

Selection Guide

Technical Data Sheet

ULTIMiFlux demonstration kit includes a quantity 1 of the 9 different TIMs as listed below to evaluate in your application. Thermal pads are used for filling the voids between a heat source and heat sink, effectively excluding air from the contact interface. The products are ultra soft, naturally tacky and can be die-cut into various shapes. PLF is a silicone free TIM.



Wakefield Thermal			www.wakefieldthermal.com		
Wakefield Part #	Colors	Performance	Shore 00	Thickness	Size
PL-1-1.5-76X127-15	Blueish Gray	1.5 W/mk	15	1 mm	3" X 5"
PL-1-3-76X127-30	Blue	3 W/mk	30	1mm	3" X 5"
PL-1-5-76X127-60	Brown	5 W/mk	60	1mm	3" X 5"
PL-1-6-76X127-60	Gray	6 W/mk	60	1mm	3" X 5"
PL-1-8-76X127-50	Gray	8 W/mk	50	1mm	3" X 5"
PL-1-10-76X127-55	Gray	10 W/mk	55	1mm	3" X 5"
PL-1-12-76X127-75	Gray	12 W/mk	55 - 75	1mm	3" X 5"
PL-1-14-76X127-65	Purple	14 W/mk	65	1mm	3" X 5"
PLF-1-8-76X127-70	Light Gray	8 W/mk	70	1mm	3" X 5"

Product Example Image

Features And Benefits

- Wide operating temperature range
- Excellent flame retardance
- Good electrical insulation performance
- Good flexibility and high compression ratio

Applications

- Semiconductor heat sink
- Thermal imaging equipment
- Military electronic products
- Vehicle navigation equipment
- Communication & power equipment
- Graphics card, memory module
- LED lighting equipment
- HDTVs



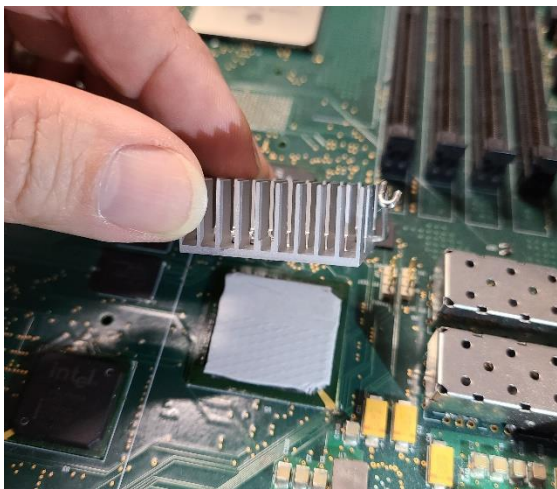
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Thermal pads are used for filling the voids between a heat source and heat sink, effectively excluding air from the contact interface. The products are ultra soft, naturally tacky and can be die-cut into various shapes.

Illustration example**Features And Benefits**

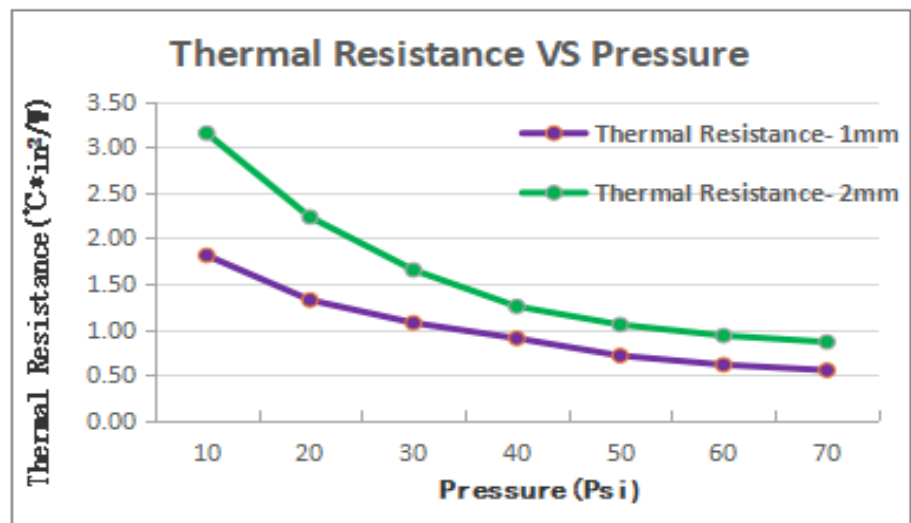
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PL-1-1.5-76X127-15

