

LOCTITE® EA E3050

February 2019

PRODUCT DESCRIPTION

LOCTITE® EA E3050 provides the following product characteristics:

Technology	Epoxy
Chemical Type	Epoxy
Appearance - Part A	White ^{LMS}
Appearance - Part B	Yellow ^{LMS}
Appearance (Mixed)	White
Mix Ratio by volume: Part A: Part B	100 : 80
Mix Ratio by weight: Part A: Part B	1 : 1
Cure	Room temperature cure
Application	Bonding

LOCTITE® EA E3050 has a soft paste consistency which is easy to mix and spread. The good flow control and thixotropy result in excellent gapfilling capability. The adhesive bonds to a wide variety of surfaces to provide high cohesive and impact strength and superior vibration resistance. The long working life facilitates the use of automatic dispensers without fear of premature gelation.

TYPICAL PROPERTIES OF UNCURED MATERIAL**Part A**

Viscosity (mPa.s)	Soft Paste
Specific Gravity	1.38

Part B

Viscosity (mPa.s)	Soft Paste
Specific Gravity	1.06

Mixed

Viscosity (mPa.s)	80,000
Specific Gravity	1.22

TYPICAL CURING PERFORMANCE

Pot Life	2h @ 23 °C
Handling Strength	8h @ 23 °C
Working Strength	24h @ 23 °C 30 min @ 60 °C
Full Strength	72h @ 23 °C 1h @ 60 °C

The cure speed of 2-part epoxy resins is generally affected by the ambient temperature. A fall of 8°C will roughly double the cure time; a rise of 8°C will tend to halve it.

TYPICAL PERFORMANCE OF CURED MATERIAL

Lap Shear Strength, (MPa) 24 (Steel)

On composites this adhesive is capable of strengths similar to that achieved on steel but in most cases delamination on the composite will occur before this load is reached.

On aluminum and copper alloys the modulus and thickness of the metal will define the ultimate bond strength achieved.

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a lubricant for chlorine or other strong oxidizing materials.

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

Directions for use:

1. Thoroughly mix Resin (part A) and Hardener (part B) in the correct proportion.
2. Do not mix more material than can be applied during the 'pot life' of the product.
3. Surfaces should be clean, dry and grease free before applying the adhesive.
4. Where maximum strength is required then the surfaces should be shot blasted, or lightly abraded.

Loctite Material Specification^{LMS}

LMS dated January 24, 2019 (Part A) and LMS dated January 24, 2019 (Part B). Test reports for each batch are available for the indicated properties. LMS test reports include selected QC test parameters considered appropriate to specifications for customer use. Additionally, comprehensive controls are in place to assure product quality and consistency. Special customer specification requirements may be coordinated through Henkel Loctite Quality.

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, the shelf life of this product is 36 months from date of manufacture. . 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

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

Note

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Reference 0.1