

# BERGQUIST® GAP PAD® TGP 800VO

Formerly known as GAP PAD® VO

## Conformable, Thermally Conductive Material for Filling Air Gaps

### Features and Benefits

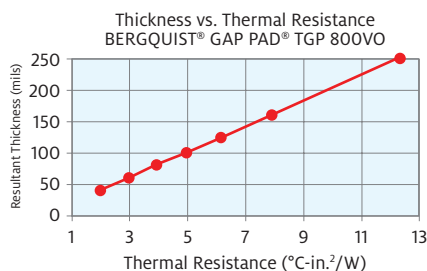
- Thermal conductivity: 0.8 W/m-K
- Enhanced puncture, shear and tear resistance
- Conformable gap filling material
- Electrically isolating



BERGQUIST® GAP PAD® TGP 800VO is a cost-effective, thermally conductive interface material. The material is a filled, thermally conductive polymer supplied on a rubber-coated fiberglass carrier allowing for easy material handling. The conformable nature of BERGQUIST® GAP PAD® TGP 800VO allows the pad to fill in air gaps between PC boards and heat sinks or a metal chassis.

TYPICAL PROPERTIES OF BERGQUIST® GAP PAD® TGP 800VO				
PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD	
Color	Gold/Pink	Gold/Pink	Visual	
Reinforcement Carrier	Fiberglass	Fiberglass	—	
Thickness (in.) / (mm)	0.020 to 0.250	0.508 to 6.350	ASTM D374	
Inherent Surface Tack (1-sided)	1	1	—	
Density, Bulk, Rubber (g/cc)	1.6	1.6	ASTM D792	
Heat Capacity (J/g-K)	1.0	1.0	ASTM E1269	
Hardness, Bulk Rubber (Shore 00) <sup>(1)</sup>	40	40	ASTM D2240	
Young's Modulus (psi) / (kPa) <sup>(2)</sup>	100	689	ASTM D575	
Continuous Use Temp. (°F) / (°C)	-76 to 392	-60 to 200	—	
ELECTRICAL				
Dielectric Breakdown Voltage (VAC)	> 6,000	> 6,000	ASTM D149	
Dielectric Constant (1,000 Hz)	5.5	5.5	ASTM D150	
Volume Resistivity (Ω-m)	10 <sup>11</sup>	10 <sup>11</sup>	ASTM D257	
Flame Rating	V-0	V-0	UL 94	
THERMAL				
Thermal Conductivity (W/m-K)	0.8	0.8	ASTM D5470	
THERMAL PERFORMANCE VS. STRAIN				
	Deflection (% strain)	10	20	30
	Thermal Impedance (°C-in. <sup>2</sup> /W) 0.040 in. <sup>(3)</sup>	2.47	2.37	2.24
<small>1) Thirty-second delay value Shore 00 hardness scale.            2) Young's Modulus, calculated using 0.01 in./min. step rate of strain with a sample size of 0.79 in.<sup>2</sup>.            3) The ASTM D5470 test fixture was used. The recorded value includes interfacial thermal resistance. These values are provided for reference only. Actual application performance is directly related to the surface roughness, flatness and pressure applied.</small>				

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



### Typical Applications Include:

- Telecommunications
- Computers and peripherals
- Power conversion
- Between heat-generating semiconductors and a heat sink
- Areas where heat needs to be transferred to a frame, chassis, or other type of heat spreader
- Between heat-generating magnetic components and a heat sink

### Configurations Available:

- Sheet form and die-cut parts