LOCTITE ABLESTIK ECF 550

August 2021

PRODUCT DESCRIPTION

LOCTITE ABLESTIK ECF 550 provides the following product characteristics:

Technology	Epoxy Film
Appearance	Gray
Cure	Heat cure
Product Benefits	● Electrically conductive ● Moisture resistant
Application	Assembly
Filler Type	Silver
Carrier Type	Glass fabric
Carrier Film Thickness mil	1 mil
Key Substrates	Gold and other difficult to bond metals

LOCTITE ABLESTIK ECF 550 adhesive is designed for microelectronic applications which require electrical conductivity. When used for substrate attach, this adhesive film acts as an electrical ground plane. In the assembly and sealing of microelectronic packages which require RF shielding, LOCTITE ABLESTIK ECF 550 film adhesive maintains electrical continuity between joints.
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TYPICAL PROPERTIES OF UNCURED MATERIAL

Work Life @ 25°C, months	6
Shelf Life:	
@ 5ºC, months	9
@ -40ºC, year	1

TYPICAL CURING PERFORMANCE

Cure Schedule
30 minutes @ 150°C

Alternative 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 specific application requirements, as well as customer curing equipment, oven loading and actual oven temperatures.
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TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties

Glass Transition Temperature(Tg), °C	101
Coefficient of Thermal Expansion, TMA:	
Below Tg, ppm/°C	64
Above Tg, ppm/°C	402
Thermal Conductivity @ 121°C, W/(m-K)	1.0
Weight Loss @ 300ºC, %	0.2

Electrical Properties

Electrical Resistance Measured through gold joints, 0.001 ohm/0.5 sq. in.

TYPICAL PERFORMANCE OF CURED MATERIAL

Miscellaneous

Lap Shear Strength :			
Al to Al @ 25°C	N/mm²	20	
	(psi)	(3,000)	
Au to Au @ 25°C	N/mm²	24	
	(psi)	(3,500)	

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, the adhesive should not be re-frozen.

Directions for Use

1. Place precut adhesive film between clean surfaces to be bonded.
2. Assemble components.
3. Apply spring loaded clamp or dead weight to provide continuous pressure of at least 2 to 10 psi during cure cycle.
4. Place assembly in a preheated oven and cure at the recommended cure schedule.

AVAILABILITY

1. LOCTITE ABLESTIK ECF 550 adhesive is available in sheet stock, slit rolls or die cut preforms.
2. LOCTITE ABLESTIK ECF 550 adhesive can be die cut to customer specifications.
3. 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 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 Henkel Representative.

Not for product specifications
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Conversions
(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
N x 0.225 = lb/F
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

Disclaimer

Reference 0.2