

LOCTITE[®] ABLESTIK ATB 125GR

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PRODUCT DESCRIPTION

LOCTITE[®] ABLESTIK ATB 125GR provides the following product characteristics:

Technology	Epoxy Hybrid Film
Appearance	White yellow
Cure	Heat cure
Product Benefits	<ul style="list-style-type: none"> • Excellent workability • Excellent adhesion on both metal lead frames and BGAs • High reliability • High modulus • Meets thin wafer requirements • Recommended for small to medium die size packages • Consistent dicing and die pickup for small to medium die applications
Application	Semiconductor Films, Non Conductive Film Die Attach
Typical Package Application(s)	IC, Discrete, Chip stack packages
Carrier Type	Non-UV PSA dicing tape
Adhesive Thickness	25 µm
Wafer Size	8 and 12 inches

LOCTITE[®] ABLESTIK ATB 125GR adhesive film is formulated for use in wafer lamination processes or as a preform decal. This adhesive is suitable for use on small to medium size die sizes.

LOCTITE[®] ABLESTIK ATB 125GR has an integrated dicing tape designed for consistent die pickup.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Weight Loss @ 150°C, TGA, %	0.53
Work Life @ 25°C, days:	
Before lamination	30
After lamination	30
TOTAL WORK LIFE	60

TYPICAL CURING PERFORMANCE

Cure Schedule

1 hour @ 175°C

The above cure profile(s) are guideline recommendation(s). 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

Coefficient of Thermal Expansion, :	
Below Tg, ppm/°C	36
Above Tg, ppm/°C	140
Glass Transition Temperature(Tg), °C:	
Tg 1	82
Tg 2	306
Tensile Modulus, DMA, N/mm ² :	
@ -65°C	5,385
@ 25°C	3,205
@ 150°C	281
@ 200°C	177
@ 250°C	127
Extractable Ionic Content, :	
Chloride (Cl-)	0.6
Sodium (Na+)	0.2
Potassium (K+)	0
Moisture Absorption, wt. %	1.53

Adhesion Properties

Die Shear Strength, after PMC:	
3 x 3 mm Si die @ 260°C, kg-f/die:	
On Cu LF	13.2
On Ag LF	8.6
On PPF	8.5
On BT substrate	4.9

GENERAL INFORMATION

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

Directions for Use

1. Ensure all surfaces to be bonded are free from surface contamination.
2. Adhesive must be completely used within the product's recommended work life.
3. Remove the tape reel from the moisture-resistant package and load into the tape application machine.
4. Store unused adhesive film in the original sealed moisture-resistant package until needed.

STORAGE

These adhesive film should be stored at 5°C, in its original moisture resistant packaging. Partially used reels should be stored under dry conditions at 5°C.

To minimize moisture absorption, we recommend storing the adhesive film in the sealed moisture-resistant package until needed.

Optimal Storage : 5 °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

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

Not for product specifications

The technical data contained herein are intended as reference only. Please contact your local Henkel representative for assistance and recommendations on the specifications of this product.

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