

LOCTITE ABLESTIK 2151

November 2016

PRODUCT DESCRIPTION

LOCTITE ABLESTIK 2151 provides the following product characteristics:

Technology	Epoxy
Appearance	blue
Components	Two components - requires mixing
Product Benefits	- 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):	
rv#7, 10 rpm	40,000
Thixotropic Index (5/5 rpm)	1.7
Specific Gravity, g/cm ³	2.3
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 Safety Data Sheet, (SDS).

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