Technical Data Sheet

# 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 180ºC |

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 wit high dielectric strength, physically tough DuPont Kapton MT file.

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

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

### Electrical Properties

| | |
|---|---|
| Dielectric Breakdown Voltage , ASTM D149 (VAC, min) | 6,000 |
| Dielectric Constant, ASTM D150 @ 1,000 Hz | 5.0 |
| Volume Resistivity, ASTM D257, ohm-meter | $1 \times 10^{12}$ |

### Thermal Properties

| | |
|---|---|
| Thermal Conductivity , ASTM D5470, W/(m-K) | 0.9 |
| Thermal Resistance Bergquist Flat Plate Test Method, ºC-in²/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

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
N x 0.225 = lb
N/mm x 5.71 = lb/in
psi x 145 = N/mm²
MPa = N/mm²
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

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Reference 1

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