

LOCTITE ABLESTIK XCE 3111

October 2014

PRODUCT DESCRIPTION

LOCTITE ABLESTIK XCE 3111 provides the following product characteristics:

Technology	Epoxy hybrid
Appearance	Silver paste
Filler Type	Silver
Product Benefits	<ul style="list-style-type: none"> • Fast cure • Controlled particle size • Long work life • Pb-free applications • Thermosetting • Isotropic • Conductive
Cure	Heat cure
Application	Electrically Conductive Adhesive

LOCTITE ABLESTIK XCE 3111 one component adhesive is designed for die strap to antenna attach of RFID inlay applications. It is suitable for reel-to-reel production lines and high speed jetting or printing applications and allows exceptional fine pitch resolution.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield - Cone & Plate, 25 °C, mPa·s (cP):	
Plate 4cm @ Shear rate 30 s ⁻¹	18,000
Shear Thinning Index	5.1
Pot life, days	2
Shelf Life @ -40°C, days	183
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

10 seconds @ 110°C at bondline

The cure speed of the product will depend on the efficiency and effectiveness of the heat transfer method used to cure the adhesive. The product can also be cured in a convection oven for longer time. Material properties, however, will depend on the cure condition used.

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

Sample tested By DMA, Ramp Rate 3°C/min, 1 Hz, 40u Amplitude

Physical Properties

Storage Modulus, °C	26
Peak Tan Δ, °C	90

Modulus @ 25°C	N/mm ²	4,100
	(psi)	(595,000)

Electrical Properties

Volume Resistivity @ 25°C, ohm-cm	0.004
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TYPICAL PERFORMANCE OF CURED MATERIAL

Shear Strength

Die Shear Strength:	
2.5 X 2.5 mm (100 x 100 mil) Si die on Cu LF, Kg	5

GENERAL INFORMATION

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

THAWING:

1. Allow container to reach room temperature before use.

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 : -40 °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

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

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 0.1