

LOCTITE ABLESTIK CCD 2

August 2012

PRODUCT DESCRIPTION

LOCTITE ABLESTIK CCD 2 provides the following product characteristics:

Technology	Epoxy
Color	White
Cure	Heat cure
Product Benefits	<ul style="list-style-type: none">• Single component• Oven Curable• Non-conductive• Rapid bond strength development• Rheology suitable for high speed automated printer head units
Application	Assembly
Filler Type	Silica
pH	8.0
Typical Assembly Applications	CCD die attach

LOCTITE ABLESTIK CCD 2 adhesive is designed for use in automated assembly and in-line curing operations.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Thixotropic Index	4.7
Viscosity, Brookfield CP51, 25 °C, mPa·s (cP):	
Speed 5 rpm	17,000
Work Life @ 25°C, hours	24
Shelf Life @ -40°C (from date of manufacture), days	365
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE**Recommended Cure Schedule**

1 hour @ 150°C

Weight Loss on Cure

Weight Loss on Cure, %	22
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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, ppm/°C	35
Above Tg, ppm/°C	75

Glass Transition Temperature, °C 171

Tensile Modulus, DMTA :

@ 25 °C	N/mm ² 3,750 (psi) (543,900)
@ 100 °C	N/mm ² 2,350 (psi) (340,800)
@ 150 °C	N/mm ² 1,220 (psi) (178,900)
@ 250 °C	N/mm ² 400 (psi) (58,000)

Extractable Ionic Content, , ppm:

Chloride (Cl-)	<30
Sodium (Na+)	<1
Potassium (K+)	N/D

Water Extract Conductivity, µmhos/cm 90

Weight Loss After Cure, %:

16 hours Isothermal @ 125°C	0.16
Ramp to 250°C	4.1

Moisture Absorption @ Saturation, wt.% @ 1.6
85°C/85%RH

TYPICAL PERFORMANCE OF CURED MATERIAL

Die Shear Strength:

2 X 2 mm Si die, kg-f/mm² ,
Post Cure

Substrate	@25°C
Ag/Cu leadframe	2.4
BT substrate	4.84

5 X 5 mm Si die, kg-f/mm² ,
Post Cure

Substrate	@25°C
Ag/Cu leadframe	1.51
BT substrate	1.3

Chip Warpage vs Chip Size:0.25 mm thick Si die on Ag plated Cu leadframe, μm

Chip Size:	@25°C
5mm x 10mm (200 x 395 mil)	33
10mm x 10mm (395x 395 mil)	30

GENERAL INFORMATION

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

THAWING:

1. This adhesive is packed and shipped in dry ice at -80°C .
2. Allow container to reach room temperature before use.
3. After removing from the freezer, set the syringes to stand vertically while thawing.
4. DO NOT open the container before contents reach 25°C temperature. Any moisture that collects on the thawed container should be removed prior to opening the container.
5. Any moisture that collects on the thawed package should be removed prior to opening the package.

DIRECTIONS FOR USE

1. This adhesive is designed for pin transfer, dot dispensing and/or syringe applications.
2. Dispense the desired amount of material and place the part/component into deposit using downward force to achieve desired bondline.

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 . Storage below minus ($-$) 40°C or greater than minus ($-$) 40°C can adversely affect product properties.

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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