

LOCTITE ABLESTIK NCA 9493

May 2020

PRODUCT DESCRIPTION

LOCTITE ABLESTIK NCA 9493 provides the following product characteristics:

Technology	MS Polymer
Appearance	Blue liquid
Product Benefits	<ul style="list-style-type: none"> • One component • Reversible thermochromic • Sn free • Fast surface curing • Excellent worklife stability
Cure	Moisture cure
Application	Electronic Material, Component assembly
Typical Assembly Applications	FPC reinforcement paste

LOCTITE ABLESTIK NCA 9493 polymer adhesive is specially formulated for use as a reinforcement paste in flexible printed circuit (FPC) assembly. This material provides fast surface curing speed and meets the water cleaning process required 20 to 30 minutes after dispense. The skin and curing times are dependent on humidity, temperature and joint depth.

LOCTITE ABLESTIK NCA 9493 material is reversible thermochromic. This color changing adhesive will transition from blue to white above 70°C while recovering below 0°C.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield CP51, 25 °C, mPa·s (cP):	
Speed 5 rpm	9,528
Thixotropic Index	2.08
Work Life @ 25°C, hours	72
Shelf Life @ -20°C, days	180
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Recommended Cure Schedule

1.2 mm/day @ 25°C (@ 50% RH)

Skin Over Time

Skin over time is the time the surface of the adhesive forms a skin upon exposure to atmospheric moisture at 25°C (± 2°C), 50 RH (±5% RH).

Skin Over Time, minutes	<30
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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, humidity and temperatures.

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties

Hardness, Shore A, sample cured 7days @ 25°C, 50%RH	49
Glass Transition Temperature (Tg) by DMA, °C	-49
DMA Modulus @ 25°C, N/mm ²	2.9
Elongation at break, sample cured 7days at at 25°C,50%RH,%	170

TYPICAL PERFORMANCE OF CURED MATERIAL

Sample cured 7days @ 25°C, 50%RH

Shear Strength

Lap Shear Strength @ 25°C, N/mm ²	2.7
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GENERAL INFORMATION

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

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.

THAWING:

1. Allow container to reach room temperature before use.
2. After removing from the freezer, set the syringes to stand vertically while thawing.
3. 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.

DIRECTIONS FOR USE

1. To ensure the long term performance of the bonded assembly, complete cleaning of the substrates should be performed to remove contamination such as oxide layers, dust, moisture, salt, and oils which can cause poor adhesion or corrosion in a bonded part.
2. Some filler settling is common during shipping and storage. For this reason, it is recommended that the contents of the shipping container be thoroughly mixed prior to use.
3. Useable shelf life may vary depending on method of application and storage conditions.

STORAGE:

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

Optimal Storage : -20 °C

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

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

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.

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