

How to Prepare an Exposed Heat-Pipe or Ridged Heatsink before Applying Thermal Compound to a CPU

In addition to using the application method recommended for your CPU, please use these recommendations for exposed heat-pipe or ridged heatsink surfaces.

If your heatsink has thermal material on it, the existing material must be removed prior to applying the new thermal compound. Only the new thermal compound should be between the heatsink and the metal cap of the CPU. NEVER use any petroleum based cleaners (WD-40, and many automotive degreasers) on the surface of a metal cap or heatsink. The oil, which is engineered to not evaporate, will fill the microscopic valleys in the metal and significantly reduce the effectiveness of any subsequently applied thermal compound.

Thermal material removal: Remove existing thermal material with ArctiClean 1 and 2, a xylene based cleaner (Goof Off and some carburetor cleaners), or high purity isopropyl alcohol and a LINT FREE cloth (a lens cleaning cloth or coffee filter). If you use Goof off or another xylene based cleaner always follow up with a cleaning of high-purity isopropyl alcohol.

Important: Keep the surface free of foreign materials and do NOT touch the surface after it has been cleaned. A hair, a piece of lint, even dead skin cells can significantly affect the thermal interface's performance. Oils from you fingers can adversely affect the performance by preventing the micronized silver or ceramic fill from directly contacting the metal surfaces. (Fingerprints can be as thick as 0.005")

Heat-Pipe and Ridged Heatsinks Only: Use an expired plastic card or razor blade to apply thermal compound to the bottom of the heatsink. Start with some thermal compound at the edge of each heat-pipe and work it into spaces between the heat-pipe and metal that surrounds it. Work the tool back and forth in all directions. Use enough thermal compound to fill all voids and ridges. Do NOT remove any thermal compound from the voids you just filled. If there is any excessive thermal compound on the heat-pipes or metal surfaces, just smooth it out until you achieve a translucent layer where the heatsink comes into contact with the CPU. If you have any extra thermal compound remaining on the plastic card or razor blade, just set it aside until you are ready to tint your CPU surface. When ready, return to the application method you were linked here by and follow the instructions for your particular CPU. Remember, you may have to do more than one heatsink mount in order to achieve maximum performance from your CPU and Heatsink combination.

If you have any additional questions, please let us know at: infoas@arcticsilver.com