

# LOCTITE ABLESTIK XE 80100

November 2016

## PRODUCT DESCRIPTION

LOCTITE ABLESTIK XE 80100 provides the following product characteristics:

<b>Technology</b>	Epoxy
<b>Appearance</b>	Off-white
<b>Product Benefits</b>	<ul style="list-style-type: none"> <li>• One component</li> <li>• Non-conductive</li> <li>• Low stress</li> <li>• Solvent-free</li> <li>• Semi flexible</li> <li>• High operating temperature</li> </ul>
<b>Cure</b>	Heat cure
<b>Operating Temperature</b>	-45 to +200°C
<b>Application</b>	Assembly
<b>Typical Assembly Applications</b>	Substrate attach and Heat sink bonding

LOCTITE ABLESTIK XE 80100 is a solventless modified epoxy adhesive that combines low stress with good adhesion on nearly all surfaces and is flexible for mismatched CTE applications. LOCTITE ABLESTIK XE 80100 is the non-conductive version of ECCOBOND CE8500 adhesive.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity @ 25°C, 10 s <sup>-1</sup> , mPa·s (cP)	12
Density, g/cm <sup>3</sup>	1.15
Shelf Life @ -25 to -18°C (from date of manufacture), days	183
Flash Point - See SDS	

## TYPICAL CURING PERFORMANCE Cure Schedule

- 90minutes @ 120°C
- 60minutes @ 150°C
- 15minutes @ 175°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 A	82
Glass Transition Temperature:	
by DMA , %	59
by TMA , %	45
Coefficient of Linear Thermal Expansion, 10 <sup>-6</sup> K <sup>-1</sup>	140
Young's Modulus:	
@ 25°C	N/mm <sup>2</sup> 10 (psi) (1,450)
@ 50°C	N/mm <sup>2</sup> 3 (psi) (435)
@ 100°C	N/mm <sup>2</sup> 2 (psi) (290)
Extractable Ionic Content , ppm:	
Chloride (Cl-)	200
Sodium (Na+)	10
Potassium (K+)	10
Ammonia (NH3+)	75

## TYPICAL PERFORMANCE OF CURED MATERIAL

### Tensile Lap Shear Strength:

Al to Al:	
@ 25°C	N/mm <sup>2</sup> 5.2 (psi) (754)
@ 125°C	N/mm <sup>2</sup> 0.3 (psi) (43.5)
PBT to PBT:	
@ 25°C	N/mm <sup>2</sup> 1.6 (psi) (232)
@ 125°C	N/mm <sup>2</sup> 0.1 (psi) (14.5)

## 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 : -25 to -18 °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** $(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$  $\text{kV/mm} \times 25.4 = \text{V/mil}$  $\text{mm} / 25.4 = \text{inches}$  $\text{N} \times 0.225 = \text{lb}$  $\text{N/mm} \times 5.71 = \text{lb/in}$  $\text{psi} \times 145 = \text{N/mm}^2$  $\text{MPa} = \text{N/mm}^2$  $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$  $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$  $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$  $\text{mPa}\cdot\text{s} = \text{cP}$ **Disclaimer****Note:**

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