

LOCTITE ABLESTIK NCA 2380

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PRODUCT DESCRIPTION

LOCTITE ABLESTIK NCA 2380 provides the following product characteristics:

Technology	Acrylated Epoxy
Appearance	Light yellow liquid
Product Benefits	• UV curable • Excellent adhesion • Good flow performance • High Tg • Low CTE
Cure	Ultraviolet (UV) light activation followed by heat cure
Application	Assembly
Typical Assembly Applications	Active alignment camera module assembly
Key Substrates	Al, PBT, LCP and PCB

LOCTITE ABLESTIK NCA 2380 dual cure adhesive is designed for use in the assembly of temperature sensitive electronic components. This product is formulated to temporarily cure when exposed to UV light, followed with a secondary thermal cure at low temperature. Temporarily curing the material allows for any necessary adjustments to the final device configuration.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity by Rheometer, mPa·s (cP):

@ Shear rate of 10 s ⁻¹	35,000
Thixotropic Index	2.4
Work Life @ 25°C, days	3
Shelf Life @ -20°C, days	180
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Recommended Primary UV Cure

Light Source and Condition:

UV LED:	
Wavelength, nm	220 to 405
Light Intensity, mW/cm ²	1,000
Exposure Time, second	3

Secondary Thermal Cure

60 minutes @ 80°C

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

Hardness, Shore D	85
Glass Transition Temperature (Tg) by TMA, °C	95

Coefficient of Thermal Expansion, ppm/°C:

Below Tg	56
Above Tg	183
Storage Modulus, GPa	3
Extractable Ionic Content, ppm:	
Chloride (Cl ⁻)	376

TYPICAL PERFORMANCE OF CURED MATERIAL

Shear Strength

Die Shear Strength, N/mm² :

Si die on glass cured UV LED 365 nm, 1,000 mJ	4
Si die on FR5 cured 60 minutes @ 90°C	40

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.
4. DO NOT re-freeze. Once thawed to 25°C, the adhesive should not be re-frozen.

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

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

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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