Color	Blueish Gray	visual
Thickness	0.15-15.0mm	ASTM D374
Specific Gravity	2.1g/cc	ASTM D792
Thermal Conductivity	1.5 W/m-K	ASTM D5470
Hardness (Shore OO)	15	ASTM D2240
Elongation	50%	ASTM D412
Tensile Strength	50psi	ASTM D412
Breakdown Voltage AC(KV)	>2@0.5MM >4@0.75MM	ASTM D149
UL Flammability Rating	UL94	V-0
Volume Resistivity	$1 \times 10^{13} \Omega \cdot \text{cm}$	ASTM D257
Operating Temperature	-50 ~ 200°C	—
Thermal Impedance (1mm, @40psi)	0.9°C*in ² /W	ASTM D5470 *
Compression Ratio(1mm, @40psi)	50%	—
Dielectric Constant MHz	5.5	ASTM D150
RoHS	PASS	IEC 62321
Halogen	PASS	EN14582
REACH	PASS	EN14372



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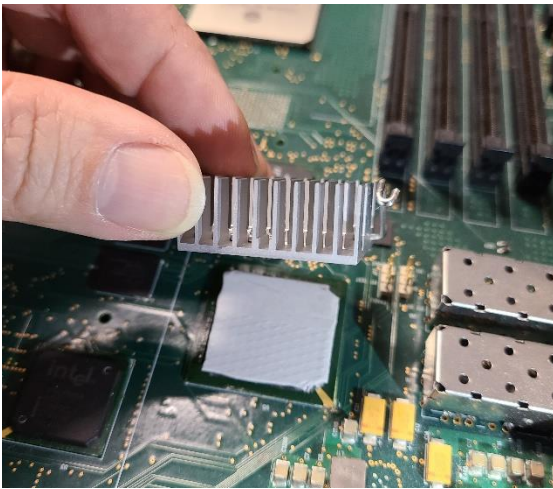
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Illustration example



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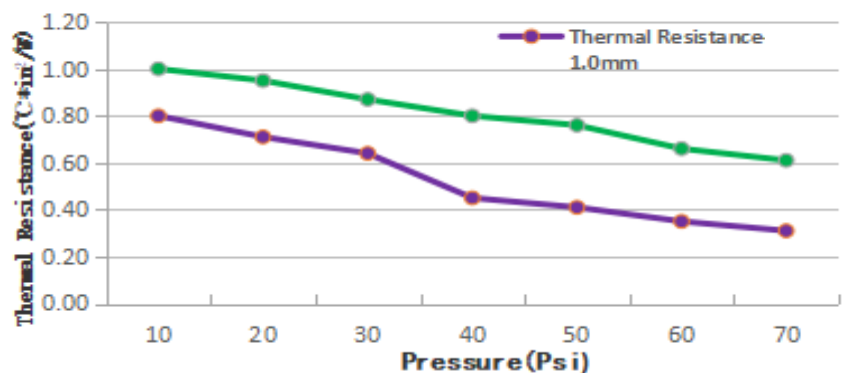
Applications

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- LED lighting equipment
- HDTVs

PL-1-3-76X127-30

Color	Blue	visual
Thickness	0.15-10.0mm	ASTM D374
Specific Gravity	2.9g/cc	ASTM D792
Thermal Conductivity	3.0 W/m-K	ASTM D5470
Hardness (Shore OO)	30	ASTM D2240
Elongation	60%	ASTM D412
Tensile Strength	45psi	ASTM D412
Breakdown Voltage AC(KV)	>2@0.5MM >4@0.75MM	ASTM D149
UL Flammability Rating	UL94	V-0
Volume Resistivity	$1 \times 10^{13} \Omega \cdot \text{cm}$	ASTM D257
Operating Temperature	-50 ~ 200°C	—
Thermal Impedance (1mm, @40psi)	0.45°C*in ² /W	ASTM D5470 *
Compression Ratio(1mm, @40psi)	35%	—
Dielectric Constant MHz	5.6	ASTM D150
RoHS	PASS	IEC 62321
Halogen	PASS	EN14582
REACH	PASS	EN14372

