

Thermalsil™ III

RoHS Compliant

Thermally Conductive Silicone Rubber Insulators

The newest Thermalsil™ III formula has improved thermal conductivity, providing excellent thermal resistance. It is used as an electrically-isolating interface material composed of silicone elastomer binder with a thermally conductive filler. It is reinforced with glass cloth to resist tearing and cut-through due to burns on transistors or heat sinks.

Thermalsil™ III eliminates the need for grease application and conforms to mounting surfaces under clamping pressure for optimum heat conduction.

Thermalsil™ III is .152mm (.006") thick and grey green in color. A finely woven glass cloth provides the thinnest possible matrix for enhanced thermal resistance.

To order Thermalsil™ III with adhesive coated backing, add suffix "AC" to the part number. For example, 53-03-2AC.

Thermalsil™ III is available in any configuration with adhesive backing. Order by adding "AC" after the part number. For example: 53-03-2AC.

Bulk Thermalsil™ III

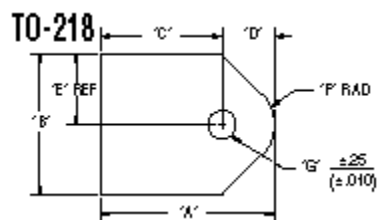
Thermalsil™ III is also available in three widths, with and without adhesive coated backing (AC). Thermalsil™ III is .152mm (.006") thick.

Thermalsil™ III

Property	Typical Value 25°C	Test Method
Electrical		
Dielectric Constant	2.5@50 Hz 2.5@10 ³ Hz 2.5@10 ⁶ Hz	ASTM D150
Dielectric Breakdown Voltage	26.3 x 10 ³ volts/mm (667 volts/mil) ASTM D-149	ASTM D149
Volume Resistivity	5.7 x 10 ¹⁵ ohm-cm	ASTM D257
Dielectric Dissipation Factor	.008@50 Hz .004 @10 ³ Hz .004 @10 ⁶ Hz	ASTM D150

Physical		
Thickness	.15 + .03/-.05mm (.006 + .001/-.002 in.)	
Color	Gray-Green	
Tensile Strength	6.1 x 10 ⁷ Pa (8786 psil)	
Hardness, Shore A	87	
Elongation	2% or less	
Thermal		
Thermal Conductivity	0.92 w/m °C	
Flame Resistance	UL 94V-0	UL card #E-58126 (S)
Service Temperature	-60°C to 180°C (-76°F to 356°F)	

Standard Thermalsil Configurations



Part Number	A	B	C	D	E	F	G
53-02-103*	23.80 (.937)	19.05 (.750)	16.66 (.656)	7.14 (.281)	9.53 (.375)		3.18 (.125)

* These insulators may also be used for TO-3P and TO-247 devices.