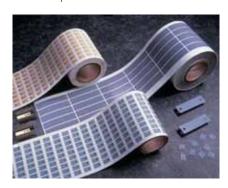
# Sil-Pad® K-6

#### The Medium Performance Kapton®-Based Insulator

#### **Features and Benefits**

- Thermal impedance: 0.49°C-in²/W (@50 psi)
- Physically strong dielectric barrier against cut-through
- Medium performance film



Sil-Pad K-6 is a medium performance, filmbased thermally conductive insulator. The film is coated with a silicone elastomer to deliver high performance and provide a continuous, physically strong 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 (%)	40		40		ASTM D412	
Tensile Strength (psi) / (MPa)	5000		34		ASTM D412	
Continuous Use Temp (°F) / (°C)	-76 to 356		-60 to 180			
ELECTRICAL						
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>		1012		ASTM D257	
Flame Rating	VTM-O		VTM-O		U.L.94	
THERMAL						
Thermal Conductivity (W/m-K)	1.1		1.1		ASTM D5470	
THERMAL PERFORMANCE vs PRESSURE						
Press	sure (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-in²/W) (1)		0.82	0.62	0.49	0.41	0.36
1) The ASTM DEA70 test fixture was used The recorded value includes interfacial thermal resistance These values are provided for						

<sup>1)</sup> 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.

### **Typical Applications Include:**

• Power supplies

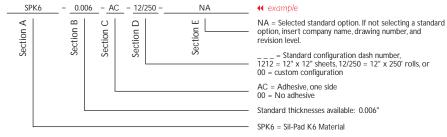
- Motor controls
- · Power semiconductors

#### **Configurations Available:**

- Sheet form, die-cut parts and roll form
- With or without pressure sensitive adhesive

#### **Building a Part Number**

## **Standard Options**



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

Sil-Pad®: U.S. Patents 4,574,879; 4,602,125; 4,602,678; 4,685,987; 4,842,911 and others

Kapton® is a registered trademark of DuPont.

## **Mouser Electronics**

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