

# Chemical Resistant Silicone Free Thermal Pad 6.0 W/mK Conductive Thermal Pad

# **Basic Information**

- Place of Origin:
- Brand Name: zhonglei

China

100 m<sup>2</sup>

- Minimum Order
  Quantity:
- Packaging Details: carton



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上海中垒电气材料有限公司

# **Product Specification**

- Thermal Conductivity: 6 W/mK
- Chemical Resistance: Excellent
- Application Method: Dispensing Or Brushing
- Color: Blue
- Material: Silicone
- Operating Temperature -40°C To 125°C Range:
- Thickness Tolerance: ±0.001" (±0.025mm)
- Highlight: Chemical Resistant Silicone Free Thermal Pad, Silicone Free Thermal Pad 6.0 W/mK, Silicone Free Conductive Thermal Pad

## **Product Description:**

Introducing our advanced Thermal Conductive Compound, a state-of-the-art thermal conduction material designed for a wide array of applications requiring efficient heat dissipation. This premium-grade product is engineered to facilitate the transfer of heat away from sensitive components, ensuring optimal performance and longevity of electronic devices.

Our Thermal Conductive Compound boasts a robust formulation that enables it to serve as a critical intermediary between heat sources and heat sinks. The material's strong adhesion strength ensures a secure bond between surfaces, making it an essential solution for applications that require dependable thermal management. This robust adhesive quality not only maintains the compound's position over time but also contributes to the overall structural integrity of the assembly.

The versatility of this thermal conduction material is evident in its ease of application. Designed for user convenience, it can be readily applied via dispensing or brushing, providing flexibility to accommodate different manufacturing processes and application contexts. Whether you're working on intricate electronics or larger industrial components, our compound can be applied with precision and ease, ensuring a consistent layer that maximizes thermal transfer.

Another key feature of our Thermal Conductive Compound is its curing method. Users have the option to cure the material at room temperature or accelerate the process with heat cure, allowing for customization based on specific requirements and timelines. This adaptability makes it suitable for a range of environments and operational workflows, ensuring that it can integrate seamlessly into existing production setups without disrupting established procedures.

With a dielectric strength of 10 KV/mm, our thermal conduction material is highly insulating, making it safe for use in electrical applications where preventing electrical discharge is paramount. This high dielectric strength affords peace of mind for applications that are not only thermally demanding but also electrically challenging, providing a reliable barrier against voltage spikes and electrical breakdowns. The density of this compound, at 1.73 g/cbm, is optimized for thermal management applications. This carefully calibrated density ensures that the material is sufficiently packed with conductive particles, maximizing its thermal conduction capabilities without compromising its workability or adhesion properties. This density factor also contributes to the compound's overall effectiveness in transferring heat, making it an ideal choice for systems where thermal efficiency is crucial.

Our Thermal Conductive Compound is designed with performance and durability in mind. Its strong adhesion combined with excellent thermal properties makes it an ideal choice for a broad range of industries, including electronics, automotive, aerospace, and more. Whether used in consumer devices, automotive electronics, or high-powered computing systems, this compound delivers reliable performance in scenarios where efficient heat dissipation is essential to the operation and stability of the components.

In conclusion, our Thermal Conductive Compound represents a superior solution for managing thermal challenges across various applications. Its strong adhesion, flexible application methods, choice of curing processes, impressive dielectric strength, and optimal density make it a standout product in the field of thermal management materials. By choosing our Thermal Conductive Compound, you are selecting a product that ensures your components stay cool, operate efficiently, and last longer, even under the most demanding thermal conditions.

#### Features:

Product Name: Thermally Conductive Material Chemical Resistance: Excellent Hardness: 50 Shore A Dielectric Strength: 10 KV/mm Thermal Conductivity: 6W/mK Keywords: Heat Conducting Material, Thermal Transmission Material, Thermal Conductive Putty

# **Technical Parameters:**

Parameter	Specification
Thickness Tolerance	±0.001" (±0.025mm)
Thermal Conductivity	6W/mK
Chemical Resistance	Excellent
Color	Blue
Application Method	Dispensing Or Brushing
Density	3 G / Cbm
Tensile Strength	10 Psi
Operating Temperature Range	-40°C To 125°C

### Applications:

The zhonglei brand, originating from China, has created an innovative thermally conductive material that serves a wide array of applications. This material, which is primarily composed of silicone, boasts a density of 3 g/cbm and a hardness level of 50 Shore A, ensuring a robust yet flexible solution suitable for various scenarios. Its strong adhesion strength makes it an ideal choice for scenarios that require a reliable bond between surfaces. Furthermore, this product is designed with safety in mind, as it comes with a flame retardant feature, adding an extra layer of protection in high-temperature environments.

One of the most common applications for zhonglei's thermally conductive material is as a Thermal Conductive Adhesive. This adhesive is

perfect for electronic manufacturing, where it can be used to bond heat sinks to processors or other heat-generating components, effectively dissipating heat and improving performance. It is also suitable for LED lighting systems, ensuring that the lights continue to operate at optimal temperatures and prolonging their lifespan. Its strong adhesion and thermal conductivity make it an indispensable product in the field of electronics assembly and maintenance.

