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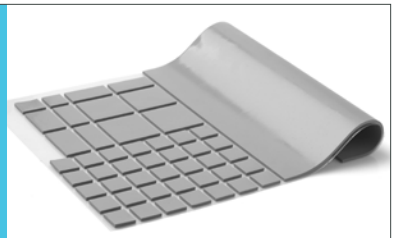
Nolato
EMC & THERMAL SOLUTIONS

DATASHEET

COMPATHERM® 9410
THERMAL INTERFACE MATERIAL



COMPATHERM PAD

The 1 W/mK Nolato Compatherm® Thermal Interface Material 9410 is a performance product designed for demanding applications requiring high thermal conductivity in a very soft viscoelastic material.

Compatherm® Thermal Interface Material is naturally tacky on both sides, but can be coated on one side to remove the natural tackiness if needed.

TYPICAL MATERIAL PROPERTIES

PROPERTY	TEST STANDARD	UNIT	9410
Color	Visual		Pink
Thickness	ASTM D374	mm	0.5-5
Hardness	ASTM D2240	Shore00	40
Density	Helium Pyncometer	g/cm^3	2.37
Thermal conductivity	Hot Disk	W/mK	1
Thermal Resistance @ 20 psi	ASTM D5470	°C in^2/W	1.717 (@1.5mm)
Dielectric Breakdown Voltage / mm	ASTM D149	VAC	5000
Volume Resistance	ASTM D257		$4*10^{16}$
Dielectric Constant @ 1MHZ	ASTM D150		3.96
Outgassing, TML	ASTM E595		TBD
Outgassing, CVCM	ASTM E595		TBD

*Thickness tolerance, ±10% mm @ nominal thickness greater than 1mm; ± 0.1mm @ nominal thickness less than 1mm.

*Thirty second delay value shore 00 hardness scale.

Please Note:
Observed performance may vary in certain circumstances.
It is recommended that customers test the material with their specific applications.

FEATURES AND BENEFITS

- 1 W/mK thermal conductivity
- Guaranteed thermal performance
- Competitive price points to other thermal interface materials
- Soft and highly compressible for low stress applications
- Tacky both sides
- Thickness range from 0.5mm to 5mm stocked in the USA
- Offering quick turn converting in the USA and China

APPLICATIONS

- Cooling components to chassis, frame, or other mating components
- Memory modules
- Home and small office network equipment
- Mass storage devices
- Automotive electronics
- Telecommunication hardware
- Radios
- LED solid state lighting
- Power electronics
- LCD and PDP flat panel
- Set top boxes

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COMPATHERM® 9410 THERMAL INTERFACE MATERIAL

DESIGN NOTES

Compatherm® materials are compressed up to 50% in most applications. We recommend applying pressure slowly and evenly over the entire surface to achieve the highest performance and lowest thermal resistance.

ORDERING COMPATHERM®

Compatherm® materials are typically cut into custom shapes based on the application requirements. Modus stocks the full line of materials and can provide cut piece and kit prices based on your unique application. Cut pieces can be delivered kiss cut to a liner or through cut.

THICKNESS	SHEET SIZE	THERMAL RATING	NOLATO STYLE #	MODUS PART #
0.5MM	200MM x 200MM	1W	9410	TM-280-5625
1MM	200MM x 200MM	1W	9410	TM-280-5626
1.5MM	200MM x 200MM	1W	9410	TM-280-5627
2MM	200MM x 200MM	1W	9410	TM-280-5628
2.5MM	200MM x 200MM	1W	9410	TM-280-5629
3MM	200MM x 200MM	1W	9410	TM-280-5630
4MM	200MM x 200MM	1W	9410	TM-280-5631
5MM	200MM x 200MM	1W	9410	TM-280-5632

APPLICATION PROCEDURE

- Remove the top blue liner from the top surface of the sheet.
- Remove the cut part from the bottom blue liner.
- Place the part on the desired surface of heat sink, heat spreader or component.
- Compatherm's naturally tacky surface will adhere to the surface without having to apply excess pressure.
- Compatherm should not be removed and reused once it's been applied to a surface.

CUSTOMERS WHO USE COMPATHERM® MAY ALSO BE INTERESTED IN:

EMI SHIELDING

Trishield® COMPASHIELD® WesShield

CUSTOMERS ALSO SEARCHED:

gap filler
thermal material
thermal interface materials
thermal putty
thermal conductive pad
gapfiller
thermal gap pad
thermal gap filler
thermal interface pad
thermal materials
thermal silicone
heat transfer pad
thermal interface pad
thermally conductive pad
silicone gap filler
conductive pads
thermal pad material
silicone thermal pad
thermally conductive rubber
thermal conductive pads
what is a thermal pad

THE NOLATO GROUP

Nolato is an advanced high-tech polymer partner with operations in Europe, Asia and North America. We develop and manufacture products in materials such as plastic, silicone and TPE. Our customer offering comprises everything from concept development, product design and process optimization to high-volume production, post-processing, assembly and logistics

ABOUT MODUS

We are Modus! With multiple locations in North America and China, Modus Advanced, Inc. is a diversified custom manufacturer that converts EMI Shielding, Environmental Gasket Materials, Microwave Absorbers, Acoustic Materials, Thermal Interface Materials and other high performance materials into finished parts. Modus utilizes its 40 years as an established provider of high quality, reliable products to create precisely what customers specify. Innovative processes; custom fabrication utilizing performance materials; an on time delivery record of more than 99% means Modus is well positioned to help your company succeed.

