

LOCTITE ABLESTIK 77-1S

August 2012

PRODUCT DESCRIPTION

LOCTITE ABLESTIK 77-1S provides the following product characteristics:

Technology	Epoxy
Appearance	blue
Cure	Heat cure
Product Benefits	<ul style="list-style-type: none">• Electrically Insulating• Solvent-free• One component• Excellent moisture resistance• Soft, smooth consistency• No tailing or sagging
Application	Surface Mounted Devices
Application Method	Screening, Pin transfer or Dot dispense

LOCTITE ABLESTIK 77-1S adhesive is designed for attaching surface mounted devices to printed circuit boards prior to wave solder.

TYPICAL PROPERTIES OF UNCURED MATERIAL

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

Speed 5 rpm 47,000

Work Life @ 25°C, days 91

Shelf Life:

@ 5°C, days 91

@ -40°C, days 365

Flash Point - See SDS

TYPICAL CURING PERFORMANCE**Recommended Curing Conditions**

3 minutes @ 150°C

Alternative Curing Conditions

10 seconds @ 200°C

2 minutes @ 175°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 55

Above Tg, ppm/°C 110

Glass Transition Temperature, °C 200

Thermal Conductivity @ 121°C, W/(m·K) 0.5

After 24 hours Water Immersion, ohm-cm 1.1×10^{11}

Hardness, Shore D 94

Weight Loss @ 250°C, % 0.33

Electrical Properties:

Volume Resistivity, ohms-cm: 1.3×10^{12}

After 24 hrs Water Immersion, ohm-cm 1.1×10^{11}

Dielectric Constant @ 1KHz 4.6

Dissipation Factor @ 1KHz 0.017

TYPICAL PERFORMANCE OF CURED MATERIAL

Lap Shear Strength @25°C

(Glass to glass):

Al to Al N/mm² 13.79
(psi) (≥2,000)

Device Shear Strength:

Ceramic Capacitors, grams 1,000

Thick Film Resistors, grams 2,000

SOTs, grams 3,000

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.
4. To satisfy the seated heights of SOT device, narrow peaks or multiple dots may be used.

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

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

Disclaimer**Note**

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