



Product Description

FiberGrave™, is a light-weight, single-ply acrylic sheet plastic that has been specially engineered to make contrasting marks with a Fiber or YAG laser. Compared to traditional injection molded plastics, FiberGrave is a cost-effective larger format solution for Fiber/YAG laser marking applications. FiberGrave can also be vector cut with standard CO2 lasers to easily create custom shapes for specialty tags and labels.

FiberGrave produces permanent, highly detailed markings, including variable tone images that are barcode and data matrix readable. It's easier to handle and fabricate compared to aluminum or stainless steel sheet stock, and is UV-stable for exterior applications such as industrial tags, labels, and identification plates.

Product Overview

FiberGrave™

Plastic Sheet Engineered for Fiber Marking



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Properties	Typical Values	ASTM Method
IZOD Impant Strength Notched at 73°F (22.78°C)	1.10ft lbs/in	D-256
Tensile Strength To break Elongation before break	5,500psi 50%	D-638 D-638
Flexural Strength Load to stretch outer surface 5%	10,300psi	C-790
Specific Gravity	1.15	D-792
Rockwell Hardness	M45	D-785
Deflection Temperature Temperature at which material deflects .010" (.254mm) at 264psi	175°F (79.44°C)	D-648
Coefficient of Thermal Expansion Inch/Inch/°F	5.6 x 10-5	D-696
Vicat Softening Point Temperature for needle to penetrate 1mm (90°F/hr, 2.2 lbs) Temperature for needle to penetrate 1mm (90°F/hr, 11.0 lbs)	208°F (97.78°C) 187°F (86.11°C)	D-1525 D-1525

Chemical Resistance:

Excellent/Good Resistance

Oil, Transmission Fluid, Kerosene, Gasoline, Glycerol, Chlorine, Ammonia Based Cleaners

Not Recommended

Sulfuric Acid, Paint Thinner, Turpentine, Reagent Grade Alcohols

UV resistance: Good

Abrasion Resistance: Good

**For a complete list of resistant chemicals and chemicals not recommended for use with FiberGrave please contact us.*

Technical Information

Color: White & Black

Material: Single-ply modified Acrylic

Finish: Matte (*one-side*)

Sheet Size: 24 1/8" x 48 3/4" // 613mm x 1238 mm

Custom sizes and cut blanks available

Gauge: .020" & .040"

Engraving Depth: 0.0mm (surface ablation)

Usage

- Traceability
- Utility markers
- Micromarking
- Tags
- Livestock tagging
- QR/Data Matrix readable
- Name plates
- Signage
- Barcode readable
- Identifiers
- Control Panels

Applications and Markets

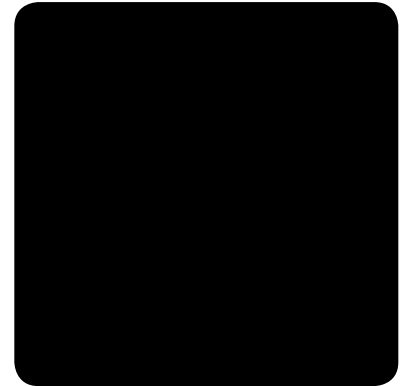
- Industrial
- Security/Safety
- Manufacturing
- Military/Aerospace
- Automotive
- Oil and Gas

Capabilities

- Marking on the fly
- Saws
- Fiber laser contrasting mark
- Shears
- Multi-shade Fiber laser marking
- Drills
- CO2 vector cut
- Bevels
- Heat bendable/formable
- Bonds
- Fine detail
- Scores
- Flexible
- UV-Stable

