Technical Data Sheet

LOCTITE® ABLESTIK 8601S25

November 2013

PRODUCT DESCRIPTION

LOCTITE® ABLESTIK 8601S25 provides the following product characteristics:

Technology	Epoxy
Appearance	Silver
Cure	Heat cure
Product benefits	• Snap curable • Fast cure • Minimal resin bleed • 1 mil bond line control • Electrically conductive • Improved JEDEC performance • Compatible for use with metal leadframe • Use for small to medium package sizes • Excellent dispensability, minimal tailing and stringing
Application	Die attach
Filler type	Silver

LOCTITE® ABLESTIK 8601S25 die attach adhesive has been formulated for use in high throughput die attach applications.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Thixotropic index (0.5/5 rpm)	5.6
Viscosity, Brookfield CP51, 25°C, mPa·s (cP):	
Speed 5 rpm	7,200
Work life @ 25°C, hours	24
Flash point - see SDS	

TYPICAL CURING PERFORMANCE

Weight loss on cure

Weight loss on cure, %	2.9

Recommended cure schedule

30 minute ramp to 175°C + 15 minutes @ 175°C

Recommended snap cure schedule

8-Zone Oven Temp per zone: 25ºC, 135ºC, 160ºC, 200ºC, 200ºC, 200ºC, 200ºC, 200ºC

Total time, seconds	60
N2 Preheat temp, °C	160

The above cure profiles 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

Extractable ionic content, @ 100°C for 24 hours, ppm:		<1
Chloride (Cl-)		1.3
Sodium (Na+)		N/D
Potassium (K+)		
Tensile modulus, DMTA:		
@-65°C	N/mm^2 (psi)	9,100 (1,319,843)
@25°C	N/mm^2 (psi)	7,000 (1,015,264)
@150°C	N/mm^2 (psi)	2,000 (290,075)
@200°C	N/mm^2 (psi)	1,000 (145,037)
@250°C	N/mm^2 (psi)	900 (130,534)

Electrical properties

Volume resistivity, ohm-cm	0.0001

TYPICAL PERFORMANCE OF CURED MATERIAL

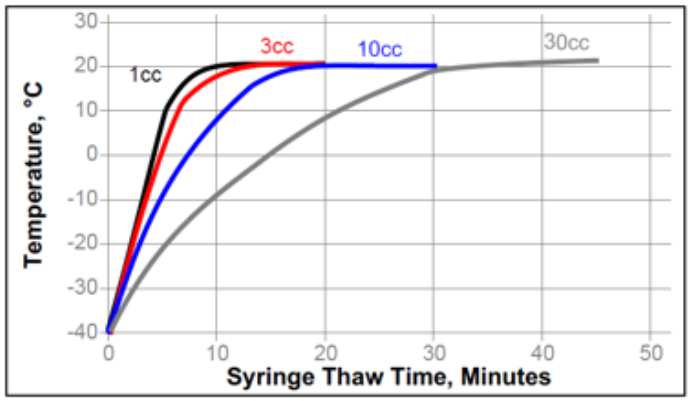
Die shear strength	
2 X 2 mm Si die on Pd/Ni/Cu LF @ 25°C, kg-f	
Post cure + PMB	11.5

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. 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.



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. Silver-resin separation may occur if the adhesive is left out at 25°C beyond the recommended work life.
5. Apply enough adhesive to achieve a 25 µm wet bondline thickness, dispensed with approximately 20 to 50 % filleting on all sides of the die.
6. Alternate dispense amounts may be used depending on the application requirements.
7. Star or crossed shaped dispense patterns will yield fewer bondline voids than the matrix style of dispense pattern.

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 products 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.

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

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
µm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

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