Technical Data Sheet

LOCTITE ABLESTIK CF 3366

March 2019

PRODUCT DESCRIPTION

LOCTITE ABLESTIK CF 3366 provides the following product characteristics:

Technology	Epoxy Film
Appearance	Gray Tan
Cure	Heat cure
Product Benefits	• High adhesion strength at elevated temperatures • High electrical conductivity • High thermal conductivity • Low cure temperature • Custom preforms • Adhesion with flexibility • Uniform bondline adhesion • Void-free bondline • Passes NASA outgassing
Application	Assembly
Filler Type	Silver
Thickness	102µm
Substrates	Copper, Brass, Kovar and Aluminum
Typical Assembly Applications	Fluoropolymer circuits, Ceramic circuits, Metal backplanes and Heatsinks

LOCTITE ABLESTIK CF 3366 film adhesive is formulated for electrical, thermal and mechanical assembly applications. The combination of adhesive properties ensures reliable RF ground plane performance suitable for extreme environmental conditions.

LOCTITE ABLESTIK CF 3366 passes NASA outgassing standards.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Work Life @ 25°C, days	91
Shelf Life @ 5°C (from date of manufacture), days	183
Peak Exotherm Temperature, DSC, Ramp Rate=10ºC/ minute	165ºC ± 5ºC

TYPICAL CURING PERFORMANCE

Cure Schedule

60 minutes @ 150°C

Alternate Cure Schedule

120 minutes @ 125°C

Cure Pressure

10 to 60 psi

Cure pressure may vary depending on the materials being bonded and their size.

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		85
Above Tg, ppm/°C		195
Glass Transition Temperature, DMA, °C		190
Storage Modulus, DMA:		
@ 25 °C	N/mm² (psi)	4,500 (652,669)
@ 100 °C	N/mm² (psi)	2,500 (362,594)
@ 150 °C	N/mm² (psi)	900 (130,534)
Extractable Ionic Content, @ 100°C:		
Chloride (Cl-)		45
Sodium (Na+)		20
Potassium (K+)		175

Electrical Properties

Volume Resistivity, ohm-cm @ 25ºC	0.0003

TYPICAL PERFORMANCE OF CURED MATERIAL

Miscellaneous

Tensile Lap Shear Strength, Al to Al:		
@ 25ºC	N/mm² (psi)	12 (1,750)
@ 150ºC	N/mm² (psi)	5.17 (750)

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. Product is ready to use when it has reached 22°C once removed from frozen or cold temperature storage.
2. Adhesive must be completely used within the product's recommended work life of 3 months.
3. Pressure needs to be applied during cure to promote proper wetting of substrate surfaces. The technique to apply pressure will vary by application and customer preference. For large surface area applications, a load distribution material is recommended between one of the pressure plates and the bonding part in order to equalize the applied pressure over the entire area.
4. Please refer to the Cure Pressure data section of the Technical Data Sheet for the recommended applied pressure range.
5. After fixturing, the parts are then cured at an elevated temperature.
6. The specified temperatures and times refer to the bondline values. It should be noted that large mass assemblies will take longer time to achieve bondline temperatures.
7. LOCTITE ABLESTIK CF 3366 becomes brittle at temperatures below -5ºC. If material goes below this temperature, it should be

handled gently. Entire package should be warmed to room temperature before opening. This will minimize the possibility of fracturing in the brittle state or allowing condensation to collect on the product.

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 in original, tightly covered containers in clean, dry areas. Storage information may be indicated on the product container labeling. Usable shelf life may vary depending on method of application and storage conditions.

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

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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