Technical Data Sheet

LOCTITE ABLESTIK ECF 561

March 2020

PRODUCT DESCRIPTION

LOCTITE ABLESTIK ECF 561 provides the following product characteristics:

Technology	Epoxy Film
Appearance	Gray
Cure	Heat cure
Product Benefits	• Electrically conductive • Flexible • Removable • Passes NASA outgassing
Application	Adhesive Film
Carrier Type	Glass fabric
Filler Type	Silver

LOCTITE ABLESTIK ECF 561 is designed for bonding materials with mismatched coefficients of thermal expansion.

LOCTITE ABLESTIK ECF 561 passes NASA outgassing standards.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Work Life @ 25°C, days	91
Shelf Life @ -40°C (from date of manufacture), days	365

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 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:	
Below Tg, ppm/°C	100
Above Tg, ppm/°C	400
Glass Transition Temperature(Tg), °C	50
Weight Loss @ 300ºC, %	0.23
Thermal Conductivity , W/(m-K)	1.6

Electrical Properties:

Electrical Resistance, ohm/0.5 sq. in.	0.0015

TYPICAL PERFORMANCE OF CURED MATERIAL

Lap Shear Strength kg-f/die vs. Temperature:

Al to Al	N/mm²	11.72
	(psi)	(1,700)
Au to Au	N/mm²	11.03
	(psi)	(1,600)

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.

Removal Procedure

1. In many bonding applications, components may be repaired.
2. Component joined by ABLEFILM ECF561 adhesive can be debonded by heating the assembly to 150°C and sliding a thin blade, such as a razor blade, between the bonded surfaces.

AVAILABILITY

1. LOCTITE ABLESTIK ECF 561 adhesive is available in sheet stock or die cut preforms.
2. LOCTITE ABLESTIK ECF 561 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.
4. This film is supported by 1 mil thick glass fabric.

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
(°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

Note:
The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product. Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

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Reference 0.3