

Thermal Interface - Pads and Films

Dow Corning[®] TP-1500-TX.XX Thermal Pad

Thin thermal interface Fiberglass reinforced

FEATURES

- Thermal Conductivity: 1.30 W/m²*K
- Easy to handle and reworkable
- Excellent for complex, die-cut shapes
- Stress relieving
- Electrically Insulating
- Highly compressible
- Homogeneous construction
- Fiberglass reinforced

BENEFITS

- Good thermal performance with reduced interfacial thermal resistance
- Noise/Vibration dampening
- Shock absorbing
- Both side compressible
- No internal interference or delamination
- Easy handling with no elongation

POTENTIAL USES

- Thermal bridge for low thermal resistance between heat sources and heat sinks of power components
- Computer Memory Chips
- CD-Rom/DVD
- Power Supplies
- ECU

APPLICATION METHODS

- Cold applied
- Requiring no heating or curing
- Material can be installed and removed easily and cleanly

TYPICAL PROPERTIES

Specification Writers: Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

Property	Unit	Value
Color	-	Light Gray
Thermal Conductivity	btu/hr ft degF W/mK	2.249 1.3
UL Flammability Classification	NA	94 HB
Durometer Shore 00	-	53
Specific Gravity (Cured)	-	2.08

DESCRIPTION

Dow Corning® TP-1500 Thermal Gap Pad is fiberglass-reinforced, cost competitive and thermally conductive silicone gel pad. This electrically insulating pad provides shock absorption and easy handling with moderate tackiness. It is ideal for use to fill gaps between low-power, heat-generating components and related heat sinks, boards or chassis that require complex, die-cut shapes. Good heat transfer depends on a good interface between a heat-producing device and a heat-transfer media. Silicones have a low surface tension that enables them to wet most surfaces, which can lower the thermal contact resistance between the substrate and the material. Phase change materials flow above the phase change temperature and wet out the thermal interface. In addition to sustaining their physical and electrical properties over a broad range of operating conditions, silicones are resistant to ozone and ultraviolet degradation and have good chemical stability.

HOW TO USE

Thin thermal interface and gap filler thermal interface materials are cold-applied and require no heating or curing. The materials can be removed easily and cleanly, with no special tools, for access and rework. Unlike greases, Dow Corning® brand thermal interface materials are not messy to apply and do not flow away from the interface with thermal cycling. These thermally conductive silicones function as heat-transfer media, barriers against environmental contaminants and as stress-relieving shock and vibration absorbers over a wide temperature and humidity range. For gap filling, their high compressibility accommodates tolerance stack-up and requires a lower clamping force, reducing system costs. Thin thermal interface and gap filler thermal interface materials are cold-applied and require no heating or curing. The materials can be removed easily and cleanly, with no special tools, for access and rework. Unlike greases, Dow

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STORAGE AND SHELF LIFE

The product should be stored in the original packaging under normal warehouse conditions to maintain the integrity of the packaging materials. The product should be stored in the original packaging under normal warehouse conditions to maintain the integrity of the packaging materials.

HEALTH AND ENVIRONMENTAL INFORMATION

To support customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Product Safety and Regulatory Compliance (PS&RC) specialists available in each area. For further information, please see our website, www.dowcorning.com, or consult your local Dow Corning representative.

LIMITATIONS

These products are neither tested nor represented as suitable for medical or pharmaceutical uses.

LIMITED WARRANTY INFORMATION PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to

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For More Information

To learn more about these and other products available from Dow Corning, please visit the Dow Corning Electronics website at www.dowcorning.com/electronics.

Dow Corning® TP-1500 Thermal Gap Pad						
Thickness	mm	0.25	0.50	0.75	1.00	2.00
Thermal Resistance (°C-cm²/W) ASTM D5470	0.70 kg/cm²	4.135	5.859	8.219	9.212	14.957
	3.51 kg/cm²	3.425	5.225	7.377	8.710	14.546
	5.27 kg/cm²	3.073	4.800	6.875	8.396	13.772
	7.03 kg/cm²	2.714	4.232	6.358	7.311	10.308

Dow Corning® TP-1500 Thermal Gap Pad						
Thickness	mm	0.25	0.50	0.75	1.00	2.00
Compression Deflection (%) at Given Pressure ASTM D575 (Measured at specific thickness)	0.70 kg/cm²	-	2	3	5	8
	3.51 kg/cm²	-	11	13	12	25
	5.27 kg/cm²	-	13	17	15	34
	7.03 kg/cm²	-	15	20	19	41



Electronics
Solutions

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