

LOCTITE® ECCOBOND EN UV4202

September 2024

PRODUCT DESCRIPTION

LOCTITE® ECCOBOND EN UV4202 provides the following product characteristics:

Technology	Acrylate
Appearance	Orange and translucent
Cure	Ultraviolet (UV) light
Product benefits	<ul style="list-style-type: none"> • One component • Low modulus • Elastomeric • Fluorescent under UV light • Highly thixotropic
Application	Electronic encapsulant; Circuit board encapsulant
Typical package application	Cured in place gasketing

LOCTITE® ECCOBOND EN UV4202 is a one component, UV acrylate encapsulant is designed for circuit board protection applications. It is designed for encapsulation application where an acrylic rubber gasket is desired. This material is fluorescent when viewed under ultraviolet (black) light.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, TA, 20mm, 2°, mPas	
@ 10 s ⁻¹	78,000
Thixotropic index (T.I.)	
@ 10 s ⁻¹	7.2
Specific gravity, g/cm ³	1.1
Shelf life @ 8 to 28°C, days, (depending on method of application and storage conditions)	180

TYPICAL CURING PERFORMANCE

Recommended cure condition

Ultraviolet (UV) light

UV Wavelength, nm	365
Light intensity, mW/cm ²	500
Dosage, mJ/cm ²	6,000

LOCTITE® ECCOBOND EN UV4202 can be cured by exposure to UV 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 and depth will depend upon the UV intensity and spectral distribution of the light source, the exposure time and the light transmittance of the substrates through which the light must pass. Recommended UV lamp type include mercury lamp and electrodeless lamp.

The above cure profile(s) are guideline recommendations. 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 A	32
Glass transition temperature, TMA, °C	-16
Storage modulus, DMA, @ 25°C, N/mm ²	2.9
Elongation by texture, %	439

Adhesion properties

Lap shear strength, ASTM D-1002, N/mm ²	
PC to FR-4, 0.15mm spacer	1.8

GENERAL INFORMATION

Please consult the Safety Data Sheet (SDS) for safe handling information of this product.

Usable shelf life may vary depending on method of application and storage conditions.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage: 8°C to 28°C. Storage below 8°C or greater than 28°C can adversely affect product properties.

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel 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.

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 the specifications of this product.

Conversions

(°C x 1.8) + 32 = °F
 kV/mm x 25.4 = V/mil
 mm / 25.4 = inches
 µm / 25.4 = mil
 N x 0.225 = lb
 N/mm x 5.71 = lb/in
 N/mm² x 145 = psi
 MPa x 145 = psi
 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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