

LOCTITE ABLESTIK 551

April 2014

PRODUCT DESCRIPTION

LOCTITE ABLESTIK 551 provides the following product characteristics:

Technology	Resorcinol diglycidyl ether
Appearance	white
Cure	Heat cure
Product Benefits	<ul style="list-style-type: none">• Flexible• Resilient bonds between materials with mismatched CTEs
Application	Adhesive
Maximum Service Temperature	125°C
Maximum Intermittent Exposure Temperature	180°C
Service Temperature	-55 to 135°C

LOCTITE ABLESTIK 551 flexible unsupported adhesive film is designed to produce tough, resilient bonds between materials with differing coefficients of thermal expansion. It is also useful for bonding thin, flexible materials, where good peel strength is required.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Work Life @ 25°C, days	61
Shelf Life:	
@ 25°C, days	61
@ -40°C, days	365

TYPICAL CURING PERFORMANCE**Cure Schedule**

- 10 minutes @ 200°C or
- 1 hour @ 175°C or
- 1.5 hours @ 165°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 PERFORMANCE OF CURED MATERIAL

Lap Shear Strength @ 25°C:

Al to Al	N/mm ²	34.48
	(psi)	(5,000)
Au to Au	N/mm ²	20.69
	(psi)	(3,000)

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. 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.
3. DO NOT re-freeze. Once thawed, the adhesive should not be re-frozen.

DIRECTIONS FOR USE

1. Place precut adhesive film between clean surfaces to be bonded.
2. Assemble components.
3. Apply spring loaded clamp or dead weight to provide continuous pressure sufficient to maintain intimate contact.
4. Place assembly in a preheated oven and cure at the recommended cure schedule.

AVAILABILITY

1. LOCTITE ABLESTIK 551 adhesive is available in or in sheets of 3, 5, 7 or 9 mils +/- 0.001 mil thick.
2. LOCTITE ABLESTIK 551 adhesive can be die cut to customer specifications.

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

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

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Reference 0.1