Technical Data Sheet

BERGQUIST GAP FILLER TGF 1000SR

Known as BERGQUIST GAP FILLER 1000SR
September 2023

PRODUCT DESCRIPTION

A thermally conductive, liquid gap filler material.

Technology	Silicone
Appearance (cured)	Violet
Appearance - Part A	Violet
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
Solids Content, %	100
Operating Temperature Range	-60 to 175ºC

FEATURES AND BENEFITS

- Thermal Conductivity: 1.0 W/m-K
- Excellent slump resistance (stays in place)
- Ultra-conforming, with excellent wet-out for low stress interface applications
- 100% solids - no cure by-products
- Excellent low and high temperature mechanical and chemical stability

BERGQUIST GAP FILLER TGF 1000SR is a two-part, thermally conductive, liquid gap filling material that features superior slump resistance. The mixed system will cure at room temperature and can be accelerated with the addition of heat.

Unlike cured thermal pad materials, a liquid approach offers infinite thickness variations with little or no stress to sensitive components during assembly. As cured, BERGQUIST GAP FILLER TGF 1000SR will provide a soft, thermally conductive, form-in place elastomer that is ideal for fragile assemblies, capable of filling unique and intricate air voids and gaps.

BERGQUIST GAP FILLER TGF 1000SR 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)
- Computer and peripherals
- Between heat-generating semiconductors or magnetic components and a heat sink
- Telecommunications

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Capillary, ASTM D5099, mPa·s (cP):	
@ Shear rate of 4,500 s^{-1}	20,000
Density, ASTM D792, g/cc	2.0
Pot life @ 25 °C, ARES Parallel Plate Rheometer - Working life as liquid, time for modulus to double, minutes	60
Shelf Life @ 25ºC , days	180

TYPICAL CURE SCHEDULE

Cure Schedule

20 hours @ 25°C
10 minutes @ 100°C

ARES Parallel Plate Rheometer, work life as liquid, time for modulus to double.

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 00, ASTM D2240	75
Heat Capacity, ASTM E1269, J/g-K	1.0
Flammability,UL 94	V-0

Electrical Properties

Dielectric Strength, ASTM D149, V/mil	500
Dielectric Constant , ASTM D150 @ 1,000 Hz	5.1
Volume Resistivity, ASTM D257, ohm-meter	1×10^{11}

Thermal Properties

Thermal Conductivity, ASTM D5470, W/(m-K)	1.0

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 1000SR 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 25ºC for a 6 month shelf life, in sealed containers with moisture barrier packaging.

Conversions

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
N x 0.225 = lb/F
N/mm x 5.71 = lb/in
psi x 145 = N/mm²
MPa = N/mm²
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

Disclaimer

Note:
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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