

LOCTITE ECCOBOND OGR 146TUV

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PRODUCT DESCRIPTION

LOCTITE ECCOBOND OGR 146TUV provides the following product characteristics:

Technology	Acrylate
Color	Colorless
Cure	Ultraviolet (UV) light
Product Benefits	<ul style="list-style-type: none"> • Single component • Photocurable • Cures in shadowed areas • Low refractive Index
Application	Assembly
Typical Assembly Applications	Optical devices, Fiber optic and Optoelectronic assembly

LOCTITE ECCOBOND OGR 146TUV photocurable adhesive is designed for high throughput assembly operations. This product also contains a secondary thermal cure mechanism for applications that contain shadowed areas where light is unable to penetrate. The secondary thermal cure can be done in conventional box or convection conveyor ovens.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield CP51, 25 °C, mPa·s (cP):	1,250
Speed 5 rpm	
Work Life @ 25°C, days	91
Shelf Life @ -5 to +5°C (from date of manufacture), days	183
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Recommended UV Cure Condition

UV 365 nm wavelength

Secondary Thermal Cure

1 hour @ 100°C or
2 hours @ 85°C

Secondary thermal cure is performed subsequent to light cure.

Secondary thermal cure in a nitrogen atmosphere can enhance the bond strength and moisture resistance of the material.

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	60
Refractive Index:	
@ 589 nm	1.464
@ 633 nm	1.462
@ 830 nm	1.458
@ 1,320 nm	1.455
@ 1,550 nm	1.454
Coefficient of Thermal Expansion, :	
Below Tg, ppm/°C	62
Above Tg, ppm/°C	215
Glass Transition Temperature (Tg) by DMTA, °C	77
Tensile Modulus, DMTA :	
@ 25 °C	N/mm ² 635 (psi) (92,000)
Moisture Absorption @ Saturation, wt.% @ 1.7 85°C/85%RH	

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. This adhesive is designed to cure upon exposure to UV light. UV curing is particularly advantageous where a very rapid cure or curing of a thin section of the assembly is required.
2. A secondary thermal cure capability exists for bondlines with shadowed areas. Secondary thermal cure is used for curing areas shadowed from light and to enhance the bond strength and moisture resistance of the adhesive.
3. Adhesive must be completely used within the product's recommended work life.
4. A light source with a minimum output of 110 mW/cm² at 365 nm wavelength is recommended. Wide ranges of light systems are available for UV cure, permitting curing of bond profiles in seconds, coupled with a tack-free surface.

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 : -5 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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