

# 3.0 W/mK Silicone Free Thermal Pad 0.5mm - 5mm Thickness Thermal Pad Sheet

## **Basic Information**

- Place of Origin:
- Brand Name: zhonglei

China

100 m<sup>2</sup>

- Minimum Order
  Quantity:
- Packaging Details: carton
- Supply Ability: 10000



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上海中垒电气材料有限公司

## **Product Specification**

- Chemical Resistance: Excellent
- Thermal Conductivity: 3W/mK
- Thickness: 0.5~5mm
- Hardness:
- Adhesion Strength: Strong
- Highlight:

### Silicone Free Thermal Pad 0.5mm, 3.0 W/mK Silicone Free Thermal Pad, 5mm Thermal Pad Sheet

50 Shore A

#### **Product Description:**

Introducing our premium Thermally Conductive Compound, engineered to provide unparalleled heat dissipation for a wide range of applications. This product comes in a professional pink color, signifying its robust and industrial-grade quality. With an operating temperature range extending from -40°C to a staggering 125°C, it is designed to perform under extreme conditions, ensuring the reliability and durability of your equipment.

Our Thermally Conductive Material boasts a thermal conductivity of 3 W/mK. This means it is specifically tailored to facilitate the efficient transfer of heat away from crucial components, thereby preventing overheating and maintaining system stability. The exceptional thermal conductivity ensures that your devices operate within their intended temperature ranges, delivering optimal performance and prolonging their lifespan.

The density of this Thermal Conductive Putty is measured at 3g/cbm, which makes it lightweight yet highly effective in its conductive properties. This carefully balanced density ensures that the product can be easily applied without adding undue weight to your components, thus maintaining the integrity of your device's design and functionality.

One of the key advantages of our Thermally Conductive Compound is its versatility in application methods. It can be seamlessly dispensed or brushed onto the required surfaces, allowing for a hassle-free application process. This flexibility ensures that the compound can be applied with precision to a variety of shapes and sizes, making it suitable for an extensive array of devices and components. Whether you need to manage heat in complex electronics, automotive systems, or industrial machinery, our compound is the ideal solution.

The application method of dispensing is ideal for automated processes, where consistency and speed are pivotal. The compound can be dispensed in controlled amounts, ensuring uniform coverage and efficient use of the material. This method is particularly beneficial in manufacturing settings where time and accuracy are of the essence. Brushing, on the other hand, provides the freedom to apply the compound to more intricate and irregular surfaces that may not be accessible by dispensing equipment. This method is perfect for hand-applied scenarios or when more detailed attention is required.

Our Thermal Conductive Putty is not only a leader in thermal management but also in environmental and operational safety. The grey color of the compound is free from any harsh pigments, and the product is formulated to minimize environmental impact while maximizing performance. Moreover, being able to withstand a wide temperature range makes it suitable for various climates and operating conditions, ensuring that whether you are in a cold or hot environment, your equipment will remain protected.

In summary, our Thermally Conductive Material is a cutting-edge solution for managing heat across a spectrum of applications. Its superior thermal conductivity, coupled with a broad operating temperature range, makes it an essential component for any system requiring efficient heat dissipation. Its user-friendly application methods provide added convenience, ensuring that whether you are in a high-paced production line or carrying out precise manual repairs, our product will meet your needs with excellence. Choose our Thermally Conductive Compound for a reliable and effective way to enhance the performance and longevity of your electronic devices and machinery.

#### Features:

Product Name: Thermally Conductive Material Flame Retardant: Yes Chemical Resistance: Excellent Operating Temperature Range: -40°C To 125°C Product Type: Heat Conductive Compound Consistency: Thermally Conductive Compound

Efficiency: High Thermal Conductivity for Efficient Heat Dissipation

#### **Technical Parameters:**

Parameter	Specification		
Thermal Conductivity	3W/mK		
Thickness Tolerance	±0.001" (±0.025mm)		
Tensile Strength	15 Psi		
Thickness	0.5~5mm		
Adhesion Strength	Strong		
Color	Pink		
Operating Temperature Range	-40°C To 125°C		

#### Applications:

The Zhonglei brand, hailing from China, has developed a range of thermal conductive materials designed to address various heat management challenges in modern electronics and manufacturing processes. With a thermal conductivity of 3 W/mK, these materials are crafted to provide efficient heat dissipation in devices where maintaining optimal operational temperatures is crucial. Their thermally conductive putty, boasting a thickness of just 0.5~5mm and a tensile strength of 15 Psi, is perfect for applications that require a thin yet robust thermal interface. The silicone-based composition ensures that it is not only highly effective in transferring heat but also provides a strong and reliable bond between surfaces. Plus, the precise thickness tolerance of ±0.001" (±0.025mm) guarantees a consistent performance across various applications.

