Technical Data Sheet

SIL PAD TSP K 900

Known as 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

SIL PAD TSP K900 is designed and developed in conjunction with DuPont. SIL PAD TSP K 900 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.

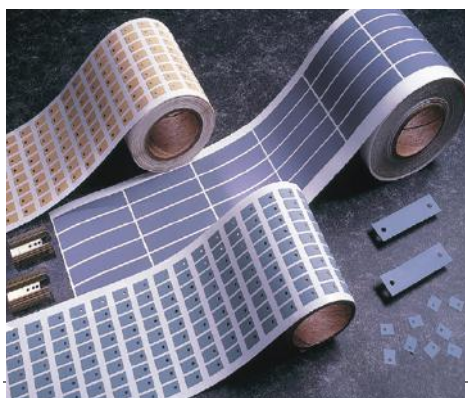
TYPICAL PROPERTIES

Physical Properties

Hardness, Shore A, ASTM D2240	90
Breaking Strength, ASTM D1458, KN/m	5
Elongation , 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	1×10^{12}



Thermal Properties

Thermal Conductivity , ASTM D5470, W/(m-K)	0.9
Thermal Resistance 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

SIL PAD TSP K 900 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

Disclaimer

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Reference 1

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