Technical Data Sheet

LOCTITE ABLESTIK ABP 8062T

March 2017

PRODUCT DESCRIPTION

LOCTITE ABLESTIK ABP 8062T provides the following product characteristics:

Technology	BMI Hybrid
Appearance	Silver paste
Product Benefits	• Hydrophobic • Electrically conductive • Thermally conductive • Stable at high temperatures
Cure	Heat cure
Application	Die attach
Typical Package Application	MOSFET

LOCTITE ABLESTIK ABP 8062T is formulated to provide high heat transfer generated from power devices. This material can also be used as a soft solder alternate for applications requiring high thermal and electrical conductivity. LOCTITE ABLESTIK ABP 8062T highly filled die attach adhesive is suited for small to middle die sizes where thermal and electrical conductivity are needed in a high reliability package.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Thixotropic Index (0.5/5 rpm)	6.1
Viscosity, Brookfield CP51, 25 °C, mPa·s (cP):	
Speed 5 rpm	15,000
Filler Content, %	85
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

45 minutes ramp from 25°C to 200°C + 30 minutes @ 200°C in N2 or air oven

Alternate Cure Schedule

45 minutes ramp from 25°C to 185°C + 30 minutes @ 185°C in N2 or air oven

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

Coefficient of Thermal Expansion , TMA:		
Alpha 1, ppm		100
Alpha 2, ppm		150
Tensile Modulus, DMTA:		
@ 25°C	N/mm² (psi)	4,330 (628,590)
@ 250°C	N/mm² (psi)	1,380 (200,150)
Extractable Ionic Content, @ 100°C, ppm:		
Chloride (Cl-)		<10
Sodium (Na+)		<10
Potassium (K+)		<10
Thermal Conductivity , W/(m-K)		24

Electrical Properties

Volume Resistivity, ohm-cm	5×10^{-5}

TYPICAL PERFORMANCE OF CURED MATERIAL

Miscellaneous

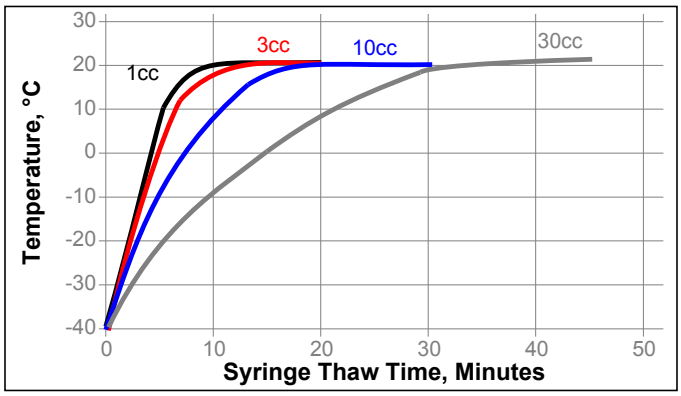
Die Shear Strength:	
2 X 2 mm (80 x 80 mil) Bare Si Die, Kg:	
@ 25ºC	>6.0
@ 260ºC	>2.5
1 X 1 mm (40 x 40 mil) Ag backmetal die, Kg:	
@ 25ºC	>1.5
@ 260ºC	>1.1

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. Refer to the Syringe Thaw time chart for the thaw time recommendation.
4. 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.
5. DO NOT re-freeze. Once thawed to 25°C, the adhesive should not be re-frozen.



DIRECTIONS FOR USE

1. Thawed adhesive 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. Silver-resin separation may occur if the adhesive is left out at room temperature, beyond the recommended work life.
4. Adhesive must be completely used within the product's recommended work life.
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

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
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 working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.
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Reference 0.3