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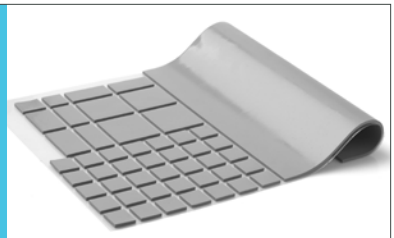
DATASHEET

COMPATHERM® 9420
THERMAL INTERFACE MATERIAL



COMPATHERM PAD

Compatherm® Pad 9420 is a thermal pad designed for demanding applications requiring high thermal conductivity in a very soft viscoelastic material.

This pad is naturally tacky on both sides, but can be coated on one side to remove the natural tackiness if needed.

TYPICAL MATERIAL PROPERTIES

PROPERTY	TEST STANDARD	UNIT	9420
Color	Visual		Light Blue
Thickness	ASTM D374	mm	0.5-5
Hardness	ASTM D2240	Shore00	40
Density	Helium Pyncometer	g/cm^3	2.73
Thermal conductivity	Hot Disk	W/mK	2
Thermal Resistance @ 20 psi	ASTM D5470	°C in^2/W	0.981 (@1.5mm)
Dielectric Breakdown Voltage / mm	ASTM D149	VAC	5000
Volume Resistance	ASTM D257		$1.2*10^{16}$
Dielectric Constant @ 1MHZ	ASTM D150		3.63
Outgassing, TML	ASTM E595		TBD
Outgassing, CVCM	ASTM E595		TBD
Flammability	UL94		TBD

*Thickness tolerance, ±10% mm @ nominal thickness greater than 1mm; ± 0.1mm @ nominal thickness less than 1mm.

*Thirty second delay value shore 00 hardness scale.

Please Note:
Observed performance may vary in certain circumstances.
It is recommended that customers test the material with their specific applications.

FEATURES AND BENEFITS

- 2 W/mK thermal conductivity
- Guaranteed thermal performance
- Competitive price points to other thermal interface materials
- Soft and highly compressible for low stress applications
- Tacky both sides
- Thickness range from 0.5mm to 5mm stocked in the USA
- Offering quick turn converting in the USA and China

APPLICATIONS

- Cooling components to chassis, frame, or other mating components
- Memory modules
- Home and small office network equipment
- Mass storage devices
- Automotive electronics
- Telecommunication hardware
- Radios
- LED solid state lighting
- Power electronics
- LCD and PDP flat panel
- Set top boxes

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COMPATHERM® 9420 THERMAL INTERFACE MATERIAL

DESIGN NOTES

Compatherm® materials are compressed up to 50% in most applications. We recommend applying pressure slowly and evenly over the entire surface to achieve the highest performance and lowest thermal resistance.

ORDERING COMPATHERM®

Compatherm® materials are typically cut into custom shapes based on the application requirements. Modus stocks the full line of materials and can provide cut piece and kit prices based on your unique application. Cut pieces can be delivered kiss cut to a liner or through cut.

THICKNESS	SHEET SIZE	THERMAL RATING	NOLATO STYLE #	MODUS PART #
0.5MM	200MM x 200MM	2W	9420	TM-280-5633
1MM	200MM x 200MM	2W	9420	TM-280-5634
1.5MM	200MM x 200MM	2W	9420	TM-280-5635
2MM	200MM x 200MM	2W	9420	TM-280-5636
2.5MM	200MM x 200MM	2W	9420	TM-280-5637
3MM	200MM x 200MM	2W	9420	TM-280-5638
4MM	200MM x 200MM	2W	9420	TM-280-5639
5MM	200MM x 200MM	2W	9420	TM-280-5640

APPLICATION PROCEDURE

- Remove the top blue liner from the top surface of the sheet.
- Remove the cut part from the bottom blue liner.
- Place the part on the desired surface of heat sink, heat spreader or component.
- Compatherm's naturally tacky surface will adhere to the surface without having to apply excess pressure.
- Compatherm should not be removed and reused once it's been applied to a surface.

CUSTOMERS WHO USE COMPATHERM® MAY ALSO BE INTERESTED IN:

EMI SHIELDING

Trishield® COMPASHIELD® WesShield

CUSTOMERS ALSO SEARCHED:

gap filler
thermal material
thermal interface materials
thermal putty
thermal conductive pad
gapfiller
thermal gap pad
thermal gap filler
thermal interface pad
thermal materials
thermal silicone
heat transfer pad
thermal interface pad
thermally conductive pad
silicone gap filler
conductive pads
thermal pad material
silicone thermal pad
thermally conductive rubber
thermal conductive pads
what is a thermal pad

THE NOLATO GROUP

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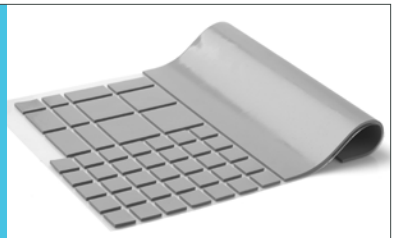
DATASHEET

COMPATHERM® 9430
THERMAL INTERFACE MATERIAL



COMPATHERM PAD

Compatherm® Pad 9430 is a thermal pad designed for demanding applications requiring high thermal conductivity in a very soft viscoelastic material.

