

LOCTITE ABLESTIK 563KN

April 2021

PRODUCT DESCRIPTION

LOCTITE ABLESTIK 563KN provides the following product characteristics:

Technology	Laminate Epoxy/Kapton Film
Appearance	Creamy, Beige
Cure	Heat cure
Product Benefits	• Thermally conductive • Uniform bondline control • Electrically insulating
Total Thickness	13.5 mil
Application	Component assembly, Assembly film

LOCTITE ABLESTIK 563KN laminated epoxy/Kapton adhesive film specially formulated with excellent thermal conductivity.

LOCTITE ABLESTIK 563KN passes NASA outgassing standards.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Work Life @ 25°C, days	91
Shelf Life @ -40°C, days	365
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE**Cure Schedule**

30 minutes @ 150°C

Alternate Cure Schedule

120 minutes @ 125°C

The above cure schedules does not include ramp time. Faster cure cycles can be obtained with elevated temperatures.

The above cure profiles are guideline recommendations. Cure 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, ppm/°C:

Below Tg	32
Above Tg	294
Glass Transition Temperature, °C	78
Thermal Conductivity, W/(m-K)	0.8

Electrical Properties

Dielectric Strength, volts/mil	710
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TYPICAL PERFORMANCE OF CURED MATERIAL

Lap Shear Strength, psi	3,000
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TYPICAL ENVIRONMENTAL RESISTANCE**Outgassing Properties**

Outgassing :	
TML, %	0.52
CVCm, %	0.05
WVR, %	0.24

GENERAL INFORMATION

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

THAWING:

1. Allow material to reach room temperature before use.
2. DO NOT open the package before contents reach ambient temperature.
3. Any moisture that collects on the thawed package should be removed prior to opening the package.

Directions for Use

1. Handle carefully to avoid any stretching or flexing when frozen.
2. It may be helpful during handling to keep at least one sheet of release paper attached.
3. Preheat surface to be bonded to approximately 45°C.
4. Remove release paper from one side of the adhesive film.
5. Apply film to one of the bonding surfaces.
6. Smooth out any trapped air by gently pressing on the surface.
7. Allow device to cool to room temperature.
8. Remove the release paper from the other side of the adhesive film. Attach the remaining adherend.
9. Apply clamp to provide a continuous pressure of at least 1 psi during cure cycle.
10. Place assembly in a preheated oven and cure at the recommended cure schedule.

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

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