**HALA** 

soft, flexible

TGF-R-SI is an electrically insulating thermally conductive 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 a very 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 preassembly.



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## **PROPERTIES**

- Soft and compliable
- ☐ Thermal conductivity: 3.0 W/mK
- Operates at low pressure
- Extraordinary chemical resistance and longterm stability
- Shock absorbing
- Easy mounting through self tackiness
- One or two-side self-tacky

## **AVAILABILITY**

- ☐ Sheet 480 x 460 mm (Thickness 0.5 / 1.0 mm)
- ☐ Sheet 460 x 460 mm (Thickness 2.0 mm)
- ☐ Sheet 460 x 450 mm (Thickness 3.0/4.0/5.0 mm)
- ☐ Tacky on both sides (TGF-RXXXX-SI)
- ☐ Tacky on one side (TGF-RXXXX-SI-A1)
- Die cut parts
- Kiss cut parts on sheet

## **APPLICATION EXAMPLES**

Thermal link of:

- SMD packages
- Capacitors
- ☐ Electronic parts to heat pipes For use in Automotive applications/ Laptops / Medicine engineering / Industrial PCs

PROPERTY	UNIT	TGF-R0500-SI	TGF-R1000-SI	TGF-R2000-SI	TGF-R3000-SI
MATERIAL		Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone
Colour		Light blue	Light blue	Light blue	Light blue
Thickness	mm	0.5 ±0.05	1.0 ±0.10	2.0 ±0.20	3.0 ±0.30
Hardness	Shore 00	55	55	55	55
UL Flammability	UL 94	V0	V0	V0	V0
RoHS Conformity	2015 / 863 / EU	Yes	Yes	Yes	Yes
THERMAL					
Resistance <sup>1</sup> @ 60 PSI @ Thickness	°C-inch²/W (mm)	0.22 (0.39)	0.40 (0.73)	0.68 (1.31)	0.95 (1.86)
Resistance <sup>1</sup> @ 30 PSI @ Thickness	°C-inch²/W (mm)	0.24 (0.42)	0.44 (0.81)	0.77 (1.49)	1.09 (2.15)
Resistance <sup>1</sup> @ 10 PSI @ Thickness	°C-inch²/W (mm)	0.26 (0.46)	0.48 (0.90)	0.88 (1.72)	1.25 (2.50)
Thermal Conductivity <sup>1</sup>	W/mK	3.0	3.0	3.0	3.0
Operating Temperature Range	°C	- 60 to + 180			
ELECTRICALLY					
Dielectric Strength	kV / mm	10	10	10	10
Volume Resistivity	0hm - cm	1.0 x 10 <sup>11</sup>			
Dielectric Constant	@ 1 kHz	5.2	5.2	5.2	5.2

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 / 1.5 mm / 2.0 mm / 2.5 mm / 3.0 mm / 4.0 mm / 5.0 mm

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



