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LOCTITE

Technical Data Sheet

LOCTITE ABLESTIK 84-1LMINB1

July 2015

PRODUCT DESCRIPTION

LOCTITE ABLESTIK 84-1LMINB1 provides the following product characteristics:

Technology	Epoxy
Appearance	Silver
Cure	Heat cure
Product Benefits	• Electrically conductive • Long work life • Bonds difficult to wet surfaces
Application	Die attach
Filler Type	Silver
Typical Package Application	Capacitor terminations

LOCTITE ABLESTIK 84-1LMINB1 die attach adhesive is formulated to bond difficult-to-wet surfaces such as palladium-silver capacitors terminations. This adhesive reduces capacitor shorting problems caused by resin bleed.

MIL-STD-883

LOCTITE ABLESTIK 84-1LMINB1 meets the requirements of MIL-STD-883, Method 5011.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield CP51, 25 °C, mPa·s (cP):	
Speed 5 rpm	50,000
Work Life @ 25°C, hours	>24
Shelf Life (from date of manufacture):	
@ 5ºC, months	3
@ -10ºC, months	6
@ -40ºC, year	1

TYPICAL CURING PERFORMANCE

Cure Schedule

1 hour @ 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 :	
Below Tg, ppm/°C	50
Above Tg, ppm/°C	130
Glass Transition Temperature (Tg) by TMA, °C	90
Thermal Conductivity, W/(m-K)	3.9
Extractable Ionic Content, ppm:	
Chloride (Cl-)	≤20
Sodium (Na+)	≤20
Potassium (K+)	≤10
Water Extract Conductivity, µmhos/cm	9.7
Weight Loss @ 300ºC, %	0.2

Electrical Properties

Volume Resistivity, ohms-cm	0.0003

TYPICAL PERFORMANCE OF CURED MATERIAL

Die Shear Strength vs Temperature, kg-f:

2 X 2 mm , psi,

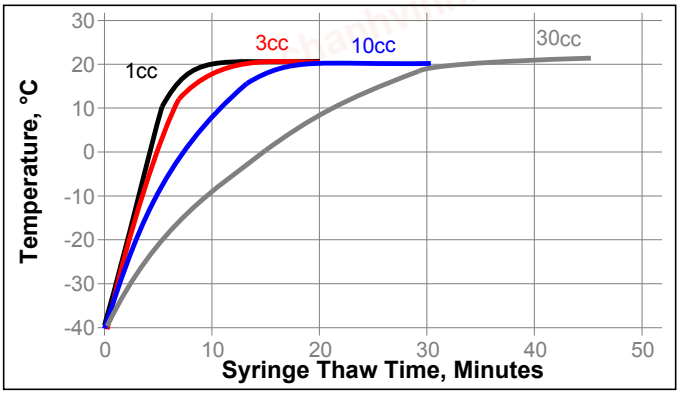
Substrate	@25°C	@250°C
IC	6200	1200

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. Refer to the Syringe Thaw time chart for the thaw time recommendation.
4. 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.
5. DO NOT re-freeze. Once thawed to -40°C, the adhesive should not be re-frozen.



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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 products recommended work life.
4. Silver-resin separation may occur if the adhesive is left out at 25 °C beyond the 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.

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/mm² x 145 = psi
MPa = N/mm²
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
Note
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