

LOCTITE ABLESTIK 561

April 2014

PRODUCT DESCRIPTION

LOCTITE ABLESTIK 561 provides the following product characteristics:

Technology	Epoxy Film
Appearance	Amber
Cure	Heat cure
Product Benefits	<ul style="list-style-type: none"> Thermally conductive Flexible Reworkable
Application	Assembly
Carrier Type	Glass fabric
Carrier Thickness	1 mil

LOCTITE ABLESTIK 561 is designed for bonding materials with mismatched coefficients of thermal expansion. In many bonding applications, components may be repaired. Component joined with LOCTITE ABLESTIK 561 adhesive can be debonded by heating the assembly to 150°C and sliding a thin blade, such as a razor blade, between the bonded surfaces. This adhesive is also available in a low temperature cure version.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Work Life @ 25°C, (25% increase in viscosity), days	90
Shelf Life (from date of qualification in original seal):	
@ 25°C, days	91
@ -40°C, days	365
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

30 minutes @ 150°C

Alternate Cure Schedule

2 hours @ 125°C

Percent Volatiles

10 x 10cm sample @ 120°C for 30 minutes, % 0.16

Curing film adhesives under pressure to ensure proper wetting of the adherend surfaces is recommended. Pressure requirements will vary from (2 to 200 psi) depending on the severity of the adherends warpage and the stiffness of the adherends. Temperatures are recommended are at the bondline.

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties

Weight Loss @ 300°C, %	0.71
Coefficient of Thermal Expansion, TMA expansion mode, ppm/°C:	
Below Tg	85
Above Tg	300
Glass Transition Temperature, TMA penetration mode, °C	50
Thermal Conductivity @ 121°C, W/(m-K)	0.3

Electrical Properties

Volume Resistivity, ohms-cm	5×10 ¹²
Dielectric Strength, volts/mil	1,000
Dielectric Constant / Dissipation Factor: @ 1 KHz	7.0/0.17

TYPICAL PERFORMANCE OF CURED MATERIAL

Lap Shear Strength :

Al to Al @ 25°C	N/mm ²	11.03
	(psi)	(1,600)
Au to Au @ 25°C	N/mm ²	11.03
	(psi)	(1,600)

GENERAL INFORMATION

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

DIRECTIONS FOR USE

- Place precut adhesive film between clean surfaces to be bonded.
- Assemble components.
- Apply spring loaded clamp or dead weight to provide continuous pressure of at least 2 to 10 psi during cure cycle.
- Place assembly in a preheated oven and cure at the recommended cure schedule.

AVAILABILITY

- LOCTITE ABLESTIK 561 adhesive film is available in sheet stock or die cut preforms dimensioned to customer drawings.
- LOCTITE ABLESTIK 561 adhesive can be die cut to customer specifications.
- Tolerances are as close as 0.005 inch in length or width and 0.001 inch in thickness.

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:

LOCTITE ABLESTIK film products can be stored at -40°C for up to one year. The shelf life of the film is only valid when the material has been stored at the specified storage conditions. Incorrect storage conditions will degrade the performance of the material in final cured properties. Avoid flexing film when frozen.

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

Note:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:

In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery.

In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Corporation, Resin Technology Group, Inc., or Henkel Canada, Inc. the following disclaimer is applicable:

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We

recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

Trademark usage

Except as otherwise noted, all trademarks in this document are trademarks of Henkel Corporation in the U.S. and elsewhere. ® denotes a trademark registered in the U.S. Patent and Trademark Office.

Reference 0.1

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Loctite:](#)

[1199273](#) [1200187](#) [1470536](#)