SILTEL NSG-TC5.0

Silicone Free Thermally Conductive Gap Pad

Thermal Conductivity: 5.0 W/m-K

SILTEL NSG-TC5.0 is an electrically isolating thermally conductive Silicone-FREE thermally conductive gap pad designed for use in applications where thermal transfer over large gaps (large tolerances) or different stack up heights must be achieved. NSG-TC5.0 is a silicone-free acrylate pad that does not contain any volatile siloxanes which are inevitably emitted by silicones. NSG-TC5.0's specific formulation with ceramic filled particles is designed to offer a thermal conductivity of 5.0 W/m-K.

Through NSG-TC5.0's soft design, the pad 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. NSG-TC5.0's standard offering is a double sided surface tack configuration.

SILTEL NSG-TC5.0 is available in sheets or TIMTEL cut parts to match a wide range of industry standard or customer defined outlines.

- Silicone Free Acrylate Design
- No Siloxanes
- Soft and Compliable
- Operates at Low Pressure
- Shock Absorbing
- Easy Mount with Dual Side Tack

Standard SILTEL NSG-TC5.0 Cross Section

Dual Side Tack

NSG-TC5.0 Pad

Typical Applications

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

Standard Thickness (Material Codes)

NSG1.0-TC5.0……..…….....0.039" (1.00mm)
NSG2.0-TC5.0……..…….....0.078" (2.00mm)
NSG3.0-TC5.0……..…….....0.118" (3.00mm)
NSG4.0-TC5.0……..…….....0.158" (4.00mm)

NSG-TC5.0 General Properties

Thermal Conductivity……..…….....5.0 W/m-K
Color:……Light Green
Hardness……64 (Shore 00)
Dielectric Strength……1.2 kV/mm
Dielectric Constant……18.2 @ 1MHz
Volume Resistivity……1.0 x 10^{11}
Operating Temperature……..…….-40°C to 125°C

0.039" / 1.00mm Thermal Resistance

Thermal Impedance @ 10 PSI……..0.470 °C in^2 / Watt

Thermal Impedance @ 30 PSI……..0.450 °C in^2 / Watt

Thermal Impedance @ 60 PSI……..0.420 °C in^2 / Watt

0.078" / 2.00mm Thermal Resistance

Thermal Impedance @ 10 PSI……..0.830 °C in^2 / Watt

Thermal Impedance @ 30 PSI……..0.770 °C in^2 / Watt

Thermal Impedance @ 60 PSI……..0.730 °C in^2 / Watt

0.118" / 3.00mm Thermal Resistance

Thermal Impedance @ 10 PSI……..1.110 °C in^2 / Watt

Thermal Impedance @ 30 PSI……..1.010 °C in^2 / Watt

Thermal Impedance @ 60 PSI……..0.930 °C in^2 / Watt

0.158" / 4.00mm Thermal Resistance

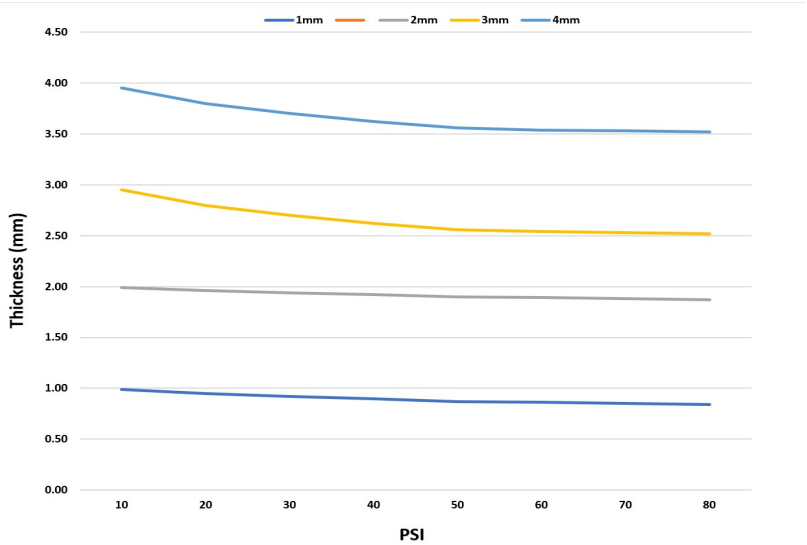
Thermal Impedance @ 10 PSI……..1.440 °C in^2 / Watt

Thermal Impedance @ 30 PSI……..1.330 °C in^2 / Watt

Thermal Impedance @ 60 PSI……..1.250 °C in^2 / Watt

Characteristic	SILTEL NSG-TC5.0
Base Chemistry	Non-Silicone Acrylate
Substrate	NONE
Color	Light Green
Available Formats	Sheets or Cut Pads
Standard Sheet Sizes (1mm / 2mm / 3mm / 4mm)	20.00" x 8.27"
TIMTEL Cutting Capabilities	Razor 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 0.030"(0.76mm) (depending on thickness—determined at design review)
Storage	Cool, dry location at or below 80F/ 27C. Store away from UV
Shelf Life	2 years from date of manufacture

Thickness vs Compression



TIMTEL