

LOCTITE ABLESTIK 816H01

May 2017

PRODUCT DESCRIPTION

LOCTITE ABLESTIK 816H01 provides the following product characteristics:

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| Technology | Epoxy |
| Appearance | White |
| Components | Two components - requires mixing |
| Mix Ratio, (by weight) Resin : Hardener | 100 : 15 |
| Product Benefits | <ul style="list-style-type: none"> Thermally conductive : 2.0 W/m-K Electrically Insulating Thixotropic |
| Operating Temperature Range | -70 to 115°C |
| Cure | Room Temperature or Heat Cure |
| Application | Component assembly, Non-conductive adhesive |
| Surfaces | Metals, Silica, Steatite, Alumina, Sapphire, Ceramics, Glass and Plastics |

LOCTITE ABLESTIK 816H01 adhesive is used for staking transistors, diodes, resistors, integrated circuits and other heat-sensitive components to printed circuit boards. This adhesive develops strong, durable, high-impact bonds at room temperature which improves heat transfer while maintaining electrical isolation. LOCTITE ABLESTIK 816H01 bonds offer resistance to salt solutions, mild acids and alkalis, petroleum solvents, lubricating oils and other chemicals.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Mixed Properties:

| | |
|--|-------|
| Mixed Viscosity, Brookfield - RV #3, 25 °C, mPa·s (cP) | 5,000 |
| Specific Gravity, mixed | 1,300 |
| Pot life, 25 gram mass, hour | 1 |
| Work Life, 25 gram mass, hours | 3 |
| Flash Point - See SDS | |

TYPICAL CURING PERFORMANCE

Cure Schedule

24 hours @ 25°C or
2 to 4 hours @ 65°C

Percent Volatiles

VOC, grams/liter 8.12

The above cure profile is a guideline recommendation. 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 | 80 |
| Glass Transition Temperature (T _g), °C | 54 |
| Coefficient of Thermal Expansion, cm/cm/°C | 4.0×10 ⁻⁰⁵ |
| Thermal Conductivity, W/(m-K) | 2.0 |
| Reactive solids contents, % | 100 |

Outgassing Properties

| | |
|--|------|
| Outgassing, Sample cured 3 hours @ 65°C: | |
| CVCM, % | 0.02 |
| TML, % | 0.6 |

TYPICAL PERFORMANCE OF CURED MATERIAL

| | |
|-----------------------------------|-------|
| Lap Shear Strength, Al to Al, psi | 1,700 |
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GENERAL INFORMATION

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

DIRECTIONS FOR USE

- Carefully clean and dry all surfaces to be bonded.
- If packaged in BIPAX, remove clamp and thoroughly mix the LOCTITE ABLESTIK 816H01 epoxy adhesive system components in the handy BIPAX mixing-dispenser package until color is uniform throughout.
- If pre-mixed and frozen, thaw adhesive to room temperature. A 25°C water bath is recommended.
- 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.
- Cure at the recommended cure schedules.

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 : 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.

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 **N/A**