

Thermal Paste and Thermal Pads

DT Workshop Equipment Reference — D&T / STEM resource for school workshops | Electronics & Prototyping

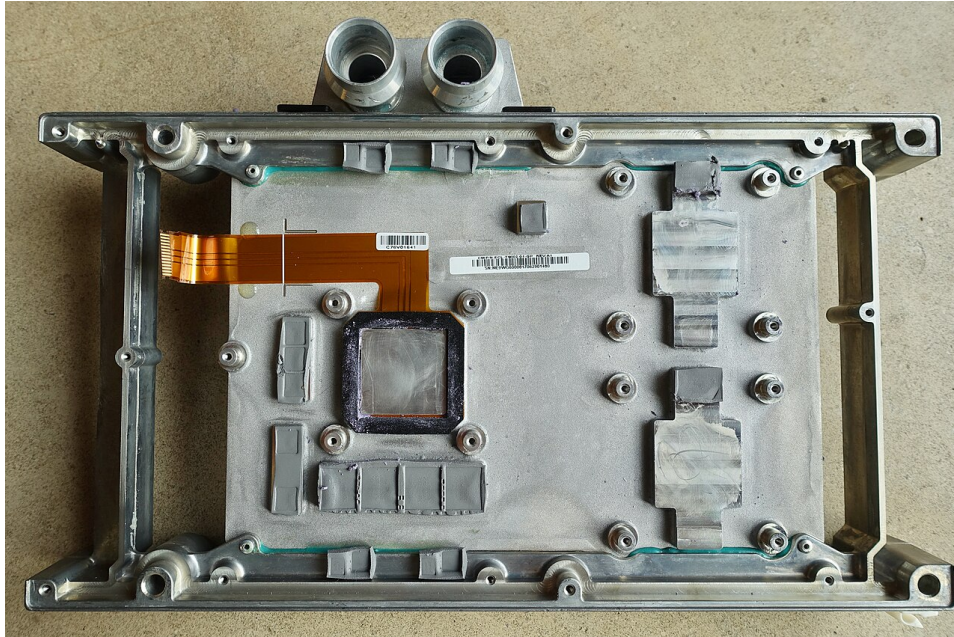


Photo: Steve Jurvetson from Los Altos, USA — CC BY 2.0 — via Wikimedia Commons
(Tesla_Autopilot_Cooling_Plate_+_Thermal_Paste_(50939186576).jpg)

Thermal paste and pads conduct heat from electronic components into heatsinks and coolers, keeping processors, regulators and MOSFETs within temperature. Paste suits flat mating surfaces; pads fill uneven gaps without mess.

Key Features

- Silicone or ceramic pastes
- Thermal conductivity ratings (W/mK)
- Pre-cut pads in sizes
- Non-conductive formulas
- Syringes and spreaders

Typical Uses in the Workshop

- Mount CPUs and regulators to heatsinks
- Cool MOSFETS and motor drivers
- Fill gaps between boards and cases
- Simplify heat management in builds

Safe Operation

1. Clean both mating surfaces first
2. Apply a small rice-grain of paste
3. Spread evenly without overflow
4. Press the heatsink squarely
5. Or place a pad directly on the component

SAFETY NOTES

- Use non-conductive paste near live circuits
- Do not apply paste where it shorts pins
- Keep paste out of eyes
- Wipe excess with a lint-free cloth
- Store tubes capped

Maintenance & Consumables

- Replace dried paste
- Check pads for compression
- Clean old paste from CPUs
- Keep a tube at the bench
- Use fresh paste each reseal

Specification & Buying Notes

A quality non-conductive paste with a spreader plus a pack of assorted pads covers school cooling. Cheap paste dries out; pads suit beginner builds.