

# LOCTITE ECCOBOND LUX AA50

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## PRODUCT DESCRIPTION

LOCTITE ECCOBOND LUX AA50 provides the following product characteristics:

<b>Technology</b>	Acrylate
<b>Color</b>	Yellow
<b>Cure</b>	Ultraviolet (UV)/ visible light
<b>Product Benefits</b>	<ul style="list-style-type: none"> <li>• Single component</li> <li>• Photocurable</li> <li>• High viscosity</li> <li>• Low shrinkage</li> <li>• Good mechanical stability</li> </ul>
<b>Application</b>	Optoelectronic

LOCTITE ECCOBOND LUX AA50 photocurable adhesive is formulated to enhance productivity in the assembly of optical, fiber optic, and optoelectronic devices. In addition to light cure, this adhesive contains a secondary thermal cure initiator.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, BrookfieldSp #14, 25 °C, mPa·s (cP) 120,000

Shelf Life:

@ 25°C, days	91
@ 0 to 5°C, days	183

Flash Point - See SDS

## TYPICAL CURING PERFORMANCE Recommended Curing Conditions

UV or Visible Light

### Depth of Cure

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 :

Coefficient of Thermal Expansion :			
Below Tg, ppm/°C		36	
Above Tg, ppm/°C		98	
Glass Transition Temperature, Tan Δ Max, °C		163	
Tensile Modulus @ 25°C	N/mm <sup>2</sup>	3,500	
	(psi)	(508,000)	
Water Absorption %:			
24 hour immersion		0.86	
Hardness, Shore D		82	

## TYPICAL PERFORMANCE OF CURED MATERIAL

Die Shear Strength, Ceramic to Au	N/mm <sup>2</sup>	27.59
2 x 2 mm (80 x 80 mil)	(psi)	(4,000)

## GENERAL INFORMATION

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

## SHIPMENT AND UNPACKING

1. LOCTITE ECCOBOND LUX AA50 adhesive is packed and shipped at room temperature.

## DIRECTIONS FOR USE

1. Packages removed from storage should be allowed to return to ambient temperature before use.
2. This adhesive is formulated to cure upon exposure to visible (blue) or UV light. Curing with visible light allows curing of highly filled (up to 80% by weight) grades and curing through UV opaque substrates (such as Polycarbonate, Aluminis, etc). Use of visible light provides increased operator safety by eliminating exposure to potentially harmful UV radiation. UV curing is particularly advantageous where a very rapid cure of a section is required.
3. For visible light curing, a light source with a peak output of wavelength is recommended. Wide ranges of light systems are available for visible cure, permitting curing of bond profiles in less than a minute.
4. A safe yellow light is recommended for visible light initiated grades during handling prior to use. Dimmed light may be used if the adhesive is only being handled for short periods of time.

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

Reference 1

**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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