

# LOCTITE ECCOBOND EN 190024FL

June 2020

## PRODUCT DESCRIPTION

LOCTITE ECCOBOND EN 190024FL provides the following product characteristics:

|                         |                                                                                                            |
|-------------------------|------------------------------------------------------------------------------------------------------------|
| <b>Technology</b>       | Acrylate                                                                                                   |
| <b>Appearance</b>       | Translucent light blue                                                                                     |
| <b>Product Benefits</b> | <ul style="list-style-type: none"> <li>One component</li> <li>Fluorescent</li> <li>Fast UV cure</li> </ul> |
| <b>Cure</b>             | Ultraviolet (UV) light, Visible light                                                                      |
| <b>Application</b>      | Encapsulation, Glob top & Encap                                                                            |
| <b>Key Substrates</b>   | Glass, plastics and most metals                                                                            |

LOCTITE ECCOBOND EN 190024FL is the fluorescent, light blue color version of LOCTITE 190024 primarily formulated for easy inline inspection. It is recommended for bonding rigid and flexible PVC to polycarbonate where large gap filling capabilities (0.25mm) and a flexible joint are desired. This flexible material is engineered to enhance the load bearing and shock absorbing properties of the bonded area.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity by Rheometer, Cone and Plate, mPa·s (cP):

|                      |        |
|----------------------|--------|
| @ 2 s <sup>-1</sup>  | 38,800 |
| @ 20 s <sup>-1</sup> | 8,000  |

Shelf Life @ 8 to 28 °C (estimated), days 180

Flash Point - See SDS

## TYPICAL CURING PERFORMANCE

### Recommended UV Cure

Light Source and Condition:

Fusion electrodeless Bulb, D Bulb

Metal halide doped spectrum UV lamp:

|                                                          |      |
|----------------------------------------------------------|------|
| Light Intensity, mW/cm <sup>2</sup>                      | 100  |
| UV Wavelength, nm                                        | 365  |
| Light Dose, seconds                                      | 20   |
| Depth of cure , under optimum conditions, at least, inch | 0.20 |

LOCTITE ECCOBOND EN 190024FL can be cured by exposure to UV and/or visible light of sufficient intensity. Curing performance is enhanced by exposure to UV light at 365 nm. Cure conditions (time and light intensity) may vary based on customers' experience and their application requirements as well as customer curing equipment.

## Fixture Time

UV fixture time is defined as the light exposure time required to develop a shear strength of 0.1 N/mm<sup>2</sup>.

UV Fixture Time, ISO 4587, Glass microscope slides, seconds:

100 mW/cm<sup>2</sup> , measured @ 365 nm ≤3

## TYPICAL PROPERTIES OF CURED MATERIAL

Sample cured @ 100 mW/cm<sup>2</sup> for 20 seconds using Fusion electrodeless Bulb, D Bulb light source.

### Physical Properties

|                                  |                                         |
|----------------------------------|-----------------------------------------|
| Elongation , Texture analyzer, % | 255                                     |
| Tensile Modulus                  | N/mm <sup>2</sup> 270<br>(psi) (39,160) |
| Tensile Strength                 | N/mm <sup>2</sup> 20.5<br>(psi) (2,973) |

## TYPICAL PERFORMANCE OF CURED MATERIAL

Sample cured 20 seconds @ 100 mW/cm<sup>2</sup> , using a LED 365nm lamp.

### Shear Strength

Lap Shear Strength :

|                                |                                         |
|--------------------------------|-----------------------------------------|
| Polycarbonate to Polycarbonate | N/mm <sup>2</sup> 18<br>(psi) (2,610)   |
| Polycarbonate to PI            | N/mm <sup>2</sup> 13.8<br>(psi) (2,001) |
| Polycarbonate to PET           | N/mm <sup>2</sup> 13<br>(psi) (1,885)   |
| Polycarbonate to FR4           | N/mm <sup>2</sup> 17.5<br>(psi) (2,538) |

## GENERAL INFORMATION

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

### 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.

## DIRECTIONS FOR USE

- This product is light sensitive; exposure to daylight, UV light and artificial lighting should be kept to a minimum during storage and handling.
- Complete cleaning of the substrate should be performed to remove contamination such as oil, grease, scale, mold release and loose foreign matter.

**STORAGE:**

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

**Optimal Storage: 8 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 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**

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

**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. Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

**In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:**

In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery.

**In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:**

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. 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.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

**In case products are delivered by Henkel Corporation, Resin Technology Group, Inc., or Henkel Canada Corporation, the following disclaimer is applicable:**

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

**Trademark usage**

Except as otherwise noted, all trademarks in this document are trademarks of Henkel Corporation in the U.S. and elsewhere. ® denotes a trademark registered in the U.S. Patent and Trademark Office.

## Reference 1

Americas  
+1.888.943.6535

Europe  
+32.1457.5611

Asia  
+86.21.2891.8000

**For the most direct access to local sales and technical support visit: [www.henkel.com/electronics](http://www.henkel.com/electronics)**