

LOCTITE® ABLESTIK ABP 2032S

August 2019

PRODUCT DESCRIPTION

LOCTITE® ABLESTIK ABP 2032S provides the following product characteristics:

Technology	Epoxy
Appearance	Silver
Cure	Heat cure
Product benefits	- Electrically conductive - Low temperature cure - Good adhesion - Good dispensing characteristics
Application	Die attach
Key substrates	Au, Steel and Ag

LOCTITE® ABLESTIK ABP 2032S electrically conductive adhesive is designed as a Pb-free alternative to solder. It cures at low temperatures for good stress control in package applications.

TYPICAL PROPERTIES OF UNCURED MATERIAL

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

Speed 5 rpm 11,000

Thixotropic index, (0.5/5 rpm) 4.5

Work life @ 25°C, hours 24

Shelf life @ -40°C, (from date of manufacture), days 365

Flash point - see SDS

TYPICAL CURING PERFORMANCE

Cure schedule

60 minutes @ 80°C

Alternative cure schedule

3 minutes @ 150°C or

10 minutes @ 120°C

Weight loss on cure

Weight loss on cure, % 0.7

The above cure profile(s) are guideline recommendations. These 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

Glass transition temperature (Tg) by TMA, °C	110
Coefficient of thermal expansion, ppm/°C	
Below Tg	54
Above Tg	162
Thermal conductivity, W/(m·K)	1
Extractable ionic content,	
Chloride (Cl-)	<30
Sodium (Na+)	<20
Potassium (K+)	<20
Dynamic tensile modulus (DMA),	
@25°C	N/mm ² 4,600 (psi) (667,173)
@100°C	N/mm ² 1,200 (psi) (174,045)
@250°C	N/mm ² 150 (psi) (21,755)

Electrical properties

Volume resistivity, ohm-cm	0,0002
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TYPICAL PERFORMANCE OF CURED MATERIAL

Sample cured 60 minutes @ 80°C

Die shear strength, @ 25°C

2 x 2 mm Si die, kg-f:

On Au	16
On Steel	15.5
On Ag	16

GENERAL INFORMATION

Please consult the Safety Data Sheet (SDS) for safe handling information of 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

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel 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

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

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 the specifications of this product.

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