

LOCTITE ABLESTIK 8700K

August 2021

PRODUCT DESCRIPTION

LOCTITE ABLESTIK 8700K provides the following product characteristics:

Technology	Epoxy
Appearance	white
Cure	Heat cure
Product Benefits	- Non-conductive - Excellent adhesion
Application	Die attach
Substrates	Gold
Typical Assembly Applications	Hybrid components

LOCTITE ABLESTIK 8700K adhesive provides excellent adhesion to thin film and thick film gold surfaces. This adhesive retains its dispensed height after cure, without slumping.

MIL-STD-883

LOCTITE ABLESTIK 8700K meets the requirements of MIL-STD-883, Method 5011.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity @ 25 °C, mPa·s (cP)	45,000
Work Life @ 25°C, days	30
Shelf Life @ -40°C (from date of manufacture), days	365

TYPICAL CURING PERFORMANCE

Cure Schedule

1 hour @ 175°C

Alternative Cure Schedule 1

2 hours @ 160°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, :	
Below Tg, ppm/°C	20
Above Tg, ppm/°C	55
Glass Transition Temperature (Tg) by TMA, °C	165
Thermal Conductivity @ 121°C, W/(m·K)	0.5
Extractable Ionic Content, :	
Chloride (Cl ⁻)	≤50
Sodium (Na ⁺)	≤10
Potassium (K ⁺)	≤5
Weight Loss @ 300°C, %	0.35

Moisture Absorption @ Saturation, wt.% @ 85°C/85%RH	1.98
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Electrical Properties

Volume Resistivity, ohms-cm	3×10 ¹⁴
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Adhesion Properties

Die Shear Strength @ 25°C: 2 x 2 mm gold substrate, kg-f	30
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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.

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.

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.

Not for product specifications

The technical data contained herein are intended as reference only. Please contact your local Henkel representative for assistance and recommendations on the specifications of this product.

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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Reference 0.3