

# LOCTITE ABLESTIK ATB F125E2

Formerly known as LOCTITE ATB F125E1  
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## PRODUCT DESCRIPTION

LOCTITE ABLESTIK ATB F125E2 provides the following product characteristics:

<b>Technology</b>	Epoxy Film
<b>Appearance</b>	White
<b>Cure</b>	Heat cure
<b>Product Benefits</b>	<ul style="list-style-type: none"> <li>• Excellent workability</li> <li>• High reliability</li> <li>• High modulus</li> <li>• Meets thin wafer requirements</li> <li>• Recommended for small die size packages</li> <li>• Consistent dicing and die pickup for small die applications</li> </ul>
<b>Application</b>	Die attach
<b>Typical Package Application(s)</b>	Discrete, IC, Chip stack packages
<b>Carrier Type</b>	Non-UV PSA dicing tape
<b>Adhesive Thickness</b>	25µm
<b>Carrier Film Thickness</b>	110µm
<b>Wafer Size</b>	8 and 12 in

LOCTITE ABLESTIK ATB F125E2 adhesive film is formulated for use in wafer lamination processes or as a preform decal. It is designed for use in small die size packages. LOCTITE ABLESTIK ATB F125E2 has an integrated dicing tape designed for consistent die pickup.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

Work Life @ 25°C, before lamination, days	30
Shelf Life @ 5°C (from date of manufacture), days	365

## TYPICAL CURING PERFORMANCE

### Cure Schedule

1 hour @ 130°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	37
Above Tg, ppm/°C	83
Glass Transition Temperature (Tg), °C	215
Tensile Modulus, DMTA :	
@ -65 °C	N/mm <sup>2</sup> 9,755 (psi) (1,414,843)
@ 25 °C	N/mm <sup>2</sup> 5,256 (psi) (762,318)
@ 150 °C	N/mm <sup>2</sup> 1,092 (psi) (158,381)
@ 200 °C	N/mm <sup>2</sup> 368 (psi) (53,373)
@ 250 °C	N/mm <sup>2</sup> 185 (psi) (26,831)

### Extractable Ionic Content, :

Chloride (Cl-)	19
Sodium (Na+)	2
Potassium (K+)	1
Weight Loss @ 200°C, TGA, wt %	0.27
Moisture Absorption , wt %	0.78

### Adhesive Properties

Die Shear Strength:	
2.5 X 2.5 mm (100 x 100 mil), Si die on BT substrate:	
@ 260°C, kg-f/die	3.1

## 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. The reels should remain in the moisture-resistant package until they are fully thawed to room temperature, to avoid moisture absorption.
3. Adhesive must be completely used within the product's recommended work life.
4. Remove the tape reel from the moisture-resistant package and load into the tape application machine.
5. Store unused adhesive film in the original sealed moisture-resistant package until needed.

### Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

**Optimal Storage: 5°C. Storage below 5°C or greater than 5°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 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 specifications for this product.

### Conversions

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

### Disclaimer

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### Reference 1