Technical Data Sheet

BERGQUIST GAP FILLER TGF 3600

Known as BERGQUIST GAP FILLER 3500S35
February 2023

PRODUCT DESCRIPTION

A thermally conductive, liquid gap filler material.

Technology	Silicone
Appearance (cured)	Blue
Appearance - Part A	White
Appearance - Part B	Blue
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 200ºC

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 @ 25ºC , 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^{08}

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 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 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 25ºC for a 5 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
N/mm² x 145 = psi
N/mm² = MPa
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

Reference 2.1