

LOCTITE ABLESTIK 85-1

June 2021

PRODUCT DESCRIPTION

LOCTITE ABLESTIK 85-1 provides the following product characteristics:

Technology	Epoxy
Appearance	Gold Brown
Cure	Heat cure
pH	5.0
Product Benefits	Electrically conductive
Application	Die attach
Filler Type	Gold

LOCTITE ABLESTIK 85-1 adhesive is designed for hybrid applications where silver migration is a critical concern.

MIL-STD-883

LOCTITE ABLESTIK 85-1 meets the requirements of MIL-STD-883, Method 5011.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Work Life @ 25°C, days	2
Shelf Life @ -40°C (from date of manufacture), days	365

TYPICAL CURING PERFORMANCE

Cure Schedule

1 hour @ 150°C

Alternate Cure Schedule

2 hours @ 125°C

The above cure profiles are guideline recommendations. Cure conditions (time and temperature) may vary based on customers' experience and specific 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, ppm/°C:	
Below Tg	52
Above Tg	200
Glass Transition Temperature (Tg) by TMA, °C	107
Thermal Conductivity @ 121°C, W/°C	2.07
Extractable Ionic Content, :	
Chloride (Cl ⁻)	115
Sodium (Na ⁺)	10
Potassium (K ⁺)	5
Water Extract Conductivity, μmhos/cm	15
Weight Loss @ 300°C, %	0.22

Electrical Properties

Volume Resistivity, ohms-cm	≤0.001
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TYPICAL PERFORMANCE OF CURED MATERIAL

Miscellaneous

Die Shear Strength :

2 x 2 mm, Au to Au @ 25°C	N/mm ²	49
	(psi)	(7,050)

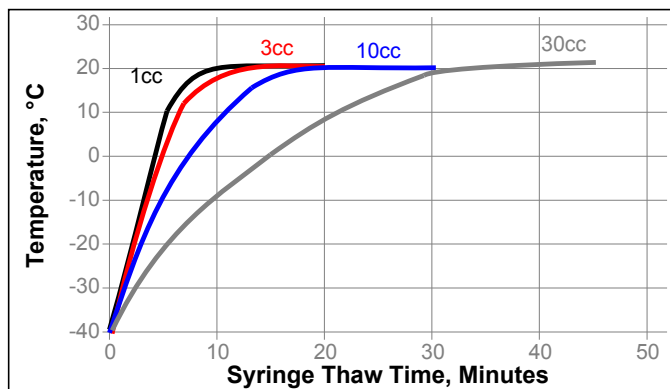
Lap Shear Strength, psi ≥1,800

GENERAL INFORMATION

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

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 -40°C, the adhesive should not be re-frozen.
5. Refer to the Syringe Thaw time chart for the thaw time recommendation.



Directions for Use

1. Thawed material 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.

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.

AVAILABILITY

LOCTITE ABLESTIK 85-1 adhesive is available in 2gram vials, 0.5 ounce jars, 1ounce jars (by weight) or 1cc syringes.

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 Henkel Representative.

Conversions

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

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

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

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

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

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

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

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

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

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

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

Disclaimer

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Reference 0.2