

Materials

Which materials are safe for the laser and other machines, and which are prohibited.

- [Laser-Safe and Prohibited Materials](#)

Laser-Safe and Prohibited Materials

Some materials are perfectly safe to laser. Others release toxic or corrosive gases, damage the machine, or catch fire easily. **If you cannot identify a material, do not put it in the laser.**

To be confirmed: the approved materials list for WMI's laser. What a laser can cut depends on its type and power, so check with a trainer before cutting anything not on that list.

Never laser these

Material	Why
PVC and vinyl (including vinyl sheet, many faux leathers, some foam boards and records)	Releases chlorine gas, which is toxic and corrodes the machine.
Anything containing chlorine	Same reason as PVC.
Polycarbonate (Lexan)	Catches fire and discolors rather than cutting cleanly.
ABS	Melts rather than cuts and gives off harmful fumes.
Fiberglass and carbon fiber	The resins give off harmful fumes.
Coated or mirrored materials you cannot identify	Coatings may contain any of the above.

Usually safe, if the machine is set up for it

These are commonly laser-cut or engraved. Ask your trainer which ones apply to our machine and what settings to use.

- Natural wood and plywood
- Paper and cardboard
- Cast acrylic

- Vegetable-tanned leather
- Natural fabrics such as cotton and felt

Whatever the material

- Never leave the laser unattended. See **Digital Fabrication: Laser Cutter**.
- Make sure the exhaust or filtration is running. See **Shop Safety: Air Quality**.