



# LAMIsport X-treme

Extremely light – Extremely strong – Extremely efficient

## LAMILUX – Europe's leading producer of fibre reinforced plastic sheets

LAMILUX produces fibre-reinforced composites on four production lines using an industrial flat sheet process. LAMILUX composites are extremely durable, yet very light construction materials. The versatile materials are constantly used for new applications in the dynamically growing field of lightweight design.



» Inspiring customers around the world with innovative and creative product solutions is the driving force of our company. At LAMILUX, we live this motto every day by orienting our actions towards the needs and requirements of our discerning customers. They assume a central position in our corporate philosophy. «

**Dr. Heinrich Strunz,**  
third-generation managing director of LAMILUX Heinrich Strunz GmbH



### The LAMILUX CI Philosophy

Customer value is the reason for our existence and the focus of our activities. This requires harmony, identity and a balance between customer value and company strategy.

These guiding ideas for our company's actions and our day-to-day relationship with our customers are set out in LAMILUX's company philosophy:

#### Customized intelligence - Serving the customer is our first priority:

This requires outstanding performance and leadership in all areas relevant to customers, particularly as:

- A quality leader - for the highest customer benefit
- A leader in innovation - for always being ahead in technology
- A leader in service - for fast, straightforward, reliable and friendly communication
- A leader in expertise - for the best technical and commercial advice on the market
- A leader in solving problems - for custom made solutions



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# LAMILUX Composites – High-Tech materials for skis and boards

With its two new fibre-reinforced composites, LAMILUX is revolutionizing the properties and manufacturing processes of boards and skis for summer and winter sports: The high-tech materials LAMIsport X-treme and LAMIsport X-treme<sup>4inOne</sup> made of glass and/or carbon fibre reinforced composites are the layers in the top and bottom chord of the compact sandwich structures. This results in:

- up to 15 percent less weight
- extreme strength and stiffness for sports equipment
- high UV resistance
- directly printable surface
- no need for additional layers thanks to the integrated topcoat, enabling a more efficient production process



## LAMIsport X-treme High-strength, torsion-resistant composite

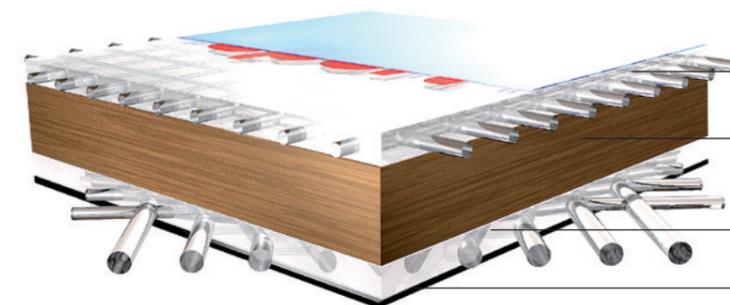
The best suitable material for the bottom chord of lightweight sports equipment:

- maximum-strength due to high content of glass or carbon fibres
- optimum flexibility and elasticity through the resilient matrix-resin system
- in translucent design to highlight features such as high-quality wooden cores
- in white design to highlight features such as neon-coloured running surfaces

## LAMIsport X-treme<sup>4inOne</sup> Four layers combined into one

LAMIsport X-treme with its optional topcoat 4inOne replaces the multiple layers used as top chords of conventional sports tools and their production processes. The following functions are combined into one single layer:

- innovative protective film that protects the top chord against scratching during all process steps
- printable top sheet with smooth UV resistant surface
- chemical compound instead of an adhesive film
- construction layer including reinforcement fibres



