

LOCTITE® ABLESTIK ABP 6392TEA

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PRODUCT DESCRIPTION

LOCTITE® ABLESTIK ABP 6392TEA provides the following product characteristics:

Technology	BMI Hybrid
Appearance	Silver
Product benefits	• One component • High electrical conductivity • High thermal conductivity • Good adhesion to a variety of substrates • Good stress management
Cure	Heat cure
Application	Semiconductor paste; Conductive die attach paste
Key substrates	Cu, Ag and PPF, etc

LOCTITE® ABLESTIK ABP 6392TEA electrically and thermally conductive, silver filled die attach paste is specially formulated for high reliability packaging applications. It is designed for use on small to large die size to balanced stress management.

LOCTITE® ABLESTIK ABP 6392TEA adhesive is formulated to provide good adhesion on a wide variety of substrates including Cu, Ag, PPF and laminate.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, 25°C, mPa.s (cP)	
Speed 5 rpm	12,500
Thixotropic index, (0.5/5 rpm)	5
Work life @ 25°C, hours	24
Shelf life @ -40°C, days (from date of manufacture)	365

TYPICAL CURING PERFORMANCE

Recommended Cure Condition

30 minutes ramp to 175°C + 60 minutes @ 175°C, in air or nitrogen

The above cure profile are guideline recommendations. These 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

Thermal conductivity, Laser Flash, W/mK	9
Tensile Modulus, DMTA, N/mm ²	
@25°C	4,738
@150°C	1,092
@250°C	761
Extractable ionic content, ppm	
Chloride (Cl-)	<10
Sodium (Na+)	<10
Potassium (K+)	<10
Moisture absorption, %	0.13
Coefficient of thermal expansion, ppm/°C	
CTE 1	63
CTE 2	190
Tg, °C	56

Electrical Properties

Volume resistivity, ohm-cm	4.0 x 10 ⁻⁵
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Adhesion Properties

Die shear strength, 3x3 mm Si Die, kg/die	
On Cu LF	
RTDSS	14.0
HTDSS @ 260°C	5.2
On PPF LF	
RTDSS	19.0
HTDSS @ 260°C	5.3
On Ag LF	
RTDSS	24.8
HTDSS @ 260°C	7.0

GENERAL INFORMATION

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

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. Thaw times depend on the syringe size.
4. Consult handling guide for more information.
5. 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.
6. DO NOT re-freeze. Once thawed to 25°C, the adhesive should not be re-frozen.

Direction 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. Alternate dispense amounts may be used depending on the application requirements.

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 -40°C or greater than -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 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 quality department for assistance and recommendations on the specifications of this product.

Conversions

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

Disclaimer

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