

LOCTITE ABLESTIK NCA 3280

October 2013

PRODUCT DESCRIPTION

LOCTITE ABLESTIK NCA 3280 provides the following product characteristics:

Technology	Epoxy
Appearance	White
Product Benefits	<ul style="list-style-type: none"> • One component • Fast cure at low temperatures • High service temperature reliability • Excellent adhesion • Halogen free
Cure	Heat cure
Application	Non-conductive adhesive
Typical Applications	Lens bonding, Image sensors, Multimedia card (MMC) assembly

LOCTITE ABLESTIK NCA 3280 is designed for heat sensitive applications requiring a low cure temperature. It cures rapidly providing customers high throughput in applications, such as, bonding of light-diffusing lenses over LEDs and assembly of image sensing devices including camera modules. This material is white in color to provide greater light reflectivity.

LOCTITE ABLESTIK NCA 3280 is formulated to provide higher levels of adhesion at high service temperatures (60°C), while providing sufficient flexibility to survive manufacturing assembly processes.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Cone & Plate, Angle 2°, mPa·s (cP):	
@ Shear rate of 2 s ⁻¹	46,100
@ Shear rate of 20 s ⁻¹	12,400
Thixotropic Index	3.7
Specific Gravity @ °C	1.31
Pot Life @ 25°C, days	>7
Shelf Life @ -20°C (from date of manufacture), days	365
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

2 minutes @ 80°C

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 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

Sample cured 30 minutes @ 80°C

Physical Properties

Hardness, , Shore D, ASTM D2240	80
Coefficient of Thermal Expansion , ppm/°C:	
Alpha 1, < Tg	58
Alpha 2, > Tg	171
Glass Transition Temperature (Tg) by TMA, °C	54
Modulus	N/mm ² 2,800 (psi) (406,105)
Volumetric Shrinkage on Cure, %	3.9
Linear Shrinkage on Cure, %	1.3

TYPICAL PERFORMANCE OF CURED MATERIAL

Sample cured 30 minutes @ 80°C

Miscellaneous

Lap Shear Strength :

Glass Epoxy to Glass Epoxy	N/mm ² 23.7 (psi) (3,437)
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GENERAL INFORMATION

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

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. Apply adhesive to all surfaces to be bonded and join together.
4. In most applications only contact pressure is required.
5. Usable shelf life may vary depending on method of application and storage conditions.

Storage

Store in original, tightly covered containers in clean, dry areas. 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

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

Disclaimer

Note:

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