

LOCTITE ABLESTIK SF 40

June 2016

PRODUCT DESCRIPTION

LOCTITE ABLESTIK SF 40 provides the following product characteristics:

Technology (Part A)	Epoxy
Technology (Part B)	Amine
Appearance - Part A	White paste
Appearance - Part B	Amber liquid
Product Benefits	• Two component • Lightweight • Non-sag • Room temperature cure • Thixotropic • Low density syntactic foam • Good bond strength • Machinable
Components	Two components - requires mixing
Mix Ratio, by weight - Part A: Part B	100 : 9
Cure	Room Temperature or Heat Cure
Application	Non-conductive adhesive
Typical Assembly Applications	Aerospace applications and Hydrospace applications
Key Substrates	Ceramics, Metals and Plastics
Operating Temperature Range	-40 to 120°C

LOCTITE ABLESTIK SF 40 is a good choice for repairing vertical surfaces with little added weight.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties ECCOBOND SF 40

Density, ASTM D792, g/cm ³	0.61
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Part B Properties ECCOBOND SF 40

Brookfield Viscosity, ASTM D2393, mPa·s (cP)	95
Density, ASTM D792, g/cm ³	0.98

Mixed Properties

Density, ASTM D792, g/cm ³	0.64
Work Life (100 g) @ 25 °C, minutes	30
Shelf Life @ 25°C, days	365
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

- 48 to 72 hours @ 25°C or
- 2 to 4 hours @ 65°C

For optimum performance, follow the initial cure with a post cure of 2 to 4 hours at maximum expected operating temperature.

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

Hardness, Shore D, ASTM D2240	70
Water Absorption, ASTM D 570, %	2.0
Coefficient of Thermal Expansion, ASTM D3386:	
Below Tg, ppm/°C	33
Above Tg, ppm/°C	107
Glass Transition Temperature, ASTM D3418, °C	107

Electrical Properties

Dielectric Strength, ASTM D149, kV/mm	13.8
Dielectric Constant / Dissipation Factor, ASTM D150:	
@ 1mHz	2.5/0.02
Volume Resistivity @ 25 °C, ASTM D257, ohm-cm	1×10 ¹²

Outgassing Properties

Outgassing, ASTM E 595, %:	
TML	0.23
CVCM	0.04

TYPICAL PERFORMANCE OF CURED MATERIAL

Miscellaneous

Tensile Lap Shear Strength :	
Al to Al:	
@ 25 °C	N/mm ² 14.5 (psi) (2,100)
@ 65 °C	N/mm ² 12.4 (psi) (1,800)

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. Complete cleaning of the substrates should be performed to remove contamination such as oxide layers, dust, moisture, salt and oils which can cause poor adhesion or corrosion in a bonded part.
2. Some filler settling is common during shipping and storage. For this reason, it is recommended that the contents of the shipping container be thoroughly mixed prior to use. Power mixing is preferred to ensure a homogeneous product.
3. Accurately weigh resin and hardener into a clean container in the recommended ratio. Weighing apparatus having an accuracy in proportion to the amounts being weighed should be used.
4. Blend components by hand, using a kneading motion, for 2 to 3 minutes and scrape the bottom and sides of the mixing container

frequently to produce a uniform mixture.

5. If possible, power mix for an additional 2 to 3 minutes. Avoid high mixing speeds. This can entrap excessive amounts of air. It can also cause overheating of the mixture, resulting in reduced working life.
6. Apply adhesive to all surfaces to be bonded and join together.
7. In most applications only contact pressure is required.
8. Certain resins and hardeners are prone to crystallization. If crystallization does occur, warm the contents of the shipping container to 50 to 60°C until all crystals have dissolved. Shipping container must be loosely covered during the warming stage to prevent any pressure build-up.

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.

Optimal Storage : 25 °C

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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