

☐ Materials that are safe to laser

These materials are 'safe' to laser, but are still to be considered a fire risk.

Please follow individual guidance for the material to reduce this risk.



Wood-based materials

Cutting these items will leave a sooty edge in most cases, which will wipe off with a dry cloth. The air assist can also blow this soot onto the top surface leaving a smudge, particularly with MDF (due to the vaporised glue). This can sometimes be removed by wiping over with IPA (rubbing alcohol) or sanding back to clean wood. If you need to use masking tape, make sure it is the *paper* version and is very well stuck down.

Paper and card

Consider using a sacrificial MDF board with tacky surface to hold down your paper or card to stop it blowing around. You may also consider designing your cuts with uncut tabs to hold any cut-outs in place.

MDF

Ensure your MDF is 'laser safe' - it will have less formaldehyde and glue and cut cleaner than the variety at hardware stores

Plywood

Ensure your plywood is 'laser safe' - it will generally be of a finer quality with smaller glue pockets. Glue pockets are notorious for not cutting through, potentially ruining an otherwise ok cut.

Fabric

Most fabrics are ok to cut in the laser. Organic fibres (e.g cotton) will take more power to cut through compared to man-made (e.g. polyester) - testing is crucial to get a clean cut with minimal charring or melting. Consider using a sacrificial board with a tacky surface to stop fabric pieces blowing away and keep them flat. IMPORTANT: you should not layer up fabric in an effort to save time, as this significantly increases the fire risk due to air pockets between layers and in creases.

Plastics

Not all plastics are safe, or appropriate, to laser. If you are unsure of the composition of the plastic, DO NOT LASER and ask for advice. Check out the ['never laser these materials'](#) list as well.

Acrylic

IMPORTANT: remove any protective plastic sheets from the acrylic before you cut. If you need to mask, use a laser-safe *paper* masking tape that is stuck down and well-burnished to ensure adhesion. The commonest cause of fires when cutting acrylic is masking that lifts and catches alight.

IMPORTANT: vaporised acrylic fumes will catch light underneath the sheet. You must ensure that the bed is clean and without debris, as these flameouts can easily set fire to any leftovers on the bed.

EVA

Ethyl-vinyl acetate foam is ok to cut on the laser, typically used for cosplay

Mylar

Very useful to make stencils and masks from

Stone & Rock

Generally speaking, stone materials are fine to engrave. They will not cut. Be aware that the stone will become warm during engraving and will be a burn hazard.

Slate

Slate is great to etch in the laser, resulting in a white(ish) mark. Invert your image, particularly if engraving a photo (i.e. black lines will be the ones that engrave, resulting in a white marking). For extra contrast, use a polyurethane spray varnish to coat the slate at least 48 hours before lasering.

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