

LOCTITE ECCOBOND E 3255

October 2014

PRODUCT DESCRIPTION

LOCTITE ECCOBOND E 3255 provides the following product characteristics:

Technology	Epoxy
Appearance	Yellow / white paste
Cure	Heat cure
Product Benefits	• One component • Ease of use • Fast cure at low temperatures • Sag resistant • Dispensable on vertical surfaces
Application	Assembly
Typical Assembly Applications	Ink jet applications and MEMS devices
Key Substrates	Engineering plastics such as, Polyimide, Polyphenylene oxide, Polybutylene terephthalate, Polysulfone, Silicon, and, Metals such as, Copper and Gold

LOCTITE ECCOBOND E 3255 is designed for bonding dissimilar substrates commonly used in ink jet applications and other MEMS devices.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield - Cone & Plate, CP51, mPa·s (cP):	
Speed 5 rpm	100,000
Thixotropic Index	4.3
Density, ASTM D792, g/cm ³	1.1
Shelf Life @ -20°C, days	56
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

- 20 minutes @ 100°C or
- 10 minutes @ 110°C or
- 5 minutes @ 120°C

High cure temperatures improve both strength and environmental resistance.

The above cure profiles are guideline recommendations. Cure conditions (time and temperature) may vary based on customers' experience and their application requirements, as well as customer curing equipment, oven loading and actual oven temperatures.

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties

Glass Transition Temperature, DMA, °C	49.27
Ramp Rate 3°C/min, 1 Hz, 40u	

Modulus, Ramp Rate 3°C/min, 1 Hz, 40u:

@ 25°C	N/mm ²	2,407
	(psi)	(349,105)

DSC, ramp 10°C/min to 220°C:

Onset, °C	66.76
Peak, °C	91.25
Enthalpy, J/g	153.6

Electrical Properties

Volume Resistivity, ohms-cm	5.16×10 ¹⁴
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GENERAL INFORMATION

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

THAWING:

1. Allow container to reach room temperature before use.
2. After removing from the freezer, set the syringes to stand vertically while thawing.

DIRECTIONS FOR USE

1. Complete cleaning of the substrates should be performed to remove contamination such as oxide layers, dust, moisture, salt and oils which can cause poor adhesion or corrosion in a bonded part.
2. Apply adhesive to all surfaces to be bonded and join together.
3. In most applications only contact pressure is required.

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 : -20 °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.

Conversions

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

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Reference 0.0