

Description:

Protect 1500FG™ is a insulator sheet composed of cured silicone rubber with functional additives formulated to deliver exceptional thermal, physical, and electrical properties.

Developed specifically for LED and Power applications where long-term reliability is a top concern. Protect™ insulators resistant heat, humidity, and shock while conforming to surface topography to maximize contact area at low fastener pressures. Maximizing contact area facilitates even heat transfer to reduce hot spots. Protect™ insulators are electrically insulating to isolate your LED PCB or power transistor from the heat sink. Protect™ insulators are UL listed with a UL94 V-0 flame rating and a 150°C relative thermal index (RTI) for both mechanical and electrical. Additionally, Protect™ insulators are RoHS compliant and free of halogenated flame retardants.

Benefits:

- Use with mechanical fasteners; clips, springs, or screws.
- Softer and more compliant than competitive insulators— wets out at lower pressures.
- Improves consistency of thermal path to heat sink.
- Easy to handle and apply.

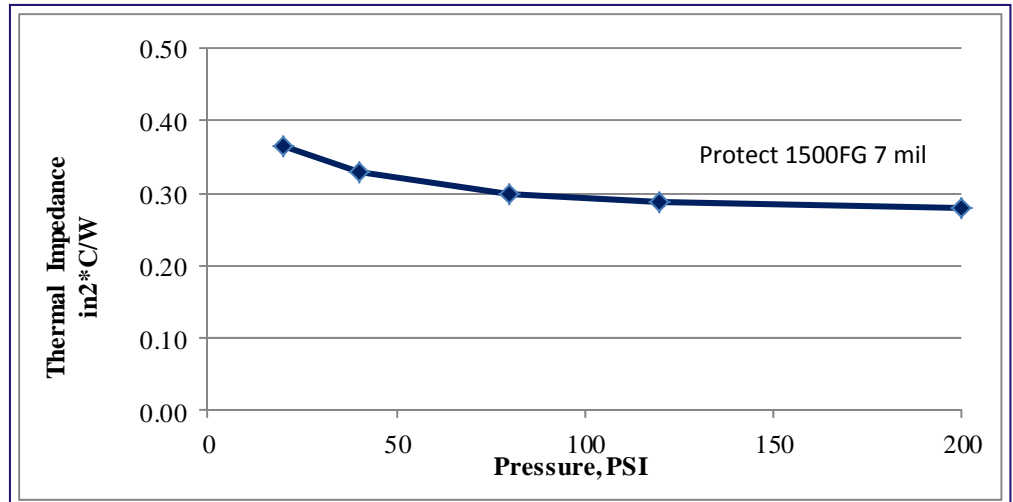
Recommended Applications:

- Thermally coupling power transistors to heat sinks.
- Thermally coupling LED light modules to heat sinks

Standard Sizes:

- 16 in. x 125 LY rolls
- Slit widths, cut pads, and die cuts
- Other sizes on request

Property	Typical Value		Test Method
	Imperial	Metric	
Color	Mauve or Gray		Visual
Thickness	7—20 mils	0.18—0.51 mm	ASTM D374
Construction	Supported		---
Supporting Material	Fiberglass		---
Mechanical			
Hardness	77 Shore A		ASTM D2240
Tensile Strength	850 PSI	5.9 MPa	ASTM D412
Elongation, Machine Direction	4%		ASTM D412
Elongation, 45° Warp and Fill	20%		ASTM D412
Thermal			
Thermal Conductivity	0.87 Btu/(hr*in²*F)	1.5 W/m-K	ASTM D5470
Thermal Impedance @ 40 PSI	0.3 in²*C/W	1.9e ⁻⁴ m²*K/W	ASTM D5470
Glass Transition Temperature	-180°F	-118°C	ASTM D3418
Operating Range	-150 to 400°F	-100 to 204°C	---
Electrical			
Dielectric Strength, kVac	> 500 V/mil	> 19 kV/mm	ASTM D149
UL Certification (QMF22.E54153)			
Flammability Rating	V-0		UL 94
RTI, Mechanical	300°F	150°C	UL 746
RTI, Electrical	300°F	150°C	UL 746
Hot Wire Ignition (HWI)	4 @ 7 mils 3 @ 20 mils	4 @ 0.17 mm 3 @ 0.51 mm	UL 746
High Current Arc Ignition (HAI)	3 @ 7 mils 2 @ 20 mils	3 @ 0.17 mm 2 @ 0.51 mm	UL 746



Thermal impedance measured per ASTM D5470. Values obtained depend on pressure and surface finish of fixture

Shelf Life is 5 years from DOM at 25°C +/- 3