This pad is naturally tacky on both sides, but can be coated on one side to remove the natural tackiness if needed.

TYPICAL MATERIAL PROPERTIES

PROPERTY	TEST STANDARD	UNIT	9430
Color	Visual		Gray
Thickness	ASTM D374	mm	0.5-5
Hardness	ASTM D2240	Shore00	40
Density	Helium Pyncometer	g/cm^3	2.65
Thermal conductivity	Hot Disk	W/mK	3
Thermal Resistance @ 20 psi	ASTM D5470	°C in^2/W	0.807 (@2.5mm)
Dielectric Breakdown Voltage / mm	ASTM D149	VAC	900
Volume Resistance	ASTM D257		10^{13}
Dielectric Constant @ 1MHZ	ASTM D150		19.5
Outgassing, TML	ASTM E595		TBD
Outgassing, CVCM	ASTM E595		TBD
Flammability	UL94		TBD

*Thickness tolerance, ±10% mm @ nominal thickness greater than 1mm; ± 0.1mm @ nominal thickness less than 1mm.

*Thirty second delay value shore 00 hardness scale.

Please Note:
Observed performance may vary in certain circumstances.
It is recommended that customers test the material with their specific applications.

FEATURES AND BENEFITS

- 3 W/mK thermal conductivity
- Guaranteed thermal performance
- Competitive price points to other thermal interface materials
- Soft and highly compressible for low stress applications
- Tacky both sides
- Thickness range from 0.5mm to 5mm stocked in the USA
- Offering quick turn converting in the USA and China

APPLICATIONS

- Cooling components to chassis, frame, or other mating components
- Memory modules
- Home and small office network equipment
- Mass storage devices
- Automotive electronics
- Telecommunication hardware
- Radios
- LED solid state lighting
- Power electronics
- LCD and PDP flat panel
- Set top boxes

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COMPATHERM® 9430 THERMAL INTERFACE MATERIAL

DESIGN NOTES

Compatherm® materials are compressed up to 50% in most applications. We recommend applying pressure slowly and evenly over the entire surface to achieve the highest performance and lowest thermal resistance.

ORDERING COMPATHERM®

Compatherm® materials are typically cut into custom shapes based on the application requirements. Modus stocks the full line of materials and can provide cut piece and kit prices based on your unique application. Cut pieces can be delivered kiss cut to a liner or through cut.

THICKNESS	SHEET SIZE	THERMAL RATING	NOLATO STYLE #	MODUS PART #
0.5MM	200MM x 200MM	3W	9430	TM-280-5641
1MM	200MM x 200MM	3W	9430	TM-280-5642
1.5MM	200MM x 200MM	3W	9430	TM-280-5643
2MM	200MM x 200MM	3W	9430	TM-280-5644
2.5MM	200MM x 200MM	3W	9430	TM-280-5645
3MM	200MM x 200MM	3W	9430	TM-280-5646
4MM	200MM x 200MM	3W	9430	TM-280-5647
5MM	200MM x 200MM	3W	9430	TM-280-5648

APPLICATION PROCEDURE

- Remove the top blue liner from the top surface of the sheet.
- Remove the cut part from the bottom blue liner.
- Place the part on the desired surface of heat sink, heat spreader or component.
- Compatherm's naturally tacky surface will adhere to the surface without having to apply excess pressure.
- Compatherm should not be removed and reused once it's been applied to a surface.

CUSTOMERS WHO USE COMPATHERM® MAY ALSO BE INTERESTED IN:

EMI SHIELDING

Trishield® COMPASHIELD® WesShield

CUSTOMERS ALSO SEARCHED:

gap filler
thermal material
thermal interface materials
thermal putty
thermal conductive pad
gapfiller
thermal gap pad
thermal gap filler
thermal interface pad
thermal materials
thermal silicone
heat transfer pad
thermal interface pad
thermally conductive pad
silicone gap filler
conductive pads
thermal pad material
silicone thermal pad
thermally conductive rubber
thermal conductive pads
what is a thermal pad

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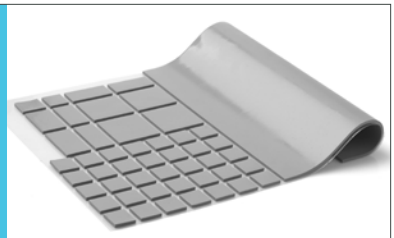
DATASHEET

COMPATHERM® PAD 9431



COMPATHERM PAD

Compatherm® Pad 9431 is a thermal pad designed for applications requiring high thermal conductivity and electric insulation in a very soft viscoelastic material.

This pad is naturally tacky on both sides, but can be coated on one side to remove the natural tackiness if needed.

