Technical Data Sheet

# LOCTITE ABLESTIK FS 163 BIPAX

December 2016

## PRODUCT DESCRIPTION

LOCTITE ABLESTIK FS 163 BIPAX provides the following product characteristics:

| | |
|---|---|
| **Technology** | Polyamide/epoxy |
| **Appearance** | Amber |
| **Cure** | Room Temperature or Heat Cure |
| Product Benefits | • Two component<br>• Medium viscosity<br>• Good toughness<br>• Good mechanical properties<br>• Easy mixing<br>• Low-temperature impact resistance<br>• Low-temperature electrical properties<br>• Low-temperature mechanical properties<br>• Thermal shock resistant<br>• Low permeability to gases and vapors<br>• Good dimensional stability |
| Mix Ratio, by weight - Resin : Hardener | 100 : 100 |
| **Application** | Non-conductive adhesive |
| Operating Temperature | -60 to 100 °C |
| Surfaces | Metals, Rigid plastics, Glass, Ceramics, Leather, Rubber, Wood and Concrete |

LOCTITE ABLESTIK FS 163 BIPAX is recommended for industrial bonding and sealing applications. LOCTITE ABLESTIK FS 163 BIPAX bonds offer resistance to water, weather, ozone, petroleum products, mild acids and alkalis and other chemicals.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

| | |
|---|---|
| Mixed Viscosity @ 25°C, mPa·s (cP) | 30,000 |
| Thixotropic Index | 1.0 |
| Specific Gravity, mixed | 1.12 |
| Pot Life @ 25ºC, minutes | 75 |
| Flash Point - See SDS | |

## TYPICAL CURING PERFORMANCE

**Cure Schedule**

4 hours @ 65°C

24 hours @ 25°C

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 | 77 |
| Coefficient of Linear Thermal Expansion, ppm/ºC | 64 |
| Izod Impact Strength, ft-lb/in. of notch | 1.14 |
| Reactive solids contents, % | 100 |

**Electrical Properties**

| | |
|---|---|
| Dielectric Strength, kV/mm | 18 |
| Dielectric Constant / Dissipation Factor @ 25ºC: @ 1KHz | 3.35/0.01 |
| Volume Resistivity @ 25ºC, ohm-cm | $1.00\times10^{14}$ |

## GENERAL INFORMATION

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

## DIRECTIONS FOR USE

1. Carefully clean and dry all surfaces to be bonded
2. Remove clamp and thoroughly mix the LOCTITE ABLESTIK FS 163 BIPAX 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 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 50ºC 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:**

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**
(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
N x 0.225 = lb
N/mm x 5.71 = lb/in
psi x 145 = N/mm²
MPa = N/mm²
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = 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 1



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