



Technical Data Sheet

Tape and Adhesive

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Hyper Soft Thermally Conductive Interface Pad 5509 / 5509S

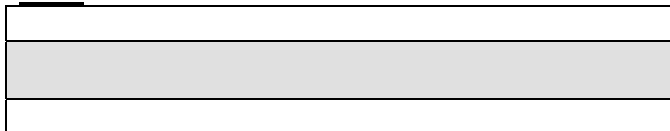
Product description

3M thermally conductive interface pad 5509 and 5509S are designed to provide a preferential heat transfer path between heat generating components and heat sinks, heat spreaders or other cooling devices. These products consist of a highly conformable slightly tacky silicone elastomer sheet filled with thermally conductive ceramic particles which provide special features listed as follows.

- ◇ Very High thermal conductivity and good electrical insulation properties.
- ◇ Flame retardant and UL V-0/V-1 approved material.
- ◇ Good softness and conformability even to non-flat surfaces.
- ◇ Incorporates a thin polyester film carrier for improved handling.
- ◇ Slight tack allows pre-assembly. Good wettability for better thermal conductivity.

Product construction

5509



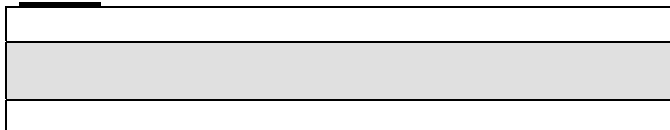
Film liner

Thermally conductive silicone elastomer (Gray color)

Film liner

Standard thickness (excludes liner): 1.0mm, 1.5mm, 2.0mm

5509S



Polyester film (0.006mm thick)

Thermally conductive silicone elastomer (Gray color)

Film liner

Standard thickness (excludes liner): 0.5mm, 1.0mm, 1.5mm, 2.0mm

Specifications and appearance may be changed without prior notice. All statements, technical information and recommendation herein are based on information believed to be reliable, but the accuracy or completeness thereof is not guaranteed. Before utilizing the product, the user should determine the suitability of the product for its intended use. The user assumes all risks and liability whatsoever in connection with such use. Seller's and manufacturer's only obligation shall be to replace such quantity of the product proved to be defective. The statements contained herein are made in lieu of all warranties, expressed or implied. Any statements or recommendations which are not contained herein shall have no force or effect unless contained in an agreement signed by an authorized officer of seller and manufacturer.

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Tape and Adhesive

Properties

Typical properties and performance characteristics

Property	Method	Value		
Thermal conductivity (W/m-K)	Kemtherm QTM-D3	5.0		
Flammability	UL94	5509; V-0 5509S; V-1		
Density (g/cm ³ , @25C)	JIS K6249	2.2		
Hardness	Asker C	40		
Volume resistivity (Ω-cm)	JIS K6249	5.4x10 ¹⁰		
Dielectric Strength (kV/mm)	JIS K6249	0.12		
Dielectric constant	JIS K6249	50Hz	1Khz	1Mhz
		11.8	11.7	11.6

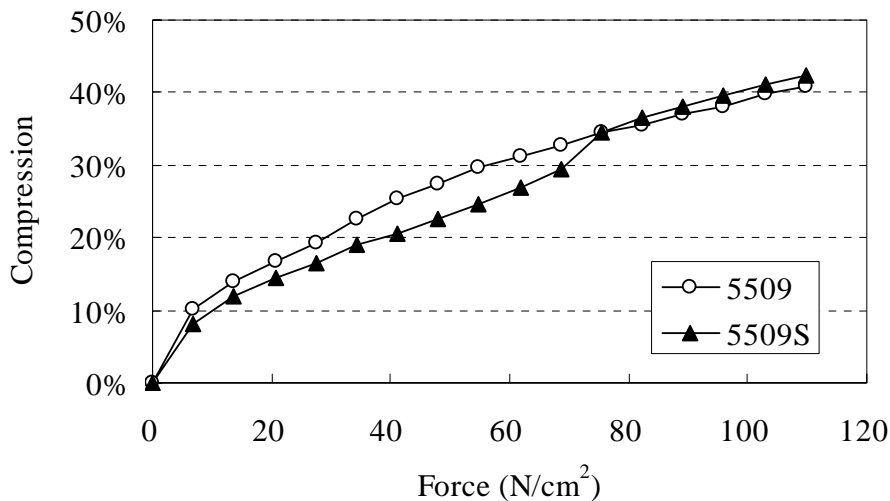
Heat resistance

Duration (hrs)	Initial	500	1000	2000
Thermal conductivity (W/m-K)	5.0	5.0	5.1	5.0
Hardness (Asker C)	40	47	49	49
Appearance		No effect	No effect	No effect

Aged at 130C in high temperature chamber

Compression

Compression rate; 0.5mm/min. Sample thickness; 1mm



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