TYPICAL MATERIAL PROPERTIES

PROPERTY	TEST STANDARD	UNIT	9431
Color	Visual		Blue
Thickness[1)]	ASTM D374	mm	0.5-5
Hardness[2)]	ASTM D2240	Shore00	40
Density	Helium Pyncometer	g/cm^3	3.1
Thermal conductivity	Hot Disk	W/mK	3
Dielectric Breakdown Voltage[3)]	ASTM D149	VAC/mm	>8000
Volume Resistance	ASTM D257		3.3*10^{15}
Dielectric Constant @ 1MHZ	ASTM D150		4.07
Outgassing, TML	ASTM E595		0.04%
Outgassing, CVCM	ASTM E595		0.003%
Flammability[4)]	UL94		VO

1) Thickness tolerance, ±10% mm @ nominal thickness greater than 1mm; ± 0.1mm @ nominal thickness less than 1mm.
2) Thirty second delay value shore 00 hardness scale.
3) Measured on 1 mm thickness @20 mA.
4) Flame rating valid for 0.25mm thick samples sandwiched between a PCB and an aluminium plate.

Please Note:
Observed performance may vary in certain circumstances.
It is recommended that customers test the material with their specific applications.

FEATURES AND BENEFITS

- 3 W/mK thermal conductivity
- Electrically insulating
- Soft and highly compressible for low stress applications
- Tacky both sides
- Thickness range from 0.5mm to 5mm stocked in the USA
- Offering quick turn converting in the USA and China

APPLICATIONS

- Cooling components to chassis, frame, or other mating components
- Memory modules
- Home and small office network equipment
- Mass storage devices
- Automotive electronics
- Telecommunication hardware
- Radios
- LED solid state lighting
- Power electronics
- LCD and PDP flat panel

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COMPATHERM® PAD 9431

DESIGN NOTES

It is recommended to use the material in up to 20%-30% of compression degree. A compression degree of 50% is possible to use but above that level a thinner gap pad is recommended. Excessive compression may result in silicone oil bleeding. We recommend applying pressure slowly and evenly over the entire surface to achieve the highest performance and lowest thermal resistance.

ORDERING COMPATHERM®

Compatherm® materials are typically cut into custom shapes based on the application requirements. Modus stocks the full line of materials and can provide cut piece and kit prices based on your unique application. Cut pieces can be delivered kiss cut to a liner or through cut.

THICKNESS	SHEET SIZE	THERMAL RATING	NOLATO STYLE #	MODUS PART #
0.5MM	200MM x 200MM	3 W/mK	9431	TM-280-5662
1MM	200MM x 200MM	3 W/mK	9431	TM-280-5663
1.5MM	200MM x 200MM	3 W/mK	9431	TM-280-5664
2MM	200MM x 200MM	3 W/mK	9431	TM-280-5665
2.5MM	200MM x 200MM	3 W/mK	9431	TM-280-5666
3MM	200MM x 200MM	3 W/mK	9431	TM-280-5667
4MM	200MM x 200MM	3 W/mK	9431	TM-280-5668
5MM	200MM x 200MM	3 W/mK	9431	TM-280-5669

CUSTOMERS WHO USE COMPATHERM® MAY ALSO BE INTERESTED IN:

EMI SHIELDING

Trishield® COMPASHIELD® WesShield

CUSTOMERS ALSO SEARCHED:

- gap filler
- thermal material
- thermal interface materials
- thermal putty
- thermal conductive pad
- gapfiller
- thermal gap pad
- thermal gap filler
- thermal interface pad
- thermal materials
- thermal silicone
- heat transfer pad
- thermal interface pad
- thermally conductive pad
- silicone gap filler
- conductive pads
- thermal pad material
- silicone thermal pad
- thermally conductive rubber
- thermal conductive pads
- what is a thermal pad

STORAGE CONDITIONS

- The material can be stored one year after reciept at normal room temperature and humidity.

APPLICATION PROCEDURE

- Remove the top PET liner from the top surface of the sheet.
- With fingers remove the die cut part from the bottom PET liner.
- Place the part in the desired surface of heat sink, heat spreader of component.
- The stickiness of the material will assure that it adheres to the surface without need of high pressure.
- Do not press the part too hard when applying it to assure that height of the material is not destroyed.
- Once applied, it is not recommended to remove and re-use the Compatherm part as it has low material stability.
- If needed, peel off the part from the surface by hand and replace it with a new one.

REPAIR PROCEDURE

- At room temperature slide or pull or twist the heatsink to separate it from the PCB.
- After separation, remove both surfaces with a plastic tool to remove the bulk of material.
- Clean both surfaces with tissue wiper.
- Apply a new Compatherm part.

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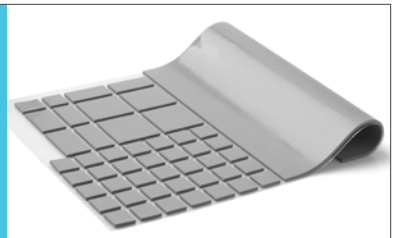
DATASHEET

COMPATHERM® PAD 9432



COMPATHERM PAD

Compatherm® Pad 9432 is a thermal pad designed for applications where large tolerance differences create the need for compression of the gap filler beyond 50% of its original thickness. Compatherm® Pad 9432 is also highly thermally conductive and electrically insulating.

This pad is naturally tacky on both sides, but can be coated on one side to remove the natural tackiness if needed.

