

LOCTITE ABLESTIK 555

April 2014

PRODUCT DESCRIPTION

LOCTITE ABLESTIK 555 provides the following product characteristics:

Technology	Epoxy Film
Appearance	blue
Cure	Heat cure
Product Benefits	• Long work life • Moisture resistant • Custom preforms available
Application	Assembly
Carrier Type	Glass fabric
Carrier Thickness	1mil
Key Substrates	Wide variety of metals and ceramic surfaces, Nickel, Aluminum, Alumina and Ceramic
Typical Assembly Applications	Substrate attach

LOCTITE ABLESTIK 555 adhesive is designed for use in assembly operations.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Work Life @ 25°C, days	91
Shelf Life @ -40°C (from date of manufacture), days	365

TYPICAL CURING PERFORMANCE

Cure Schedule

1 hour @ 150°C

Alternative Cure Schedule

2 hours @ 130°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 :	
Below T _g , ppm/°C	90
Above T _g , ppm/°C	50
Glass Transition Temperature (T _g), °C	100
Weight Loss @ 250°C, %	0.23
Thermal Conductivity @ °C, W/(m-K)	0.27

TYPICAL PERFORMANCE OF CURED MATERIAL

Shear Strength

Lap Shear Strength

Al to Al @ 25°C

N/mm² 41.38
(psi) (6,000)

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 onto the floor of the package.
2. Tack down by warming the package to 100°C for 5 minutes. While warm, place the substrate onto the preform and push down firmly, with side-to-side movement. This should expel any entrapped air beneath the substrate.
3. Cure at the recommended cure schedule.
4. Bake 48 hours @ 165°C prior to sealing the package. This bake-out is designed to remove any moisture present in the bondline. Larger substrates will require a longer preseal bake.

AVAILABILITY

1. LOCTITE ABLESTIK 555 adhesive is available in sheet stock or die cut preforms.
2. LOCTITE ABLESTIK 555 adhesive can be die cut to customer specifications.
3. Tolerances are as close as ±0.005inch in length or width and ±0.001inch 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

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

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

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.

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