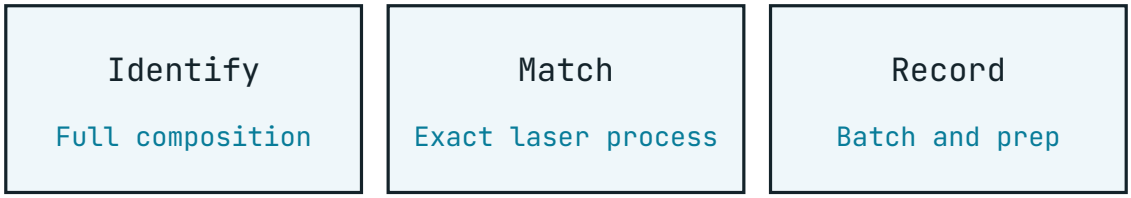
A USEFUL MATERIAL DECISION

Choosing materials and setting expectations

Identify the full material and laser combination, then distinguish compatibility from an untested result.

Written review

Work from the stated cases without connecting, firing or inspecting a machine. Record uncertain information as unknown. Keep the exact machine instructions with any later physical setup.



Keep composition, compatible process and batch preparation with the setting.

1. Identify the stock, coatings, glue, adhesive and backing. Check supplier information against the exact machine restrictions. An unlabelled remnant remains unknown.

2. Keep PVC and chlorinated plastics out, including PVC-based vinyl. Do not burn a corner to identify unknown material. A safety data sheet is useful evidence, not blanket laser approval.

3. Wood varies in grain, density and resin. Plywood also varies in glue and voids. MDF binders and emissions need their own suitability and extraction checks.

4. Leather needs known tanning, dyes and coatings. A leatherette label does not rule out PVC.

5. Clear acrylic and a blue diode can have a wavelength mismatch. A borrowed CO2 recipe and more passes do not establish a direct-cutting method.

6. On metal, separate marking, metal removal, coating removal and cutting. Slate, tile and glass also need an identified compatible process. Keep masking, cleanup and finish in the record.

MATERIAL CASES

Material cases

These are invented information cases. No sample or laser is needed.

An unlabelled flexible plastic resembles an online blank. Would you use it or burn a corner to identify it? What evidence is missing?

A supplier supports clear cast acrylic for CO2 cutting. Your laser is a blue diode. Would copying the recipe and adding passes resolve the mismatch?

A fictional supplier approves a new 3 mm plywood batch for the stated setup. The old recipe used masking; the new sheet is unmasked. What is established and what is still untested?

EXPLAINED ANSWERS AND MATERIAL RECORD

Explained answers and material record

Unknown remnant
Leave it out. Obtain composition, coating, adhesive and backing information, then check the exact permitted process.

Clear sign
Choose a supported laser/process or an identified compatible material. More passes do not fix poor absorption of the blue wavelength.

Plywood batch
The fictional compatibility information is given. The new batch result remains untested, and changed masking belongs in the record.

Material, supplier, batch and composition evidence:

Thickness, exact laser/module and intended effect:

Preparation, masking and source of starting settings:

Observed result, cleanup and finish, or unknown/untested:
