

LOCTITE ECCOBOND UV8800M-X

May 2017

PRODUCT DESCRIPTION

LOCTITE ECCOBOND UV8800M-X provides the following product characteristics:

Technology	Epoxy
Appearance	Milky white
Product Benefits	• One component • Fast UV cure • Good workability • Good adhesion
Cure	Ultraviolet (UV) light
Application	Encapsulant, Glob top
Typical Package Application	Chip scale packages, Smart Card
Substrates	FR4, FCI and LG Tape

LOCTITE ECCOBOND UV8800M-X encapsulant is formulated for use in smart card applications. 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.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Cone and Plate @ 25 °C, mPa·s (cP):	
Cone 20 mm, Angle 2° @ Shear rate 20 s ⁻¹	3,400
Thixotropic Index (2/20 s ⁻¹)	1.1
Work Life @ 25°C, days	7
Shelf Life @ 0 to 8°C, days	180
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Typical UV Cure Condition

Light Intensity, mW/cm ²	100
Exposure Time, seconds	30

Alternate UV Cure Condition

Light Intensity, mW/cm ²	60
Exposure Time, seconds	50

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

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties

Hardness, Shore D	80
Glass Transition Temperature (Tg) by TMA, °C	47

Coefficient of Thermal Expansion :

Below Tg, ppm/°C	48
Above Tg, ppm/°C	149

Extractable Ionic Content, ppm:

Chloride (Cl ⁻)	<10
Sodium (Na ⁺)	<10

DMA Modulus :

@ 25°C	N/mm ² 4,816
	(psi) (698,501)
@ 100°C	N/mm ² 94
	(psi) (13,633)
@ 200°C	N/mm ² 63
	(psi) (9,137)

TYPICAL PERFORMANCE OF CURED MATERIAL

Shear Strength

Die Shear Strength:

4 x 4 mm Si die on glass, kg-f:	
@ 25°C	>20
@ 200°C	5.8

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. Thaw at least 12 hours at room temperature prior to use.

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 8 °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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