



# BERGQUIST GAP FILLER TGF 2900LVO

September 2023

## PRODUCT DESCRIPTION

BERGQUIST GAP FILLER TGF 2900LVO provides the following product characteristics:

<b>Technology</b>	Silicone
Appearance - Part A	Blue
Appearance - Part B	White
Appearance (cured)	Pale blue
<b>Application</b>	Thermal management, Gap Filler (2K)
Mix Ratio by weight: Part A: Part B	1 : 1
Mix Ratio by volume: Part A: Part B	1 : 1
Operating temperature, °C	-40 to 150
<b>Cure</b>	Room Temperature or Heat Cure

## FEATURES AND BENEFITS

- Thermal Conductivity: 2.9W/(m.K)
- Low Volatile Outgassing (LVO)
- Outstanding Slump-Resistance
- Suited for ultra-thin bondline thickness
- Outstanding dispensing flow behavior
- Low abrasiveness
- High storage and sedimentation stability

BERGQUIST GAP FILLER TGF 2900LVO is a silicone, 2-part room temperature curable gap filler suitable for use in a wide range of electronic assembly applications. With 2.9 W/(m.K) thermal conductivity and the possibility to achieve ultra-thin bondline thickness, it provides an excellent and versatile solution to optimize heat dissipation in challenging conditions.

This material is an exceptional choice for use in automotive, industrial and consumer applications. .

## TYPICAL APPLICATIONS

- Automotive control modules
- Applications sensitive to siloxane outgassing
- High throughput manufacturing
- Applications where heat transfer needs to be optimized by material's thin bondline achievable

## TYPICAL UNCURED PROPERTIES

### BERGQUIST GAP FILLER TGF 2900LVO Part A

Viscosity, Pa·s:

Low shear rate, 1.0 s<sup>-1</sup>, DIN 53019 1,300

High shear rate, 1,500 s<sup>-1</sup>, ASTM D5099 54

Shelf Life @ 25°C, days 180\*

\*shelf-life extension under investigation

### BERGQUIST GAP FILLER TGF 2900LVO Part B

Viscosity, Pa·s:

Low shear rate, 1.0 s<sup>-1</sup>, DIN 53019 1,300

High shear rate, 1,500 s<sup>-1</sup>, ASTM D5099 51

Storage Life @ 25°C, days 180\*

\*shelf-life extension under investigation

## Mixed Properties

Bondline thickness, Internal\*, µm 35

Density, ASTM D792, g/cc 2.97

Working Time @ 25°C, ASTM D4473, min 120

Working Time @ 40°C, ASTM D4473, min 20

\*Adaptive compression speed, 0.1MPa max stress, 25mm diameter plate

## TYPICAL CURING PERFORMANCE

### Cure Schedule , ASTM D4473

@ 25°C , hours 12

@ 40°C , min 180

@ 100°C , min <5

The above cure profile(s) are guideline recommendation(s). These 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, ASTM D2240 55

Heat Capacity, ASTM E1269, J/(g.K) 0.94

Flammability,UL 94 V-0



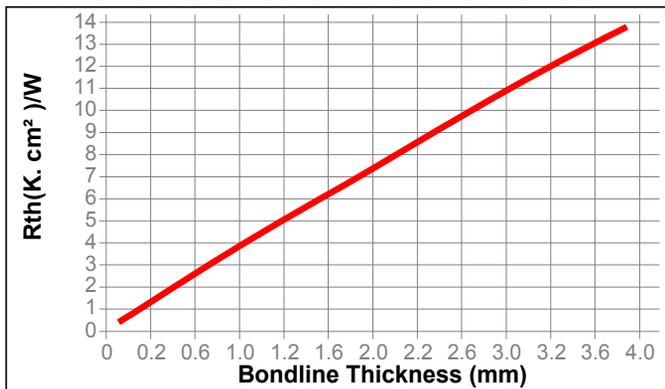
Siloxane Content, $\Sigma$ D4-D6 , ASTM F2466, ppm	ND*
Siloxane Content, $\Sigma$ D7-D10 , ASTM F2466, ppm	<40
*ND: Not Detectable	

**Electrical Properties**

Dielectric Constant , ASTM D150@ 0.1 to 20 GHz	6.78
Volume Resistivity, DC, ASTM D257, $\Omega$ .m	$1 \times 10^{10}$
Dielectric Strength , AC, ASTM D149, kV/mm	>9

**Thermal Properties (Bulk)**

Thermal Conductivity, , ASTM D5470, W/(m.K)	2.9
Thermal Resistance, ASTM D5470, (K.cm <sup>2</sup> )/W:	
@ 0.2 mm	1.2
@ 1.0 mm	3.7
@ 2.0 mm	7.2

**Bulk Thermal Resistance R<sub>th</sub> vs Bondline Thickness****GENERAL INFORMATION**

Please consult the **Safety Data Sheet (SDS)** for safe handling information of this product.

**Not for product specifications**

The technical data contained herein are intended as reference only. Please contact your local Henkel representative for assistance and recommendations on the specifications of 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 2900LVO is available in pail kits (6 gallons) and cartridges (50cc, 400cc, 1200cc).

**STORAGE**

Store in unopened containers in controlled environment, ideally between 5 to 25°C.

Optimal Storage: 20°C for a 6-month shelf life, in sealed

containers.

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.

**SHIPPING CONDITIONS**

Short periods of time above the recommended storage temperature have not been shown to affect material's properties, negatively.

**Conversions**

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

## ADDITIONAL INFORMATION

### 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.

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