 0.003" and 0.006". Special thicknesses are available. This material is a self supporting tacky film adhesive.

APPLICATION PROCEDURES:

- (1) Keep product at room temperature for 15 minutes before using.
- (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 according to 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.

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TACK-FILM
RTK7659

TYPICAL PROPERTIES*

Electrical Resistivity (150 °C/ 60 minutes)	>1x10 ¹⁴ ohm-cm
Dielectric Strength (Volts/mil)	>750 ±10%
Glass Transition Temp.(°C)	-60 ±10%
Lap-Shear Strength	1000 psi 6.9 N/mm ²
Device Push-off Strength	>2000 psi >13.8 N/mm ²
Hardness (Type)	85 (A) ±10%
Cured Density (gm/cc)	2.3 ±10%
Thermal Conductivity	80 Btu-in/hr-ft ² -°F ±10% 11.4 W/m-°C ±10%
Linear Thermal Expansion Coeff. (ppm/°C)	110 ±15%
Maximum Continuous Operation Temp. (°C)	<150

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CURE SCHEDULES:

<u>Temperature</u>	<u>Time</u>	<u>Pressure</u>
100°C	2 hr	5-10 psi
125°C	1 hr	5-10 psi
150°C	30 min	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