

LOCTITE UV8800M

September 2016

PRODUCT DESCRIPTION

LOCTITE UV8800M provides the following product characteristics:

Technology	Epoxy
Appearance	Medium grey paste
Product Benefits	• One component • Medium viscosity • Cures rapidly • Low shrinkage • Excellent adhesion
Filler Weight, %	53.6
Cure	Ultraviolet (UV) light
Application	Encapsulant
Typical Package Application	Chip scale packages and BGA
Substrates	Glass, Epoxy, Polyimide and Polyester

LOCTITE UV8800M epoxy encapsulant is developed to meet high temperature thermal cycling specifications. It cures to form a hard translucent coating when exposed to UV light of sufficient intensity. The curing of the product is not inhibited by oxygen, resulting in excellent surface cure. Its viscosity characteristics and deaerated condition make it suitable for accurate dispensing with excellent shape control.

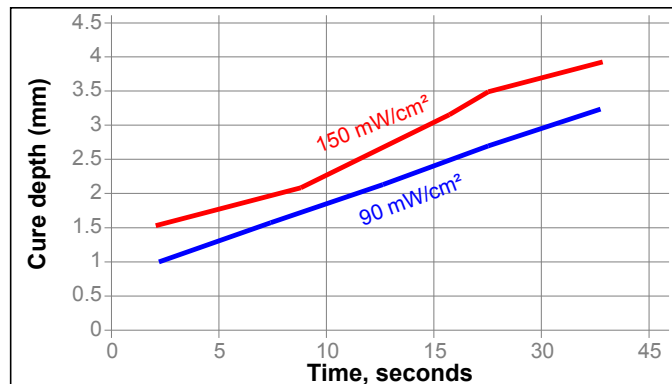
TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity @ 25 °C, mPa·s (cP)	2,500 to 4,000
Specific Gravity	1.6
Filler Partical Size, µm:	
D95	21
D50	5
Shelf Life @ 0 to 5°C, months	6
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Typical UV Cure Condition

Medium pressure mercury lamp:	
Light Dose, mW/cm ²	100
Exposure Time, seconds	2
UV radiation, nm (UVA)	315 to 400



LOCTITE UV8800M can be cured by irradiation with ultraviolet and visible light as well as LED-UV light with single wavelength distribution of sufficient intensity. Cure rate and depth of cure depend on the intensity, spectral distribution of the light source, exposure time and light transmittance of the substrate through which the light must pass.

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties :

Coefficient of Thermal Expansion ISO 11359-2:

Below Tg, ppm/°C	41
Above Tg, ppm/°C	135
Glass Transition Temperature (Tg), °C	29
Shore Hardness, Durometer D	78

Extractable Ionic Content, MIL-S-883, ppm:

Chloride (Cl-)	34
Fluoride (F-)	237

Water Absorption, %:

24 hrs @ 25°C	0.9
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DMA Modulus @ 25°C, MPa 2,850

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.

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 5 °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

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$

$\text{kV/mm} \times 25.4 = \text{V/mil}$

$\text{mm} / 25.4 = \text{inches}$

$\text{N} \times 0.225 = \text{lb}$

$\text{N/mm} \times 5.71 = \text{lb/in}$

$\text{psi} \times 145 = \text{N/mm}^2$

$\text{MPa} = \text{N/mm}^2$

$\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$

$\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$

$\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$

$\text{mPa}\cdot\text{s} = \text{cP}$

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Reference 1