

LOCTITE[®] ABLESTIK NCA 2051

October 2022

PRODUCT DESCRIPTION

LOCTITE[®] ABLESTIK NCA 2051 provides the following product characteristics:

Technology	Acrylate
Appearance	Pink liquid
Product Benefits	<ul style="list-style-type: none"> • One component • Good impact resistance • Good adhesion to various substrates • Low modulus • High elongation • Facilitates visual examination for inspection systems • Good reworkability
Cure	Ultraviolet (UV) light, Visible light
Application	Electronic Adhesives & Solder, Component assembly
Typical Assembly Applications	Adhesive and Sealant

LOCTITE[®] ABLESTIK NCA 2051 one part, UV cure adhesive is specially formulated to provide excellent adhesion to a wide variety of substrates including glass, most metals and plastics

This material is specially formulated with a low modulus and high elongation allowing for reworkability at lower temperatures and improved drop test performance

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield CP51, 25 °C, mPa·s (cP):

Speed 5.0 rpm	11,000
Thixotropic Index (0.5/5.0 rpm)	4.5

TYPICAL CURING PERFORMANCE

Recommended Cure Condition

UV Light

UV Wavelength, nm	285 to 405
Light Intensity, mW/cm ²	1,000
Exposure Time, seconds	>10

Cure rate and depth of cure depends both on external factors including the type of light source, light intensity and

exposure time, and on internal factors including composition of the adhesive.

The above cure profile is a guideline recommendation. Cure rate and ultimate depth of cure depend on light intensity, spectral distribution of light source, exposure time and the light transmittance of the substrate.

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties

Sample cured UV 365 nm, UV intensity 10,000 mJ/cm² .

Hardness, Shore D	26
Glass Transition Temperature, (Tg) by TMA, °C	39.4
Coefficient of Thermal Expansion :	
Below Tg, ppm	160
Above Tg, ppm	294
Young's Modulus @ 23°C, N/mm ²	100
Elongation @ break, %	230
Volume Shrinkage, %	5.3

Adhesion Properties

Sample cured UV 365 nm, UV intensity 10,000 mJ/cm² .

Adhesion Strength, SUS/Glass, N/mm ²	13.7
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GENERAL INFORMATION

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

THAWING: (if applicable)

1. Safe yellow light is recommended for visible light initiated grades during handling prior to curing. Dimmed light may be used if adhesive is only being handled for short periods of time.
2. Allow container to reach room temperature before use.
3. After removing from the freezer, set the syringes to stand vertically while thawing.
4. DO NOT open the container before contents reach 25 °C temperature. Any moisture that collects on the warmed up container should be removed prior to opening the container.
5. DO NOT re-freeze. Once thawed, the adhesive should not be re-frozen.

DIRECTIONS FOR USE

1. Thawed material should immediately be placed on dispense equipment for use.
2. If the adhesive is transferred to a final dispensing

reservoir, care must be exercised to avoid entrapment of contaminants and/or air into the adhesive..

3. Adhesive must be completely used within the product's recommended work life.
4. This product is light sensitive; exposure to daylight, UV light or artificial lighting should be kept to a minimum during storage and handling.

STORAGE

Store in original, tightly covered containers in clean, dry areas. Storage information may be indicated on the product container labeling.

Optimal Storage: 2 to 8°C. Storage below 2°C or above 8°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 Henkel Representative.

Not for product specifications

The technical data contained herein are intended as reference only. Please contact your local Henkel representative for assistance and recommendations on the specifications of this product.

Conversions

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

Disclaimer

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Reference 1