

# LOCTITE ABLESTIK ABP 8151D7

February 2016

## PRODUCT DESCRIPTION

LOCTITE ABLESTIK ABP 8151D7 provides the following product characteristics:

|                          |                                                                                                                                  |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Technology</b>        | Silicone                                                                                                                         |
| <b>Appearance</b>        | Black                                                                                                                            |
| <b>Product Benefits</b>  | <ul style="list-style-type: none"> <li>Electrically non-conductive</li> <li>Low modulus</li> <li>Low temperature cure</li> </ul> |
| <b>Cure</b>              | Heat cure                                                                                                                        |
| <b>Application</b>       | Die attach                                                                                                                       |
| <b>Target Package(s)</b> | MEMs                                                                                                                             |

LOCTITE ABLESTIK ABP 8151D7 non-conductive die attach adhesive is designed for MEMs package applications.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

|                                                     |        |
|-----------------------------------------------------|--------|
| Thixotropic Index (0.5/5 rpm)                       | 3.5    |
| Viscosity, Brookfield CP51, 25 °C, mPa·s (cP):      |        |
| Speed 5 rpm                                         | 12,000 |
| Work Life @ 25°C, hours                             | 48     |
| Shelf Life @ -20°C (from date of manufacture), days | 365    |

## TYPICAL CURING PERFORMANCE

### Cure Schedule

30 minute ramp to 150°C, hold 30 minutes in air atmosphere

### Alternate Cure Schedule

30 minute ramp to 80°C, hold 120 minutes in air atmosphere

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 A             | 80                                       |
| Dynamic Tensile Modulus, DMA: |                                          |
| @ -65°C                       | N/mm <sup>2</sup> 99.5<br>(psi) (14,431) |
| @ 25°C                        | N/mm <sup>2</sup> 25.2<br>(psi) (3,654)  |
| @ 150°C                       | N/mm <sup>2</sup> 17.8<br>(psi) (2,581)  |
| @ 250°C                       | N/mm <sup>2</sup> 20.1<br>(psi) (2,915)  |

## TYPICAL PERFORMANCE OF CURED MATERIAL

### Miscellaneous

|                                           |     |
|-------------------------------------------|-----|
| Die Shear Strength:                       |     |
| 1 x 1 mm Si die on Laminate Substrate, Kg | 1.5 |

## GENERAL INFORMATION

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

### 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. 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 : -20 °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**