

LOCTITE DSP 3319M

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PRODUCT DESCRIPTION

LOCTITE DSP 3319M provides the following product characteristics:

Technology	Acrylic
Appearance	Light yellow liquid
Product Benefits	<ul style="list-style-type: none"> • Fast UV/LED cure • Excellent flexibility • Moderate modulus • Good moisture resistance • High adhesion to PI substrate • VOC free
Cure	Ultraviolet (UV) light , UV LED
Application	Display material, Coating, Encapsulation
Typical Assembly Applications	OLED or LCD module assembly

LOCTITE DSP 3319M one part acrylate adhesive is designed for LCD module or micro patterned PI substrate for OLED module assembly applications. It is formulated with excellent flexibility properties to improve crack/fracture resistance and delamination for overall improvement of package reliability.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Cone & Plate, @ 25 °C , mPa·s (cP):	
Shear rate 15 s ⁻¹	710
Density, gm/cc	1.04
Solids Content, %	100
Shelf Life @ 0 to 10°C, days	180
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Recommended Cure Condition

UV Light

High Pressure Mercury Lamp	
Irradiance UVA, mJ/cm ²	~1,500

UV LED Light

Single wavelength distribution, nm	365
Irradiance:	
mW/cm ²	1,000
mJ/cm ²	1,500

Cure rate and ultimate depth of cure depend on light intensity, spectral distribution of light source, exposure time and light transmittance of the substrate through which the

light must pass.

The above cure profiles are guideline recommendations. Cure conditions (time and temperature) may vary based on customers' experience and specific application requirements, as well as customer curing equipment, oven loading and actual oven temperatures.

TYPICAL PROPERTIES OF CURED MATERIAL

Sample tested using UV LED with light intensity of 1,000 mW/cm² , 1,500 mJ/cm²

Physical Properties

Glass Transition Temperature, DMA, @ 1 Hz, °C	61
Tensile Modulus, texture tension, 300 mm/min:	
@ 25°C	N/mm ² 254
	(psi) (36,840)
Elongation at break, Texture tension, %	294
Water Vapor Permeability Coefficient (WVPC) @ 14.8 50°C/100% RH, MOCON Instrument, g-mil/100 inch ² /day	
Extractable Ionic Content @ 100°C, 24 hours extraction:	
Chloride (Cl ⁻)	<10
Sodium (Na ⁺)	<10

TYPICAL PERFORMANCE OF CURED MATERIAL

Miscellaneous

Tensile Lap Shear Strength, PC to PC	N/mm ² 1.1
	(psi) (160)

GENERAL INFORMATION

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

Directions for Use

1. This product is light sensitive; exposure to daylight, UV light or artificial lighting should be kept to a minimum during storage and handling.
2. The product should be dispensed from application with black feedlines.
3. For best performance, bond surface should be clean and free from grease.
4. Cure rate is dependent on lamp intensity, distance from light source, depth of cure needed or bondline gap and light transmittance of the substrate through which the radiation must pass.
5. Cooling should be provided for temperature sensitive substrates such as thermoplastics.

6. Crystalline and semi-crystalline thermoplastics should be checked for risk of stress cracking when exposed to liquid adhesive.
7. Excess uncured adhesive can be wiped away with organic solvent (e.g. Acetone).
8. Bonds should be allowed to cool before subjecting to any service loads.

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.

STORAGE

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage: 0 to 10°C. Storage below 0°C or above 10°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.

Conversions

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

Disclaimer

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