

LOCTITE ABLESTIK 6200

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PRODUCT DESCRIPTION

LOCTITE ABLESTIK 6200 provides the following product characteristics:

Technology	Proprietary Hybrid Chemistry
Appearance	Yellow
Cure	Heat cure
Product Benefits	<ul style="list-style-type: none"> • Stencil printing • Low moisture uptake • Low bleed
Application	Die attach
Substrates	Flex and Laminate
pH	8.3

LOCTITE ABLESTIK 6200 B-stageable adhesive is designed for use in flex or laminated based substrates. This material is ideal for chip scale packages where tolerance and bleed need to be minimized.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Thixotropic Index (0.5/5 rpm)	2.7
Viscosity, Brookfield CP51, 25 °C, mPa·s (cP):	
Speed 5 rpm	21,000
Work Life @ 25°C, days	7
Shelf Life @ -40°C, days	365
Open time, hours	16

Flash Point - See SDS

TYPICAL PROCESS DATA

Chip Attach (LOC Die Bonder)

Temperature, °C:	
Bottom	100 to 150
Top	<50
Force, grams	200 to 1,000
Attach Duration, msec	200 to 1,000

Alternative Chip Attach (Standard Die Bonder)

Temperature, °C	100 to 150
Force, grams	200 to 700
Attach Duration, msec	500 to 1,000

Recommended B-Stage Condition

60 minutes @ 120°C

TYPICAL CURING PERFORMANCE

Cure Schedule

30 minute ramp to 175°C + 60 minutes @ 175°C

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 ppm/°C:	
Below Tg, ppm/°C	94
Above Tg, ppm/°C	237
Glass Transition Temperature (Tg) by TMA, °C	-10
Tensile Modulus, DMTA :	
@ -65 °C	N/mm ² 2,800 (psi) (406,000)
@ 25 °C	N/mm ² 966 (psi) (140,000)
@ 150 °C	N/mm ² 20 (psi) (2,900)
@ 200 °C	N/mm ² 11 (psi) (1,600)
@ 250 °C	N/mm ² 9.7 (psi) (1,400)

Extractable Ionic Content, @ 100°C ppm:

Chloride (Cl ⁻)	8
Sodium (Na ⁺)	1.5
Potassium (K ⁺)	None Detected

Water Extract Conductivity, μmhos/cm	130
Moisture Absorption @ Saturation, wt.% @ 85°C/85%RH	1.76
Weight Loss in N ₂ , %	1.01
30°C - 300°C after B-Stage	
Decomposition Temperature, °C	394

TYPICAL PERFORMANCE OF CURED MATERIAL

Die Shear Strength :

2 X 2 mm, die - ceramic to ceramic, kg-f

@25°C	@245°C
18.5	2.9

GENERAL INFORMATION

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

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. DO NOT open the container before contents reach 22°C temperature. Any moisture that collects on the thawed container should be removed prior to opening the container.
4. DO NOT re-freeze. Once thawed to 22°C, the adhesive should not be re-frozen.

DIRECTIONS FOR USE

Apply enough adhesive to the stencil to ensure complete filling of the stencil with a 15 to 20 mm diameter bead. Typically, this requires 20 to 50 cc of adhesive depending on the stencil size. For two-direction printing, double beading is recommended.

NOTE:

Please refer to the Wafer Backside Coating Applications and Data Package for this product to review process windows and recommendations for each step.

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. 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 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

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

Disclaimer

Note:

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