

# LOCTITE ABLESTIK 8387BS

August 2012

## PRODUCT DESCRIPTION

LOCTITE ABLESTIK 8387BS provides the following product characteristics:

<b>Technology</b>	Epoxy
<b>Appearance</b>	Black
<b>Cure</b>	Heat cure
<b>Product Benefits</b>	<ul style="list-style-type: none"> <li>• Non-conductive</li> <li>• Black pigmentation for blocking stray light</li> <li>• 30µm polymer spacers for bondline thickness control</li> </ul>
<b>Application</b>	Die attach

LOCTITE ABLESTIK 8387BS single component adhesive is designed for high throughput bonding applications. It contains spacers for improved bondline control.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

Thixotropic Index (0.5/5 rpm)	≥4.5
Viscosity, Brookfield CP51, 25 °C, mPa·s (cP):	
Speed 5 rpm	14,250
Work Life @ 25°C, hours	48
Shelf Life @ -40°C (from date of manufacture), days	365

## TYPICAL CURING PERFORMANCE

### Cure Schedule

1 hour @ 100°C

### Alternate Cure Schedule

90 minutes @ 90°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

Glass Transition Temperature (T <sub>g</sub> ) by TMA, °C	122
Weight Loss @ 300°C, %:	
Wet Paste, %	0.74
Cured Paste, %	0.59
Extractable Ionic Content, ppm:	
Chloride (Cl <sup>-</sup> )	≤50
Sodium (Na <sup>+</sup> )	≤10
Potassium (K <sup>+</sup> )	≤10

### Tensile Modulus, DMTA :

@ -65 °C	N/mm <sup>2</sup>	3,529
	(psi)	(511,838)
@ 25 °C	N/mm <sup>2</sup>	1,919
	(psi)	(278,327)
@ 100 °C	N/mm <sup>2</sup>	790
	(psi)	(114,579)

@ 150 °C	N/mm <sup>2</sup>	118
	(psi)	(17,114)
@ 200 °C	N/mm <sup>2</sup>	87
	(psi)	(12,618)
@ 250 °C	N/mm <sup>2</sup>	75
	(psi)	(10,877)

## TYPICAL PERFORMANCE OF CURED MATERIAL

### Miscellaneous

Die Shear Strength:

3 X 3 mm Si die, kg-f,

Substrate	@25°C
Ag/Cu Leadframe	≥14

## GENERAL INFORMATION

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

### THAWING:

1. This adhesive is packed and shipped in dry ice plus barrier packaging to maintain the material temperature between -40 to -20°C.
2. Allow container to reach room temperature before use.
3. After removing from the freezer, set the syringes to stand vertically while thawing.
4. 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.
5. DO NOT re-freeze. Once thawed to -40°C, the adhesive should not be re-frozen.

### DIRECTIONS FOR USE

1. Thawed adhesive should immediately be 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.

### 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. Storage below minus (-)40 °C or greater than minus (-)40 °C can adversely affect product properties.**

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.

registered in the U.S. Patent and Trademark Office.

Reference 0.2

#### Conversions

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

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

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

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

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

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

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

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

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

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

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

#### Note:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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