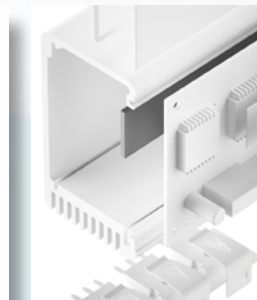


# SILICONE GAP FILLER TEL-R-SI

highly thermally conductive elastomer



TEL-R-SI is a low dielectric, high performance thermally conductive silicone foil for an optimised thermal coupling between electronic packages and heat sinks even over large gaps or big tolerances. Through the specific formulation and filling with highly thermally conductive particles an extraordinary high anisotropic thermal conductivity is reached. Its conformal surface structure and extreme softness guarantee a very good compliance to the contact surfaces at very low pressure. Thus the total thermal resistance is minimised. The elastomer shows a low dielectric strength.



Release 02 / 2018

### PROPERTIES

- High surface compliance and extremely soft
- Thermal conductivity: 15 W/mK (anisotropic)
- Low dielectric strength
- Extraordinary chemical resistance and longterm stability
- Shock absorbing

### AVAILABILITY

- Sheet 150 x 150 mm (Thickness 0.25 - 1.5 mm)
- Sheet 140 x 140 mm (Thickness 2.0- 3.0 mm)
- Double-side self tacky (TEL-RXXXX-SI)
- Die cut parts
- Kiss cut parts on sheet

### APPLICATION EXAMPLES

Thermal link of:

- MOSFETs und IGBTs
- Power diodes or AC/DC converters
- Power modules
- CPUs

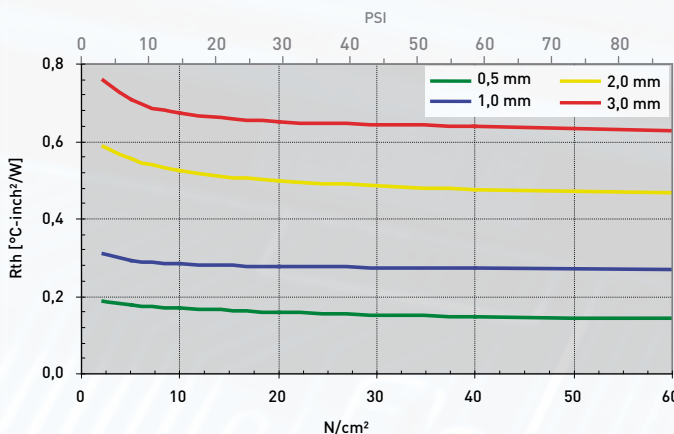
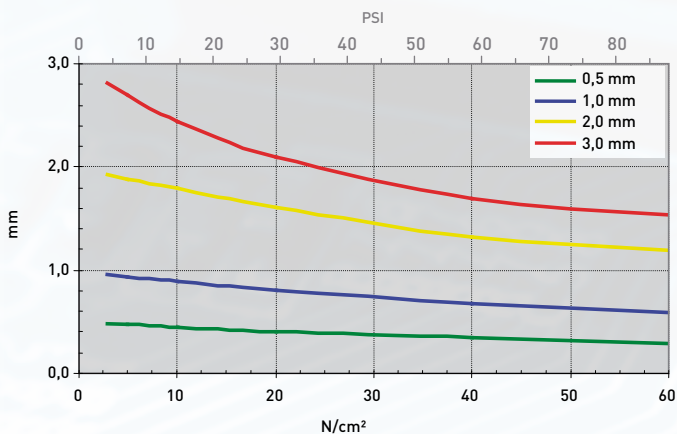
For use in Switch mode power supplies / Motor control units / Automotive engine management systems / UPS units / Solar systems

Property	Unit	TEL-R0500-SI	TEL-R1000-SI	TEL-R2000-SI
<b>Material</b>		Silicone with highly thermally conductive fillers	Silicone with highly thermally conductive fillers	Silicone with highly thermally conductive fillers
Colour		Black	Black	Black
Thickness	mm	0.50	1.0	2.0
Hardness	Shore 00	35	35	35
Flammability (Equivalent)	UL 94	V0	V0	V0
RoHS Conformity	2011 / 65 / EU	Yes	Yes	Yes
<b>Thermal</b>				
Resistance <sup>1</sup> @ 90 PSI Thickness	°C-inch <sup>2</sup> /W (mm)	0.15 (0.30)	0.27 (0.60)	0.47 (1.20)
Resistance <sup>1</sup> @ 30 PSI @ Thickness	°C-inch <sup>2</sup> /W (mm)	0.16 (0.41)	0.28 (0.81)	0.50 (1.61)
Resistance <sup>1</sup> @ 10 PSI @ Thickness	°C-inch <sup>2</sup> /W (mm)	0.18 (0.47)	0.29 (0.93)	0.54 (1.85)
Thermal Conductivity	W/mK	15	15	15
Operating Temperature Range	°C	- 50 to + 180	- 50 to + 180	- 50 to + 180
<b>Electrical</b>				
Volume Resistivity	Ohm - cm	> 1 x 10 <sup>7</sup>	> 1 x 10 <sup>7</sup>	> 1 x 10 <sup>7</sup>
Dielectric Strength	kV/mm	~ 0.3	~ 0.3	~ 0.3

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

Thicknesses: 0.25 mm / 0.5 mm / 1.5 mm / 1.0 mm / 2.0 mm / 3.0 mm

mm vs. N/cm<sup>2</sup> (PSI) / Rth vs. N/cm<sup>2</sup> (PSI)



All technical data and information are without warranty and believed to be reliable and accurate corresponding to the latest state of the art. Since the products are not provided to conform with mutually agreed specifications and their use and processing are unknown we cannot guarantee results, freedom from patent infringement, or their suitability for any application. Product testing by the applicant is recommended. We reserve the right of changes.