Thermal Resistance VS Pressure



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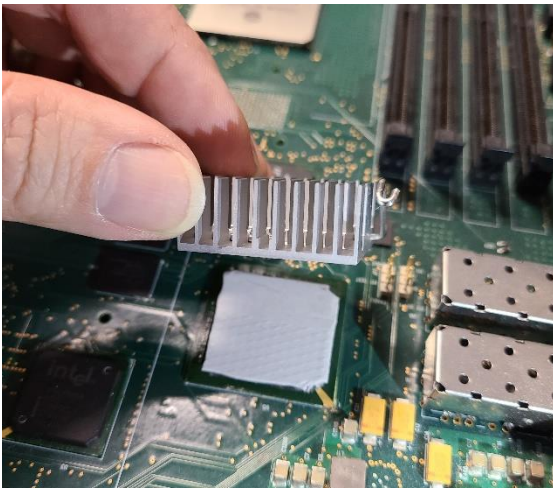
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Illustration example



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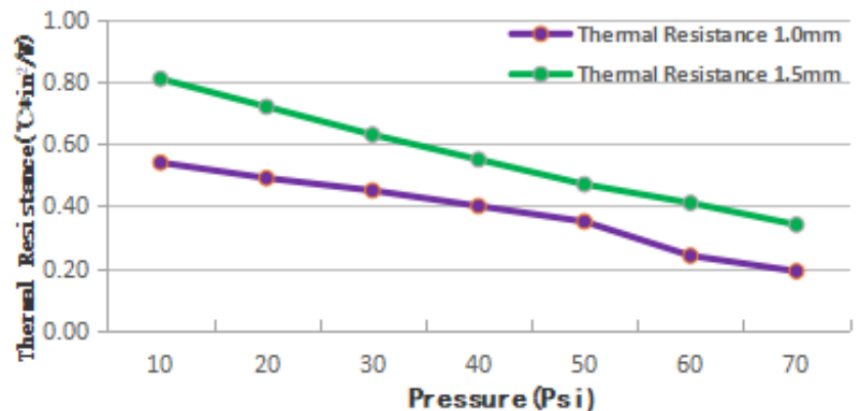
Applications

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PL-1-5-76X127-60

Color	Brown	visual
Thickness	0.5-10.0mm	ASTM D374
Specific Gravity	3.2g/cc	ASTM D792
Thermal Conductivity	5.0 W/m-K	ASTM D5470
Hardness (Shore OO)	60	ASTM D2240
Elongation	30%	ASTM D412
Tensile Strength	30psi	ASTM D412
Breakdown Voltage AC(KV)	>2@0.5MM >4@0.75MM	ASTM D149
UL Flammability Rating	UL94	V-0
Volume Resistivity	$1 \times 10^{13} \Omega \cdot \text{cm}$	ASTM D257
Operating Temperature	-50 ~ 200°C	—
Thermal Impedance (1mm, @40psi)	0.40°C*in ² /W	ASTM D5470 *
Compression Ratio(1mm, @40psi)	35%	—
Dielectric Constant MHz	5.5	ASTM D150
RoHS	PASS	IEC 62321
Halogen	PASS	EN14582
REACH	PASS	EN14372

Thermal Resistance VS Pressure



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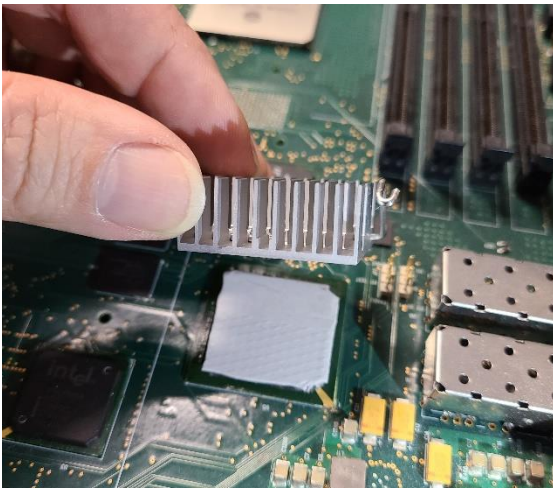
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Illustration example



