

SILTEL SG-TC3.0X is an *ultrasoft* electrically insulating thermally conductive silicone gap filler material ideal for use in applications where thermal transfer over large gaps (large tolerances) or different stack ups must be achieved. Due to the specific formulation and ceramic particle filler, SG-TC3.0X demonstrates high thermal conductivity through it's ultrasoft compliable features and overall elastomer design.

SG-TC3.0X perfectly mates to irregular surfaces thus filling gaps and operates at low pressure offering low thermal resistance. The natural tackiness of the material allows for an easy and reliable pre-assembly.

SILTEL SG-TC3.0X is available in sheets or TIMTEL cut parts to match a wide range of industry standard or customer defined out-lines.

- Ultrasoft and Compliant Pad Design
- High Thermal Conductivity
- Excellent Chemical Resistance and Stability
- Operates at Low Pressure
- Shock Absorbing
- Optional PSA Laminated 1 side

Standard SILTEL SG-TC3.0X Cross Section

Typical Applications

- SMD Packages
- Through-hole Vias
- RDRAMs Memory Modules
- Capacitors
- Interfaces with Large Gaps / Tolerances
- Electronics to Heat Pipe Assemblies

Standard Thickness Options

SG.50-TC3.0X.....0.020" (0.50mm)
 SG1.0-TC3.0X.....0.039" (1.00mm)
 SG2.0-TC3.0X.....0.078" (2.00mm)
 SG3.0-TC3.0X.....0.118" (3.00mm)

SG-TC3.0X General Properties

Thermal Conductivity.....3.0 W/m-K
 Color.....gray
 Hardness.....15 (Shore 00)
 Dielectric Strength.....> 10 kV/mm
 Volume Resistivity..... 1.0×10^{10}
 Operating Temperature.....-40°C to 200°C

0.020" / 0.50mm Thermal Resistance

Thermal Impedance @ 10 PSI.....0.490 °C in² / Watt
 Thermal Impedance @ 30 PSI.....0.430 °C in² / Watt
 Thermal Impedance @ 60 PSI.....0.360 °C in² / Watt

0.039" / 1.00mm Thermal Resistance

Thermal Impedance @ 10 PSI.....0.760 °C in² / Watt
 Thermal Impedance @ 30 PSI.....0.620 °C in² / Watt
 Thermal Impedance @ 60 PSI.....0.480 °C in² / Watt

0.078" / 2.00mm Thermal Resistance

Thermal Impedance @ 10 PSI.....1.170 °C in² / Watt
 Thermal Impedance @ 30 PSI.....0.890 °C in² / Watt
 Thermal Impedance @ 60 PSI.....0.640 °C in² / Watt

0.118" / 3.00mm Thermal Resistance

Thermal Impedance @ 10 PSI.....1.570 °C in² / Watt
 Thermal Impedance @ 30 PSI.....1.150 °C in² / Watt
 Thermal Impedance @ 60 PSI.....0.820 °C in² / Watt

SG-TC3.0X Pad
ceramic filled silicone pad only (no substrate)
Tack Lamination Support This Side

Characteristic	SILTEL SG-TC3.0X
Base Material	Ceramic Filled Silicone
Substrate	NONE
Color	Pink
Available Formats	Sheets or Cut Pads
Standard Sheet Sizes	8.25" x 16.50"
Optional Adhesive	PSA laminated 1 side (additional to natural tack)
TIMTEL Cutting Capabilities	Plotter Cut for Gap Filler Pads
TIMTEL Die Cut Delivery Formats	Individuals or Multiples per Master Sheet
TIMTEL Die Cut Dimensional Tolerances	0.010"(0.25mm) to 0.020"(0.51mm) (depending on thickness)
Storage	Cool, dry location at or below 80°F/ 27°C. Store away from UV.
Shelf Life	2 years from date of manufacture