TYPICAL MATERIAL PROPERTIES

PROPERTY	TEST STANDARD	UNIT	9432
Color	Visual		Brown
Thickness[1)]	ASTM D374	mm	1-5
Hardness[2)]	ASTM D2240	Shore00	10
Density	Helium Pyncometer	g/cm^3	2.92
Thermal conductivity	Hot Disk	W/mK	3
Thermal Resistance @ 20 psi	ASTM D5470	$°C\ in^2/W$	0.47 (@ 1mm)
Dielectric Breakdown Voltage[3)]	ASTM D149	VAC/mm	>7000
Volume Resistance	ASTM D257		$6.4*10^{15}$
Dielectric Constant @ 1MHZ	ASTM D150		3.85
Outgassing, TML	ASTM E595		0.051%
Outgassing, CVCM	ASTM E595		0.005%
Flammability[4)]	UL94		VO

1) Thickness tolerance, ±10% mm @ nominal thickness greater than 1mm; ± 0.1mm @ nominal thickness less than 1mm.
2) Thirty second delay value shore 00 hardness scale.
3) Measured on 1 mm thickness @20 mA.
4) Flame rating valid for 0.25mm thick samples sandwiched between a PCB and an aluminium plate.

Please Note:
Observed performance may vary in certain circumstances.
It is recommended that customers test the material with their specific applications.

FEATURES AND BENEFITS

- 3 W/mK thermal conductivity
- Electrically insulating
- Over 50% compression for low stress applications
- Tacky both sides
- Thickness range from 1mm to 5mm stocked in the USA
- Offering quick turn converting in the USA and China

APPLICATIONS

- Cooling components to chassis, frame, or other mating components
- Memory modules
- Home and small office network equipment
- Mass storage devices
- Automotive electronics
- Telecommunication hardware
- Radios
- LED solid state lighting
- Power electronics
- LCD and PDP flat panel

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COMPATHERM® PAD 9432

DESIGN NOTES

It is recommended to use the material in up to 50% of compression degree. A compression degree of 80% is possible to use but above that level a thinner gap pad is recommended. Excessive compression may result in silicone oil bleeding. We recommend applying pressure slowly and evenly over the entire surface to achieve the highest performance and lowest thermal resistance.

ORDERING COMPATHERM®

Compatherm® materials are typically cut into custom shapes based on the application requirements. Modus stocks the full line of materials and can provide cut piece and kit prices based on your unique application. Cut pieces can be delivered kiss cut to a liner or through cut.

THICKNESS	SHEET SIZE	THERMAL RATING	NOLATO STYLE #	MODUS PART #
0.5MM	200MM x 200MM	3 W/mK	9432	TM-280-5670
1MM	200MM x 200MM	3 W/mK	9432	TM-280-5671
1.5MM	200MM x 200MM	3 W/mK	9432	TM-280-5672
2MM	200MM x 200MM	3 W/mK	9432	TM-280-5673
2.5MM	200MM x 200MM	3 W/mK	9432	TM-280-5674
3MM	200MM x 200MM	3 W/mK	9432	TM-280-5675
4MM	200MM x 200MM	3 W/mK	9432	TM-280-5676
5MM	200MM x 200MM	3 W/mK	9432	TM-280-5677

CUSTOMERS WHO USE COMPATHERM® MAY ALSO BE INTERESTED IN:

EMI SHIELDING

Trishield® COMPASHIELD® WesShield

CUSTOMERS ALSO SEARCHED:

gap filler
thermal material
thermal interface materials
thermal putty
thermal conductive pad
gapfiller
thermal gap pad
thermal gap filler
thermal interface pad
thermal materials
thermal silicone
heat transfer pad
thermal interface pad
thermally conductive pad
silicone gap filler
conductive pads
thermal pad material
silicone thermal pad
thermally conductive rubber
thermal conductive pads
what is a thermal pad

STORAGE CONDITIONS

- The material can be stored one year after reciept at normal room temperature and humidity.

APPLICATION PROCEDURE

- Remove the top PET liner from the top surface of the sheet.
- With fingers remove the die cut part from the bottom PET liner.
- Place the part in the desired surface of heat sink, heat spreader of component.
- The stickiness of the material will assure that it adheres to the surface without need of high pressure.
- Do not press the part too hard when applying it to assure that height of the material is not destroyed.
- Once applied, it is not recommended to remove and re-use the Compatherm part as it has low material stability.
- If needed, peel off the part from the surface by hand and replace it with a new one.

REPAIR PROCEDURE

- At room temperature slide or pull or twist the heatsink to separate it from the PCB.
- After separation, remove both surfaces with a plastic tool to remove the bulk of material.
- Clean both surfaces with tissue wiper.
- Apply a new Compatherm part.

THE NOLATO GROUP

Nolato is an advanced high-tech polymer partner with operations in Europe, Asia and North America. We develop and manufacture products in materials such as plastic, silicone and TPE. Our customer offering comprises everything from concept development, product design and process optimization to high-volume production, post-processing, assembly and logistics.

