

Gap Filler 1000 (Two-Part)

Thermally Conductive, Liquid Gap Filling Material

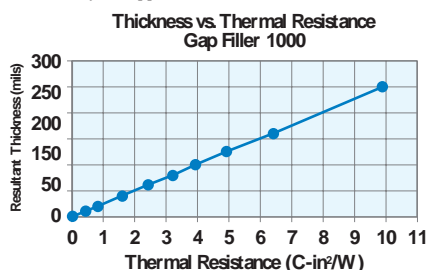
Features and Benefits

- Thermal conductivity: 1.0 W/m-K
- Ultra-conforming designed for fragile and low-stress applications
- Ambient and accelerated cure schedules
- 100% solids – no cure by-products
- Excellent low and high temperature mechanical and chemical stability



Gap Filler 1000 is a thermally conductive, liquid gap filling material. It is supplied as a two-component, room or elevated temperature curing system. The material is formulated to provide a balance of cured material properties highlighted by a low modulus and good compression set (memory). The result is a soft, thermally conductive, form-in-place elastomer ideal for coupling "hot" electronic components mounted on PC boards with an adjacent metal case or heat sink. Before cure, Gap Filler 1000 flows under pressure like a grease. After cure, it does not pump from the interface as a result of thermal cycling. Unlike thermal grease, the cured product is dry to the touch. Unlike cured gap filling materials, the liquid approach offers infinite thickness with little or no stress during displacement and eliminates the need for specific pad thickness and die-cut shapes for individual applications. Gap Filler 1000 is intended for use in thermal interface applications when a strong structural bond is not required.

Note: Resultant thickness is defined as the final gap thickness of the application.



TYPICAL PROPERTIES OF GAP FILLER 1000			
PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD
Color / Part A	Gray	Gray	Visual
Color / Part B	White	White	Visual
Viscosity as Mixed (cps) (1)	100,000	100,000	ASTM D2196
Density (g/cc)	1.6	1.6	ASTM D792
Mix Ratio	1:1	1:1	—
Shelf Life @ 25°C (months)	6	6	—
PROPERTY AS CURED			
Color	Gray	Gray	Visual
Hardness (Shore 00) (2)	30	30	ASTM D2240
Heat Capacity (J/g-K)	1.0	1.0	ASTM E1269
Continuous Use Temp (°F) / (°C)	-76 to 347	-60 to 175	—
ELECTRICAL AS CURED			
Dielectric Strength (V/mil)	500	500	ASTM D149
Dielectric Constant (1000 Hz)	5.0	5.0	ASTM D150
Volume Resistivity (Ohm-meter)	10 ¹¹	10 ¹¹	ASTM D257
Flame Rating	V-O	V-O	U.L. 94
THERMAL AS CURED			
Thermal Conductivity (W/m-K)	1.0	1.0	ASTM D5470
CURE SCHEDULE			
Pot Life @ 25°C (min) (3)	15	15	—
Cure @ 25°C (min) (4)	60 - 120	60 - 120	—
Cure @ 100°C (min) (4)	5	5	—

1) Brookfield RV, Heli-Path, Spindle TF @ 20 rpm, 25°C.
 2) Thirty second delay value Shore 00 hardness scale.
 3) Time for viscosity to double.
 4) Cure schedule (rheometer - time to read 90% cure)

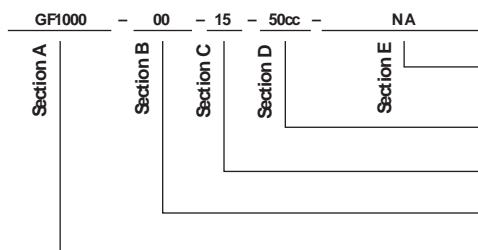
Typical Applications Include:

- Automotive electronics
- Computer and peripherals
- Between any heat-generating semiconductor and a heat sink
- Telecommunications
- Thermally conductive vibration dampening

Configurations Available:

- Supplied in cartridge and kit form

Building a Part Number



Note: To build a part number, visit our website at www.bergquistcompany.com.

Standard Options

- NA = Selected standard option. If not selecting a standard option, insert company name, drawing number, and revision level.
- Cartridges: 50cc = 50.0cc, 400cc = 400.0cc
 Kits: 1200cc = 1200.0cc, or 10G = 10 gallon
- Pot Life: 15 = 15 minutes
- 00 = No spacer beads
 07 = 0.007" spacer beads
- GF1000 = Gap Filler 1000 Material

Gap Pad®: U.S. Patent 5,679,457 and others



www.bergquistcompany.com

The Bergquist Company -
 North American Headquarters
 18930 West 78th Street
 Chanhassen, MN 55317
 Phone: 800-347-4572
 Fax: 952-835-0430

The Bergquist Company -
 European Headquarters
 Bramenberg 9a, 3755 BT Emsnes
 Netherlands
 Phone: 31-35-5380684
 Fax: 31-35-5380295

The Bergquist Company - Asia
 Room 15, 8/F Wah Wai Industrial Centre
 No. 38-40, Au Pui Wan Street
 Folan, Shatin, N.T. Hong Kong
 Ph: 852.2690.9295
 Fax: 852.2690.2344

All statements technical information and recommendations herein are based on tests we believe to be reliable, and THE FOLLOWING IS MADE IN LIEU OF ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MARKETABILITY AND FITNESS FOR PURPOSE. Sellers and manufacturers' only obligation shall be to replace such quantity of the product proved to be defective. Before using user shall determine the suitability of the product for its intended use, and the user assumes all risks and liability whatsoever in connection therewith. NEITHER SELLER NOR MANUFACTURER SHALL BE LIABLE EITHER IN TORT OR IN CONTRACT FOR ANY LOSS OR DAMAGE, DIRECT, INCIDENTAL OR CONSEQUENTIAL, INCLUDING LOSS OF PROFITS OR REVENUE ARISING OUT OF THE USE OR THE INABILITY TO USE A PRODUCT. No statement, purchase order or recommendations by seller or purchaser not contained herein shall have any force or effect unless in an agreement signed by the officers of the seller and manufacturer.

PDS_GF_1000_12.08