



MATERIAL GUIDELINES

The following are **not exhaustive lists**.

Makery staff **reserve the right to refuse or stop any project** for the safety of the equipment, staff, and patrons.

Bring your materials in their **original packaging with all labels** so Makery staff can verify their contents.

When in doubt, **Makery staff will err on the side of caution**.

NEVER ETCH OR CUT THESE MATERIALS

Material	Consequence
PVC (Poly Vinyl Chloride) Vinyl PVC Leather Pleather Artificial Leather PVB (Polyvinyl Butyral)	Will severely damage the laser's optics and motion control system. Emits dangerous chlorine gas.
Polycarbonate or Lexan	May catch fire. Absorbs and retains heat from infrared radiation.
ABS (Acrylonitrile Butadiene Styrene)	Emits cyanide gas. May catch fire. Melts. Leaves behind gooey deposits.
HDPE (High Density Polyethylene)	Catches fire. Melts. Leaves behind gooey deposits.
PETG (Polyethylene Terephthalate Glycol)	Melts. Does not etch well. Warps when cut.
Polystyrene (Styrofoam) Polypropylene Foam	Catches fire.
Fiberglass Epoxy Resin Coated Carbon Fiber	Emits dangerous fumes.
Painted or Stained Wood	May scorch or catch fire. Does not etch well.



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Approved Materials

Material	Notes
Acrylic	Cast acrylic is best for etching. Extruded acrylic is best for cutting.
Anodized Aluminum	Etching only
Cardstock	
Chipboard and Corrugated Cardboard	
Delrin (Polyoxymethylene)	Harder is better.
Slate	Etching only.
Laserable Rubber	Must be chlorine free!
Powder Coated Drinkware (e.g. Yeti, Hydroflask)	Etching only.
Polyurethane Foam	Cutting only.
Glass	Etching only.
Laser Safe Leatherette	Etching only. Must bring original packaging. Staff must be able to verify that it does not contain PVC or Vinyl.
Genuine Leather	Real, natural, genuine leather.
Solid Wood or Board Wood	
Plywood Composite Woods	Contains glue and may not cut as well as solid wood.
MDF (Medium Density Fiberboard)	May not cut well. Produce lots of soot.