Technical Data Sheet

LOCTITE ABLESTIK CE3920

September 2013

PRODUCT DESCRIPTION

LOCTITE ABLESTIK CE3920 provides the following product characteristics:

Technology	Epoxy
Appearance	Silver
Product Benefits	• One component • Electrically conductive • Thermosetting • Pb-free alternative to solder • Low viscosity • Low CTE • No post cure required • Low temperature cure • Long work life • Stencil or screen printable
Cure	Heat cure
Application	Assembly
Typical Assembly Applications	SMD interconnect formation and Stencil/screen printing

LOCTITE ABLESTIK CE3920 is designed for dispense or printing applications and SMT assembly processes. The long work life minimizes product waste and clean-up time, providing increased production efficiency.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Cone & Plate, Angle 3º, mPa·s (cP):	
@ Speed 5 rpm	26,100
Thixotropic Index @ 25°C, Speed 0.5/5 rpm	5.7
Shelf Life @ -40°C, months	6
Flash Point - See MSDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

5 minutes @ 150°C (Batch Cure)

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 , TMA, Sample cured , 30 min @ 150°C:	
Below Tg, ppm/°C	29
Above Tg, ppm/°C	130
Glass Transition Temperature (Tg) by TMA, Sample cured , 30 mins @ 150°C, °C	119
Extractable Ionic Content, Sample cured 15 minutes @ 150ºC:	
Chloride (Cl-)	5.1
Sodium (Na+)	0.6
Potassium (K+)	0.2

Electrical Properties

Volume Resistivity @ 25ºC, sample cured 5 minutes @ 150ºC, ohm-cm	0.0003

TYPICAL PERFORMANCE OF CURED MATERIAL

Sample cured 5 minutes @ 150°C

Die Shear Strength:

2 X 2 mm (80 x 80 mil) Si die on Ag Plated Leadframe:

@ 25ºC	N/mm² (psi)	36.5 (5,290)
@ 25ºC, After 30 seconds @ 250ºC	N/mm² (psi)	22.7 (3,290)
@ 250ºC	N/mm² (psi)	1.7 (250)

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. The surfaces on which the adhesive has to be applied should be clean, dry and free from all dust.
2. Bring LOCTITE ABLESTIK CE3920 to room temperature before using.

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 -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

(°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

Reference 0.4

Disclaimer

Note:
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