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RoHS 
Compliant
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## Thermalsil ${ }^{\text {TM }}$ III

## RoHS Compliant

## Thermally Conductive Silicone Rubber Insulators

The newest Thermalsil ${ }^{\text {TM }}$ 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 burrs on transistors or heat sinks.

Thermalsil ${ }^{T M}$ III eliminates the need for grease application and conforms to mounting surfaces under clamping pressure for optimum heat conduction.

Thermalsil ${ }^{T M}$ III is .152 mm ( 0.006 ") thick and grey green in color. A finely woven glass cloth provides the thinnest possible matrix for enhanced thermal resistance.

To order Thermalsil ${ }^{T M}$ III with adhesive coated backing, add suffix "AC" to the part number. For example, 53-03-2AC.

Thermalsil ${ }^{T M}$ III is available in any configuration with adhesive backing. Order by adding "AC" after the part number. For example: 53-03-2AC.

Thermalsil ${ }^{\mathrm{Tm}}$ III

| Property | Typical Value $25^{\circ} \mathrm{C}$ | Test Method |
| :---: | :---: | :---: |
| Electrical |  |  |
| Dielectric Constant | $\begin{aligned} & 2.5 @ 50 \mathrm{~Hz} \\ & 2.5 @ 10^{3} \mathrm{~Hz} \\ & 2.5 @ 10^{6} \mathrm{~Hz} \end{aligned}$ | ASTM D150 |
| Dielectric Breakdown Voltage | $\begin{gathered} 26.3 \times 10^{3} \text { volts } / \mathrm{mm}(667 \text { volts } / \mathrm{mil}) \text { ASTM D- } \\ 149 \end{gathered}$ | ASTM D149 |
| Volume Resistivity | $5.7 \times 10^{15}$ ohm-cm | ASTM D257 |
| Dielectric Dissipation Factor | $\begin{aligned} & .008 @ 50 \mathrm{~Hz} \\ & .004 @ 10^{3} \mathrm{~Hz} \\ & .004 @ 10^{6} \mathrm{~Hz} \end{aligned}$ | ASTM D150 |
| Physical |  |  |
| Thickness | $\begin{gathered} .15+.03 /-.05 \mathrm{~mm} \\ (0.006+.001 /-.002 \mathrm{in} .) \end{gathered}$ |  |
| Color | Gray-Green |  |


| Tensile Strength | $6.1 \times 10^{7} \mathrm{~Pa}(8786 \mathrm{psil})$ |  |
| :---: | :---: | :---: |
| Hardness, Shore A | 87 |  |
| Elongation | $2 \%$ or less |  |
| Thermal |  |  |
| Thermal Conductivity | $0.92 \mathrm{w} / \mathrm{m}{ }^{\circ} \mathrm{C}$ | UL card \#E-58126 |
| Flame Resistance | $\mathrm{UL} 94 \mathrm{~V}-0$ |  |
| Service Temperature | $-60^{\circ} \mathrm{C}$ to $180^{\circ} \mathrm{C}$ <br> $\left(-76^{\circ} \mathrm{F}\right.$ to $\left.356^{\circ} \mathrm{F}\right)$ |  |

*Thickness:
4103: 1.78 ( 0.070 ) to 2.03 ( 0.080 )
4104: 1.52 (0.060) to 2.03 (0.080)

## Standard Thermalsil Configurations



| Part Number | RoHS | A | B | C | D |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 53-03-11 | RoHs $\checkmark$ <br> Compliant | $41.81(1.646)$ | $28.58(1.125)$ | $3.96(0.156)$ | $2.36(0.093)$ |

