

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 quickly at low temperatures for good stress control in large die size 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

Weight Loss on Cure, % 0.7

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

Glass Transition Temperature (T_g) by TMA, °C 110

Coefficient of Thermal Expansion, :

Below T_g, ppm/°C 54

Above T_g, ppm/°C 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

TYPICAL PERFORMANCE OF CURED MATERIAL

Die Shear Strength @ 25°C:

2 X 2 mm Si die, kg-f :

Sample cured 60 minutes @ 80°C:

On Au	16
On Steel	15.5
On Ag	16

GENERAL INFORMATION

For safe handling information on this product, consult the Safety Data Sheet, (SDS).

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 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/F

N/mm x 5.71 = lb/in

psi x 145 = N/mm²

MPa = N/mm²

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:

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

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Reference 0.3