Technical Data Sheet

BERGQUIST GAP FILLER TGF 1500LVO

Formerly known as GAP FILLER 1500LV
September 2023

PRODUCT DESCRIPTION

A thermally conductive, liquid gap filler material.

Technology	Silicone
Appearance (cured)	Yellow
Appearance - Part A	Yellow
Appearance - Part B	White
Cure	Room temperature cure or Heat cure
Application	Thermal management, TIM (Thermal Interface Material)
Mix Ratio by weight: Part A: Part B	1 : 1
Mix Ratio by volume: Part A: Part B	1 : 1
Solids Content, %	100
Operating Temperature Range	-60 to 200ºC

FEATURES AND BENEFITS

- Thermal Conductivity: 1.8 W/m-K
- Low volatility for silicone sensitive applications
- 100% solids - no cure by-products
- Ultra-conforming, with excellent wet-out
- Excellent low and high temperature mechanical and chemical stability

BERGQUIST GAP FILLER TGF 1500LVO is a thermally conductive, liquid gap filling material. This material offers the high temperature resistance and low modulus of a silicone material with significantly lower levels of silicone outgassing for use in silicone sensitive application.

The mixed system will cure at room temperature and can be accelerated with the addition of heat. As cured BERGQUIST GAP FILLER TGF 1500LVO provides a soft, thermally conductive, form-in place elastomer that is ideal for fragile assemblies and filling unique and intricate air voids and gaps.

Liquid dispensed thermal materials offer infinite thickness variations and impart little to no stress on sensitive components during assembly. BERGQUIST GAP FILLER TGF 1500LVO exhibits low level natural tack characteristics and is intended for use in applications where a strong structural bond is not required.

TYPICAL APPLICATIONS

- Lighting
- Automotive electronics (HEV, NEV, batteries)
- Silicone-sensitive electronics

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, High shear, Capillary, ASTM D5099, mPa·s (cP): 3,000/ sec. Part A and B measured separately.	20,000
Density, ASTM D792, g/cc	2.7
Working Time @ 25°C, Parallel plate rheometer, see reactivity application note, @ 120 minutes	
Shelf Life @ 25ºC , days	180

TYPICAL CURE SCHEDULE

Cure Schedule

8 hours @ 25°C
10 minutes @ 100°C

Parallel plate rheometer, see reactivity application note.

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 00, Thirty second delay value, ASTM D2240	80
Heat Capacity, ASTM E1269, J/g-K	1.0
Flammability, UL 94	V-0
Siloxane Content, ΣD4-D10, ppm	<100

Electrical Properties

Dielectric Strength, ASTM D149, V/mil	400
Dielectric Constant , ASTM D150 @ 1,000 Hz	6.2
Volume Resistivity, ASTM D257, ohm-meter	1×10^{10}

Thermal Properties

Thermal Conductivity, ASTM D5470, W/(m-K)	1.8

GENERAL INFORMATION

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

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.

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CONFIGURATIONS AVAILABLE

BERGQUIST GAP FILLER TGF 1500LVO is available in the following configurations:

- Cartridges
- Kits

Application:

- Mixed and dispensed using dual tube cartridge packs with static mixers and a manual or pneumatic gun
- Mixed and dispensed using industry standard high volume mixing and dispensing document

STORAGE

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage: 5 to 25ºC for a 6 month shelf life. 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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Reference 2

Henkel AG & Co. KGaA
40191 Düsseldorf, Germany
Phone: +49-211-797-0

Henkel Corporation USA
Madison Heights, MI 48071
Phone: +1-248-583-9300

Henkel (China) Co. Ltd.
201203 Shanghai, China
Phone: +86.21.2891.8000

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BERGQUIST:

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