



# ABLESTIK 60 L Parts A/B

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## PRODUCT DESCRIPTION

LOCTITE ABLESTIK 60L Parts AB provides the following product characteristics:

<b>Technology</b>	Epoxy
<b>Technology (Part B)</b>	Amine
Appearance, Resin (Component A)	Black paste
Appearance, Hardener (Component B)	Black paste
Components	Two component - requires mixing
Mix Ratio, by weight - Resin : Hardener	100 : 15
Product Benefits	<ul style="list-style-type: none"><li>Electrically conductive</li><li>Good thermal conductivity</li><li>Bonds to a wide variety of substrates</li></ul>
Filler Type	Carbon
<b>Cure</b>	Room temperature cure and Heat cure
<b>Application</b>	Electrically Conductive Adhesive
Operating Temperature	-55 to 130 °C

ABLESTIK 60L Parts AB is a carbon filled epoxy adhesive with low electrical conductivity designed for general purpose bonding. It is designed for applications where precise resistive properties such as electro-static discharge is not required. This material adheres well to a variety of substrates. Ablestik 60L has a bulk resistivity of 50 Ohm.cm. Thermal conductivity is excellent.

ABLESTIK 60L is used for general bonding where electrical conductivity must be maintained. The resistance through a thin film (about 1mm) of the material is less than 5 Ohm. Therefore it can be used in some electronic circuitry applications. In making metal to metal joints (as in a cabinet) seal. It has been used between adjacent waveguide flanges for the same purpose. ABLESTIK 60L is used to absorb or attenuate currents flowing on the surface of conductors. It is applied to the metal surface in a thin coat and cured. Adjust thickness as required. Waveguide terminators are made in this manner. ABLESTIK 60L is applied to the waveguide wall in a tapered configuration. The Q of cavities is lowered in a similar way. Surface currents on antenna elements or reflectors can be attenuated. The microwave specular conductivity of a surface is decreased substantially by a thin sprayed coating of ABLESTIK 60L.

The high thermal conductivity of ABLESTIK 60L makes it useful in heat dissipation applications. Volume of the paste up to a quart can be cured at one time. Very large pieces can be made by successive applications. Thermal properties are particularly interesting in tooling applications.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

### Part A Properties

Density, ASTM D792, g/cm <sup>3</sup>	1.46
Shelf Life @ 25°C (from date of manufacture), days	274
Flash Point - See MSDS	

### Part B Properties

Density, ASTM D792, g/cm <sup>3</sup>	1.35
Shelf Life @ 25°C (from date of manufacture), days	274
Flash Point - See MSDS	

### Mixed Properties

Density, ASTM D792, g/cm <sup>3</sup>	1.46
Work Life (100 g) @ 25 °C, hour	1
Flash Point - See MSDS	

## TYPICAL CURING PERFORMANCE

### Cure Schedule

24 hours @ 25°C or
1 hour @ 65°C or
30 minutes @ 100°C

For optimum performance, follow the initial cure with a post cure of 2 to 4 hours at maximum expected operating temperature.

Alternate cure schedules may also be possible. Contact your Henkel representative for further information.

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, ASTM D2214, W/(m-K)	1.2
Flexural strength, ASTM D1184	N/mm <sup>2</sup> 41
	(psi) (6,000)

### Electrical Properties

Volume Resistivity @ 25 °C, ASTM D257, ohm-cm	50
Dielectric Constant at 1MHz, ASTM-D-150	35

## TYPICAL PERFORMANCE OF CURED MATERIAL

Tensile Lap Shear Strength, ASTM D1002:

Al to Al @ 25°C	N/mm <sup>2</sup> 10.4
	(psi) (1,500)



## DIRECTIONS FOR USE

1. 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.
2. 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.
3. 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.
4. 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.
5. Apply adhesive to all surfaces to be bonded and join together.
6. In most applications only contact pressure is required.

## Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

## Maximum 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.

## Conversions

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

## 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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## GENERAL INFORMATION

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

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