

High-Performance Precision Laser Cutting for Commercial Equipment

Challenge

In the manufacturing of refrigerator and elevators, large stainless-steel panels are laser-cut with high precision to create openings for doors, vents, and controls. These panels are protected with surface protection tape. Eventually, removing the tape should be easy, fast and residue-free after processing without compromising surface quality.

Application

Nitto's FIBERGUARD 511M10P is a Surface Protection Film with a well-balanced rubber-based adhesive. Its optimal adhesion to stainless steel allows precision cutting without lifting the tape and a quick and easy peel-off from big panels.

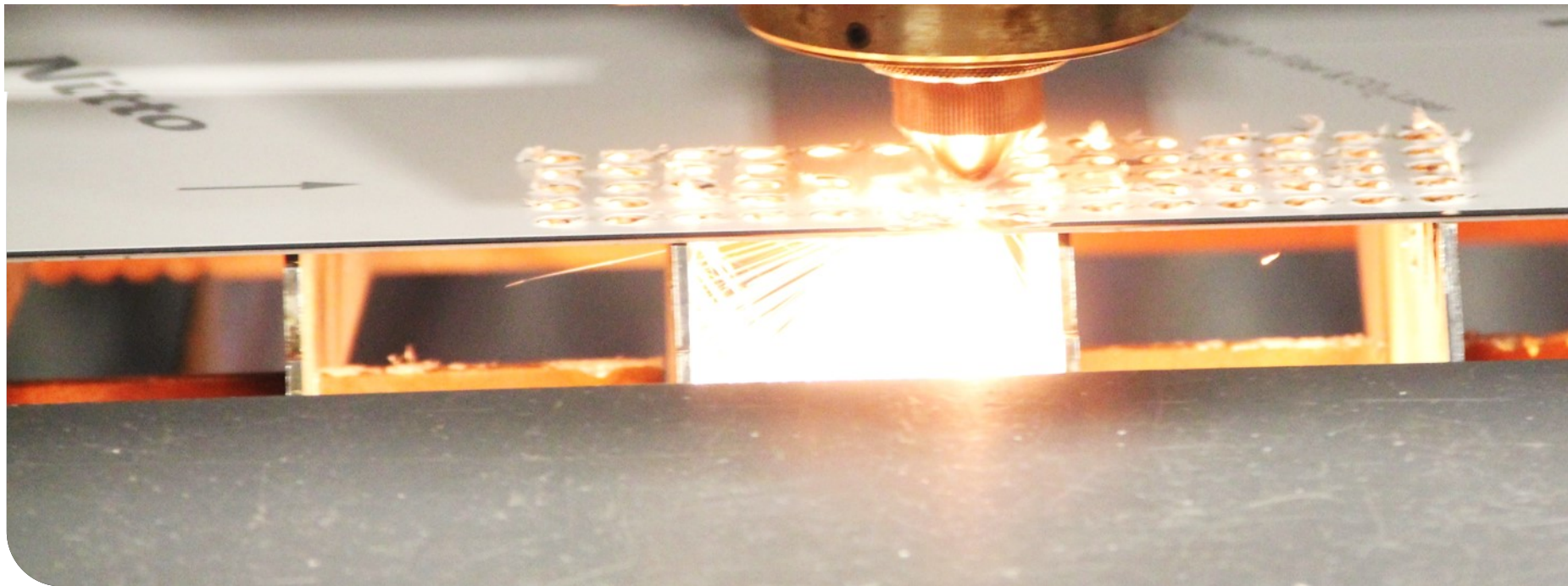
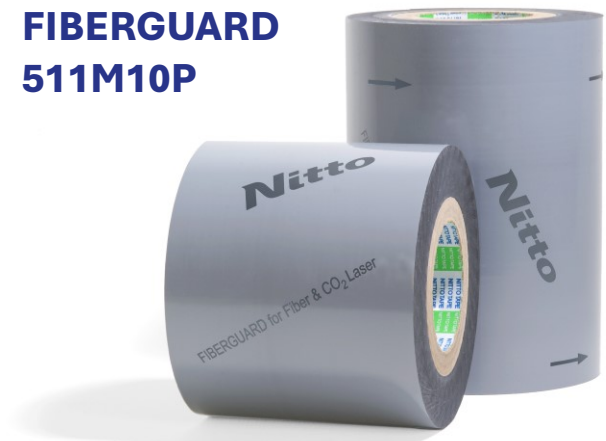
Key Benefits

- **10% higher laser-absorbent PE film vs competition:** The opaque PE-film ensures an efficient absorption of laser light allowing for high-speed laser cutting improving the output units per hour.
- **35% faster processing time:** FIBERGUARD 511M10P offers the perfect balance of adhesion and operational efficiency. Its medium adhesion ensures more secure laser cutting of smooth, large stainless-steel panels, while enabling fast, residue-free removal after processing. This results in reduced downtime, faster turnaround, which yields higher productivity without compromising quality.
- **Release coating and print:** The film contains a release coating to make unwinding from the tape roll easier. Additionally, the printed Nitto logo and arrows help indicate the lamination direction.
- **Up to to 50% reduction in carbon footprint** through the contribution of up to 30% bio-circular feedstock, certified by ISCC+ mass balance approach, while maintaining 100% product quality and functionality.

Conclusion

Nitto's commitment to innovation and quality ensures that our FIBERGUARD series provides reliable and effective solutions for the metal laser cutting industry. By using a high laser-absorbent film in combination with a strong rubber-based adhesive, our FIBERGUARD series stand out as a trusted choice by laser machine manufacturers.

**FIBERGUARD
511M10P**



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