

LOCTITE ABLESTIK 84-1LMINB

August 2019

PRODUCT DESCRIPTION

LOCTITE ABLESTIK 84-1LMINB provides the following product characteristics:

Technology	Epoxy
Appearance	Silver
Cure	Heat cure
Product Benefits	<ul style="list-style-type: none"> Electrically conductive High purity die attach adhesive Solvent-free
Application	Die attach
Filler Type	Silver
Application Method	Automatic dispenser, Screen print or Hand probe

LOCTITE ABLESTIK 84-1LMINB electrically conductive adhesive is designed for die attach applications.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield CP51, 25 °C, mPa·s (cP):

Speed 5 rpm 60,000

Work Life @ 25°C, days 3

Shelf Life:

@ -10°C (from date of manufacture), days 183

@ -40°C (from date of manufacture), days 365

Flash Point - See SDS

TYPICAL CURING PERFORMANCE

Recommended Curing Conditions

30 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

Coefficient of Thermal Expansion, TMA:

Below Tg, ppm/°C 52

Above Tg, ppm/°C 150

Glass Transition Temperature, °C 117

Thermal Conductivity @ 121°C, W/(m·K) 4.5

Extractable Ionic Content, :

Chloride (Cl-) 80

Sodium (Na+) 25

Potassium (K+) 5

Water Extract Conductivity, µmhos/cm 15

pH 4.4

Electrical Properties

Volume Resistivity, ohms-cm 0.0001

TYPICAL PERFORMANCE OF CURED MATERIAL

Adhesive Properties

Miscellaneous

Die Shear Strength @ 25°C :

2 X 2mm (80 x 80mil) Au to Au, kg-f/die 10

TYPICAL ENVIRONMENTAL RESISTANCE

Outgassing Properties

Outgassing, NASA Outgassing:

TML, % 0.9

CVCM, % 0.02

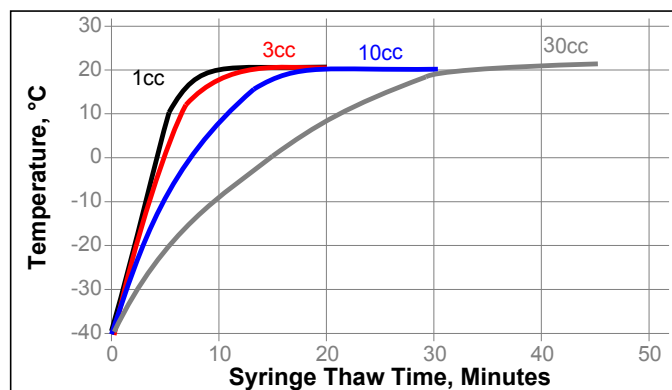
WVR, % 0.07

GENERAL INFORMATION

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

THAWING:

1. Allow material 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 the recommended cure schedule.

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

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

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

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

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

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

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

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

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

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

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

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

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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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