



# BERGQUIST GAP FILLER TGF 3500LVO

Known as BERGQUIST GAP FILLER 3500LV  
November 2020

## PRODUCT DESCRIPTION

A thermally conductive, liquid gap filler material.

<b>Technology</b>	Silicone
Appearance (cured)	Light blue
Appearance - Part A	Blue
Appearance - Part B	White
<b>Cure</b>	Room temperature cure or Heat cure
<b>Application</b>	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 200°C

## FEATURES AND BENEFITS

- Thermal Conductivity: 3.5 W/m-K
- Low volatility for outgassing sensitive applications
- Ultra-conforming, with excellent wet-out for low stress interface applications
- 100% solids - no cure by-products

BERGQUIST GAP FILLER TGF 3500LVO is a two-part, high thermal conductivity, liquid gap filling material. This material offers the mechanical property benefits of a silicone material with the additional feature of low outgassing.

The mixed system will cure at room temperature and can be accelerated with the addition of heat.

The liquid approach offers infinite thickness variations with little to no stress to sensitive components during assembly. As cured, BERGQUIST GAP FILLER TGF 3500LVO provides a soft, form-in place elastomer that is ideal for fragile assemblies or for filling intricate air voids.

## TYPICAL APPLICATIONS

- Lighting
- Automotive in-cabin electronics
- Medical electronics
- Industrial controls
- Optics

## TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, High shear, Capillary, ASTM D5099, mPa·s (cP):  
1,500/ sec, Part A and B measured separately 45,000  
Density, ASTM D792, g/cc 3.1  
Working Time @ 25°C, @ 240 minutes  
Shelf Life @ 25°C, days 180

## TYPICAL CURE SCHEDULE

**Cure Schedule**  
24 hours @ 25°C  
30 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 specific 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 40  
Heat Capacity, ASTM D1269, J/g-K 0.8  
Flammability, UL 94 V-0  
Siloxane Content, ΣD4-D10, ppm 40

### Electrical Properties

Dielectric Strength, ASTM D149, V/mil 275  
Dielectric Constant, ASTM D150 @ 1,000 Hz 8.0  
Volume Resistivity, ASTM D257, ohm-meter  $1 \times 10^{10}$



**Thermal Properties**

Thermal Conductivity, ASTM D5470, W/(m-K) 3.5

**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.

The above cure profiles are guideline recommendations. Cure conditions (time and temperature) may vary based on customers' experience and specific application requirements, as well as customer curing equipment, oven loading and actual oven temperatures.

**CONFIGURATIONS AVAILABLE**

BERGQUIST GAP FILLER TGF 3500LVO 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 25°C for a 180-day shelf life, in sealed containers with moisture barrier packaging.

**Conversions**

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$   
 $\text{kV/mm} \times 25.4 = \text{V/mil}$   
 $\text{mm} / 25.4 = \text{inches}$   
 $\text{N} \times 0.225 = \text{lb/F}$   
 $\text{N/mm} \times 5.71 = \text{lb/in}$   
 $\text{psi} \times 145 = \text{N/mm}^2$   
 $\text{MPa} = \text{N/mm}^2$   
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$   
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$   
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$   
 $\text{mPa}\cdot\text{s} = \text{cP}$

**Disclaimer**

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.

**In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:**

In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery.

**In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:**

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. 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.

**In case products are delivered by Henkel Corporation, or Henkel Canada Corporation, the following disclaimer is applicable:**

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

**Trademark usage**

Except as otherwise noted, all trademarks in this document are trademarks of Henkel Corporation in the U.S. and elsewhere. ® denotes a trademark registered in the U.S. Patent and Trademark Office.

## Reference 2