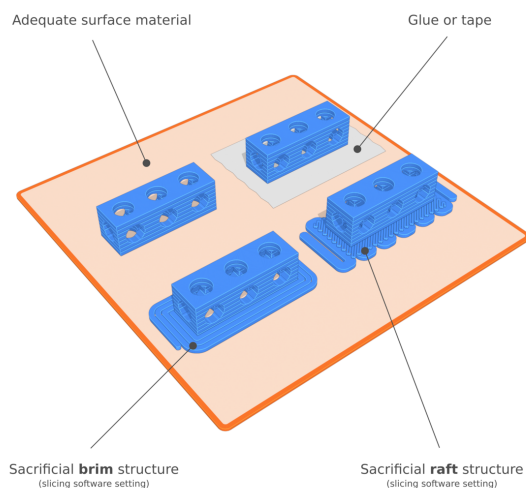


3D Printer Build Plates (PEI magnetic sheets)

DT Workshop Equipment Reference — D&T / STEM resource for school workshops | Consumables & Spares



FFF 3D printing calibration - 3D printer build plate adhesion
 Photo: paulo@kief.com — CC BY-SA 4.0 — via Wikimedia Commons (3D_printing_calibration_3D_printer_build_plate_adhesion.png)

PEI magnetic build plates are spring-steel sheets with a polyetherimide coating that sticks first layers firmly and releases prints cleanly as they cool, magnetically held to the printer bed. They are the modern standard for reliable, reusable print surfaces.

Key Features

- Magnetic spring-steel bases
- PEI smooth or textured coatings
- Smooth and powder-coated options
- Flexible release on cooling
- Sizes for common bed formats

Typical Uses in the Workshop

- Reliable first-layer adhesion
- Easy print removal by flexing
- Replace worn or damaged plates
- Swap surfaces for material types

Safe Operation

1. Clean the PEI with isopropyl between prints
2. Level the bed to the correct gap
3. Print, then let the first layer cool
4. Flex the plate to pop the part free
5. Wipe marks and residue away

SAFETY NOTES

- Handle the plate edges - spring steel is sharp
- Hold the plate clear of the moving printer
- Do not scrape the PEI with metal tools
- Keep IPA away from skin
- Store plates flat

Maintenance & Consumables

- Re-clean with IPA after heavy use
- Replace plates with damaged coatings
- Check the magnet sheet adhesion
- Sand lightly to revive worn PEI
- Keep spares for the banks

Specification & Buying Notes

Buy the correct plate size for the printer bed with a matched magnetic sheet. Quality PEI releases cleanly; thin coatings wear through in a term.