BOND® 2670B

Fast cure adhesive for Optoelectronic devices

(VS. 8387B 主要用于CMOS 低溫固化,适用于LCP,PBT,PA 等)

BOND® 2670B nonconductive die attach adhesive has been formulated for use in high throughput die attach applications. This adhesive can be fast cured using directed heat energy or hot plate curing techniques.

In conventional box or convection conveyor oven curing, it will cure at temperatures as low as 70ºC.

Features:

- Cure: Head Cure (70ºC)
- Product Benefits
  - Minimum bleed and minimal volatiles
  - Good adhesion to a variety of substrates
  - High hot/wet die shear strength
  - 260ºC reflow capability for Pb-free applications
  - Non-conductive
- Black pigmentation for blocking stray light
- Very good adhesion to LCP/PBT/PA
- Very good adhesion to FR4, gold, preplated leadframe and aluminum
- For the bonding of bare semiconductors (ICs) to metal lead frames, rigid printed circuit boards and ceramic substrates

UNCURED PROPERTIES		TEST DESCRIPTION
Appearance	Black	
Viscosity @ 25℃	60,000~80.000cps	Brookfield RVDV-II@ 5rpm
Thixotropic Index @ 25℃	≥ 4.5	Brookfield RVDV-II@ 5rpm Visc. @ 0.5rpm/Visc @ 5rpm
Work Life by Gel Time @ 25℃	48 hours	25% increase in visc. @ 5rpm
Shelf Life@ -20℃	12month	
CURE CONDITION		**TEST DESCRIPTION**
Standard Cure Condition		2 minutes @ 150°C
Standard Cure condition		30 minutes @ 70°C
MECHANICAL PROPERTIES-POST CURE		**TEST DESCRIPTION**
Die Shear Strength @ 25℃ 10 kg/die		2mm×2mm Si die on Ag/Cu LF (80mil×80 mil)
PHYSIOCHEMICAL PROPERTIES-POST CURE		**TEST DESCRIPTION**
Weight Loss on Cure@ 200℃	<1 %	Thermo gravimetric Analysis
Glass Transition Temperature	100℃	DSC

The figures shown above are typical values only. If you need to write a specification, please request our current Standard Release Specification.

Below Tg	70ppm/°C	Coefficient of Thermal Expansion
Above Tg	180ppm/°C	
Thermal Conductivity	0.4 W/mK	
Chloride (Cl-)	<10 ppm	Extraction
Sodium (Na+)	<10 ppm	
Potassium (K+)	<10 ppm	
Water Content @ 85°C/85°RH	＜0.5%	Moisture Absorption @ Saturation,

GENERAL INFORMATION

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

THAWING:

1. Allow container to reach room temperature before use.
2. After removing from the freezer, set the syringes to stand vertically while thawing.
3. DO NOT open the container before contents reach 25°C temperature.
   Any moisture that collects on the thawed container should be removed prior to opening the container.
4. DO NOT re-freeze. Once thawed to -20°C, the adhesive should not be re-frozen.

DIRECTIONS FOR USE

1. Thawed adhesive should be immediately placed on dispense equipment for use.
2. If the adhesive is transferred to a final dispensing reservoir, care must be exercised to avoid entrapment of contaminants and/or air into the adhesive.
3. Adhesive must be completely used within the product's recommended work life.
4. Apply enough adhesive to achieve a 25 to 50 µm wet bondline thickness, dispensed with approximately 25 to 50 % filleting on all sides of the die.
5. Alternate dispense amounts may be used depending on the application requirements.
6. Star or crossed shaped dispense patterns will yield fewer bondline voids that the matrix style of dispense pattern.

APPLICATION GUIDELINES

UNPACKING

Transfer the syringes from the dry ice to a -20°C freezer without ANY delays. Freeze-thaw voids will form in the syringes if the syringes are repeatedly thawed and refrozen.

STORAGE

This product must be stored at -20°C. The shelf life of the material is only valid when the material has been stored at the specified storage condition. Incorrect storage conditions will degrade the performance of the material in both handling (e.g. dispensing or screen printing) and final cured properties.

THAWING

Allow the container to reach room temperature before use. After removing from the freezer, set the syringes to stand vertically while thawing.

DO NOT open the container before contents reach ambient temperature. Any moisture that collects on the thawed container should be removed prior to opening the container.