Technical Data Sheet

LOCTITE ABLESTIK EMI 3821FC

August 2019

PRODUCT DESCRIPTION

LOCTITE ABLESTIK EMI 3821FC provides the following product characteristics:

Technology	Epoxy
Appearance	Silver liquid
Cure	Heat cure
Application	Component assembly, Semi-Shielding
Product Benefits	• High flow capability • Low viscosity • Low thixotropy • Low temperature cure • Compatible for use with G30 nozzle • Dispensable silver paste • Electrically conductive • Good reliability performance • Void-free narrow gap filling capability
Typical Package Application	SIP, Newly designed advanced packaging

LOCTITE ABLESTIK EMI 3821FC is an electrically conductive adhesive designed for via, gap or trench filling and for compartment EMI shielding. This product is particularly suitable for packages in which tight control of resin bleed out is required .

A package or device manufactured with LOCTITE ABLESTIK EMI 3821FC will exhibit good resistance to delamination and "popcorning" after multiple reflow temperature exposures during reliability testing.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield CP51, 25 °C, mPa·s (cP):	
Speed 5 rpm	4,557
Thixotropic Index (0.5/5 rpm)	1.7
Work Life @ 25 °C by Brookfield CP51, hours	8
Shelf Life @ -40°C, days	180
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Recommended Curing Conditions

30 mins ramp to 175°C plus 60 mins @ 175 °C or
30 mins ramp to 150°C plus 60 mins @ 150 °C

Weight Loss

Weight Loss on Cure, TGA, %	5.0

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

Glass Transition Temperature (Tg) by DMA, °C	152
DMA Modulus :	
@ 25°C, N/mm²	6,608
@ 100°C, N/mm²	2,619
@ 150°C, N/mm²	1,265
Thermal Conductivity , Laser Flash, W/(m-K)	11

Electrical Properties

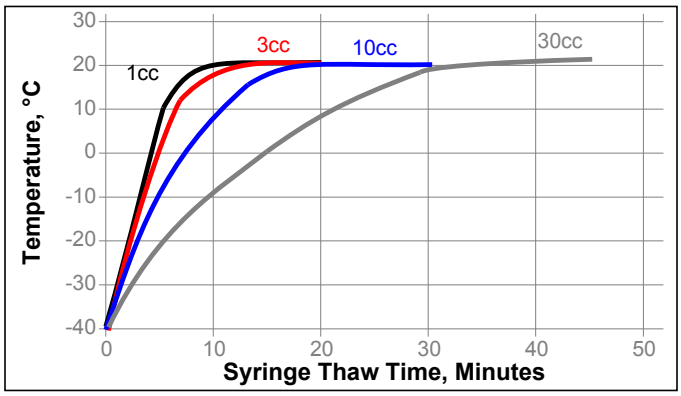
Volume Resistivity , ohms-cm	6×10^{-5}

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. After removing from the freezer, set the syringes to stand vertically while thawing.
3. Refer to the Syringe Thaw time chart for the thaw time recommendation.
4. DO NOT open the container before contents reach 25°C temperature. Any moisture that collects on the warmed up container should be removed prior to opening the container.
5. DO NOT re-freeze. Once thawed to 25°C, the adhesive should not be re-frozen.



DIRECTIONS FOR USE

1. Thawed material should immediately be placed on dispense equipment for use.
2. If the adhesive is transferred to a final dispensing reservoir, care must be exercised to avoid entrapment of contaminants and/or air into the adhesive.
3. Adhesive must be completely used within the product's recommended work life.
4. Filler-resin separation may occur if the adhesive is left out at 25°C, beyond the recommended work life.
5. Alternate dispense amounts may be used depending on the application requirements.
6. Star or crossed shaped dispense patterns will yield fewer bondline voids than the matrix style of dispense pattern.
7. LOCTITE ABLESTIK EMI 3821FC, while still in the original syringe packaging, may show a slight color differential at the tip and piston side. Please note that this is a visual difference only and has no impact to the adhesive performance.

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 (+/- 5ºC)

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.

CLEAN-UP

The material can be cleaned with esters (butylacetate, ethylacetate) or ketones (MEK).

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.

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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

Reference 1

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Loctite:

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