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LOCTITE

Technical Data Sheet

LOCTITE ABLESTIK ECF 561E

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PRODUCT DESCRIPTION

LOCTITE ABLESTIK ECF 561E provides the following product characteristics:

Technology	Rubberized Epoxy
Appearance	Grey
Cure	Heat cure
Product Benefits	• Electrically conductive in x, y, z axes • Conductive over a high range of frequencies, up the the gigahertz range • Flexible for Bonding Mismatched Adherends • Passes NASA outgassing
Application	Assembly
Carrier Type	Glass fabric
Carrier Thickness	1mil
Filler Type	Silver
Typical Package Application	Substrate attach

LOCTITE ABLESTIK ECF 561E electrically conductive die attach adhesive is designed for bonding materials with severely mismatched coefficients of thermal expansion. When used for substrate attach, this adhesive film acts as an electrical ground plane.

LOCTITE ABLESTIK ECF 561E passes NASA outgassing standards.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Shelf Life @ -40°C (from date of manufacture), days	365

TYPICAL CURING PERFORMANCE

Cure Schedule

1 hour @ 150°C

Alternate Cure Schedule

2 hours @ 125°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

Coefficient of Thermal Expansion, ppm/ºC:	
Below Tg	100
Above Tg	380
Glass Transition Temperature (Tg) by DMTA, °C	47
Thermal Conductivity @ 121°C, W/(m-K)	1.6
Weight Loss @ 300ºC, %	0.55

Electrical Properties

Bond Joint Resistance, ohms/0.5sq inch	0.001

TYPICAL PERFORMANCE OF CURED MATERIAL

Lap Shear Strength, psi:

Substrate	
Al to Al	2000
Au to Au	2100

GENERAL INFORMATION

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

THAWING:

1. Allow container to reach room temperature before use.
2. 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.
3. DO NOT re-freeze. Once thawed to -40°C, the adhesive should not be re-frozen.

DIRECTIONS FOR USE

1. Place precut adhesive film between clean surfaces to be bonded.
2. Apply spring loaded clamp or dead weight to provide continuous pressure of at least 2 to 10 psi during cure cycle.
3. Place assembly in a preheated oven and cure at the recommended cure schedule.
4. LOCTITE ABLESTIK ECF 561E adhesive films can be die cut to customer specifications. Tolerances are as close as ±0.005inch in length or width and ±0.001inch in thickness.

Not for product specifications

The technical data contained herein are intended as reference only. Please contact your local quality department for

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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
(°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
psi x 145 = N/mm²
MPa = N/mm²
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

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Note:
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