

# LOCTITE ABLESTIK NCA 3220HF

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## PRODUCT DESCRIPTION

LOCTITE ABLESTIK NCA 3220HF provides the following product characteristics:

<b>Technology</b>	Epoxy
<b>Appearance</b>	Black liquid
<b>Product Benefits</b>	<ul style="list-style-type: none"> <li>One component</li> <li>Fast cure at low temperatures</li> <li>Excellent adhesion</li> <li>Low halogen content</li> </ul>
<b>Cure</b>	Heat cure
<b>Application</b>	Adhesive and Sealant
<b>Typical Applications</b>	Image sensors and MMC

LOCTITE ABLESTIK NCA 3220HF is designed for use in heat sensitive devices. This material is specifically formulated with a low halogen content for RoHS compliant applications.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

Casson Viscosity @ 25 °C, mPa·s (cP):

Haake PK 100, M10/PK 1 2° Cone	1.0
Yield Point @ 25°C, MPa	38.8
Specific Gravity	1.36
Pot Life @ 25°C, days	>14
Shelf Life @ -15°C (from date of manufacture), days	365
Flash Point - See SDS	

## TYPICAL CURING PERFORMANCE

### Cure Schedule

5 to 10 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	79
Coefficient of Thermal Expansion :	
Below Tg, ppm	57
Above Tg, ppm	184
Glass Transition Temperature (Tg) by TMA (ITM65B), °C	31.5

## TYPICAL PERFORMANCE OF CURED MATERIAL

Sample cured 30 minutes @ 80°C

Lap Shear Strength	N/mm <sup>2</sup> 16
	(psi) (2,320)

## 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

- 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.
- 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.
- Apply adhesive to all surfaces to be bonded and join together.
- In most applications only contact pressure is required.
- 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

(°C x 1.8) + 32 = °F  
 kV/mm x 25.4 = V/mil  
 mm / 25.4 = inches  
 N x 0.225 = lb  
 N/mm x 5.71 = lb/in  
 N/mm<sup>2</sup> x 145 = psi  
 MPa = N/mm<sup>2</sup>  
 MPa x 145 = psi  
 N·m x 8.851 = lb·in  
 N·m x 0.738 = lb·ft  
 N·mm x 0.142 = oz·in  
 mPa·s = cP

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