

# LOCTITE ECCOBOND EN 3840T

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## PRODUCT DESCRIPTION

LOCTITE ECCOBOND EN 3840T provides the following product characteristics:

<b>Technology</b>	Epoxy
<b>Appearance</b>	Yellow white liquid
<b>Product Benefits</b>	<ul style="list-style-type: none"> <li>One component</li> <li>Halogen free</li> <li>High thixotropic for dot shape control</li> <li>Fast cure at moderate temperatures</li> <li>Good adhesion to a variety of substrates</li> <li>Stable electrical performance in temperature humidity bias</li> </ul>
<b>Cure</b>	Heat cure
<b>Application</b>	Encapsulation
<b>Typical Package Application(s)</b>	CSP/BGA Connector

LOCTITE ECCOBOND EN 3840T encapsulant is specially designed for CSP and BGA applications. It cures quickly at moderate temperatures to minimize stress to other components. When cured, this material provides excellent mechanical and moisture resistant properties for protection of electronic components.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield CP 51/5, 25 °C,	9,000
Thixotropic Index (0.5/5 rpm)	4.0
Pot Life @ 25 °C, days	2
Shelf Life @ -20°C, days	180
Flash Point - See SDS	

## TYPICAL CURING PERFORMANCE

### Cure Schedule

>10 minutes @ 130°C

### Alternate Cure Schedule

>5 minutes @ 150°C

The above cure profile is a guideline recommendation. These 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

### Physical Properties

Hardness, Shore D	65
Glass Transition Temperature (Tg) by TMA, °C	40
Coefficient of Thermal Expansion, , TMA:	
Below Tg, ppm/°C	73
Above Tg, ppm/°C	209

Tensile Modulus, DMA

N/mm<sup>2</sup> 1,563  
(psi) (226,694)

## 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 Henkel 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/mm<sup>2</sup>  
 MPa = N/mm<sup>2</sup>  
 N·m x 8.851 = lb·in  
 N·m x 0.738 = lb·ft  
 N·mm x 0.142 = oz·in  
 mPa·s = cP

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