

LOCTITE ABLESTIK NCA 3129NB

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PRODUCT DESCRIPTION

LOCTITE ABLESTIK NCA 3129NB provides the following product characteristics:

Technology	Epoxy hybrid
Appearance	Black liquid
Product Benefits	<ul style="list-style-type: none"> • Non-conductive • One component • Low temperature cure • Fluorescent • Excellent resin bleed out (RBO) control • Good adhesion • High elongation strength • Low modulus • Reworkable
Cure	Heat cure
Application	Component assembly, NCA (Non Conductive Adhesive)
Key Substrates	Most plastics and Glass
Typical Assembly Applications	Multi-camera bracket fill application

LOCTITE ABLESTIK NCA 3129NB is a one part, heat curable epoxy designed for heat sensitive applications requiring low temperature cure. It is a one part adhesive formulated to provide good adhesion when used on a wide range of materials.

LOCTITE ABLESTIK NCA 3129NB provides high elongation, increasing drop test performance of the assembled device. The cured bondline could be reworked at 120°C hot plate or 220°C hot air blower.

Typical applications for LOCTITE ABLESTIK NCA 3129NB include multi-camera bracket fill for camera module assemblies.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield CP51, 25 °C, mPa·s (cP):	
Speed 5 rpm	18,000
Thixotropic Index (0.5/5 rpm)	2.7
Work Life @ 25°C, days	3
Shelf Life @ -20°C, days	180
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Recommended Heat Cure Schedule

60 minutes @ 80°C

Weight Loss

Weight Loss on Cure, @ 80°C after 60 minutes, % 0.1

Shrinkage on Cure

Cure Shrinkage, % 3.0

With all curing systems, the time required for cure depends on the rate of heating. Cure rate depends on the mass of material to be heated and intimate contact with the heat source. Use suggested cure conditions as general guidelines. Other cure conditions may yield satisfactory results.

The above cure profile is a guideline recommendation. 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

Sample cured 60 minutes @ 80°C.

Physical Properties

Hardness, Shore D	65
Glass Transition Temperature (Tg) by TMA, °C	41
Coefficient of Thermal Expansion, ppm/°C:	
Below Tg	58
Above Tg	178
Tensile Modulus @ 25 °C, DMTA, MPa	2,400
Elongation @ break by Texture, %	50
Extractable Ionic Content, ppm:	
Chloride (Cl-)	31
Sodium (Na+)	3
Potassium (K+)	0

TYPICAL PERFORMANCE OF CURED MATERIAL

Sample cured 60 minutes @ 80°C.

Shear Strength

Die Shear Strength, 2 x 2 mm Si die, kg/die:

Post Cure:	
on LCP	8
on Ni	10
on PA9T	11.5
on PC	13.0

After 240 hours @ 85°C/85% RH:

on LCP	6.0
on Ni	9.5
on PA9T	9.5
on PC	10.5

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.

DIRECTIONS FOR USE

1. 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. For best performance bond surfaces should be clean and free from grease.
4. Apply adhesive to all surfaces to be bonded and join together.
5. Usable 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. Storage below -25°C or greater than -15°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

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

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.

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