

# Sil-Pad® K-4

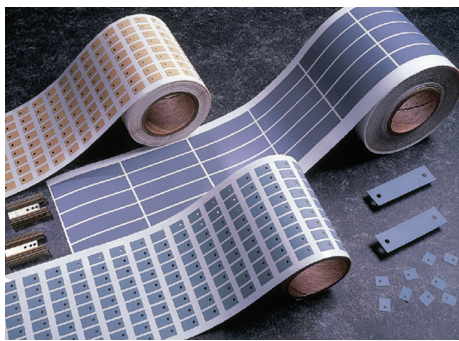
November 2013

## PRODUCT DESCRIPTION

The Original Polyimide-Based Insulator

## FEATURES AND BENEFITS

- Thermal impedance: 0.48°C-in<sup>2</sup>/W (@50 psi)
- Withstands high voltages
- High dielectric strength
- Very durable



Sil-Pad® K-4 uses a specially developed film which has high thermal conductivity, high dielectric strength and is very durable. Sil-Pad® K-4 combines the thermal transfer properties of well-known Sil-Pad rubber with the physical properties of a film.

Sil-Pad® K-4 is a durable insulator that withstands high voltages and requires no thermal grease to transfer heat. Sil-Pad® K-4 is available in customized shapes and sizes.

*Note: To build a part number, visit our website at [www.bergquistcompany.com](http://www.bergquistcompany.com).*

## TYPICAL PROPERTIES OF SIL-PAD K-4

PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD			
Color	Gray	Gray	Visual			
Reinforcement Carrier	Polyimide	Polyimide	—			
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	—			
<b>ELECTRICAL</b>						
Dielectric Breakdown Voltage (Vac)	6000	6000	ASTM D149			
Dielectric Constant (1000 Hz)	5.0	5.0	ASTM D150			
Volume Resistivity (Ohm-meter)	10 <sup>12</sup>	10 <sup>12</sup>	ASTM D257			
Flame Rating	VTM-O	VTM-O	UL94			
<b>THERMAL</b>						
Thermal Conductivity (W/m-K)	0.9	0.9	ASTM D5470			
<b>THERMAL PERFORMANCE vs PRESSURE</b>						
	Pressure (psi)	10	25	50	100	200
	TO-220 Thermal Performance (°C/W)	3.66	3.43	3.13	2.74	2.42
	Thermal Impedance (°C-in <sup>2</sup> /W) (1)	1.07	0.68	0.48	0.42	0.38
<small>1) 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>						

## 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

## Disclaimer

### Note:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

**In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:**

**In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery. In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:**

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

**In case products are delivered by Henkel Corporation, Resin Technology Group, Inc., or Henkel Canada Corporation, the following disclaimer is applicable:**

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

### Trademark usage

Except as otherwise noted, all trademarks in this document are trademarks of Henkel Corporation in the U.S. and elsewhere. ® denotes a trademark registered in the U.S. Patent and Trademark Office

Reference 0.1

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Bergquist Company:](#)

[SPK4-0.006-00-54](#) [SPK4-0.006-00-58](#) [SPK4-0.006-00-138](#) [SPK4-0.006-00-70](#) [SPK4-0.006-00-11512](#) [SPK4-0.006-00-11.512](#)