One of the primary scenarios for this product is in the electronics industry, where it is used as a thermal conductive adhesive. It can be applied between CPU or GPU chips and their heat sinks to improve heat transfer efficiency. This ensures that the devices operate within safe temperature ranges, thus prolonging their lifespans and maintaining performance levels. Additionally, the Zhonglei thermal conductive material can be used in LED lighting systems, where it helps manage the heat generated by high-intensity LEDs, maintaining the luminosity and color stability over time.

Another application occasion is in the automotive sector, where the heat conductive substance is used to manage the heat in various electronic control units (ECUs), battery packs, and other components in electric and hybrid vehicles. The product's effectiveness in transferring heat away from critical components not only enhances performance but also contributes to the overall safety of the vehicle. Moreover, this thermal conductive material finds its use in the aerospace and defense industries, where reliable thermal management solutions are non-negotiable. In these high-stakes environments, Zhonglei's product ensures that all electronic and mechanical components operate within their thermal limits, even under extreme conditions.

In summary, Zhonglei's thermal conductive materials are engineered for a wide array of applications where precision, reliability, and efficiency are paramount. From consumer electronics to advanced transportation and defense systems, these materials provide a versatile solution for thermal management challenges across various industries.

#### **Customization:**

Explore the superior customization services for our zhonglei brand Thermal Conduction Material, meticulously crafted in China to meet your precise needs. Our product boasts a strict thickness tolerance of ±0.001" (±0.025mm), ensuring consistency and reliability in every application. With a notable thermal conductivity rate of 3 W/mK, our Thermal Conductive Adhesive is designed to facilitate efficient heat dissipation.

The robust adhesion strength of our Heat Conductive Compound indicates its ability to form a durable bond, suitable for a variety of surfaces and components. You have the flexibility to choose between room temperature or heat cure, based on your specific requirements, providing versatility in the curing process. For ease of application, our product can be applied either by dispensing or brushing, allowing for a smooth and uniform application suited to your operational needs.

#### Support and Services:

Our Thermally Conductive Material product is designed to enhance the thermal management of your devices, ensuring effective heat dissipation for a wide range of applications. We are dedicated to providing exceptional technical support and services to ensure the optimal performance and integration of our product into your solutions.

Technical Support Services include:

Comprehensive product documentation and specifications

Guidance on best practices for product application and use

Troubleshooting assistance to address any performance issues

Support with customization options for specific application needs

Our team of experts is committed to delivering high-quality services and support to enhance your experience with our Thermally Conductive Material. We strive to provide prompt and accurate assistance to all of our clients.

Please refer to our product documentation or FAQ section for immediate answers to common questions and concerns. For more complex inquiries, our technical support team is available to provide in-depth assistance and ensure your satisfaction with our product.

#### Packing and Shipping:

Product Packaging: Our Thermally Conductive Material is carefully packaged to ensure its integrity and quality upon arrival. The product is sealed in moisture-resistant, anti-static bags to prevent any electrostatic discharge or humidity damage. For added protection, the bags are then placed inside sturdy, corrugated boxes filled with eco-friendly packing materials that keep the product securely in place during transit. Each box is clearly labeled with handling instructions to ensure proper care throughout the shipping process. Shipping: We take great care in the shipping of our Thermally Conductive Material to ensure prompt and safe delivery. Orders are dispatched via our trusted logistics partners who specialize in handling sensitive materials. We offer a range of shipping options, from standard to expedited services, to meet your timeline requirements. Tracking information is provided for each shipment, allowing you to monitor the progress of your order until it reaches your doorstep. Please note that any special shipping instructions or requirements should be communicated to us at the time of order placement.

#### FAQ:

#### Q1: What types of Thermally Conductive Materials does Zhonglei offer?

A1: Zhonglei offers a variety of thermally conductive materials including thermal pastes, thermal pads, thermal adhesive tapes, and thermally conductive plastics, all designed to improve heat dissipation in electronic components and devices.

Q2: Can Zhonglei's Thermally Conductive Materials be used in automotive applications?

A2: Yes, Zhonglei's thermally conductive materials are suitable for a range of applications, including automotive electronics. They are designed to withstand the harsh conditions and temperature fluctuations commonly found in automotive environments. Q3: Are Zhonglei's Thermally Conductive Materials electrically insulating?

A3: Zhonglei offers both electrically insulating and electrically conductive thermal materials. The specific electrical properties will depend on the product chosen, so it is important to review the specifications of each material to ensure it meets the requirements of your application

Q4: What is the thermal conductivity range of Zhonglei's Thermally Conductive Materials?

A4: The thermal conductivity of Zhonglei's materials can vary widely to suit different applications. They typically range from 1 W/mK to over 10 W/mK. For more specific information, please refer to the technical datasheet of the individual product you are interested in. Q5: How can I obtain a sample of Zhonglei's Thermally Conductive Material for testing?

A5: To obtain a sample of Zhonglei's thermally conductive material, you can contact their sales department directly through the official website or by phone. Provide details about your application so the sales team can assist you in selecting the most appropriate material for vour needs



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