

COMPATHERM® PAD 9451

COMPATHERM PAD

Compatherm® Pad 9451 is soft thermal interface material with great thermal performance. Unique filler technology balance product compliancy and high thermal performance, resulting in extremely low thermal resistance.

Compatherm® Pad 9451 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	9451
Color	Visual		Grey
Thickness ¹⁾	ASTM D374	mm	0.5-5
Hardness ²⁾	ASTM D2240	Shore00	28
Density	Helium Pycnometer	g/cm ³	3.07
Thermal conductivity	Hot Disk	W/mK	5
Dielectric Breakdown Voltage / mm ³⁾	ASTM D149	VAC	>5000
Volume Resistance	ASTM D257		9.5* 10 ¹⁴
Dielectric Constant @ 1MHZ	ASTM D150		5.27
Outgassing, TML	ASTM E595		0.04%
Outgassing, CVCM	ASTM E595		0.01%
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
- Electrical isolated
- Nature tacky or no tacky on carrier side
- Available in thickness from 0.5mm 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

MODUS ADVANCED TAKES
YOU FROM IDEA TO IGNITION



IDEA



ENGINEERING



SOLUTION



IGNITION



PICK A MATERIAL

LET MODUS CUT IT TO SIZE

COMPATHERM[®] PAD 9451

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 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.

THICKNESS	SHEET SIZE	THERMAL RATING	NOLATO STYLE #	MODUS PART #
0.5MM	200MM x 200MM	5 W/mK	9451	TM-280-5925
0.75MM	200MM x 200MM	5 W/mK	9451	TM-280-5926
1.0MM	200MM x 200MM	5 W/mK	9451	TM-280-5927
1.25MM	200MM x 200MM	5 W/mK	9451	TM-280-5928
1.5MM	200MM x 200MM	5 W/mK	9451	TM-280-5929
1.75MM	200MM x 200MM	5 W/mK	9451	TM-280-5930
2.0MM	200MM x 200MM	5 W/mK	9451	TM-280-5931

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STORAGE CONDITIONS

- The material can be stored one year after receipt 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.

CUSTOMERS WHO USE COMPATHERM® MAY ALSO BE INTERESTED IN:

EMI SHIELDING



CUSTOMERS ALSO SEARCHED:

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

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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