



# LOCTITE® ECCOBOND UF 3578

March 2025

**PRODUCT DESCRIPTION**

LOCTITE® ECCOBOND UF 3578 provides the following product characteristics:

|                             |  |
|-----------------------------|--|
| Technology                  | Epoxy  |
| Appearance                  | Black liquid   |
| Product benefits            | <ul style="list-style-type: none"><li>• One component</li><li>• Thixotropic</li><li>• Fluorescent</li><li>• Fast cure</li><li>• Curable during solder reflow</li></ul> |
| Cure                        | Heat cure  |
| Application                 | Encapsulant, underfill   |
| Typical package application | Capacitor, resistor, connectors, WLCSP   |

LOCTITE® ECCOBOND UF 3578 is designed to for use as fixture/encapsulation of component in PCB assemblies. When cured this material provides excellent mechanical protection for capacitors, resistors, connectors and WLCSP components.

**TYPICAL PROPERTIES OF UNCURED MATERIAL**

|   |         |
|---|---------|
| Viscosity, Rheometer, DHR-2, @ 25°C, mPa.s (cP) |         |
| Shear rate 2s <sup>-1</sup>                     | 210,000 |
| Shear rate 20s <sup>-1</sup>                    | 55,000  |
| Thixotropic index, 2/20, s <sup>-1</sup>        | 3.9     |
| Density, g/cm <sup>3</sup>                      | 1.4     |
| Shelf life @ 2-8°C, months                      | 6       |

**TYPICAL CURING PERFORMANCE**

**Recommended cure condition**  
10 minutes @ 120°C

The above cure profiles are guideline recommendations. These 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**

Sample cured 10 min @ 120°C

**Physical properties**

|  |     |
|--|-----|
| Coefficient of thermal expansion, TMA: |     |
| Below Tg                               | 39  |
| Above Tg                               | 138 |
| Glass Transition Temperature, TMA, °C  | 121 |

**Adhesion properties**

|                          |    |
|--------------------------|----|
| Die shear strength, kg/f |    |
| 3x3mm, Si/FR4            | 38 |

**GENERAL INFORMATION**

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

**Thawing**

1. Allow container to reach room temperature before use.
2. After removing from the freezer, set the syringes to stand vertically while thawing.
3. Thaw time typically 1 hour for 30/55cc syringe.
4. Consult handling guide for more information.
5. DO NOT open the container before contents reach 25°C temperature. Any moisture that collects on the thawed container should be removed prior to opening the container.
6. DO NOT re-freeze. Once thawed to 25°C, the adhesive should not be re-frozen.

**Direction for use**

1. Thawed material should immediately be placed on dispense equipment for use.
2. Adhesive must be completely used within the product's recommended work life.

**Storage**

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

**Optimal storage: 2 to 8°C**

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**

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

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