

# LOCTITE® ECCOBOND 3707

January 2024

## Product description

LOCTITE® ECCOBOND 3707 provides the following product characteristics:

<b>Technology</b>	Epoxy
<b>Appearance</b>	Black liquid
<b>Filler weight, wt%</b>	60
<b>Cure</b>	Heat cured
<b>Typical package application</b>	Flip Chip
<b>Key substrates</b>	PCB
<b>Product benefits</b>	<ul style="list-style-type: none"> <li>• One component</li> <li>• Halogen free</li> <li>• High Tg</li> <li>• Snap curable</li> <li>• Fast flow</li> <li>• Easy rework</li> <li>• High fracture toughness</li> </ul>

LOCTITE® ECCOBOND 3707 UV curable edgebond is designed for bonding various types of electronic components on a PCB.

## Typical properties of uncured material

Viscosity, Brookfield CP52, 25 °C, mPa·s (cP): Speed 20 rpm	9,595
Pot life @ 25°C, days	<7
Shelf Life - Refer to package label	
Flash point - see SDS	

## Typical curing performance

### Recommended UV cure condition

>3.000 mJ or	
>30 seconds @ 100 mW/cm <sup>2</sup>	
Cure depth, mm:	
MPHL (UVALoc1000) at 100 mW/cm <sup>2</sup> , for 30 seconds	≥10

### Oven cure

2 minute @ 130°C

Minimum intensity of 100 mW/cm<sup>2</sup> is recommended for the UV lamp. Use suggested cure schedules as general guidelines; other cure schedules may yield satisfactory results.

The above cure profile is a guideline recommendation. 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

Specimen was prepared by thermal cure only

### Physical properties

Coefficient of thermal expansion, ppm/°C:	
Below Tg	52
Above Tg	151
Glass transition temperature, Tg by TMA, °C	53
Storage modulus, GPa	4.4

### General information

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

### 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.

### Removal procedure

1. Heat the cornerbond to approximately 240°C using a hot air nozzle on standard BGA rework equipment.
2. Component can be twisted and removed.
3. Clean and remove residue using a tacky flux or liquid flux and a solder removal vacuum tool.

### Storage

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

**Optimal Storage: 2°C to 8°C. Storage below 2°C or greater than 8°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 Henkel representative.

### 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/mm <sup>2</sup> 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

## Additional information

### Disclaimer

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.

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Reference 1