



Highly Compressible Gap Filler with 3 W/mK

- Very high compressibility for low stress applications
- 3 W/mK thermal conductivity
- Available in 19 thicknesses 0.020" (0.5mm) to 0.200" (5.0mm)
- Naturally tacky needing no further adhesive coating

Applications Include:

- Cooling Components to the Chassis or Frame
- High Speed Mass Storage Drives
- RDRAM Memory Modules
- Heat Pipe Thermal Solutions
- Automotive Engine Control Units
- Telecommunication Hardware

T-flex™ 600 is an exceptionally soft, highly compressible gap filling interface pad with a thermal conductivity of 3 W/mK. These outstanding properties are the result of a proprietary boron nitride filler in the composition. The high conductivity, in combination with extreme softness produces incredibly low thermal resistances.

While extremely soft, T-flex™ 600 will recover to over 90% of its original thickness after compression under low pressure. T-flex™ 600 is naturally tacky and requires no additional adhesive coating that can inhibit thermal performance. T-flex™ 600 is electrically insulating, stable from -45°C to 200°C and meets UL 94 HB rating.

Gap Fillers | Thermally Conductive Insulators | Thermally Conductive PCB Materials | Greases | Phase Change Materials

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TECHNOLOGIES®

Combining the strengths of
Thermagon, Warth and Orcus

cool
components
make for
cool products


Certified to
ISO 9001:2000,
with design

	T-flex™ 620	T-flex™ 640	T-flex™ 660	T-flex™ 680	T-flex™ 6100	Test Method
Construction & Composition	Reinforced boron nitride filled silicone elastomer	Boron nitride filled silicone elastomer	Boron nitride filled silicone elastomer	Boron nitride filled silicone elastomer	Boron nitride filled silicone elastomer	
Color	Blue-Violet	Blue-Violet	Blue-Violet	Blue-Violet	Blue-Violet	Visual
Thickness	0.020" (0.51mm)	0.040" (1.02 mm)	0.060" (1.52 mm)	0.080" (2.03 mm)	0.100" (2.54 mm)	
Thickness Tolerance	± 0.003" (± 0.08mm)	± 0.004" (± 0.10mm)	± 0.006" (± 0.15mm)	± 0.008" (± 0.20mm)	± 0.010" (± 0.25mm)	
Density	1.38 g/cc	1.34 g/cc	1.34 g/cc	1.34 g/cc	1.34 g/cc	Helium Pycnometer
Hardness	40 Shore OO	25 Shore OO	25 Shore OO	25 Shore OO	25 Shore OO	ASTM D2240
Tensile Strength	N/A	15 psi	15 psi	15 psi	15 psi	ASTM D412
% Elongation	N/A	75	75	75	75	ASTM D412
Outgassing TML (Post Cured)	0.13%	0.13%	0.13%	0.13%	0.13%	ASTM E595
Outgassing CVCM (Post Cured)	0.05%	0.05%	0.05%	0.05%	0.05%	ASTM E595
UL Flammability Rating	94 HB	94 HB	94 HB	94 HB	94 HB	E180840
Temperature Range	-45°C to 200°C	-45°C to 200°C	-45°C to 200°C	-45°C to 200°C	-45°C to 200°C	
Thermal Conductivity	3 W/mK	3 W/mK	3 W/mK	3 W/mK	3 W/mK	ASTM D5470 (modified)
Thermal Impedance @ 10 psi @ 69KPa	0.46 °C-in²/W 2.97 °C-cm²/W	0.62 °C-in²/W 4.00 °C-cm²/W	0.85 °C-in²/W 5.50 °C-cm²/W	1.09 °C-in²/W 7.04 °C-cm²/W	1.23 °C-in²/W 7.94 °C-cm²/W	ASTM D5470 (modified)
Thermal Expansion	600 ppm/C	430 ppm/C	430 ppm/C	430 ppm/C	430 ppm/C	IPC-TM-650 2.4.24
Breakdown Voltage	3000 Volts AC	>5000 Volts AC	>5000 Volts AC	>5000 Volts AC	>5000 Volts AC	ASTM D149
Volume Resistivity	2 x 10 ¹³ ohm-cm	2 x 10 ¹³ ohm-cm	2 x 10 ¹³ ohm-cm	2 x 10 ¹³ ohm-cm	2 x 10 ¹³ ohm-cm	ASTM D257
Dielectric Constant @ 1MHz	3.31	3.31	3.31	3.31	3.31	ASTM D150

Standard Thicknesses: 0.020" (0.51mm) 0.030" (0.76mm) 0.040" (1.02mm) 0.050" (1.27mm) 0.060" (1.52mm)
0.070" (1.78mm) 0.080" (2.03mm) 0.090" (2.29mm) 0.100" (2.54mm) 0.110" (2.79mm)
0.120" (3.05mm) 0.130" (3.30mm) 0.140" (3.56mm) 0.150" (3.81mm) 0.160" (4.06mm)
0.170" (4.32mm) 0.180" (4.57mm) 0.190" (4.83mm) 0.200" (5.08mm)
Consult the factory for alternate thicknesses

Standard Sheet Sizes: 9" x 9" (229mm x 229mm) and 18" x 18" (457mm x 457mm) 9" x 9" only over 0.100" thickness

T-flex™ 600 can be die cut to individual shapes. Pressure sensitive adhesive is not applicable for T-flex™ products.

Tacky One Side Only: T-flex™ 600 is naturally tacky on both sides. T-flex™ 600 can be provided tacky on one side only. This is indicated by the suffix "DC1". This option offers good separation properties allowing the tacky side to stick to the heatsink/chasis/cold plate/etc. and the other "dry" side to release easily from the component(s).

Reinforcement: Fiberglass is required in 0.020" (0.51mm) and 0.030" (0.76mm).
Thicknesses of 0.040" (1.02mm) and above do not require reinforcement.

Our customers are reminded that they bear the responsibility for testing Thermagon, Inc. materials for their proposed use. Any information furnished by Thermagon, Inc. and its agents is believed to be accurate and reliable, but our customers must bear all responsibility for the use and application of Thermagon, Inc. materials since Thermagon and its agents cannot be aware of all potential uses. Thermagon makes no warranties as to the fitness, merchantability, or suitability of any Thermagon, Inc. materials or products for any specific or general uses. Thermagon, Inc. shall not be liable for incidental or consequential damages of any kind. All Thermagon, Inc. products are sold pursuant to the Thermagon, Inc. domestic terms and conditions of sale in effect from time to time, a copy of which will be furnished upon request. A13512-00 Rev. G EO# 4945 7/30/04

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