ABOUT MODUS

We are Modus! With multiple locations in North America and China, Modus Advanced, Inc. is a diversified custom manufacturer who converts EMI Shielding, Environmental Gasket Materials, Microwave Absorbers, Acoustic Materials, Thermal Interface Materials and other high performance materials into finished parts. Modus utilizes its 40 years as an established provider of high quality, reliable products to create precisely what customers specify. Innovative processes; custom fabrication utilizing performance materials; an on time delivery record of more than 99% means Modus is well positioned to help your company succeed.

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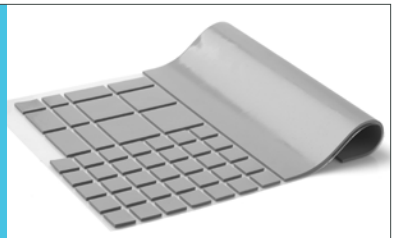
DATASHEET

COMPATHERM® PAD 9450



COMPATHERM PAD

The 5 W/mK Nolato Compatherm® Gap Filler 9450 is a performance product designed for demanding applications requiring high thermal conductivity in a very soft viscoelastic material.

Compatherm® gap filler is naturally tacky on both sides, but can be coated on one side to remove the natural tackiness if needed.

TYPICAL MATERIAL PROPERTIES

PROPERTY	TEST STANDARD	UNIT	9422
Color	Visual		Black
Thickness[1)]	ASTM D374	mm	0.5-5
Hardness[2)]	ASTM D2240	Shore00	40
Density	Helium Pyncometer	g/cm^3	3.1
Thermal conductivity	Hot Disk	W/mK	5
Dielectric Breakdown Voltage / mm[3)]	ASTM D149	VAC/mm	5000
Volume Resistance	ASTM D257		9.5*10^{14}
Dielectric Constant @ 1MHZ	ASTM D150		5.27
Outgassing, TML	ASTM E595		0.042%
Flammability[4)]	UL94		V0

1) Thickness tolerance, ±10% mm @ nominal thickness greater than 1mm; ± 0.1mm @ nominal thickness less than 1mm.
2) Thirty second delay
3) Measured on 1 mm thickness @20 mA
4) Flame rating valid for 0.25mm thick samples sandwiched between a PCB and an aluminium plate

Please Note:
Observed performance may vary in certain circumstances.
It is recommended that customers test the material with their specific applications.

FEATURES AND BENEFITS

- 5 W/mK thermal conductivity
- Electrically insulating
- Soft and highly compressible for low stress applications
- Tacky on both sides
- Thickness range from 0.5mm to 5mm stocked in the USA
- Offering quick turn converting in the USA and China

APPLICATIONS

- Cooling components to chassis, frame, or other mating components
- Memory modules
- Home and small office network equipment
- Mass storage devices
- Automotive electronics
- Telecommunication hardware
- Radios
- LED solid state lighting
- Power electronics
- LCD and PDP flat panel

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COMPATHERM® PAD 9450

DESIGN NOTES

It is recommended to use the material in up to 20%-30% of compression degree. A compression degree of 50% is possible to use but above that level a thinner gap pad is recommended. Excessive compression may result in silicone oil bleeding. We recommend applying pressure slowly and evenly over the entire surface to achieve the highest performance and lowest thermal resistance.

ORDERING COMPATHERM®

Compatherm® materials are typically cut into custom shapes based on the application requirements. Modus stocks the full line of materials and can provide cut piece and kit prices based on your unique application. Cut pieces can be delivered kiss cut to a liner or through cut.

THICKNESS	SHEET SIZE	THERMAL RATING	NOLATO STYLE #	MODUS PART #
0.5MM	200MM x 200MM	5 W/mK	9450	TM-280-5678
1MM	200MM x 200MM	5 W/mK	9450	TM-280-5679
1.5MM	200MM x 200MM	5 W/mK	9450	TM-280-5680
2MM	200MM x 200MM	5 W/mK	9450	TM-280-5681
2.5MM	200MM x 200MM	5 W/mK	9450	TM-280-5682
3MM	200MM x 200MM	5 W/mK	9450	TM-280-5683
4MM	200MM x 200MM	5 W/mK	9450	TM-280-5684
5MM	200MM x 200MM	5 W/mK	9450	TM-280-5685

CUSTOMERS WHO USE COMPATHERM® MAY ALSO BE INTERESTED IN:

EMI SHIELDING

Trishield® COMPASHIELD® WesShield

CUSTOMERS ALSO SEARCHED:

gap filler	thermal gap pad	thermal interface pad	thermally conductive rubber
thermal material	thermal gap filler	thermally conductive pad	thermal conductive pads
thermal interface materials	thermal interface pad	silicone gap filler	what is a thermal pad
thermal putty	thermal materials	conductive pads	
thermal conductive pad	thermal silicone	thermal pad material	
gapfiller	heat transfer pad	silicone thermal pad	

STORAGE CONDITIONS

- The material can be stored one year after reciept at normal room temperature and humidity.

APPLICATION PROCEDURE

- Remove the top PET liner from the top surface of the sheet.
- With fingers remove the die cut part from the bottom PET liner.
- Place the part in the desired surface of heat sink, heat spreader of component.
- The stickiness of the material will assure that it adheres to the surface without need of high pressure.
- Do not press the part too hard when applying it to assure that height of the material is not destroyed.
- Once applied, it is not recommended to remove and re-use the Compatherm part as it has low material stability.
- If needed, peel off the part from the surface by hand and replace it with a new one.

