

LOCTITE ABLESTIK 958-2

February 2018

PRODUCT DESCRIPTION

LOCTITE ABLESTIK 958-2 provides the following product characteristics:

Technology	Epoxy
Appearance	Gray
Cure	Heat cure
Product Benefits	- Electrically conductive - Stress absorbing
Application	Die attach
Filler Type	Silver

LOCTITE ABLESTIK 958-2 electrically conductive epoxy adhesive is designed for hybrid die attach. This adhesive system has been toughened to increase the stress-absorbing properties.

TYPICAL PROPERTIES OF UNCURED MATERIAL

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

Speed 5 rpm 47,000

Work Life @ 25°C, days 14

Shelf Life:

@ 5°C, days 91

@ -10°C, days 183

@ -40°C, days 365

Flash Point - See SDS

TYPICAL CURING PERFORMANCE

Weight Loss on Cure

Weight Loss @ 250°C, % 0.3

Recommended Curing Conditions

1 hour @ 150°C

Alternative Curing Conditions

2 hours @ 130°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

Tensile Modulus, DMTA :

@ -65 °C	N/mm ²	8,100
	(psi)	(1,174,500)
@ 25 °C	N/mm ²	6,200
	(psi)	(899,000)
@ 100 °C	N/mm ²	1,100
	(psi)	(159,500)
@ 150 °C	N/mm ²	240
	(psi)	(34,800)

@ 200 °C	N/mm ²	250
	(psi)	(36,250)
@ 250 °C	N/mm ²	260
	(psi)	(37,700)

Extractable Ionic Content, :

Chloride (Cl-) ≤140

Sodium (Na+) ≤40

Potassium (K+) ≤5

Electrical Properties

Volume Resistivity, ohms-cm ≤0.0002

TYPICAL PERFORMANCE OF CURED MATERIAL

Shear Strength

Die Shear Strength @ 25°C:

80 x 80 mil Si die on Au, kg-f/die 18

Lap Shear Strength:

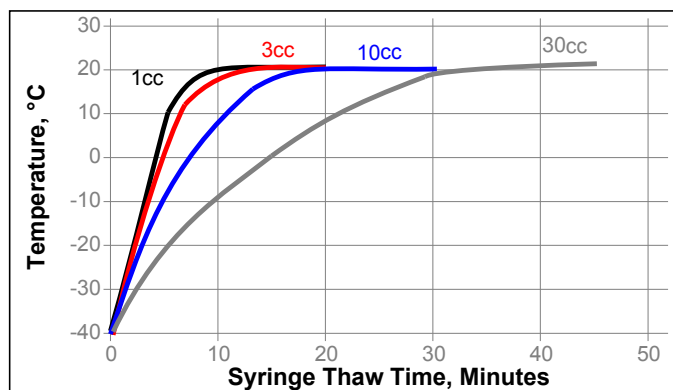
Al to Al @ 25°C N/mm² 11.03
(psi) (≥1,600)

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 25°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.
4. Apply enough adhesive to achieve a 25 to 50 µm wet bondline thickness, dispensed with approximately 25 to 50 % filleting on all sides of the die.
5. Alternate dispense amounts may be used depending on the application requirements.
6. Star or crossed shaped dispense patterns will yield fewer bondline voids than the matrix style of dispense pattern.

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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Reference 0.2