Etching and Marking Materials with a Laser

Laser etching and marking is what really separates laser systems from a lot of other marking systems out there. Laser etching and marking provide a permanent mark on any material it's used on.

Marking and Etching Capabilities

With our lasers we can virtually mark or etch on anything. There are materials that aren't conducive to laser etching, marking, cutting, or engraving, PVC or vinyl are two materials for sure. The by-products of working with these materials will destroy the laser system and are very hazardous. See the end of this document for a broad list of materials our laser system can be used for. If the material you want to use isn't on the list, please contact us and we'll let you know if we can engrave it for you.



At PDX Lasers we would like to help you create with our laser etching and marking services. As you can see from the examples above you can be as creative as you want to be.

CO2 Laser Compatible Materials		
Material	Engrave	Cut
Wood	Х	Х
Acrylic	Х	Х
Fabric	Х	Х
Glass	Х	
Coated Metals	Х	
Ceramic	Х	
Delrin	Х	Х
Cloth	Х	Х
Leather	Х	Х
Marble	Х	
Matte Board	Х	Х
Melamine	Х	Х
Paper	Х	Х
Mylar	Х	Х
Pressboard	Х	Х
Rubber	х	Х
Wood Veneer	Х	Х
Fiberglass	Х	Х
Painted Metals	Х	
Tile	Х	
Plastic	Х	Х
Cork	Х	Х
Corian	Х	Х
Anodized Aluminum	Х	
Stainless Steel	*	
Brass	*	
Titanium	*	
Bare Metals	*	
* CO2 lasers will mark bare metals when coated		

Fiber Laser Compatible Materials		
Material	Mark	
17-4 PH Stainless Steel	Х	
303 Stainless	Х	
4043 Steel	Х	
6061 Aluminum	Х	
Bayer 2807 Makrolon polycarbonate	Х	
Bayers Bayblend FR 110	х	
Black/White ABS	Х	
Brass	Х	
Brushed Aluminum	Х	
Carbon Fiber	Х	
Carbon Nanotube	Х	
Clear Coat Anodized Aluminum	Х	
Cobalt Chrome Steel	Х	
Colored Delrin (Black/White)	Х	
Compacted Powder Iron w/Iron Phosphate	Х	
Coating		
Copper	Х	
DAP - Diallyl Phthalate	Х	
GE Plastics Polycarbonate Resin 121-R	Х	
Glass Filled PEEK	Х	
Glass Filled Telfon	Х	
Hard Coat Anodized Aluminum	Х	
Machine Tool Steel	Х	
Magnesium	Х	
Metal Plated Ceramics	Х	
Molybdenum	Х	
Nickel Plated 1215 Mild Steel	Х	
Nylon	Х	
Polybutylene Terephthalate	Х	
Polysulphone	Х	
Rynite PET	Х	
Santoprene	Х	
Silicon Carbide	Х	
Silicon Steel	Х	
Silicon Wafers	Х	
Various Inconel Metals (Nickel-Chromium	х	
Super Alloys)		
White PEEK	Х	
Yellow Chromate Aluminum	Х	
Zinc Plated Mild Steel	Х	
* Fiber lasers can cut through some thin metal foils		