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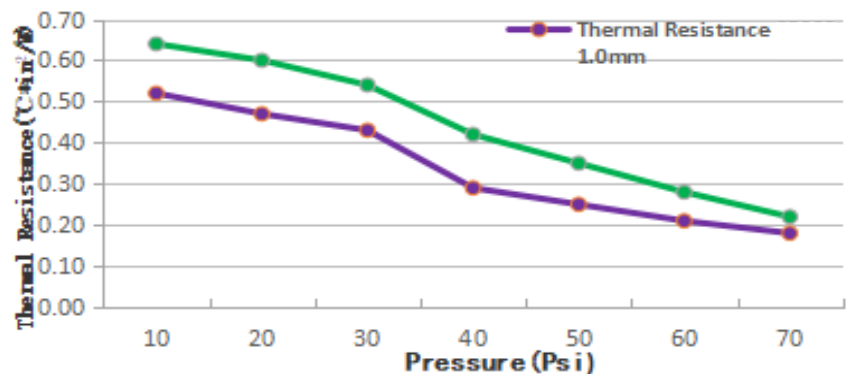
Applications

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PL-1-6-76X127-60

Color	Gray	visual
Thickness	0.5-5.0mm	ASTM D374
Specific Gravity	3.3g/cc	ASTM D792
Thermal Conductivity	6.0 W/m-K	ASTM D5470
Hardness (Shore OO)	60	ASTM D2240
Elongation	20%	ASTM D412
Tensile Strength	30psi	ASTM D412
Breakdown Voltage AC(KV)	>2@0.5MM >4@0.75MM	ASTM D149
UL Flammability Rating	UL94	V-0
Volume Resistivity	$1 \times 10^{13} \Omega \cdot \text{cm}$	ASTM D257
Operating Temperature	-50 ~ 200°C	—
Thermal Impedance (1mm, @40psi)	0.29°C*in ² /W	ASTM D5470 *
Compression Ratio(1mm, @40psi)	35%	—
Dielectric Constant MHz	5.8	ASTM D150
RoHS	PASS	IEC 62321
Halogen	PASS	EN14582
REACH	PASS	EN14372

Thermal Resistance VS Pressure



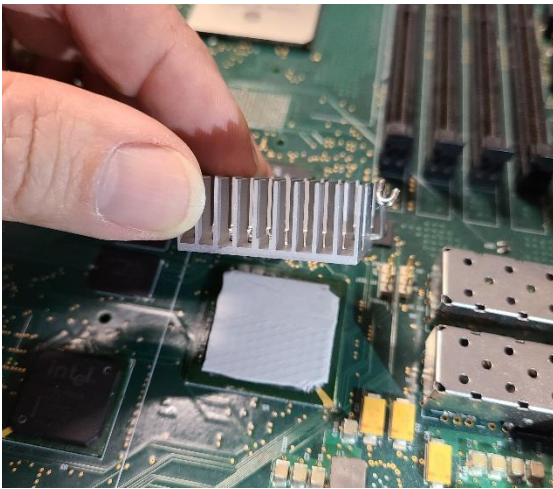
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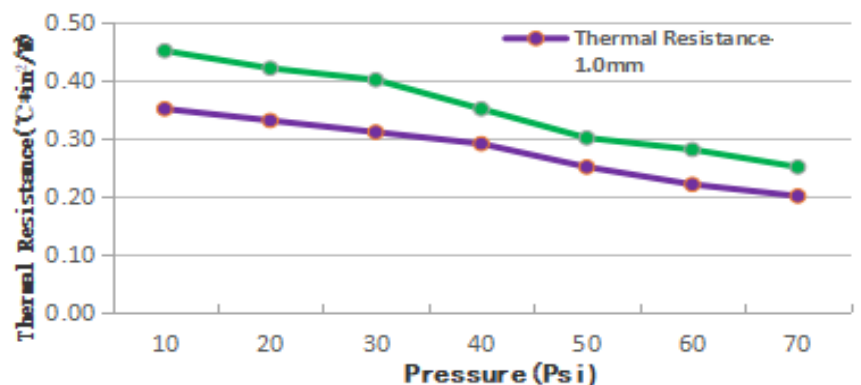
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Applications

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- Graphics card, memory module
- LED lighting equipment
- HDTVs

