soft, flexible / Low Volatile Siloxanes (LV)

TGF-VS-SI is an electrically insulating thermally conductive high performance LV silicone gap filler. It is ideal for use in applications where thermal transfer over large gaps caused e.g. by big tolerances or different stack up heights must be achieved. Due to the specific formulation and filling with ceramic particles the silicone elastomer has an extremely high thermal conductivity. Through its high softness and flexibility the material perfectly mates to irregular surfaces thus filling gaps at low pressure. By its use the total thermal resistance is minimised. The natural tackiness of the material allows for an easy and reliable pre-assembly.



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## **PROPERTIES**

- Soft and compliable
- Low volatile siloxane content (LV)
- ☐ Thermal conductivity: 5.0 W/mK
- Operates at low pressure
- Extraordinary chemical resistance and longterm stability
- ☐ Shock absorbing
- Easy mounting through self tackiness
- ☐ Two-side self-tacky

## **AVAILABILITY**

- ☐ Sheet 400 x 200 mm☐ Tacky on both sides
- (TGF-VSXXXX-SI)
  ☐ Die cut parts
- Kiss cut parts on sheet

## **APPLICATION EXAMPLES**

Thermal link of:

- SMD packages
- Through-hole vias
- ☐ RDRAMs memory modules ☐ Flip Chips, DSPs, BGAs, PPGAs
- For use in Automotive applications / Laptops / Medicine engineering / Embedded boards

PROPERTY	UNIT	TGF-VS1000-SI	TGF-VS2000-SI	TGF-VS3000-SI

MATERIAL		Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone
Colour		Turquois	Turquois	Turquois
Density	g/cm³	3.3	3.3	3.3
Thickness	mm	1.0 +0.20	2.0 ±0.20	3.0 <sup>±0.30</sup>
Hardness	Shore 00	55	55	55
UL Flammability (Equivalent)	UL 94	V0	V0	V0
RoHS Conformity	2015 / 863 / EU	Yes	Yes	Yes
THERMAL				
Resistance <sup>1</sup> @ 60 PSI @ Thickness	°C-inch²/W (mm)	0.24 (0.67)	0.40 (1.25)	0.50 (1.55)
Resistance <sup>1</sup> @ 30 PSI @ Thickness	°C-inch²/W (mm)	0.28 (0.76)	0.46 (1.55)	0.59 (2.00)
Resistance <sup>1</sup> @ 10 PSI @ Thickness	°C-inch²/W (mm)	0.30 (0.87)	0.52 (1.78)	0.69 (2.42)
Thermal Conductivity <sup>1</sup>	W/mK	5.0	5.0	5.0
Operating Temperature Range	°C	- 40 to + 130	- 40 to + 130	- 40 to + 130
ELECTRICAL				
Dielectric Strength	kV / mm	<b>≽</b> 8	<b>≽</b> 8	>8
Volume Resistivity	Ohm - cm	≥1.0 x 10 <sup>10</sup>	≥1.0 x 10¹0	≥1.0 x 10 <sup>10</sup>

Measurement technique according to: 'ASTM D 5470. All data without warranty and subject to change. Please contact us for further data and information.

Thicknesses: 0.5 mm / 1.0 mm / 2.0 mm / 3.0 mm

mm vs. N/cm² (PSI) / Rth vs. N/cm² (PSI)



