

## SIL PAD TSP A 2000

Known as SIL-PAD A 1500  
November 2018

### PRODUCT DESCRIPTION

Electrically Insulating, Thermally Conductive Elastomeric Material.

Technology	Silicone
Appearance	Green
Reinforcement Carrier	Fibreglass
Total Thickness , ASTM D374	0.254mm
<b>Application</b>	Thermal management, Thermally conductive adhesive
Operating Temperature Range	-60 to 180°C

### FEATURES AND BENEFITS

- Thermal impedance: 0.42°C-in<sup>2</sup>/W @ 50 psi
- Elastomeric compound coated on both sides

### TYPICAL APPLICATIONS

- Power supplies
- Automotive electronics
- Motor controls
- Power semiconductors

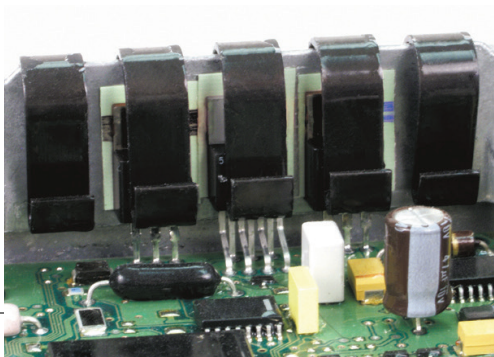
SIL PAD TSP A 2000 is a silicone-based, thermally conductive and electrically insulating material. It consists of a cured silicone elastomeric compound coated on both sides of a fibreglass reinforcement layer.

SIL PAD TSP A 2000 performs well under clamping pressure up to 200 psi and is an excellent choice for high performance applications requiring electrical isolation and cut-through resistance.

### TYPICAL PROPERTIES

#### Physical Properties

Hardness, Shore A, ASTM D2240	80
Breaking Strength, ASTM D1458, KN/m	12
Elongation , 45° to warp and fill, ASTM D412,%	40
Flammability Rating, UL 94	V-0



### Electrical Properties

Dielectric Breakdown Voltage , ASTM D149, Vac	6,000
Dielectric Constant, ASTM D150 @ 1,000 Hz	7.0
Volume Resistivity, ASTM D257, ohm-meter	1×10 <sup>11</sup>

### Thermal Properties

Thermal Conductivity , ASTM D5470, W/(m-K)	2.0
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### Thermal Performance vs. Pressure

TO-220 Thermal Performance, °C/W

@ 10 psi	3.03
@ 25 psi	2.62
@ 50 psi	2.21
@ 100 psi	1.92
@ 200 psi	1.78

Thermal Impedance, ASTM D5470, °C-in<sup>2</sup>/W <sup>(1)</sup>

@ 10 psi	0.59
@ 25 psi	0.5
@ 50 psi	0.42
@ 100 psi	0.34
@ 200 psi	0.31

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.

### 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 A 2000 are supplied in:

- Sheet form, roll form and die-cut parts
- 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.

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### Conversions

$$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$$

$$\text{kV/mm} \times 25.4 = \text{V/mil}$$

$$\text{mm} / 25.4 = \text{inches}$$

$$\text{N} \times 0.225 = \text{lb}$$

$$\text{N/mm} \times 5.71 = \text{lb/in}$$

$$\text{psi} \times 145 = \text{N/mm}^2$$

$$\text{MPa} = \text{N/mm}^2$$

$$\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$$

$$\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$$

$$\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$$

$$\text{mPa}\cdot\text{s} = \text{cP}$$

Reference 1

<p>Supplied by:  <a href="http://www.hitek-ltd.co.uk">www.hitek-ltd.co.uk</a>  +44 (0)1724 851678</p>		<p><b>HITEK</b>  ELECTRONIC MATERIALS LTD</p>
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