

# LOCTITE ABLESTIK 2111 BIPAX

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## PRODUCT DESCRIPTION

LOCTITE ABLESTIK 2111 BIPAX provides the following product characteristics:

<b>Technology</b>	Epoxy
Color	Hazy white
<b>Cure</b>	Room temperature cure or Heat cure
Operating Temperature	-70 to 100 °C
Product Benefits	<ul style="list-style-type: none"> <li>• Long pot life</li> <li>• Good wetting</li> <li>• Non-sag</li> <li>• Non-drip rheology</li> <li>• Improved impact strength</li> <li>• Excellent thermal and mechanical shock resistance</li> <li>• Excellent environmental resistance</li> </ul>
Mix Ratio, by weight - Resin : Hardener	100 : 30
<b>Application</b>	Assembly
Typical Assembly Applications	Bonding, Laminating, Staking, Repair and Manufacturing
Substrates	Glass, Ceramic, Fabric, Wood, Leather, Glass fabrics, Most metals and Many plastics

LOCTITE ABLESTIK 2111 BIPAX is a thixotropic epoxy resin and hardener formulated for ease of use. This two part adhesive system contains no volatile solvents.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

Mixed Viscosity @ 25 °C, mPa·s (cP):	
Spindle TF, Speed 10 rpm	40,000
Specific Gravity, mixed	1.24
Pot Life:	
@ 25 grams, minutes	40
@ 100 grams, minutes	20

## TYPICAL CURING PERFORMANCE

### Cure Schedule

24 hours @ 25°C

### Alternative Cure Schedule

4 hours @ 25°C plus 4 hours @ 65°C plus

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 Expansion, cm/cm/°C	5.5×10 <sup>-5</sup>
Glass Transition Temperature (T <sub>g</sub> ), °C, ultimate	45.0
Hardness, Shore D	82
Refractive Index	1.53
Water Absorption, after 24 hours, %	3.3
Izod Impact Strength, ft-lb/in. of notch	2
Elongation, %	26

### Outgassing Properties

VOC, grams/liter	31.2
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### Electrical Properties

Volume Resistivity, ohm-cm @ 25°C	9.50×10 <sup>08</sup>
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## TYPICAL PERFORMANCE OF CURED MATERIAL

### Lap Shear Strength :

Aluminum to Aluminum	N/mm <sup>2</sup>	24
	(psi)	(3,500)

## 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 2111 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 52°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 is based upon dry storage conditions at or below 27°C, unless specified otherwise on the packaging, in the original, sealed and unopened containers for BIPAX, TRA-PAX and bulk packaged materials. The expiration date for pre-mixed and frozen materials is based upon dry storage conditions at or below the temperature indicated on each package. 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**

(°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/mm<sup>2</sup>

MPa = N/mm<sup>2</sup>

N·m x 8.851 = lb·in

N·m x 0.738 = lb·ft

N·mm x 0.142 = oz·in

mPa·s = cP

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Reference 1

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