



BERGQUIST GAP FILLER TGF 1400SL

Known as BERGQUIST GAP FILLER 1400SL
October 2018

PRODUCT DESCRIPTION

Thermally Conductive, Self-Leveling, Liquid Gap Filling 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 |
| Operating Temperature Range | -60 to 200°C |

FEATURES AND BENEFITS

- Thermal Conductivity: 1.4 W/m-K
- Self-Leveling
- Very Soft
- Vibration Dampening

BERGQUIST GAP FILLER TGF 1400SL is a two-part, thermally conductive, silicone based, liquid gap filling material. This material has an extremely low viscosity to enable self-leveling and filling of voids resulting in excellent thermal transfer.

Unlike cured thermal pad materials, a liquid approach offers infinite thickness variations with little or no stress to the sensitive components during assembly. As cured BERGQUIST GAP FILLER TGF 1400SL provides a soft, thermally conductive, form-in place elastomer that is ideal for fragile assemblies and filling unique and intricate gaps.

BERGQUIST GAP FILLER TGF 1400SL exhibits low level natural tack characteristics and is intended for use in applications where a strong structural bond is not required.

TYPICAL APPLICATIONS

- Automotive electronics (HEV, NEV, batteries)
- Telecommunications
- Encapsulating semiconductors and magnetic components with heatsink
- Silicone-sensitive applications
- Lighting
- Power supplies

TYPICAL PROPERTIES OF UNCURED MATERIAL

| | |
|---|-------|
| Mixed Viscosity, Brookfield , ASTM D2196, mPa·s (cP): | |
| Part A and Part B mixed 1:1 ratio | 5,000 |
| Density, ASTM D792, g/cc | 2.5 |
| Working Time @ 25°C, minutes | 120 |
| 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.

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties

| | |
|---|-----|
| Hardness, Shore 00, Thirty second delay value, ASTM D2240 | 40 |
| Heat Capacity, ASTM D1269, J/g-K | 0.9 |
| Flammability, UL 94 | V-0 |
| Siloxane Content, ΣD4-D10, ppm | 40 |

Electrical Properties

| | |
|--|--------------------|
| Dielectric Strength, ASTM D149, V/mil | 250 |
| Dielectric Constant , ASTM D150 @ 1,000 Hz | 6.0 |
| Volume Resistivity, ASTM D257, ohm-meter | 1×10 ¹¹ |

Thermal Properties

| | |
|---|-----|
| Thermal Conductivity, ASTM D5470, W/(m-K) | 1.4 |
|---|-----|

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.



Henkel Bergquist Preferred Converter

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CONFIGURATIONS AVAILABLE

BERGQUIST GAP FILLER TGF 1400SL is available in the following configurations:

| | |
|------|----------|
| Kits | 1,200cc |
| Pail | 7 gallon |

DISPENSING

Due to its low viscosity nature, BERGQUIST GAP FILLER TGF 1400SL will settle upon storage. Each container must be thoroughly mixed before combining Part A and Part B via static mixer and dispensing into application.

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 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

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

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