

LOCTITE ECCOBOND EN 3410

May 2017

PRODUCT DESCRIPTION

LOCTITE ECCOBOND EN 3410 provides the following product characteristics:

Technology	Acrylate
Appearance	Light yellow liquid
Product Benefits	<ul style="list-style-type: none"> • Low viscosity • Good wetting • Fast cure • Excellent flexibility • Low modulus • Reworkable • Good moisture resistance
Cure	Ultraviolet (UV) light, LED light
Application	Encapsulant, Coating
Typical Package Application	LCD/OLED module assembly

LOCTITE ECCOBOND EN 3410 encapsulant is designed for COG/COF of LCD module or micro patterned FPC substrate of OLED module assembly applications. It is designed to improve crack/fracture resistance and delamination for overall improvement of package reliability.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity by Rheometer @ 25 °C, mPa·s (cP):	
Cone diameter 20 mm, Angle 2° @ 15 s ⁻¹	680
Density, gm/cc	1.03
Shelf Life @ 25°C (estimated), days	180
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Recommended UV Cure Condition

High Pressure Mercury Lamp	
Irradiance UVA, mJ/cm ²	1,000
UV LED	
Single wavelength distribution, nm	365
Irradiance, mJ/cm ²	1,000

The above cure profile is a guideline recommendation. Cure rate and ultimate depth of cure depend on light intensity, spectral distribution of light source, exposure time and the light transmittance of the substrate.

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties

Hardness, Shore A	66
Glass Transition Temperature (T _g) by DMA, °C	67
Tensile Modulus, by Texture Analyzer, MPa	75

Elongation @ break by Texture Analyzer, %	360
Water Vapor Transmission Rate (WVTR), g/mil/100 inch ² /day	16.2
Peel Strength on polyimide substrate, gf/inch	15.5
Extractable Ionic Content, ppm:	
Chloride (Cl ⁻)	6
Sodium (Na ⁺)	1

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. This product is light sensitive; exposure to daylight, UV light and artificial lighting should be kept to a minimum during storage and handling.
2. The product should be dispensed from application with black feedlines.
3. For best performance bond surfaces should be clean and free from grease.
4. Cure rate is dependent on lamp intensity, distance from light source, depth of cure needed or bondline gap and light transmission of the substrate through which the radiation must pass.
5. Cooling should be provided for temperature sensitive substrates such as thermoplastics.
6. Crystalline and semi-crystalline thermoplastics should be checked for risk of stress cracking when exposed to liquid adhesive.
7. Excess uncured adhesive can be wiped away with organic solvent (e.g. Acetone).
8. Bonds should be allowed to cool before subjecting to any service loads.

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 : (estimated) 25 °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.

Disclaimer

Note:
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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