

LOCTITE ABLESTIK FDA 16

August 2012

PRODUCT DESCRIPTION

LOCTITE ABLESTIK FDA 16 provides the following product characteristics:

Technology	Epoxy
Appearance	Amber
Components	Two part - Resin & Hardener
Mix Ratio, by weight - Resin : Hardener	100 : 33
Product Benefits	• Medium viscosity • Electrically Insulating • Low permeability to gases and vapors • Low temperature cure • Room temperature cure
Cure	Heat cure or Room temperature cure
Application	Medical
Operating Temperature	-70 to 145 °C
Typical Medical Device Application	Catheters, Hearing aids, Dental products and Other biomedical instruments and devices
Other Application Areas	Food preparation processing and packaging

LOCTITE ABLESTIK FDA 16 is designed for medical device applications. LOCTITE ABLESTIK FDA 16 bonds offer resistance to water, weather, galvanic action, petroleum solvents, lubricants, fuels, mild acids and alkalis and other organic and inorganic compounds.

USP CLASS VI BIOLOGICAL REACTIVITY TESTING

LOCTITE ABLESTIK FDA 16 was originally formulated in accordance with Title 21, U.S. Code of Federal Regulations, Food and Drug Administration (FDA) Chapter 1, Sections 175.105 and 175.300. In 1997, this product was also tested by an independent laboratory in accordance with USP Biological Reactivity Tests, In Vivo, Classification VI, and found to be in compliant at that time. This product has not, however, been compared to revisions of these regulations over time.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Thixotropic Index	1.0
Specific Gravity, mixed	0.9
Reactive solids contents, %	100
Pot Life 25 grams, minutes	25
Flash Point - See SDS	

Mixed Properties:

Mixed Viscosity, cP @ 25°C	4,700
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TYPICAL CURING PERFORMANCE

Cure Schedule

72 hours @ 25°C or
1 to 4 hours @ 65°C

Percent Volatiles

VOC, grams/liter	0.15
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Significant properties develop after 24 hours @ 25°C, although LOCTITE ABLESTIK FDA 16 is not fully cured at this point.

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

Coefficient of Thermal Expansion, cm/cm/°C	5.30×10 ⁻⁵
Glass Transition Temperature (Tg), ultimate, °C	97
Hardness, Shore D:	
24 hours @ 25°C	75
4 hours @ 65°C	86
Water Absorption, after 24 hrs saturation, %	0.3

Electrical Properties

Volume Resistivity, ohm-cm @ 25°C	1.20×10 ¹⁴
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TYPICAL PERFORMANCE OF CURED MATERIAL

Lap Shear Strength, psi:

Aluminum/Aluminum

Condition:	
4 hours @ 65°C	3,400
24 hours @ 25°C	2,000

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. Carefully clean and dry all surfaces to be bonded.
2. Remove clamp and thoroughly mix the LOCTITE ABLESTIK FDA 16 epoxy adhesive system components in the handy BIPAX mixing-dispenser package until color is uniform throughout.
3. Apply this completely mixed adhesive to the prepared surfaces, and gently press these surfaces together. Contact pressure is adequate for strong, reliable bonds; however, maintain contact until adhesive is completely cured.
4. 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.

5. Some ingredients in this formulation provided in BIPAX, TRA-PAX and bulk packaging may crystallize when subjected to low temperature storage. A gentle warming cycle of 51°C for 30 minutes prior to mixing components may be necessary. Crystallized epoxy components do not react as well as liquid components and should be redissolved prior to use for best results.

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

The expiration date for pre-mixed and frozen materials is based upon dry storage conditions at or below the temperature indicated on each package. Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage : 27 °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. Contents may separate during storage. Resin or hardener in bulk containers (e.g., quarts, gallons) should be thoroughly mixed prior to combining them to obtain all the benefits of the properties designed into the formulation.

Conversions

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

Disclaimer

Note:

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.

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Reference 0.2