

SILTEL SL-TC15.0

Thermally Conductive Gap Pad

Thermal Conductivity: 15.0 W/m-K

SILTEL SL-TC15.0 is an electrically insulating thermally conductive silicone gap filler material ideal for use in electronic assembly applications where thermal transfer over large gaps (large tolerances) or different component stack ups must be achieved. Due to the specific formulation and ceramic particle filler, SL-TC15.0 demonstrates very a high anisotropic thermal conductivity design packaged with a compliable soft durometer that creates excellent surface contact even at low pressures.

SL-TC15.0 perfectly mates to irregular surfaces thus filling gaps and is able to achieve low thermal resistance at low pressures. SL-TC15.0 is delivered standard with a light tack on both sides for easy pad placement prior to assembly.

SILTEL SL-TC15.0 is available in sheets or TIMTEL cut parts to match a wide range of industry standard or customer defined outlines.

- High Thermal Conductivity of 15 W/m-K
- Soft and Compliant Pad Design
- Excellent Chemical Resistance and Stability
- Operates at Low Pressure
- Low volatile siloxanes
- Natural light tack both sides (standard)

Typical Applications

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

Standard Thickness Options

SL.50-TC15.0.....0.020" (0.50mm)
 SL1.0-TC15.0.....0.039" (1.00mm)
 SL2.0-TC15.0.....0.078" (2.00mm)

SL-TC15.0 General Properties

Thermal Conductivity.....15.0 W/m-K
 Color.....Black
 Hardness.....55 (Shore 00)
 Dielectric Strength.....1.0 kV/mm
 Volume Resistivity.....>1.0 x 10¹² ohm-cm
 Operating Temperature.....-50°C to 180°C

0.020" / 0.50mm - Thermal Resistance

10 PSI.....0.180 °C in² / Watt
 30 PSI.....0.160 °C in² / Watt
 90 PSI.....0.150 °C in² / Watt

0.039" / 1.00mm - Thermal Resistance

10 PSI.....0.290 °C in² / Watt
 30 PSI.....0.280 °C in² / Watt
 90 PSI.....0.270 °C in² / Watt

0.078" / 2.00mm - Thermal Resistance

10 PSI.....0.540 °C in² / Watt
 30 PSI.....0.500 °C in² / Watt
 90 PSI.....0.470 °C in² / Watt

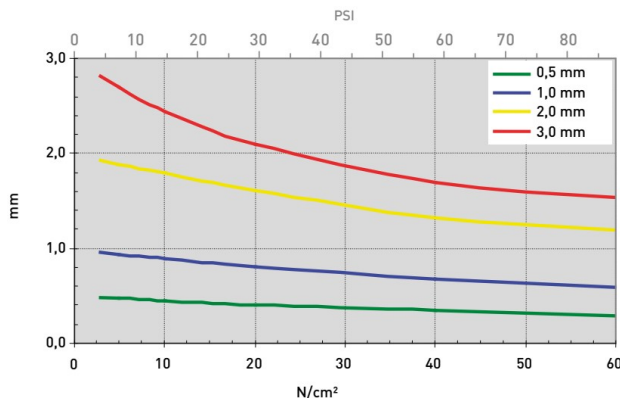
Standard SILTEL SL-TC15.0 Cross Section



Standard pad offers light tack adhesion on both sides

Characteristic	SILTEL SL-TC15.0
Base Material	Particle Filled Silicone
Substrate	NONE
Color	Black
Available Formats	Sheets or Cut Pads
Standard Sheet Sizes	5.90" x 5.90" (150mm x 150mm)
TIMTEL Cutting Capabilities	Die cut individual pads or multiple pads per 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 80F/ 27C
Shelf Life	2 years from date of manufacture

Pressure vs Thickness



Pressure vs Resistance

