



EXBOND 8300C

Electrically Conductive Die Attach Adhesive

July 2017

PRODUCT DESCRIPTION

It has been formulated for die attach application with high throughput, automatic die attach equipment; It can provide excellent rheology property which can avoid tailing or stringing problems.

FEATURES

Solvent-free, high reliability;
Excellent dispensability with minimal tailing and stringing;
Good adhesion on various materials.

Typical Uncured Properties	EXBOND 8300C	Test Description
Filler	Silver	N/A
Viscosity	8500 cP	Brookfield CP51@5rpm
Thixotropic Index	5.5	Viscosity@0.5rpm/Viscosity@5rpm
Work Life	24 hours	25% increase in viscosity @25°C
Storage Life	1 year	@-40°C
Cure process Data	EXBOND 8300C	Test Description
Recommend Cure condition	3-5°C/min ramp to 175°C+1hour @ 175°C (Ramp-up can avoid void and improve the adhesive strength)	
Alternate Cure Condition	1 hour @ 175°C or 2 hours @ 150°C	
Weight Loss on Cure	1.5%	TGA
Physiochemical Properties -Post Cure	EXBOND 8300C	Test Description
Glass Transition Temperature (Tg)	105°C	TMA penetration mode
Weight Loss @ 300°C	0.3%	TGA, RT~300°C
Coefficient of Thermal Conductivity	2.6 W/ m·K	Laser, 121°C
Volume Resistivity	1.0×10 ⁻⁴ Ω·cm	2-point probe
Die Shear Strength	25°C	6.3 kgf/die
	260 °C	0.37 kgf/die

The data above indicate typical values only and are not intended to be used as specification limits.

APPLICATION GUIDELINES

SHIPMENT

This Bonotec product is shipped with dry ice. The ambient temperature inside the package is less than -40°C .

UNPACKING

Transfer the syringes from the dry ice to a -40°C freezer without ANY delay. Freeze-thaw void is easy to form in the syringes if the syringes are repeatedly thawed and refrozen.

STORAGE

This Bonotec product must be stored at -40°C . Its shelf life is only valid when the product has been stored at this specified condition. Incorrect storage will degrade the performance of the material in both handling (e.g. dispensing or screen printing) and post-cured properties.

Alternate storage conditions may be used as follows:

THAWING

Allow the container to reach room temperature before use. After removing it from the freezer, set the syringes to stand vertically while thawing. Any moisture that collects on the thawed container should be removed prior to opening the container. Refer to the Syringe Thaw Time chart for recommendation.

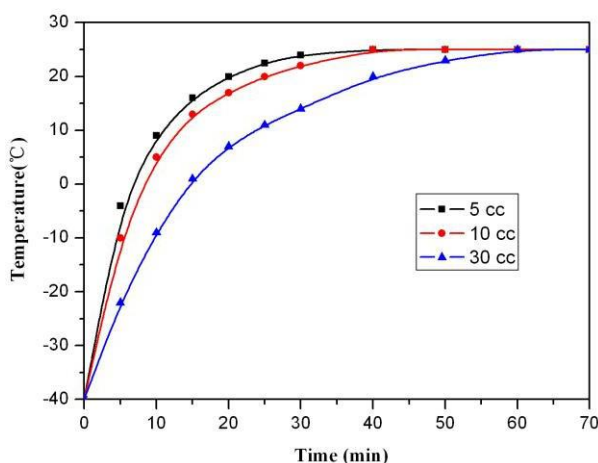


Fig.1 Syringe Thaw Time

DO NOT open the container before contents reach ambient temperature.

It is not recommended that the adhesive be re-frozen once thawed to room temperature.

ADHESIVE APPLICATION

Thawed adhesive should be immediately placed on dispense equipment for use. If the adhesive is transferred to another dispensing reservoir, care must be exercised to avoid entrapment of contaminants and/or air into the adhesive. Adhesive must be completely used within the product's recommended work life.

Contact your Bonotec Technical Service Department for detailed recommendation.

CURE

This adhesive should be cured per the recommended cure condition. Also refer to the Cure Process Data section of the Technical Datasheet.

AVAILABILITY

Bonotec products are packaged in syringes or jars per customer specification. Available package sizes range from 1cc to 30cc and 1 ounce to 1 pound. For details, refer to the Bonotec Standard Package Data Set or consult your Customer Service Representative.

CAUTION: This product may cause skin irritation in sensitive persons. Avoid skin contact. If contact does occur, wash area immediately with soap and water. Please refer to the Material Safety Data Sheet for more details.

DISCLAIMER: The figures shown above are typical values only and not intended to be used as specification limits. All technical information and recommendations contained herein are based on manufacturer's test, and are believed to be accurate, but no guarantee of accuracy is made.

Users shall determine the suitability of the products for their own intended application, based on their own operation condition and process control. Engineers from Bonotec are available to assist the users in their particular purposes. Nobody is authorized to waive or change the foregoing provisions.