

LOCTITE ECCOBOND EA 927-10E

November 2014

PRODUCT DESCRIPTION

LOCTITE ECCOBOND EA 927-10E provides the following product characteristics:

Technology	Epoxy
Appearance	Yellow
Cure	Heat cure
Product Benefits	• One component • Fast heat cure • Resistant to gamma sterilization
Operating Temperature	-40 to +105°C
Application	Assembly

LOCTITE ECCOBOND EA 927-10E is designed for medical device applications. It is also recommended for bonding, sealing or insulating heat sensitive parts. This material adheres well to a variety of substrates including stainless steel, glass and various plastics. It is ideal for application by needle dispense.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Brookfield Viscosity, ASTM D2393, mPa·s (cP):

Speed 10 rpm, spindle 6	11,000
Density, ASTM-D-792, g/cm ³	1.34
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE**Cure Schedule**

- 10 minutes @ 120°C
- 15 minutes @ 100°C
- 20 minutes @ 90°C

This product generates moderate heat during cure. No adverse exotherm effects are obtained when cured at 82°C in masses up to approximately 5grams.

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**

Hardness, Shore D, ASTM D2240	86
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Electrical Properties

Volume Resistivity @ 25°C, ASTM D257, ohm-cm	6×10 ¹⁴
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TYPICAL PERFORMANCE OF CURED MATERIAL**Shear Strength**

Tensile Lap Shear Strength, ASTM D1002:

Aluminum to aluminum: @ 25°C	N/mm ² 9.66 (psi) (1,400)
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GENERAL INFORMATION

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

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

DIRECTIONS FOR USE

1. Remove product from refrigeration and allow to reach ambient temperature before use.
2. Some separation of components is common during shipping and storage. For this reason, it is recommended that the contents of the shipping container be thoroughly mixed prior to use.
3. For best performance surfaces for bonding should be clean, dry and free of grease. For high strength structural bonds, special surface treatments can increase the bond strength and durability.
4. It is recommended that this product is not cured in large quantities as excessive heat build-up and uncontrolled exothermal runaway can occur. Curing smaller quantities will minimize the heat build-up.
5. Keep the assembled parts from moving during cure. The joint should be allowed to develop full strength before subjecting to any service loads.
6. Cure adhesive as recommended in section 'Typical Cure Performance'.
7. Excess uncured adhesive can be wiped away with organic solvent (e.g. Acetone).
8. After use and before adhesive hardens, mixing and application equipment should be cleaned with hot soapy water.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container 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 Technical Service Center or Customer Service Representative.

Conversions

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

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