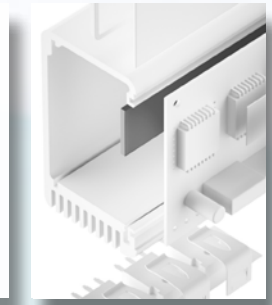


SILICONE GAP FILLER TEL-R-SI

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 1 / 2017

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

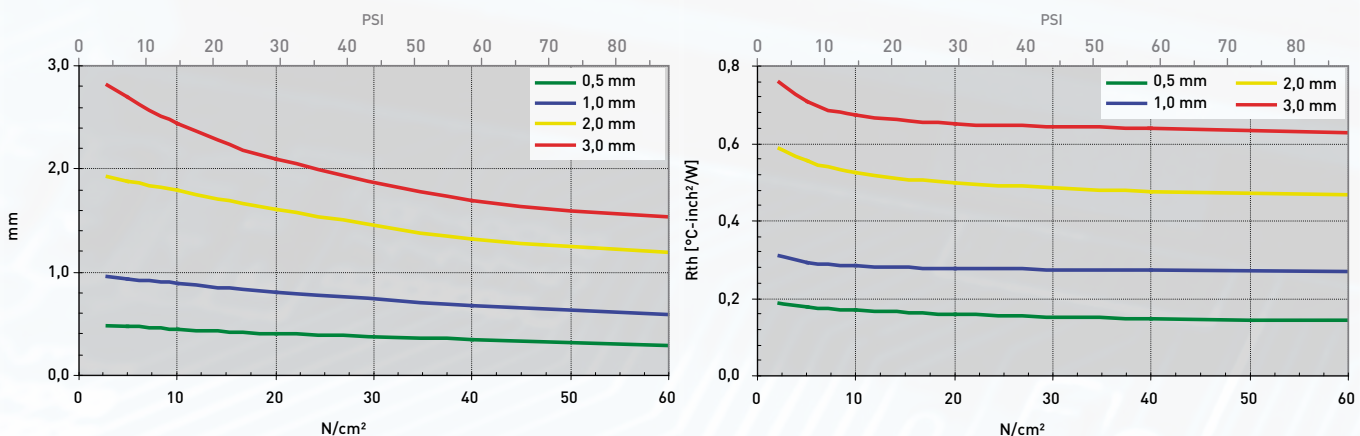
- Thermal link of:
- MOSFETs und IGBTs
 - Power diodes or AC/DC converters
 - Power modules
 - CPUs
- For use in Switch mode power supplies / Motor control units / Automotive engine management systems / UPS units / Solar systems

Property	Unit	TEL-R0500-SI	TEL-R1000-SI	TEL-R2000-SI
Material		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
Thermal				
Resistance ¹ @ 90 PSI Thickness	°C-inch ² /W (mm)	0.15 (0.30)	0.27 (0.60)	0.47 (1.20)
Resistance ¹ @ 30 PSI @ Thickness	°C-inch ² /W (mm)	0.16 (0.41)	0.28 (0.81)	0.50 (1.61)
Resistance ¹ @ 10 PSI @ Thickness	°C-inch ² /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
Electrical				
Volume Resistivity	Ohm - cm	> 1 x 10 ⁷	> 1 x 10 ⁷	> 1 x 10 ⁷
Dielectric Strength	kV/mm	~ 0.3	~ 0.3	~ 0.3

Test Methods: ¹ASTM 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/cm² (PSI) / Rth vs. N/cm² (PSI)



All technical data and information are without warranty and believed to be reliable and accurate. 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.