



BERGQUIST SIL PAD TSP K900

Known as BERGQUIST SIL-PAD K-4
November 2018

PRODUCT DESCRIPTION

The High Performance Kapton Based Insulator.

Technology	Silicone
Appearance	Gray
Reinforcement Carrier	Kapton
Total Thickness , ASTM D374	0.15 ± 0.025 mm
Application	Thermal management, Thermally conductive adhesive
Operating Temperature Range	-60 to 180°C

BERGQUIST SIL PAD TSP K900 is designed and developed in conjunction with DuPont. BERGQUIST SIL PAD TSP K900 combines the thermal transfer properties of well known Sil-Pad rubber with high dielectric strength, physically tough DuPont Kapton MT film.

Kapton MT is a specially developed film which has high thermal conductivity. The result is a durable insulator that withstands high voltages, requires no thermal grease to transfer heat, is available in customized shapes and sizes and saves time and costs while increasing productivity.

TYPICAL PROPERTIES

Physical Properties

Hardness, Shore A, ASTM D2240	90
Breaking Strength, ASTM D1458, KN/m	5
Elongation, 45° to warp and fill, ASTM D412, %	40
Tensile Strength, ASTM D412, MPa	35

Electrical Properties

Dielectric Breakdown Voltage, ASTM D149 (VAC, 6,000 min)	
Dielectric Constant, ASTM D150 @ 1,000 Hz	5.0
Volume Resistivity, ASTM D257, ohm-meter	1×10 ¹²

Thermal Properties

Thermal Conductivity, ASTM D5470, W/(m·K)	0.9
Thermal Resistance Bergquist Flat Plate Test Method, °C-in ² /W	0.4
Thermal Vacuum Weight Loss (TML), as manufactured, NASA SP-R-0022A, %	0.28
Volatile Condensable Material (VCM), as manufactured, NASA SP-R-0022A, %	0.07

GENERAL INFORMATION

For safe handling information on this product, consult the Safety Data Sheet, (SDS).

Not for product specifications

The technical data contained herein are intended as reference only. Please contact your local quality department for assistance and recommendations on specifications for this product.

CONFIGURATIONS AVAILABLE

BERGQUIST SIL PAD TSP K900 are supplied in:

- **Special Thicknesses**
Available in a variety of thicknesses to meet customer requirements.
- **Tolerances**
.015 inches are held on width, length, hole diameter and hole location.
Contact the factory if tighter tolerances are required.
- **Sheet form**
6" x 6", 6" x 12", 8" x 8", 10" x 10", or 12" x 12"
Sheets are available from stock, with or without adhesive.
- **Roll form**
Sil-Pad materials are available in roll form, with or without adhesive. Contact the factory.
- **Special Shapes**
We produce thousands of specials. Tooling charges vary depending on tolerances and complexity of the part.

Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\text{N} \times 0.225 = \text{lb}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{psi} \times 145 = \text{N/mm}^2$
 $\text{MPa} = \text{N/mm}^2$
 $\text{N} \cdot \text{m} \times 8.851 = \text{lb} \cdot \text{in}$
 $\text{N} \cdot \text{m} \times 0.738 = \text{lb} \cdot \text{ft}$
 $\text{N} \cdot \text{mm} \times 0.142 = \text{oz} \cdot \text{in}$
 $\text{mPa} \cdot \text{s} = \text{cP}$



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.

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Reference 1

Mouser Electronics

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