PL-1-8-76X127-50

Color	Gray	visual
Thickness	0.5-5.0mm	ASTM D374
Specific Gravity	3.4g/cc	ASTM D792
Thermal Conductivity	8.0 W/m-K	ASTM D5470
Hardness (Shore OO)	50	ASTM D2240
Elongation	15%	ASTM D412
Tensile Strength	10psi	ASTM D412
Breakdown Voltage AC(KV)	>2@0.5MM >4@0.75MM	ASTM D149
UL Flammability Rating	UL94	V-0
Volume Resistivity	$1 \times 10^{13} \Omega \cdot \text{cm}$	ASTM D257
Operating Temperature	-50 ~ 200°C	—
Thermal Impedance (1mm, @40psi)	0.29°C*in ² /W	ASTM D5470 *
Compression Ratio(1mm, @40psi)	15%	—
Dielectric Constant MHz	5.5	ASTM D150
RoHS	PASS	IEC 62321
Halogen	PASS	EN14582
REACH	PASS	EN14372

Thermal Resistance VS Pressure

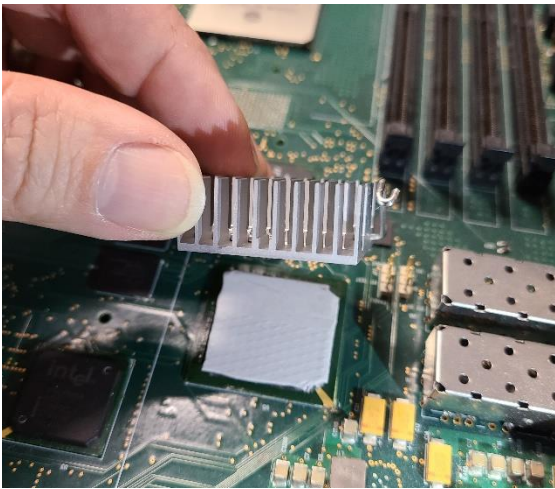
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Illustration example

PL-1-10-76X127-55		
Color	Gray	visual
Thickness	0.5-5.0mm	ASTM D374
Specific Gravity	3.4g/cc	ASTM D792
Thermal Conductivity	10.0 W/m-K	ASTM D5470
Hardness (Shore OO)	55	ASTM D2240
Elongation	15%	ASTM D412
Tensile Strength	NA	ASTM D412
Breakdown Voltage AC(KV)	>2@0.5MM >4@0.75MM	ASTM D149
UL Flammability Rating	UL94	V-0
Volume Resistivity	$1 \times 10^{12} \Omega \cdot \text{cm}$	ASTM D257
Operating Temperature	-50 ~ 150°C	——
Thermal Impedance (1mm, @30psi)	0.12°C*in ² /W	ASTM D5470 *
Compression Ratio(1mm, @30psi)	15%	——
Dielectric Constant MHz	5.5	ASTM D150
RoHS	PASS	IEC 62321
Halogen	PASS	EN14582
REACH	PASS	EN14372

Features And Benefits

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Applications

- Semiconductor heat sink
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- Vehicle navigation equipment
- Communication & power equipment
- Graphics card, memory module
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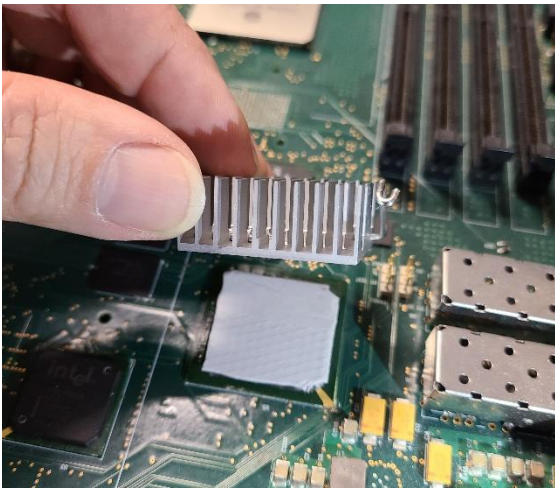
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Illustration example

