

# LOCTITE ABLESTIK 12-1

April 2014

## PRODUCT DESCRIPTION

LOCTITE ABLESTIK 12-1 provides the following product characteristics:

<b>Technology</b>	Silicone
<b>Appearance</b>	Off-white
<b>Cure</b>	Heat cure
<b>Product Benefits</b>	<ul style="list-style-type: none"> <li>Thermally conductive</li> <li>Reworkable</li> <li>Unfilled</li> </ul>
<b>Application</b>	General assembly

LOCTITE ABLESTIK 12-1 temperature resistant silicone adhesive is designed for use at operating temperatures as high as 200°C. This adhesive offers seven times the thermal conductivity of unfilled silicone adhesives.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

Work Life @ 25°C, hours	4
Shelf Life @ -40°C (from date of manufacture), year	1
Flash Point - See SDS	

## TYPICAL CURING PERFORMANCE

### Recommended Cure Schedule

1 hour @ 95°C

### Alternate Cure Schedule

4 hours @ 65°C or  
20 minutes @ 150°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 A	90
Coefficient of Thermal Expansion, TMA:	
Below Tg, ppm/°C	55
Above Tg, ppm/°C	150
Glass Transition Temperature (Tg) by TMA, °C	12
Thermal Conductivity @ 121°C, W/(m-K)	1.3

### Electrical Properties

Volume Resistivity, ohm-cm	1×10 <sup>14</sup>
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## TYPICAL PERFORMANCE OF CURED MATERIAL

Lap Shear Strength @ 25 °C, Al to Al	N/mm <sup>2</sup>	2.07
	(psi)	(300)

## 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. Apply adhesive as required.
2. Assemble bonds.
3. Cure at one of the recommended cure schedules.
4. For improved adhesion, we recommend using a primer such as Dow Corning DC 1200 or General Electric GE SS4120 prior to application of LOCTITE ABLESTIK 12-1 adhesive.

## AVAILABILITY

1. This adhesive is available in metal squeeze tubes in 1cc, 2.5cc and 7.7cc sizes.

### 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.

### Conversions

(°C x 1.8) + 32 = °F  
 kV/mm x 25.4 = V/mil  
 mm / 25.4 = inches  
 N x 0.225 = lb  
 N/mm x 5.71 = lb/in  
 N/mm<sup>2</sup> x 145 = psi  
 MPa = N/mm<sup>2</sup>  
 MPa x 145 = psi  
 N·m x 8.851 = lb·in  
 N·m x 0.738 = lb·ft  
 N·mm x 0.142 = oz·in  
 mPa·s = cP

**Disclaimer**

Reference 0.1

**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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