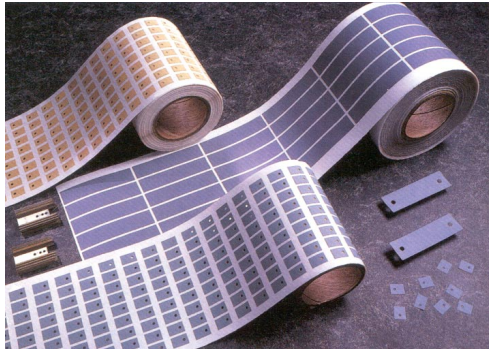


## The Medium Performance Kapton<sup>®</sup> Based Insulator

### Features and Benefits

- Thermal impedance  
0.49°C-in<sup>2</sup>/W (@50 psi)
- Tough dielectric barrier against cut-through
- Medium performance film



Sil-Pad K-6 is a medium performance film based thermally conductive insulator. The film is coated with a silicone elastomer to deliver high performance and provides a continuous physically tough dielectric barrier against “cut-through” and resultant assembly failures.

Typical Properties of Sil-Pad K-6						
Property	Imperial Value	Metric Value	Test Method			
Color	Bluegreen	Bluegreen	Visual			
Reinforcement Carrier	Kapton	Kapton	***			
Thickness, (inch) / (mm)	0.006	0.152	ASTM D374			
Hardness, (Shore A)	90	90	ASTM D2240			
Breaking Strength, (lbs./inch) / (kN/m)	30	5	ASTM D1458			
Elongation, (%45° to Warp & Fill)	40	40	ASTM D412			
Tensile Strength, (psi) / (Mpa)	5000	34	ASTM D412			
Continuous Use Temp., (°F) / (°C)	-76 to 356	-60 to 180	***			
Electrical	Imperial Value	Metric Value	Test Method			
Dielectric Breakdown Voltage, (VAC)	6000	6000	ASTM D149			
Dielectric Constant, (1000 Hz)	4.0	4.0	ASTM D150			
Volume Resistivity, (Ohm-meter)	10 <sup>12</sup>	10 <sup>12</sup>	ASTM D257			
Flame Rating	VTM-O	VTM-O	U.L.			
Thermal	Imperial Value	Metric Value	Test Method			
Thermal Conductivity, (W/m-K)	1.1	1.1	ASTM D5470			
Thermal Impedance vs. Pressure						
	Pressure (psi)	10	25	50	100	200
TO-220 Thermal Performance, (°C/W)		3.24	3.03	2.76	2.45	2.24
Thermal Impedance, (°C-in <sup>2</sup> /W) (I)		0.82	0.62	0.49	0.41	0.36
1). The ASTM D5470 (Bergquist Modified) test fixture was used. The recorded value includes interfacial thermal resistance. These values are given to the customer for reference only. Actual application performance is directly related to the surface roughness, flatness and pressure applied.						

### Typical Applications Include

- Power supplies
- Motor controls
- Power semiconductors

### Configurations

Available:

- Sheet form
- Die-Cut parts
- Roll form
- With or without pressure sensitive adhesive

We produce thousands of specials. Tooling charges vary depending on tolerances and complexity of the part.

Sil-Pad<sup>®</sup>: U.S. Patents 4,574,879; 4,602,125; 4,602,678; 4,685,987; 4,842,911 and others  
Kapton<sup>®</sup> is a registered trademark of DuPont.

MIL SPEC. MIL-M-38527/8A  
MIL-M-38527C  
MIL-I-49456  
MIL-M-87111  
UL FILE NUMBER E59150  
FSCM NUMBER 55285

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Product Data Sheet / PDS-0602-001-01; Rev 01