

# LOCTITE ABLESTIK 57C

September 2015

## PRODUCT DESCRIPTION

LOCTITE ABLESTIK 57C provides the following product characteristics:

Technology	Epoxy
Appearance, Resin (Component A)	Silver
Appearance, Hardener (Component B)	Silver
Components	Two component - requires mixing
Mixing Ratio, by weight Component A: Component B	100 : 100
Mix Ratio, by volume - Part A: Part B	100 : 100
Product Benefits	<ul style="list-style-type: none"> <li>Electrically conductive</li> <li>Thermally conductive</li> <li>Thixotropic</li> <li>Ease of use</li> <li>Good bond strength</li> </ul>
Cure	Room temperature cure
Application	Assembly
Operating Temperature	-40 to +90°C

LOCTITE ABLESTIK 57C adhesive is designed to make electrical connections where hot soldering is impractical and room temperature cure is required.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

### Part A Properties *Part A*

Density, g/cm <sup>3</sup>	3.5
Shelf Life @ 25°C (from date of manufacture), days	120
Flash Point - See SDS	

### Part B Properties *Part B*

Density, g/cm <sup>3</sup>	3.1
Shelf Life @ 25°C (from date of manufacture), days	120
Flash Point - See SDS	

### Mixed Properties

Density, g/cm <sup>3</sup>	3.5
Working Time, 100 g mass, @ 25 °C, minutes	60

## TYPICAL CURING PERFORMANCE

### Cure Schedule

- 16 to 24 hours @ 25°C
- 3 hours @ 65°C
- 45 minutes @ 100°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

Thermal Conductivity, W/(m-K)	7.2
Flexural Strength	N/mm <sup>2</sup> 70 (psi) (10,200)

### Electrical Properties

Volume Resistivity @ 25°C, ohm-cm	0.0006
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### Outgassing Properties

Outgassing, per NASA Reference Publication 1124, %: Sample cured 7 days @ 25°C	
TML	0.52
CVCM	0.04

## TYPICAL PERFORMANCE OF CURED MATERIAL

### Miscellaneous:

Tensile Lap Shear Strength @ 25 °C: Aluminum to Aluminum	N/mm <sup>2</sup> 4.8 (psi) (700)
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## GENERAL INFORMATION

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

## DIRECTIONS FOR USE

- Complete cleaning of the substrates should be performed to remove contamination such as oxide layers, dust, moisture, salt and oils which can cause poor adhesion or corrosion in a bonded part.
- Some separation of components is common during shipping and storage. For this reason, it is recommended that the contents of the shipping container be thoroughly mixed prior to use.
- Accurately weigh resin and hardener into a clean container in the recommended ratio. Weighing apparatus having an accuracy in proportion to the amounts being weighed should be used.
- Blend components by hand, using a kneading motion, for 2 to 3 minutes and scrape the bottom and sides of the mixing container frequently to produce a uniform mixture.
- Apply adhesive to all surfaces to be bonded and join together.
- In most applications only contact pressure is required.

**Storage**

Store in original, tightly covered containers in clean, dry areas. Storage information may be indicated on the product container labeling.

**Optimal Storage : 25 °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.

**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.

**Conversions**

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

**Disclaimer****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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## Reference 1