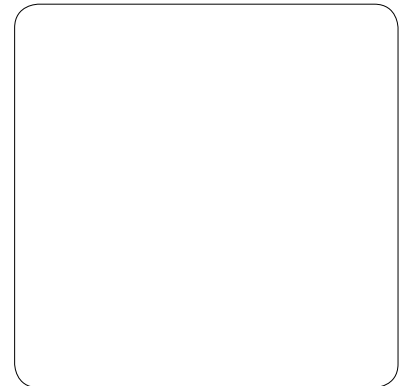
Processing Parameters

Available at rowmark.com



Black

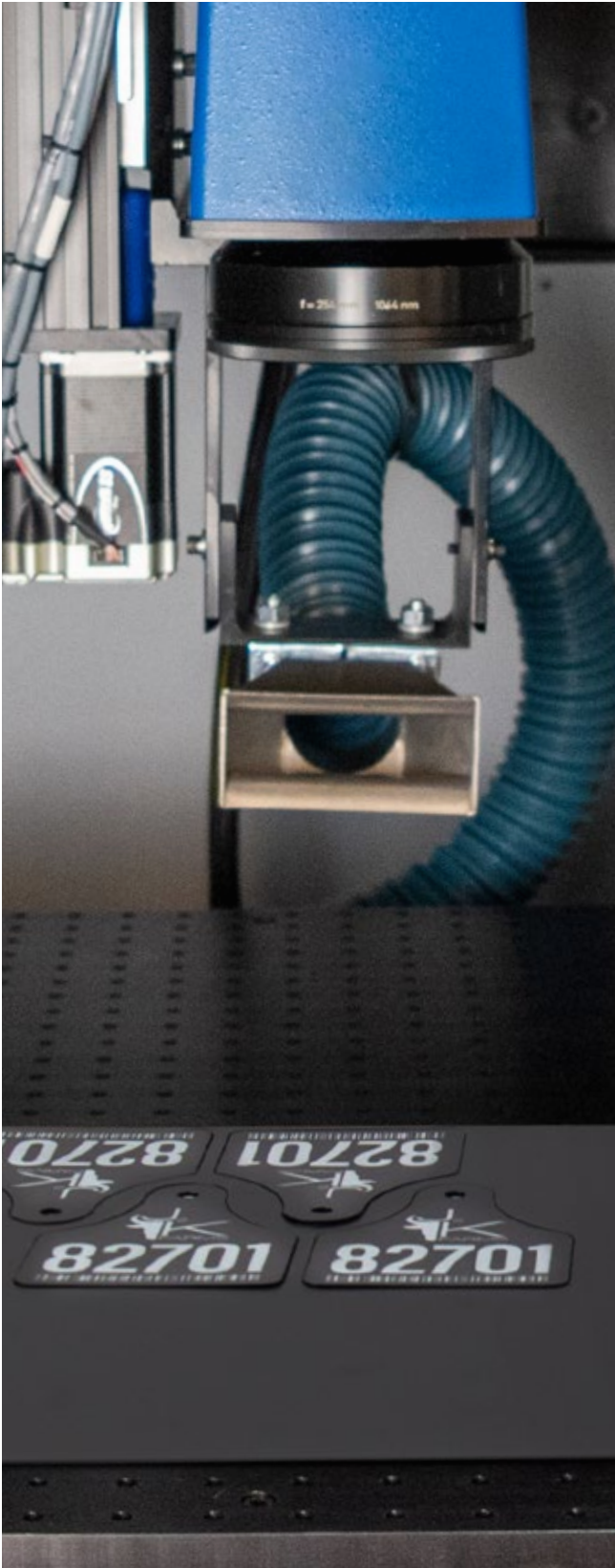
FX301-401 1-ply .020"
FX391-401 1-ply .040"



White

FX301-201 1-ply .020"
FX391-201 1-ply .040"

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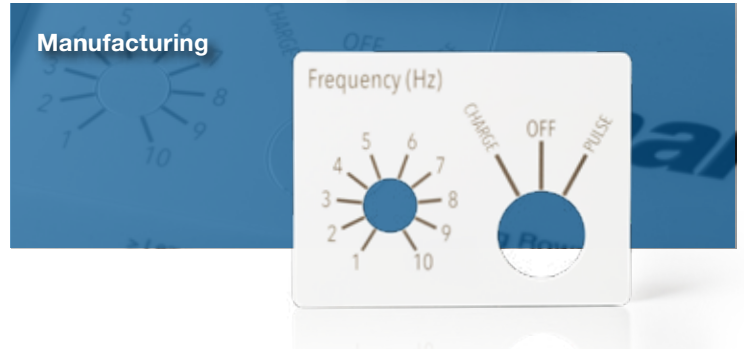
Military



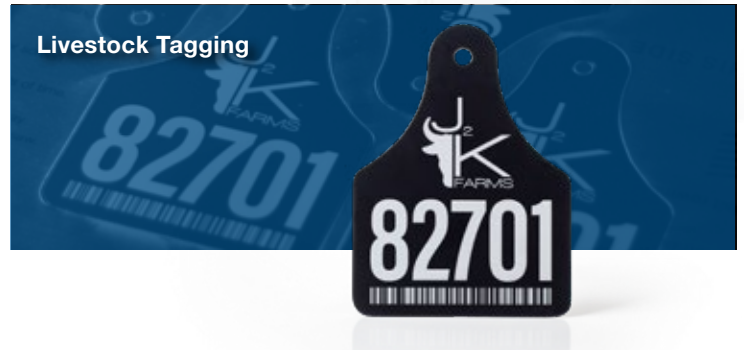
Industrial



Manufacturing



Livestock Tagging



Aerospace

