



"Control Your Energy Destiny, or  
Someone Else Will."

U.S. PATENT PENDING • ADVANCED CPU & GPU HEAT MITIGATION

# POLAR PASTE™

**Cooler chips. Stronger performance.**

Polar Paste™ is MTD's patent-pending heat-reduction paste engineered to move heat away from hard-working CPUs and GPUs—helping high-density computing environments operate cooler, more reliably, and more profitably.



## Stop Letting Heat Limit Your Hardware.

Polar Paste creates a highly efficient thermal bridge between a processor and its cooler. By moving heat away from the chip more effectively than conventional thermal pastes, it helps reduce hot spots, lower the risk of thermal throttling, and support steadier performance during demanding workloads—without changing existing hardware layouts or adding complexity to the cooling system.



## WHY IT MATTERS



COOLER SILICON



SUSTAINED PERFORMANCE

AI

MORE VALUE PER RACK

\$

MORE OVERCLOCKING HEADROOM

Move heat away from CPU and GPU surfaces to help keep operating temperatures more controlled.

Reduce thermal throttling risk so processors can sustain demanding workloads more consistently.

Support higher sustained utilization in dense computing environments where every degree matters.

Give crypto operators greater thermal headroom to pursue higher-performance operating settings.

HOW POLAR PASTE WORKS

A Better Thermal Connection Where It Matters Most.

Polar Paste fills the microscopic gaps between the chip and the cooling surface, creating a more efficient pathway for heat to leave the processor and enter the cooler.

|                                                            |                                                                               |                                                                        |                                                                 |
|------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------|
| 01. HEAT SOURCE                                            | 02. THERMAL BRIDGE                                                            | 03. HEAT REMOVAL                                                       | 04. PERFORMANCE                                                 |
| CPU or GPU                                                 | Polar Paste                                                                   | Cooler or Cold Plate                                                   | Stable Operation                                                |
| High-performance silicon generates intense localized heat. | The paste creates a tight heat-transfer path at the chip-to-cooler interface. | The cooling surface receives heat from the processor more efficiently. | The system helps support cooler, steadier operation under load. |

COOLER CHIPS. FEWER HEAT-RELATED HEADACHES. MORE COMPUTE VALUE.

[BEST PLACE FOR A CHIP-TO-COOLER CROSS-SECTION GRAPHIC: directly above this result statement.]

# Performance Advantages

Polar Paste is positioned as a best-in-class heat-mitigation solution for environments where processor temperature directly affects performance, reliability, operating efficiency, and revenue potential.

| Lower                                                   | Higher                                                        | More                                                       | Less                                                    |
|---------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------|
| localized hot-spot risk at the chip-to-cooler interface | potential for sustained utilization under demanding workloads | thermal headroom for performance-focused crypto operations | exposure to heat-related throttling and hardware stress |

# Built for Compute Operators

Polar Paste delivers a straightforward upgrade at the point where thermal performance begins: the connection between the processor and its cooling surface.

|                                                                                                                                                                       |                                                                                                                                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Data-Center Operators</b><br><br>Support a tighter and more predictable chip-temperature range to help protect expensive GPU and CPU investments.                  | <b>AI &amp; HPC Teams</b><br><br>Help sustain demanding compute workloads by improving the thermal pathway from silicon to the cooling system.                              |
| <b>Crypto Operators</b><br><br>Create additional thermal headroom for performance-oriented operating strategies and potentially more productive hardware utilization. | <b>System Builders &amp; Integrators</b><br><br>Apply a practical heat-mitigation upgrade without requiring a change to existing rack, server, or facility cooling layouts. |

# Ideal Applications

Polar Paste is designed for any multi-computer environment where high processor temperatures can limit performance or accelerate equipment stress.

|                                                                                                                 |                                                                                                                  |                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>AI Data Centers</b><br><br>High-density GPU systems supporting intensive AI and analytics workloads.         | <b>High-Performance Computing</b><br><br>CPU and GPU environments where sustained performance is critical.       | <b>Crypto Mining</b><br><br>Mining hardware where temperature management can influence operating headroom.        |
| <b>Enterprise Server Rooms</b><br><br>Server clusters and IT environments with demanding, continuous workloads. | <b>Workstations &amp; Render Farms</b><br><br>Professional graphics, design, engineering, and rendering systems. | <b>System Integration</b><br><br>New builds or maintenance programs seeking a simple thermal-performance upgrade. |

TURN HEAT MITIGATION INTO A PERFORMANCE ADVANTAGE.

Ready to explore Polar Paste for your computing environment? Contact Modern Thermal Design.

317-505-9200 • [www.modernthermaldesign.com](http://www.modernthermaldesign.com)

Polar Paste product claims and performance outcomes should be validated for the specific processor, cooler, workload, operating conditions, and test configuration before commercial use.