



# BERGQUIST GAP FILLER TGF 3600

Known as BERGQUIST GAP FILLER 3500S35  
October 2018

## PRODUCT DESCRIPTION

A thermally conductive, liquid gap filler material.

<b>Technology</b>	Silicone
Appearance (cured)	Blue
Appearance - Part A	White
Appearance - Part B	Blue
<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
Operating Temperature Range	-60 to 200°C

## FEATURES AND BENEFITS

- Thermal Conductivity: 3.6 W/m-K
- Thixotropic nature makes it easy to dispense
- Two-part formulation for easy storage
- Ultra-conforming, designed for fragile and low-stress applications
- Ambient and accelerated cure schedules

BERGQUIST GAP FILLER TGF 3600 is a two-component liquid gap filling material, cured at either room or elevated temperature, featuring ultra-high thermal performance and superior softness. Prior to curing, the material maintains good thixotropic characteristics as well as low viscosity.

The result is a gel-like liquid material designed to fill air gaps and voids yet flow when acted upon by an external force (e.g. dispensing or assembly process). The material is an excellent solution for interfacing fragile components with high topography and/or stack-up tolerances to a universal heat sink or housing.

Once cured, it remains a low modulus elastomer designed to assist in relieving CTE stresses during thermal cycling yet maintain enough modulus to prevent pump-out from the interface. BERGQUIST GAP FILLER TGF 3600 will lightly adhere to surfaces, thus improving surface area contact. BERGQUIST GAP FILLER TGF 3600 is not designed to be a structural adhesive.

## TYPICAL APPLICATIONS

- Automotive electronics (HEV, NEV, batteries)
- PCBA to housing
- Discrete components to housing
- Fiber optic telecommunications equipment

## TYPICAL PROPERTIES OF UNCURED MATERIAL

Mixed Viscosity, Brookfield - RV, - Helipath, ASTM D2196, 25 °C, mPa·s (cP):  
 Spindle TF, Speed 20 rpm 150,000  
 Density, ASTM D792, g/cc 3.0  
 Pot life @ 25 °C, time for viscosity to double, minutes 60  
 Shelf Life @ 25°C , days 150

## TYPICAL CURE SCHEDULE

**Cure Schedule**  
 15 hours @ 25°C  
 30 minutes @ 100°C  
 Rheometer - time to read 90% cure.

## TYPICAL PROPERTIES OF CURED MATERIAL

**Physical Properties**  
 Hardness, Shore 00, Thirty second delay value, ASTM D2240 35  
 Flammability, UL 94 V-0

**Electrical Properties**  
 Dielectric Strength, ASTM D149, V/mil 275  
 Dielectric Constant , ASTM D150 @ 1,000 Hz 8.0  
 Volume Resistivity, ASTM D257, ohm-meter 1×10<sup>09</sup>

**Thermal Properties**  
 Thermal Conductivity, ASTM D5470, W/(m-K) 3.6

## 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 their application requirements, as well as customer curing equipment, oven loading and actual oven temperatures.



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**CONFIGURATIONS AVAILABLE**

BERGQUIST GAP FILLER TGF 3600 is available in the following configurations:

- Cartridges
- Kits

**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 5 month shelf life, in sealed containers with moisture barrier packaging.

**Conversions**

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

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Reference 2