

BERGQUIST GAP FILLER TGF 1500RW

April 2019

PRODUCT DESCRIPTION

A one-part, high performance, peelable, thermally conductive liquid gap filling material.

Technology	Silicone
Appearance	Yellow
Appearance (cured)	
Cure	Heat cure
Application	Thermal management, TIM (Thermal Interface Material)
Operating Temperature Range	-60 to 200°C
UL Flammability Rating	UL 94 V-0

FEATURES AND BENEFITS

BERGQUIST GAP FILLER TGF 1500RW is a one-part, thermally conductive silicone material designed for dispense application and then cured with heat. Once cured, this material can be peeled away from contact surfaces for ease of rework. BERGQUIST GAP FILLER TGF 1500RW offers infinite thickness variations with little or no stress to the sensitive components during and following assembly. As cured BERGQUIST GAP FILLER TGF 1500RW provides a soft, thermally conductive, form-in place elastomer that is ideal for fragile assemblies and filling unique and intricate air voids and gaps.

TYPICAL APPLICATIONS

- Smart phone processors
- Assemblies that require rework

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Capillary, ASTM D5099, mPa·s (cP):	
High shear, Shear Rate 3,000 s ⁻¹	30,000
Viscosity, Parallel Plate, ASTM D2196, mPa·s (cP):	
Low shear, Shear Rate 1 s ⁻¹	600,000
Density, ASTM D792, g/cc	2.6
Pot life @ 25°C, ASTM D4473, days	3

TYPICAL CURE SCHEDULE

Cure Schedule

- 5 hours @ 50°C, ASTM D4473
- 30 minutes @ 100°C, ASTM D4473

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 A, 30 second delay, ASTM D2240	40
Heat Capacity, ASTM E1269, J/g-K	1.0

Electrical Properties

Dielectric Strength, ASTM D149, V/mm	12,000
Dielectric Constant, ASTM D150, 1,000Hz	6.2
Volume Resistivity, ASTM D257, ohm-meter	1×10 ⁹

Thermal Properties

Thermal Conductivity, ASTM D5470, W/(m-K)	1.5
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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 1500RW is supplied in:

Cartridges	300cc
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THAWING:

1. Allow container to reach room temperature before use.
2. DO NOT open the container before contents reach 25°C temperature. Any moisture that collects on the thawed container should be removed prior to opening the container.
3. DO NOT re-refrigerate. Once warmed to room temperature, the adhesive should not be re-refrigerated.

STORAGE

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

Optimal Storage: $\leq -20^{\circ}\text{C}$ for a 6 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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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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