

# LOCTITE ABLESTIK 8-2

September 2016

## PRODUCT DESCRIPTION

LOCTITE ABLESTIK 8-2 provides the following product characteristics:

<b>Technology</b>	Epoxy
<b>Appearance</b>	Blue
<b>Product Benefits</b>	<ul style="list-style-type: none"> <li>Unfilled</li> <li>Thermally conductive</li> </ul>
<b>Cure</b>	Oven Cure
<b>Application</b>	Die attach

LOCTITE ABLESTIK 8-2 non-conductive die attach adhesive is designed for MEMs package applications. Designed as an instrument adhesive, LOCTITE ABLESTIK 8-2 adhesive offers eight times the thermal conductivity of unfilled epoxies. Bonds made with LOCTITE ABLESTIK 8-2 can withstand continuous exposure @ 150 °C and intermittent exposure @ 200°C.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity, gm/cc	2.3
Work Life @ 25°C, hours	4
Storage Life :	
In kits @ 25°C, days	365
Premixed & Frozen @ -40°C, days	365

## TYPICAL CURING PERFORMANCE

### Cure Schedule

1.5hours @ 95°C

### Alternate Cure Schedule

45 minutes @ 120°C or  
4 hours @ 75°C or  
24 hours @ 60°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

Hardness, Shore D	90
Glass Transition Temperature (Tg), °C	92
Coefficient of Thermal Expansion, TMA:	
Below Tg, ppm/°C	40
Above Tg, ppm/°C	85
Weight Loss @ 250°C, TGA, %	0.1
Thermal Conductivity @ 121°C, W/(m-K)	1.5

### Electrical Properties

Volume Resistivity, ohm-cm	$8 \times 10^{14}$
Dielectric Constant / Dissipation Factor @ 1 KHz	5.9 / 0.02
Dielectric Strength, volts/mil	500

## TYPICAL PERFORMANCE OF CURED MATERIAL

### Miscellaneous

Lap Shear Strength @ 25 °C:

Al to Al	N/mm <sup>2</sup> 15 (psi) (2,300)
Au to Au	N/mm <sup>2</sup> 17 (psi) (2,600)

## 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. Apply adhesive as required.
3. Assemble bonds.
4. Cure at one of the recommended cure schedules.

### AVAILABILITY

1. LOCTITE ABLESTIK 8-2 adhesive is available in syringes ranging in size from 1 to 30 cc.

### 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:** LOCTITE ABLESTIK 8-2 adhesive packaged in kits may be stored at room temperature (25°C maximum) for up to one (1) year. Premixed and frozen, this adhesive must be continually stored at -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

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

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## Reference 1