Another product form of this material is the Thermal Conductive Putty. This versatile substance can be used to fill gaps and voids in electronic enclosures, providing an efficient thermal path for heat to escape. The putty is also easily moldable, which means it can be applied to uneven surfaces and components of varying shapes and sizes, making it perfect for custom electronics projects or for use in automotive electronics where components may not always align perfectly.

Furthermore, the Thermally Conductive Compound from zhonglei is excellent for use in power supplies and converters, where effective heat dissipation is critical to prevent overheating and ensure reliability. Due to its silicone base, it can withstand high temperatures and maintain its thermal conductivity over a wide range of operating conditions. The flame retardant nature of the compound also adds an extra measure of safety, which is crucial in power management applications.

In summary, zhonglei's thermally conductive material is a product of exceptional quality and versatility, with applications ranging from electronic assembly to automotive electronics, power management, and LED lighting systems. Its strong adhesion, flame retardant properties, and excellent thermal conductivity make it an essential component for any heat management solution, ensuring devices operate safely and efficiently. Manufactured in China, this silicone-based product stands out as a reliable and effective material for professionals worldwide.

### **Customization:**

Brand Name: zhonglei Place of Origin: China Chemical Resistance: Excellent Operating Temperature Range: -40°C to 125°C Thickness: 0.5~5mm Hardness: 50 Shore A

Explore our zhonglei Thermal Conductive Adhesive, a premium Thermal Conduction Material designed to meet your heat management needs. This Heat Conductive Substance boasts excellent chemical resistance and is suitable for a wide operating temperature range, ensuring reliable performance in demanding conditions. Whether applied by dispensing or brushing, our thermal adhesive maintains a consistent thickness of 0.5~5mm for effective heat dissipation. Trust zhonglei for all your thermally conductive applications.

### Support and Services:

Our Thermally Conductive Material products come with a comprehensive suite of technical support and services designed to ensure optimal performance and customer satisfaction. Our support services include:

**Product Consultation:** Our team of experts is available to provide advice on the best thermally conductive solution for your specific application requirements. We can assist in product selection, design considerations, and performance optimization.

Technical Documentation: Access detailed product datasheets, material safety data sheets (MSDS), technical guides, and application notes to support your usage of our thermally conductive materials.

Application Assistance: Receive guidance on the correct application methods and techniques to ensure the best performance of our thermally conductive products in your specific use case.

Quality Assurance: Our products undergo rigorous quality control to meet the highest industry standards. We provide support in understanding and utilizing quality testing data relevant to your application.

**Product Training:** We offer training sessions and materials to educate your team on the properties, benefits, and handling of our thermally conductive materials to maximize their effectiveness in your products.

Troubleshooting: If you encounter any issues or have concerns about our products' performance, our technical support team is ready to assist with troubleshooting and provide problem-solving strategies.

Custom Solutions: For unique or challenging applications, we can work with you to develop custom formulations or product modifications to meet your specific thermal conductivity requirements.

Environmental Compliance: Our technical support can guide you through the compliance aspects of our thermally conductive materials, ensuring that your products meet environmental regulations and standards.

We are committed to providing exceptional support and services to enhance your experience with our thermally conductive materials. For any technical inquiries or support needs, please reach out to our dedicated support team.

## **Packing and Shipping:**

#### Product Packaging for Thermally Conductive Material:

Each unit of our thermally conductive material is carefully packaged in a heat-resistant, anti-static bag to ensure preservation of its thermal properties during transit. The material is then cushioned with eco-friendly, shock-absorbing materials to prevent any damage from impacts or vibrations that could occur during shipping.

Shipping Instructions for Thermally Conductive Material:

Our thermally conductive material is classified as non-hazardous and is shipped according to standard shipping regulations. It is essential to store the product in a cool, dry place away from direct sunlight during transportation to maintain its effectiveness. We use reliable courier services that specialize in handling sensitive components to ensure that your product arrives promptly and in perfect condition.

### FAQ:

#### Q1: What types of applications are suitable for Zhonglei's thermally conductive materials?

A1: Zhonglei's thermally conductive materials are ideal for a wide range of applications including electronics cooling, LED lighting systems, automotive electronics, power supply units, and any other systems where efficient heat dissipation is necessary to maintain optimal performance and reliability.

Q2: Can Zhonglei's thermally conductive materials be customized for specific applications?

A2: Yes, Zhonglei offers customization options for their thermally conductive materials. Customers can request specific thicknesses, shapes, and thermal conductivity values to suit their unique application requirements.

Q3: How do Zhonglei's thermally conductive materials compare to traditional cooling methods?

A3: Zhonglei's thermally conductive materials are designed to offer superior heat transfer efficiency compared to traditional cooling methods. They are lightweight, easy to install, and can conform to various surfaces, which helps in achieving better contact and improved thermal performance.

Q4: Are Zhonglei's thermally conductive materials environmentally friendly?

