

LOCTITE ABLESTIK ABP 8611

June 2012

PRODUCT DESCRIPTION

LOCTITE ABLESTIK ABP 8611 provides the following product characteristics:

Technology	BMI Hybrid
Appearance	Light yellow paste
Product Benefits	<ul style="list-style-type: none"> • High adhesion to metal leadframes • High modulus at high temperature • Excellent dielectric properties • Suitable for small die, Cu wire bonding
Cure	Heat cure
Application	Die attach

LOCTITE ABLESTIK ABP 8611 adhesive is designed for die attach applications as well as component attach. Its high dielectric property helps eliminate current leakage and short circuit occurrence in voltage isolation applications. LOCTITE ABLESTIK ABP 8611 die attach adhesive is formulated with a high modulus and adhesion at wirebond temperatures making the material suitable for use on copper wire bonding applications where die shift issues during processing should be avoided.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Thixotropic Index (0.5/5 rpm)	3.8
Viscosity, Brookfield CP51, 25 °C, mPa·s (cP):	
Speed 5 rpm	16,000
Work Life @ 25°C, hours	24

TYPICAL CURING PERFORMANCE

Cure Schedule

30 minute ramp to 175°C + 60 minutes @ 175°C

The above cure profiles are guideline recommendations. Cure conditions (time and temperature) may vary based on customers' experience and their application requirements, as well as customer curing equipment, oven loading and actual oven temperatures.

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties

Bulk Thermal Conductivity, W/(m-K)	0.7
Tensile Modulus:	
@ 25°C	N/mm ² 5,000 (psi) (725,188)
@ 200°C	N/mm ² 550 (psi) (79,770)
@ 250°C	N/mm ² 450 (psi) (65,266)

Electrical Properties

Volume Resistance, ohm-cm:	
@ 700 Volts	9.9×10 ¹⁸
@ 1,000 Volts	1.4×10 ¹⁹

TYPICAL PERFORMANCE OF CURED MATERIAL

Die Shear Strength:

2 X 2 mm (80 x 80 mil) Si die:

On Bare Cu LF, kg-f:	
@ 25°C	10.5
@ 260°C	2.5
On Ag/Cu LF, kg-f:	
@ 25°C	11.0
@ 260°C	3.0
On PPF LF, kg-f:	
@ 25°C	10.5
@ 260°C	1.5

GENERAL INFORMATION

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

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 25°C, the adhesive should not be re-frozen.

DIRECTIONS FOR USE

1. Frozen storage is recommended.
2. Thawed adhesive should immediately be placed on dispense equipment for use.
3. 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.
4. Adhesive must be completely used within the product's recommended work life.

Not for product specifications

The technical data contained herein are intended as reference only. Please contact your local quality department for assistance and recommendations on specifications for this product.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage : -40 °C

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$

$\text{kV/mm} \times 25.4 = \text{V/mil}$

$\text{mm} / 25.4 = \text{inches}$

$\text{N} \times 0.225 = \text{lb}$

$\text{N/mm} \times 5.71 = \text{lb/in}$

$\text{psi} \times 145 = \text{N/mm}^2$

$\text{MPa} = \text{N/mm}^2$

$\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$

$\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$

$\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$

$\text{mPa}\cdot\text{s} = \text{cP}$

more United States or foreign patents or patent applications.

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Reference 0.2

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