

LOCTITE ABLESTIK XCE 3120

October 2014

PRODUCT DESCRIPTION

LOCTITE ABLESTIK XCE 3120 provides the following product characteristics:

Technology	Epoxy
Appearance	Gold Brown
Product Benefits	<ul style="list-style-type: none"> • Snap curable • Low temperature cure • Anisotropic electrically conductive • Low viscosity
Cure	Snap Cure
Application	Assembly
Typical Assembly Applications	Fine pitch flip chip interconnections
Surfaces	Copper, Gold, Aluminum, Plastics, PET and Polyimide

LOCTITE ABLESTIK XCE 3120 anisotropic, epoxy adhesive is designed for high throughput microelectronics assembly applications. It is ideal for use in combination with temperature sensitive substrates and components.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity @ 15 s ⁻¹ , Rheometer, mPa·s (cP)	8,600
Work Life, days	2
Shelf Life @ -20°C (from date of manufacture), days	183
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

- 5seconds @ 150°C or
- 3seconds @ 170°C

The recommended cure condition depends on the bondline temperature used.

The pressure needed during cure is strongly related to the exact design setup. The optimum pressure is best determined for each new design.

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 Thermal Expansion, 10°C/minute:	
Below T _g , ppm/°C	44
Above T _g , ppm/°C	117
Glass Transition Temperature, °C:	
by DMA, 3°C per minute ramp, 1Hz Frequency, 40u Amplitude:	

Storage Modulus	182
Peak Tan Δ	227
Young's ModulusBy DMA, 3°C/minute, 1HzUnit, @ 25°C	N/mm ² (psi) 5,800 (841,000)

TYPICAL PERFORMANCE OF CURED MATERIAL

Die Shear Strength, Kg:	
80 x 80 mil Silicon die on Cu leadframe	4.5

GENERAL INFORMATION

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

THAWING:

1. Allow container to reach room temperature before use.

DIRECTIONS FOR USE

1. Complete cleaning of the substrates should be performed to remove contamination such as oxide layers, dust, moisture, salt and oils which can cause poor adhesion or corrosion in a bonded part.
2. Apply adhesive to surface to be bonded.
3. In most applications only contact pressure is required.

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 : -20 °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

Reference 0.1

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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