

Protect® 1500KT2

Thermally Conductive, Kapton® Reinforced, Insulator

Description:

Protect® 1500KT2 is a insulator sheet composed of cured silicone rubber with functional additives formulated to deliver exceptional thermal, physical, and electrical properties. Protect® 1500KT2 is supported on 1 mil DuPont™ Kapton® MT film for superior dielectric strength and puncture resistance.

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.

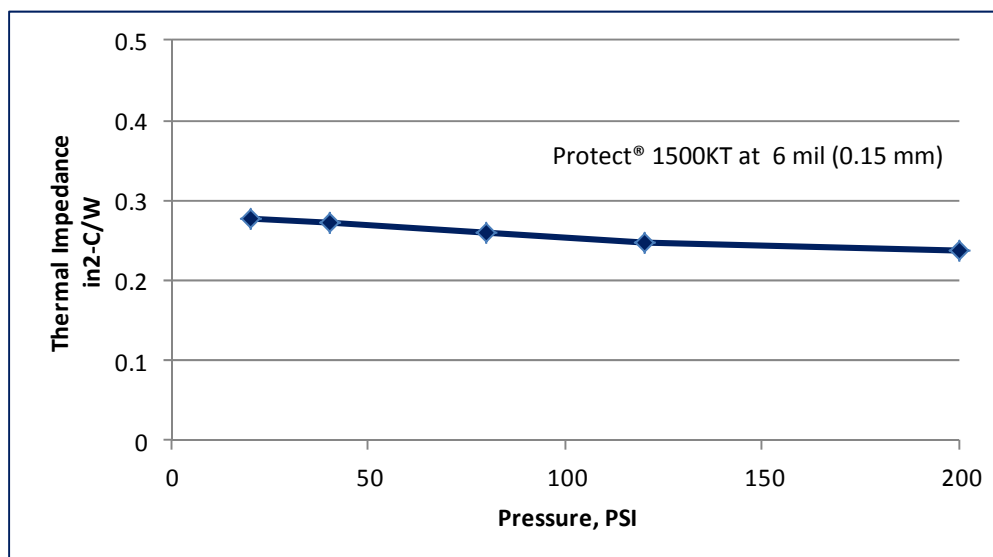
Recommended Applications:

- 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		Visual
Thickness	6—7.5 mils	0.15—0.19 mm	ASTM D374
Construction	Supported		—
Supporting Material	Kapton® MT, 1 mil		—
Mechanical			
Hardness	77 Shore A		ASTM D2240
Elastic Modulus ($\leq 1\%$ strain)	38,900 PSI	268 MPa	Arlon TMS-008
Shear Modulus ($\leq 25\%$ strain)	145 PSI	1.0 MPa	ASTM D1002
Thermal			
Thermal Conductivity	0.87 Btu/(hr*in²*F)	1.5 W/m-K	ASTM D5470
Thermal Impedance @ 40 PSI	0.27 in²*C/W	1.8e ⁻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	> 1,000 V/mil	> 39 kV/mm	ASTM D149
UL Certification (QMF22.E54153)			
Flammability Rating	V-0		UL 94
RTI, Mechanical	150°C		UL746
RTI, Electrical	150°C		UL746
Hot Wire Ignition (HWI)	3		UL746
High Current Arc Ignition (HAI)	2		UL746
Dielectric Strength	66 kV/mm		UL746



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

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