

CPU Cleaning

How To Clean a CPU

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Most of us who have used thermal pastes for a while now know that between both time, and numerous applications, it can end up spreading from the CPU core to the surrounding areas of the die. This left-over residual paste can be quite a task to get cleaned off, to say the least, and will only get worse over time if not removed periodically. The most popular thermal pastes on the market these days contain Silver particles which aid in heat transfer because Silver is an excellent thermal conductor. The flip side to this coin is the fact that Silver also conducts electricity just as well, and you can imagine what may happen if any of the bridges or interconnects around the CPU core were to get coated with this conductive paste and create an electrical pathway to another bridge or interconnect. Not good any way you look at it.

First, gather what we will need:

- High-purity Isopropyl Alcohol
- Q-tips
- Sewing Needle

Take a cotton swab, and lightly the Isopropyl Alcohol, and then use it to clean the thermal paste off of the CPU. You may need to do this several times to remove all of the unwanted paste. DO NOT let any areas remain wet for more than 5 seconds just to be safe. Clean the surfaces of the chip die or core. If compound has reached the pin holes on either the CPU or motherboard, you may need to clean these with a sewing needle dipped in Isopropyl alcohol.

To clean the ceramic surface of an AMD Athlon and Athlon XP CPU (that's the reddish-brown area around the CPU core) you can use isopropyl alcohol. Apply using q-tips if you are having trouble with getting between components. Modern P4 and Athlon64 chips have a heat spreader that covers the ceramic. The spreader can be cleaned just like a CPU core.

Cleaning your CPU/heatsink is an important step during the installation of your CPU/heatsink. Contaminants like old, dried, or less effective thermal paste or finger oils can reduce the effectiveness of your new paste. Lint, hair and dust can reduce surface contact and adversely affect heat transfer. Remember, on some CPUs the contact surface is only the size of a fingertip, so the contact between surface areas is extremely important.