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# Thermal Conductive Silicone for CPU Applications

## Technical Data Sheet

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### 1. Product Overview

Thermal conductive silicone is a high-performance thermal interface material (TIM) designed to enhance heat dissipation between CPUs/GPUs and heatsinks. It ensures optimal thermal transfer, stability, and reliability in high-temperature electronic environments.

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### 2. Key Parameters

Parameter	Specification
Thermal Conductivity	3.0–6.0 W/m·K (adjustable per grade)
Operating Temperature	-50°C to +200°C
Viscosity	15,000–50,000 mPa·s
Dielectric Strength	≥ 15 kV/mm
Density	2.5–3.0 g/cm <sup>3</sup>

Parameter	Specification
Curing Time	Non-curing (pre-cured pads)
Thickness Options	0.5 mm, 1.0 mm, 1.5 mm, 2.0 mm

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### 3. Product Features

**.High Thermal Efficiency:** Minimizes thermal resistance between CPU and heatsink, reducing overheating risks.

**.Electrical Insulation:** Non-conductive properties prevent short circuits.

**.Long-Term Stability:** Resists drying, cracking, or performance degradation under thermal cycling.

**.Easy Application:** Available as pads, paste, or adhesive tapes for flexible installation.

**.Chemical Resistance:** Compatible with most metals and plastics in electronics.

**.Low Volatile Content:** Ensures minimal outgassing for sensitive environments.

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### 4. Application Scenarios

**.CPU/GPU Cooling:** Bonding heatsinks to processors in desktops, laptops, and servers.

**.Power Electronics:** IGBT modules, inverters, and automotive control units.

**.LED Systems:** Heat dissipation for high-power LED lighting.

**.Industrial Equipment:** Thermal management in PLCs, motor drives, and robotics.

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## 5. Competitive Advantages

**.Precision Engineering:** Customizable shapes/sizes for complex CPU geometries.

**.Cost-Effective:** Extends device lifespan by reducing thermal stress.

**.Compliance:** Meets UL 94 V-0 flammability standards and RoHS/REACH directives.

**.Low Pump-Out Risk:** Maintains consistent performance under vibration.

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## 6. Conclusion

Thermal conductive silicone is a critical solution for modern electronics requiring efficient heat management. Its adaptability and reliability make it ideal for CPUs in consumer, industrial, and automotive applications.

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## 7. Contact Information

Email: [tnsilicone@tn2008.com](mailto:tnsilicone@tn2008.com)

Website: [www.tnsilicone.com](http://www.tnsilicone.com)

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