Technical Data Sheet

LOCTITE ABLESTIK NCA 2285

April 2017

PRODUCT DESCRIPTION

LOCTITE ABLESTIK NCA 2285 provides the following product characteristics:

Technology	Acrylate
Appearance	Black
Product Benefits	• Non-conductive • One component • Dual cure system • High thixotropic index • High viscosity • Black in color to prevent light penetration • Fast cure at low temperature • Good adhesion to LCP
Cure	Ultraviolet (UV) light followed by heat cure
Application	Component assembly or Non-conductive adhesive
Typical Assembly Applications	Camera module assembly

LOCTITE ABLESTIK NCA 2285 dual cure adhesive is designed for use in the assembly of temperature sensitive electronic components. It has been formulated to a high viscosity and thixotropy to enable higher aspect ratios of dispensed adhesive, thus allowing for easier adjustments for the final assembly.

LOCTITE ABLESTIK NCA 2285 is black in color to prevent light penetration into the final assembled device. 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 necesssary adjustments to the final device configuration.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Rheometer, Cone and Plate @ 25°C, mPa·s (cP):	
Cone 20 mm, Angle 2º @ Shear rate 10 s^{-1}	102,500
Thixotropic Index (1/10 s^{-1})	5.0
Pot Life @ 25ºC, days	3
Shelf Life @ -20°C (from date of manufacture), days	183
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Recommended UV Cure

Light Source and Condition

UV LED:

UV Wavelength, nm	365
Light Intensity, mJ/cm²	1,000 to 3,000

Depth of Cure

Sample tested using UV LED with light intensiy of 500 mW/cm²

Exposure Time @ 5 seconds, mm	0.9

Recommended Heat Cure Schedule

60 minutes @ 80°C

Shrinkage on Cure

Cure Shrinkage, %	3.1

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 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

Sample cured at the recommended cure conditions.

Physical Properties

Coefficient of Thermal Expansion, ppm/°C:		
Below Tg		49
Above Tg		131
Glass Transition Temperature (Tg) by TMA, °C		110
Modulus , DMA @ 25°C	GPa	4.3
	(N/mm²)	(4,300)
	(psi)	(624,000)

TYPICAL PERFORMANCE OF CURED MATERIAL

Shear Strength

Die Shear Strength:

φ 2 mm pillar to LCP:	
After UV Cure, N	22
After UV cure followed by heat cure, N	43
φ 2 mm pillar to Ceramic:	
After UV Cure, N	12
After UV cure followed by heat cure, N	16

GENERAL INFORMATION

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

THAWING: (if applicable)

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 warmed up container should be removed prior to opening the container.
4. 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.

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/F
N/mm x 5.71 = lb/in
psi x 145 = N/mm²
MPa = N/mm²
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = 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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