REPAIR PROCEDURE

- At room temperature slide or pull or twist the heatsink to separate it from the PCB.
- After separation, remove both surfaces with a plastic tool to remove the bulk of material.
- Clean both surfaces with tissue wiper.
- Apply a new Compatherm part.

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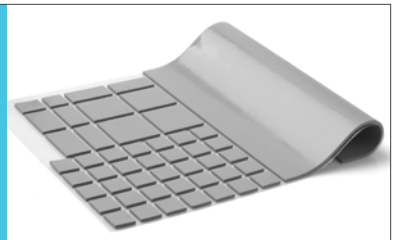
DATASHEET

COMPATHERM® PAD 9470



COMPATHERM PAD

The 7 W/mK Nolato Compatherm® Gap Filler 9470 is a performance product designed for demanding applications requiring high thermal conductivity in a very soft viscoelastic material.

Compatherm® gap filler is naturally tacky on both sides, but can be coated on one side to remove the natural tackiness if needed.

TYPICAL MATERIAL PROPERTIES

PROPERTY	TEST STANDARD	UNIT	9470
Color	Visual		Grey
Thickness[1)]	ASTM D374	mm	1-5
Hardness[2)]	ASTM D2240	Shore00	20
Density	Helium Pyncometer	g/cm^3	2.55
Thermal conductivity	Hot Disk	W/mK	7
Thermal Resistance @ 10 psi	ASTM D5470	°C in^2/W	0.207 (@1.25 mm)
Dielectric Breakdown Voltage	ASTM D149	VAC	1500
Volume Resistance	ASTM D257		10^{13}
Dielectric Constant @ 1MHZ	ASTM D150		TBD
Outgassing, TML	ASTM E595		TBD
Outgassing, CVCM	ASTM E595		TBD
Flammability	UL94		TBD

1) Thickness tolerance, ±10% mm @ nominal thickness greater than 1mm; ± 0.1mm @ nominal thickness less than 1mm.

2) Thirty second delay value shore 00 hardness scale.

Please Note:
Observed performance may vary in certain circumstances.
It is recommended that customers test the material with their specific applications.

FEATURES AND BENEFITS

- 7 W/mK thermal conductivity
- Guaranteed thermal performance
- Competitive price points to other gap filler materials
- Soft and highly compressible for low stress applications
- Tacky on one side
- Thickness range from 1mm to 5mm stocked in the USA
- Offering quick turn converting in the USA and China

APPLICATIONS

- Cooling components to chassis, frame, or other mating components
- Memory modules
- Home and small office network equipment
- Mass storage devices
- Automotive electronics
- Telecommunication hardware
- Radios
- LED solid state lighting
- Power electronics
- LCD and PDP flat panel
- Set top boxes

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COMPATHERM® PAD 9470

DESIGN NOTES

Compatherm® materials are compressed up to 50% in most applications. We recommend applying pressure slowly and evenly over the entire surface to achieve the highest performance and lowest thermal resistance.

ORDERING COMPATHERM®

Compatherm® materials are typically cut into custom shapes based on the application requirements. Modus stocks the full line of materials and can provide cut piece and kit prices based on your unique application. Cut pieces can be delivered kiss cut to a liner or through cut.

THICKNESS	SHEET SIZE	THERMAL RATING	NOLATO STYLE #	MODUS PART #
1MM	200MM x 200MM	7 W/mK	9470	TM-280-5649
1.5MM	200MM x 200MM	7 W/mK	9470	TM-280-5650
2MM	200MM x 200MM	7 W/mK	9470	TM-280-5651
2.5MM	200MM x 200MM	7 W/mK	9470	TM-280-5652
3MM	200MM x 200MM	7 W/mK	9470	TM-280-5653
4MM	200MM x 200MM	7 W/mK	9470	TM-280-5654
5MM	200MM x 200MM	7 W/mK	9470	TM-280-5655

CUSTOMERS WHO USE COMPATHERM® MAY ALSO BE INTERESTED IN:

EMI SHIELDING

Trishield® COMPASHIELD® WesShield

CUSTOMERS ALSO SEARCHED:

gap filler	thermal gap pad	thermal interface pad	thermally conductive rubber
thermal material	thermal gap filler	thermally conductive pad	thermal conductive pads
thermal interface materials	thermal interface pad	silicone gap filler	what is a thermal pad
thermal putty	thermal materials	conductive pads	
thermal conductive pad	thermal silicone	thermal pad material	
gapfiller	heat transfer pad	silicone thermal pad	

STORAGE CONDITIONS

- The material can be stored one year after reciept at normal room temperature and humidity.

APPLICATION PROCEDURE

- Remove the top PET liner from the top surface of the sheet.
- With fingers remove the die cut part from the bottom PET liner.
- Place the part in the desired surface of heat sink, heat spreader of component.
- The stickiness of the material will assure that it adheres to the surface without need of high pressure.
- Do not press the part too hard when applying it to assure that height of the material is not destroyed.
- Once applied, it is not recommended to remove and re-use the Compatherm part as it has low material stability.
- If needed, peel off the part from the surface by hand and replace it with a new one.