PL-1-12-76X127-75		
Color	Gray	visual
Thickness	0.5-5.0mm	ASTM D374
Specific Gravity	3.4g/cc	ASTM D792
Thermal Conductivity	12.0 W/m-K	ASTM D5470
Hardness (Shore OO)	0.5 – 1.0 mm: 75 1.0 – 5.0 mm: 55 - 75	ASTM D2240
Elongation	15%	ASTM D412
Tensile Strength	NA	ASTM D412
Breakdown Voltage AC(KV)	>5	ASTM D149
UL Flammability Rating	UL94	V-0
Volume Resistivity	$1 \times 10^{12} \Omega \cdot \text{cm}$	ASTM D257
Operating Temperature	-50 ~ 150°C	—
Thermal Impedance (1mm, @30psi)	0.10°C*in ² /W	ASTM D5470 *
Compression Ratio(1mm, @30psi)	15%	—
Dielectric Constant MHz	5.5	ASTM D150
RoHS	PASS	IEC 62321
Halogen	PASS	EN14582
REACH	PASS	EN14372

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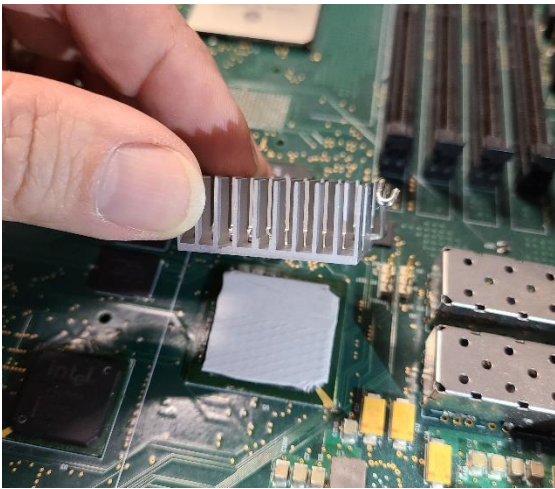
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Illustration example**PL-1-14-76X127-65**

Color	Purple	visual
Thickness	0.5-5.0mm	ASTM D374
Specific Gravity	3.3g/cc	ASTM D792
Thermal Conductivity	15.0 W/m-K	ASTM D5470
Hardness (Shore OO)	65	ASTM D2240
Elongation	NA	ASTM D412
Tensile Strength	NA	ASTM D412
Breakdown Voltage AC(KV)	8	ASTM D149
UL Flammability Rating	UL94	V-0
Volume Resistivity	NA	ASTM D257
Operating Temperature	-60 ~ 150°C	—
Thermal Impedance (1mm, @30psi)	0.074°C*in ² /W	ASTM D5470 *
Compression Ratio(1mm, @30psi)	36%	—
Dielectric Constant MHz	NA	ASTM D150
RoHS	PASS	IEC 62321
Halogen	PASS	EN14582
REACH	PASS	EN14372

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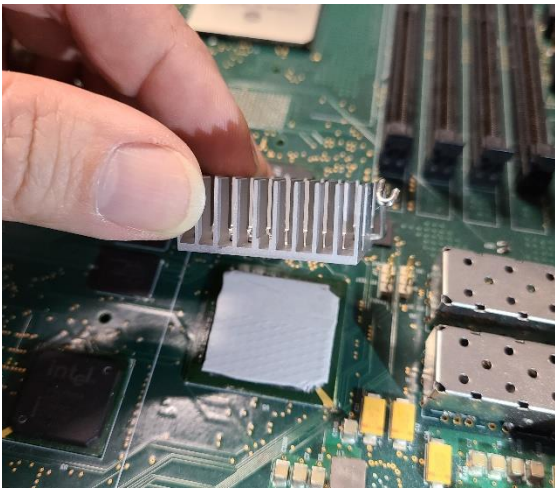
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Illustration example

PLF-1-8-76X127-70		
Color	Light Gray	visual
Thickness	0.5-5.0mm	ASTM D374
Specific Gravity	3.4g/cc	ASTM D792
Thermal Conductivity	8.0 W/m-K	ASTM D5470
Hardness (Shore OO)	70	ASTM D2240
Elongation	50%	ASTM D412
Tensile Strength	30psi	ASTM D412
Breakdown Voltage AC(KV)	200	ASTM D149
UL Flammability Rating	UL94	V-0
Volume Resistivity	$1 \times 10^{11} \Omega \cdot \text{cm}$	ASTM D257
Operating Temperature	-40 ~ 125°C	—
Thermal Impedance (1mm,@40psi)	0.10°C*in ² /W	ASTM D5470 *
Compression Ratio(1mm,@40psi)	40%	—
Dielectric Constant MHz	NA	ASTM D150
RoHS	PASS	IEC 62321
Halogen	PASS	EN14582
REACH	PASS	EN14372

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