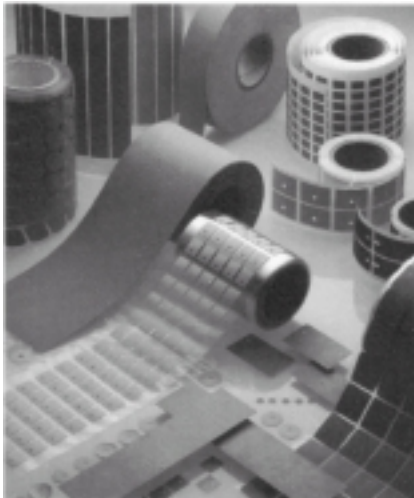


Sil-Pad[®] K-10

The High Performance Kapton[™] Based Insulator

Sil-Pad K-10 (SP K-10) is a high performance insulator. It combines special film with a filled silicone rubber. The result is a product with good cut-through properties and excellent thermal performance.



SP K-10 is designed to replace ceramic insulators such as Beryllium Oxide, Boron Nitride, and Alumina. These insulators are expensive and they break easily. SP K-10 eliminates breakage and costs much less than ceramics.

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

Typical Properties of Sil-Pad K-10

Property	Typical Value		Test Method		
Color	Beige		Visual		
Thickness	0.006		ASTM D374		
Hardness (Shore Type A)	90		ASTM D2240		
Breaking Strength	30 lbs/in	5 kN/m	ASTM D1458		
Elongation, %45° to warp & fill	40		ASTM D882A		
Tensile Strength	5 kPsi		ASTM D412		
Construction	Silicone / Kapton				
Continuous Use Temp.	-60°C to 180°C				
Electrical					
Dielectric Breakdown Voltage	6000 AC-minimum		ASTM D149		
Dielectric Constant	3.7		ASTM D150		
Volume Resistivity, Ohm-meter	10 ¹²		ASTM D257		
Thermal					
Thermal Conductivity	1.3 W/m-K		ASTM D5470		
Thermal Impedance vs. Pressure					
Pressure (psi)	10	25	50	100	200
TO-220 Thermal Performance, °C/W	2.35	2.19	2.01	1.87	1.76
Thermal Impedance Per ASTM D5470, °C-in ² / W (1)	0.86	0.56	0.41	0.29	0.24

1). The ASTM D5470 (Bergquist Corrected) 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.

TOLERANCES

0.015 inch tolerances are held on width, length, hole diameters and hole locations. Please contact your sales representative if tighter tolerances are required.

OPTIONS

Sil-Pad K-10 is available in sheet, die-cut, or roll form, with and without pressure sensitive adhesive. Standard sheet sizes of 6" x 6", 6" x 12", 8" x 8", 10" x 10", and 12" x 12" are available with and without pressure sensitive adhesive.

SPECIAL SHAPES

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

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