REPAIR PROCEDURE

- At room temperature slide or pull or twist the heatsink to separate it from the PCB.
- After separation, remove both surfaces with a plastic tool to remove the bulk of material.
- Clean both surfaces with tissue wiper.
- Apply a new Compatherm part.

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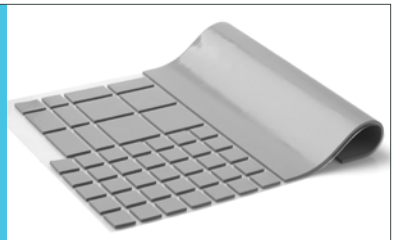
DATASHEET

COMPATHERM® PAD 9472



COMPATHERM PAD

Compatherm® Pad 9472 is high conformable and thermal performance pad material. It has high thermal conductivity at 7 W/mK, and stress control at over 50% deflection. It can be used for applications where large tolerance differences create the need for compression of the interface material beyond 50% of its original thickness.

Compatherm® Pad 9472 is naturally tacky on both sides, requiring no adhesive coating to inhibit thermal performance. It can be coated to single side tacky to allow easy material handling and installation.

TYPICAL MATERIAL PROPERTIES

PROPERTY	TEST STANDARD	UNIT	9472
Color	Visual		Light Grey
Thickness[1)]	ASTM D374	mm	1-5
Hardness[2)]	ASTM D2240	Shore00	20
Density	Helium Pyncometer	g/cm^3	2.55
Thermal conductivity	Hot Disk	W/mK	7
Dielectric Breakdown Voltage[3)]	ASTM D149	VAC/mm	1500
Volume Resistance	ASTM D257		6.7*10^{12}
Dielectric Constant @ 1MHZ	ASTM D150		6.4
Outgassing, TML	ASTM E595		TBD
Outgassing, CVCM	ASTM E595		TBD
Flammability[4)]	UL94		VO

1) Thickness tolerance, ±10% mm @ nominal thickness greater than 1mm; ± 0.1mm @ nominal thickness less than 1 mm.
2) Thirty second delay.
3) Measured on 1 mm thickness @20 mA
4) Flame rating valid for 0.25 thick sample sandwhiched between a PCB and an aluminum plate

Please Note:
Data for design engineer guidance only. Observed performance varies in application. Engineers are reminded to test the material in application.

FEATURES AND BENEFITS

- 7 W/mK thermal conductivity
- Soft and high compressibility for low stress applications
- Naturally tacky or without tackiness on the carrier side
- Available in thickness from 1 mm to 5mm

APPLICATIONS

- Cooling components to chassis, frame, or other mating components
- Memory modules
- Home and small office network equipment
- Mass storage devices
- Automotive electronics
- Telecommunication hardware
- Radios
- LED solid state lighting
- Power electronics
- LCD and PDP flat panel
- Set top boxes

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COMPATHERM® PAD 9472

DESIGN NOTES

Due to material low hardness, It can be used in large tolerance applications up to 50% of compression with low stress. It is recommended to apply pressure slowly in assembly to achieve better interface contact and lower stress. Product flows easily on a wet interface during compression which results in low thermal resistance.

A compression degree of 70% is possible to use, but above that level a thinner gap filler pad is recommended. Excessive compression may result in silicone oil bleeding. It is also recommended to use one and the the same compression degree over the whole surface for the same reason.

ORDERING COMPATHERM®

Compatherm® materials are typically cut into custom shapes based on the application requirements. Modus stocks the full line of materials and can provide cut piece and kit prices based on your unique application. Cut pieces can be delivered kiss cut to a liner or through cut.

APPLICATION PROCEDURE

- Remove the top blue liner from the top surface of the sheet.
- Remove the cut part from the bottom blue liner.
- Place the part on the desired surface of heat sink, heat spreader or component.
- Compatherm's naturally tacky surface will adhere to the surface without having to apply excess pressure.
- Compatherm should not be removed and reused once it's been applied to a surface.

THICKNESS	SHEET SIZE	THERMAL RATING	NOLATO STYLE #	MODUS PART #
1MM	200MM x 200MM	7 W/mK	9472	TM-280-5912
1.5MM	200MM x 200MM	7 W/mK	9472	TM-280-5909
2MM	200MM x 200MM	7 W/mK	9472	TM-280-5908
2.5MM	200MM x 200MM	7 W/mK	9472	TM-280-5910
3MM	200MM x 200MM	7 W/mK	9472	TM-280-5653
4MM	200MM x 200MM	7 W/mK	9472	TM-280-5654
5MM	200MM x 200MM	7 W/mK	9472	TM-280-5655

CUSTOMERS WHO USE COMPATHERM® MAY ALSO BE INTERESTED IN:

EMI SHIELDING

Trishield® COMPASHIELD® WesShield

CUSTOMERS ALSO SEARCHED:

gap filler
thermal material
thermal interface materials
thermal putty
thermal conductive pad
gapfiller
thermal gap pad
thermal gap filler
thermal interface pad
thermal materials
thermal silicone
heat transfer pad
thermal interface pad
thermally conductive pad
silicone gap filler
conductive pads
thermal pad material
silicone thermal pad
thermally conductive rubber
thermal conductive pads
what is a thermal pad

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