

LOCTITE ABLESTIK GA7

December 2016

PRODUCT DESCRIPTION

LOCTITE ABLESTIK GA7 provides the following product characteristics:

Technology	Epoxy
Appearance	Silver
Cure	Heat cure
Product Benefits	<ul style="list-style-type: none"> Conductive Quick cure Single component Good dispensability Rheology suitable for high speed dispense and stamping process Rapid bond strength development No bleed on Bare ceramic and Au
Application	Die attach
Filler Type	Silver
pH	6.08

LOCTITE ABLESTIK GA7 adhesive is designed for use in automated assembly operations. In bonding applications where a physical rather than a chemical bond is required, this adhesive successfully bonds semi-porous materials such as ferrites.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Thixotropic Index (0.5/5 rpm)	4.7
Viscosity, Brookfield CP51, 25 °C, mPa·s (cP):	
Speed 5 rpm	9,500
Work Life @ 25°C, hours	24
Shelf Life (from date of manufacture):	
@ -15°C, days	183
@ -40°C, days	365
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

2 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, cure 15 minutes @ 150 °C:	
Below Tg, ppm/°C	22
Above Tg, ppm/°C	100

Glass Transition Temperature, Tan Δ Max, °C 142

Tensile Modulus, DMTA :

@ 50 °C	N/mm ² 6,600 (psi) (957,250)
@ 100 °C	N/mm ² 5,000 (psi) (725,190)
@ 150 °C	N/mm ² 1,750 (psi) (253,820)
@ 200 °C	N/mm ² 870 (psi) (126,180)
@ 250 °C	N/mm ² 640 (psi) (92,820)

Extractable Ionic Content, :

Chloride (Cl-)	≤20
Sodium (Na+)	≤20
Potassium (K+)	≤20

Water Extract Conductivity, μmhos/cm 13.3

Weight Loss TGA, Ramp to 250°C, % 0.037

Electrical Properties:

Volume Resistivity, ohms-cm 0.003

TYPICAL PERFORMANCE OF CURED MATERIAL

Die Shear Strength :

2 X 2 mm Si die, kg-f/die,
Post Cure, cured 2 minutes @ 150°C

Substrate	@25°C
Ag/Cu plated LF	18.1
Au plated LF	18.7

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, the adhesive should not be re-frozen.

DIRECTIONS FOR USE

1. This adhesive is designed for pin transfer, dot dispensing and/or syringe applications.
2. Dispense the desired amount of material and place slider/die/crystal into deposit using downward force to achieve desired bondline.
3. Thawed material should immediately be placed on dispense equipment for use.
4. 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.

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

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

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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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