

LOCTITE ABLESTIK 2151

August 2014

PRODUCT DESCRIPTION

LOCTITE ABLESTIK 2151 provides the following product characteristics:

Technology	Epoxy
Appearance	blue
Components	Two component - requires mixing
Product Benefits	<ul style="list-style-type: none"> Thermally conductive Electrically Insulating High adhesion Room temperature cure
Mix Ratio, by weight - Resin : Hardener	100 : 9.5
Typical Assembly Applications	Staking transistors, Diodes, Resistors, Integrated circuits and Heat sensitive components
Cure	Room Temperature or Heat Cure
Operating Temperature	-70 to 115 °C
Application	Conductive adhesive
Surfaces	Many metals, Silica, Steatite, Alumina, Sapphire, Glass, Plastics and Ceramics

LOCTITE ABLESTIK 2151 is a thixotropic, two-part adhesive that develops strong, durable high-impact bonds at room temperature, improving heat transfer while maintaining electrical insulation. LOCTITE ABLESTIK 2151 bonds offer resistance to salts, mild acids and alkalis, petroleum products, lubricating oils and alcohol.

LOCTITE ABLESTIK 2151 passes NASA outgassing standards.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Mixed Properties:

Viscosity @ 25 °C, mPa·s (cP):	
$\nu\#7$, 10 rpm	40,000
Thixotropic Index (5/5 rpm)	1.7
Specific Gravity, g/cm ³	2,300
Reactive solids contents, %	100
Pot life, minutes:	
@ 25 grams	45
@ 100 grams	35
Work Life, hours:	
@ 25 grams	1.5
@ 100 grams	1.25
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

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

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

Coefficient of Thermal Expansion, ppm/°C	26
Glass Transition Temperature (T _g), °C	60
Thermal Conductivity, W/(m·K)	0.95
Hardness, Shore D	90

Electrical Properties

Volume Resistivity, ohms-cm:	
@ 25 °C	2.10×10 ¹⁵
@ 75 °C	2.10×10 ¹⁵

TYPICAL PERFORMANCE OF CURED MATERIAL

Shear Strength

Lap Shear Strength :

Alum to Alum:

Cured @ 65 °C for 2 hours	N/mm ² 20
	(psi) (2,850)
Cured @ 25 °C for 24 hours	N/mm ² 15
	(psi) (2,150)

Gold to gold:

Cured @ 65 °C for 30 minutes	N/mm ² 6
	(psi) (880)

Miscellaneous

Tensile Strength, cured 30 min @ 65°C	N/mm ² 50
	(psi) (7,500)
IZOD Impact Resistance :	
Ft. lbs/inch of notch	0.49
J/m	26

GENERAL INFORMATION

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

DIRECTIONS FOR USE

- Carefully clean and dry all surfaces to be bonded.
- Remove clamp and thoroughly mix the LOCTITE ABLESTIK 2151 epoxy adhesive system components in the handy BIPAX mixing-dispenser package until color is uniform throughout.
- 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.
- 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 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

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
 N/mm² x 145 = psi
 MPa = N/mm²
 MPa x 145 = psi
 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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