

# SILTEL SG-TC2.0J

## Thermally Conductive Gap Filler Pad

Thermal Conductivity: 2.0 W/m-K

0.5mm / 1.0mm / 2.0mm / 3.0mm

SILTEL SG-TC2.0J is an electrically insulating thermally conductive silicone gap filler ideal for use in applications where thermal transfer over large gaps caused by big tolerances or different stack up heights must be achieved. Due to the specific formulation and filling of ceramic particles, the silicone elastomer has good thermal conductivity of 2.0 W/m-K. With its soft and flexible design, it perfectly mates to irregular surfaces thus filling gaps at low pressures.

SG-TC2.0J is designed with a natural tackiness in order to allow for easy and reliable pre-assembly of the pad to the application surface.

SILTEL SG-TC2.0J is available standard size sheets or TIMTEL cut parts to match a wide range of industry standard or customer defined outlines.

- Soft and Compliant Design
- Operates at Low Pressure
- Chemical Resistant with Long Term Stability
- Shock Absorbing
- Drop in Place Installation - Tacky Surface
- Sheets or TIMTEL Cut Parts (Standard or Custom)



### Typical Applications

- \* Low pressure / Gap Filling / High Surface Irregularity
- \* SMD Packages
- \* Through-Hole Vias
- \* RDRAMs Smemory Modules
- \* Flip Chips, DSP's, BGA's, PPGAs for use within automotive, consumer electronics / medical device, embedded boards

Standard SILTEL SG-TC2.0J Cross Section

(Standard is tacky both sides)



### SG-TC2.0J General Properties

- \* Thermal Conductivity.....2.0 W/m-K
- \* Hardness.....20 Shore 00
- \* Dielectric Strength.....10 kV/mm
- \* Volume Resistivity..... $1.0 \times 10^{11}$  Ohm-cm
- \* Operating Temperature.....-60°C to 180°C
- \* Color .....Gray

### Standard Thickness Options

- \* SG.50-TC2.0J.....0.020" (0.50mm)
- \* SG1.0-TC2.0J.....0.040" (1.00mm)
- \* SG2.0-TC2.0J.....0.078" (2.00mm)
- \* SG3.0-TC2.0J.....0.118" (3.00mm)

### 0.020" / 0.50mm Thermal Performance

- \* Thermal Impedance @ 10 PSI.....0.800 °C in<sup>2</sup> / Watt
- \* Thermal Impedance @ 30 PSI.....0.700 °C in<sup>2</sup> / Watt
- \* Thermal Impedance @ 60 PSI.....0.600 °C in<sup>2</sup> / Watt

### 0.040" / 1.00mm Thermal Performance

- \* Thermal Impedance @ 10 PSI.....1.500 °C in<sup>2</sup> / Watt
- \* Thermal Impedance @ 30 PSI.....1.200 °C in<sup>2</sup> / Watt
- \* Thermal Impedance @ 60 PSI.....1.00 °C in<sup>2</sup> / Watt

### 0.078" / 2.00mm Thermal Performance

- \* Thermal Impedance @ 10 PSI.....2.300 °C in<sup>2</sup> / Watt
- \* Thermal Impedance @ 30 PSI.....1.800 °C in<sup>2</sup> / Watt
- \* Thermal Impedance @ 60 PSI.....1.400 °C in<sup>2</sup> / Watt

### 0.118" / 3.00mm Thermal Performance

- \* Thermal Impedance @ 10 PSI.....2.800 °C in<sup>2</sup> / Watt
- \* Thermal Impedance @ 30 PSI.....2.100 °C in<sup>2</sup> / Watt
- \* Thermal Impedance @ 60 PSI.....1.700 °C in<sup>2</sup> / Watt

### SILTEL SG-TC2.0J General Properties / Form Characteristics

Characteristic	SILTEL SG-TC2.0J
Base Material	Ceramic Filled Silicone
Substrate	None
Color	Gray
Available Formats	Sheets or Cut Pads (standard or custom)
TIMTEL Cutting Capabilities	Razor Plotter Cut for Gap Filler Pads
TIMTEL Die Cut Delivery Formats	Individuals or Multiples per Card
TIMTEL Die Cut Dimensional Tolerances	0.010"(0.25mm) to 0.020"(0.51mm) (depending on thickness)
Storage	Cool, dry location at or below 80F/ 27C. Store away from UV
Shelf Life	2 years from date of manufacture

### SILTEL Samples for Testing

Thermal material evaluation is always critical when designing in a new material or developing a new product. Sheet samples of SILTEL are available for preliminary testing to determine the optimal SILTEL thickness as well as overall material construction best suited within the scope of your application requirements.

**Want to test samples per your required die cut part?** Our razor plotter sampling machine allows us to provide customers SILTEL material already cut to their required outline for testing. Plotter formed samples provide our customers the ability to test not only the SILTEL material itself, but their required outline as well without incurring the expense of production tooling.

Contact TIMTEL to request sample sheets or plotter formed samples for testing.