

LOCTITE ABLESTIK XCP 3302NS

February 2020

PRODUCT DESCRIPTION

LOCTITE ABLESTIK XCP 3302NS provides the following product characteristics:

Technology	Epoxy
Appearance	Gold
Product Benefits	• High reliability • Use with standard equipment • 8-hour open time after dispense • Long work life • Thermally conductive • Electrically conductive • Passes NASA outgassing
Cure	Heat cure
Application	Assembly
Typical Assembly Applications	Bonding power die to gold-plated substrates

LOCTITE ABLESTIK XCP 3302NS gold filled, electrically conductive adhesive is designed for automatic dispensing operations.

LOCTITE ABLESTIK XCP 3302NS is the no spacer version of LOCTITE ABLESTIK XCP 3302 adhesive.

LOCTITE ABLESTIK XCP 3302NS passes NASA outgassing standards.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield CP51, 25 °C, mPa·s (cP):

Speed 20 rpm 10,000

Work Life@ 25°C, hours 67

Out Time @ 25°C, hours 7.5

Shelf Life @ -40°C (from date of manufacture), 6 months

Flash Point - See SDS

TYPICAL CURING PERFORMANCE Cure Schedule

2hours @ 170°C

Weight Loss on Cure

Weight Loss on Cure, % <2

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, :

Below Tg, 10 ⁻⁶ /°C	25
Above Tg, 10 ⁻⁶ /°C	125
Glass Transition Temperature, °C	115
Tensile Modulus:	
@ -40°C	N/mm ² 6,200 (psi) (900,000)
@ 25°C	N/mm ² 5,400 (psi) (780,000)
@ 100°C	N/mm ² 3,900 (psi) (565,000)
@ 175°C	N/mm ² 120 (psi) (17,000)
Thermal Conductivity, W/(m·K)	1.75

Electrical Properties

Volume Resistivity @ 25°C, ohm-cm 0.0006

TYPICAL PERFORMANCE OF CURED MATERIAL

Die Shear Strength@ 25°C:

2 X 2 mm (80 x 80 mil) Au plated kovar die on Au 8 plated alumina, kg/die

TYPICAL ENVIRONMENTAL RESISTANCE

Outgassing Properties:

Outgassing, NASA Outgassing:	
TML, %	0.18
CVCM, %	0.01
WVR, %	0.03

GENERAL INFORMATION

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

THAWING:

1. After removing from the freezer, set the syringes to stand vertically while thawing.
2. Allow container to reach room temperature before use.
3. DO NOT open the container before contents reach 25°C temperature. Any moisture that collects on the warmed up container should be removed prior to opening the container.
4. DO NOT re-freeze. Once thawed, the adhesive should not be re-frozen.
5. DO NOT thaw in an oven.

DIRECTIONS FOR USE

1. A 22 gage or larger needle is recommended for this adhesive. This will minimize clogging due to agglomerates that may form.

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

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

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Reference 0.3