

LOCTITE ABLESTIK ABP 8067TA

February 2020

PRODUCT DESCRIPTION

LOCTITE ABLESTIK ABP 8067TA provides the following product characteristics:

Technology	BMI Hybrid
Appearance	Silver
Cure	Heat cure
Product Benefits	<ul style="list-style-type: none"> • One component • High thermal conductivity • High electrical conductivity • Long open time • Minimal RBO • High die shear strength
Application	Semiconductor material, Conductive adhesive
Key Substrate	Au, PPF, Ag
Typical Applications	High power sensors

LOCTITE ABLESTIK ABP 8067TA highly filled, conductive die attach adhesive is designed to provide high thermal and electrical conductivity in the attachment of integrated circuits and components onto metal leadframes.

This product is specially designed to deliver long open time and minimized RBO on various surfaces including Au, PPF, etc. The material is hydrophobic and stable at high temperatures for better reliability performance.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Thixotropic Index (0.5/5.0 rpm)	5.0
Viscosity, Brookfield, 25 °C, mPa·s (cP):	
Speed 5 rpm	11,000
Work Life @ 25°C, hours	24
Shelf Life @ -40 °C (from date of manufacture), days	365
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

45 minutes ramp from 25°C to 200°C, hold 60 minutes
@ 200°C in N2 oven

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

Glass Transition Temperature, (Tg) by TMA, °C	34
Coefficient of Thermal Expansion, TMA expansion:	
Below Tg, ppm/°C	50
Above Tg, ppm/°C	110
Thermal Conductivity, W/(m·K)	12
Extractable Ionic Content, @ 100°C:	
Chloride (Cl-), ppm	<10
Sodium (Na+), ppm	<10
Potassium (K+), ppm	<10
DMA Modulus:	
@ 25°C	N/mm ² 7,400 (psi) (1.07×10 ⁻⁶)
@ 250°C	N/mm ² 750 (psi) (109,000)

Electrical Properties

Volume Resistivity, ohm-cm	2.5×10 ⁻⁵
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TYPICAL PERFORMANCE OF CURED MATERIAL

Shear Strength

Die Shear Strength:	
2 x 2 mm Si die on Au, kg-f:	
@ 25°C	8.0
@ 250 °C	2.5
2 x 2 mm Si die on PPF, kg-f:	
@ 25 °C	9.0
@ 250°C	2.8

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.

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

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\text{N} \times 0.225 = \text{lb/F}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{psi} \times 145 = \text{N/mm}^2$
 $\text{MPa} = \text{N/mm}^2$
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$

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