

# LOCTITE ECCOBOND EN 3842T

April 2017

## PRODUCT DESCRIPTION

LOCTITE ECCOBOND EN 3842T provides the following product characteristics:

<b>Technology</b>	Acrylate
<b>Appearance</b>	Pale yellow, Transparent liquid
<b>Product Benefits</b>	<ul style="list-style-type: none"> <li>• Halogen-free</li> <li>• One component</li> <li>• High thixotropic for dispense shape control</li> <li>• Good adhesion to a variety of substrates</li> <li>• Stable electrical performance in temperature humidity bias</li> </ul>
<b>Cure</b>	Ultraviolet (UV) light followed by heat cure
<b>Application</b>	Encapsulant or Sealant
<b>Typical Assembly Applications</b>	Connectors, Capacitors

LOCTITE ECCOBOND EN 3842T encapsulant is designed to provide excellent mechanical properties to components used in the assembly of electronic devices. This material is formulated to be thixotropic thus reducing liquid migration after it is applied to the substrate. LOCTITE ECCOBOND EN 3842T cures in seconds when exposed to the appropriate intensity of UV light. It also contains a secondary thermal cure mechanism for applications with shadowed areas.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield CP 51/5, 25 °C,	7,275
Thixotropic Index (0.5/5 rpm)	4.0
Specific Gravity	1.08
Pot Life @ 25 °C, days	2
Shelf Life @ -20 °C (estimated), days	180
Flash Point - See SDS	

## TYPICAL CURING PERFORMANCE

### Recommended UV Cure Condition

Light Source and Condition:

Mercury lamp or electrodeless mercury vapor lamp:	
Light Intensity, mJ/cm <sup>2</sup>	2,000
Wavelength, nm	365

### Recommended Heat Cure Schedule

10 minutes @ 130°C

LOCTITE ECCOBOND EN 3842T can be cured by exposure to UV and/or visible light of sufficient intensity. To obtain full cure on surfaces exposed to air, radiation @ 220 to 260 nm is also required. The speed of cure will depend upon the UV intensity and spectral distribution of the light source, the exposure time and the light transmittance of the substrates.

The above cure profile is a guideline recommendation. 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	26
Glass Transition Temperature (Tg) by TMA, °C	20
Coefficient of Thermal Expansion, TMA:	
Below Tg, ppm/°C	101
Above Tg, ppm/°C	212
Storage Modulus, DMA, tensile @ 25 °C, N/mm <sup>2</sup>	577
Moisture Absorption, 288 hours @ 65°C/90% RH, %	1.19

## GENERAL INFORMATION

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

### THAWING:

1. Thaw 30 cc syringes for at least 1 hour at room temperature
2. Allow container to reach room temperature before use.
3. After removing from the freezer, set the syringes to stand vertically while thawing.
4. DO NOT re-freeze. Once thawed to 25°C, the adhesive should not be re-frozen.

### 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: -20°C.

Storage below -40°C or above -15°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 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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