LAMIsport X-treme<sup>4inOne</sup>

Core material

LAMIsport X-treme

Running surface

Board structure

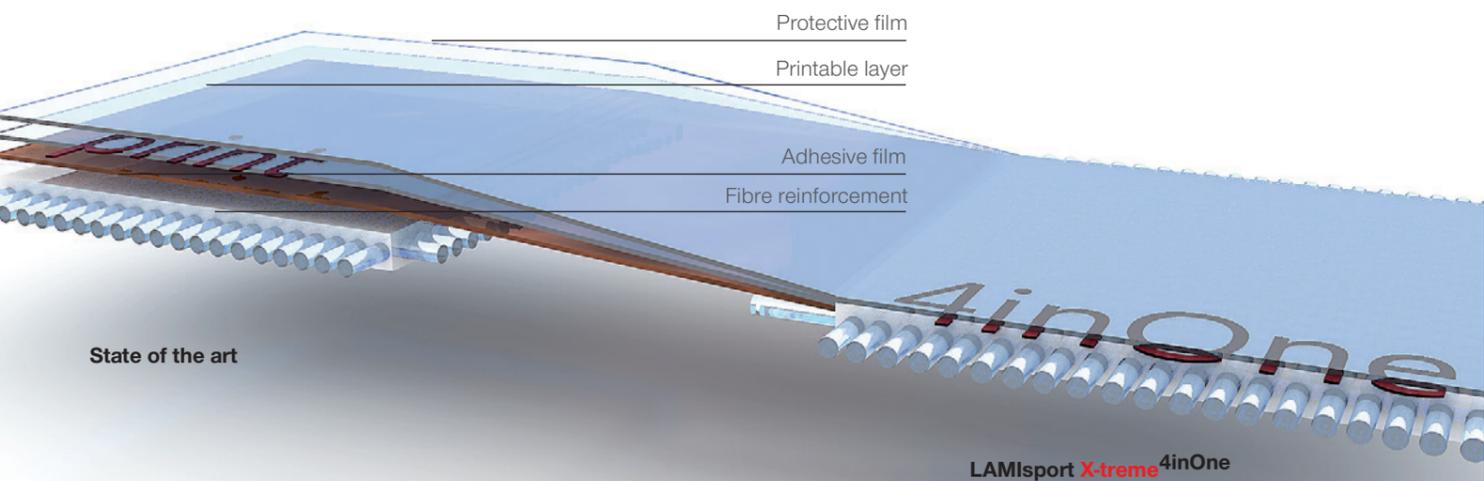


## LAMIsport X-treme<sup>4inOne</sup>

The top chord of boards or skis consists of just one layer when LAMIsport X-treme<sup>4inOne</sup> is used. It combines the following functional layers:

1. Process-outlasting protective film
2. Printable UV resistant topcoat
3. Chemical compound (instead of an adhesive film)
4. Reinforcement layer (top chord)

LAMIsport X-treme<sup>4inOne</sup>



State of the art

LAMIsport X-treme<sup>4inOne</sup>

### **BENEFIT: direct surface printing and process-outlasting protective film**

The surface can be printed with the protective film already applied. Sublimation printing allows colour particles diffusing directly into the surface. The process-outlasting protective film can remain applied during all production stages that follow.

### **BENEFIT: classy, smooth, UV-resistant surface**

A special coating provides the high-gloss surface with UV protection. As LAMILUX manufactures its fibre-reinforced composites using a continuous flat sheet process, surface finishing takes place during production itself.

The optional **4inOne** topcoat is chemically inseparable bonded with the high-strength LAMIsport X-treme basis.

### **BENEFIT: attractive and versatile appearance**

LAMILUX supplies the material in white and many other colours, as well as in a translucent version for use in combination with high-quality wooden cores. The carbon-fibre reinforced material has an aesthetically pleasing appearance with the woven structure visible on the boards or skis surface.

### **BENEFIT: noticeably less weight while providing a higher degree of stability**

The new fibre-reinforced composites are revolutionizing the properties of boards and skis. Its use as top and bottom chords enables up to 15 percent less weight while remaining as sturdy as before maintaining its stability.

## LAMIsport X-treme material properties

Variable fibre reinforcement for individual requirements

The skis and boards owe their extreme stiffness and low weight to the structure of the material as a high-strength and stable composite layer made of carbon and/or glass fibres and matrix resin.

- Arrangement of fibres in uniaxial, biaxial or triaxial alignment
- The alignment, fibre type and fibre content are optimally harmonized to fulfill future load requirements
- Robust and flexible epoxy resin system
- Ideal material for the construction of lightweight sports equipment



**Uniaxial**  
[0°]

Uniaxial reinforcement for maximum performance lengthwise



**Biaxial**  
[0°/90°]

Biaxial reinforcement lengthwise and laterally for balanced performance



**Biaxial**  
[-45°/+45°]

Biaxial reinforcement for good torsion performance



**Triaxial**  
[-45°/0°/+45°]

Triaxial reinforcement for maximum lengthwise and torsion performance

## LAMIsport X-treme material variants

A variety of materials for all requirements

- Producible material thicknesses: 0.3 to 2.0 millimetres
- Producible sheet widths: up to 3.2 metres
- Supplied in sheets or as coils
- Material colour: translucent and white as well as further colours upon request
- Surfaces: smooth, sanded and both sides sanded
- UV resistance: optional top layer
- Printing: surface can be printed using sublimation printing (dye printing) and all standard printing techniques
- Protective films: print-through protection film or transport protection film



LAMIsport X-treme Carbon

LAMIsport X-treme Translucent

LAMIsport X-treme White



## Gain **competitive edge** with LAMILUX

- We create your unique selling points. Our engineers and technicians work in close collaboration with you to produce customised and industry-specific product solutions.
- As Europe's market leader, we have extensive production capacities which guarantee supply reliability.
- Our highly automated, continuous manufacturing processes always create reproducible material variants in the very highest, unvarying quality.

# LAMILUX Composites – Individual solutions for your areas of application



The specifications in this brochure are based on our current knowledge and experience. They are not a guarantee of technical characteristic features in the scope of specifications. Due to the wide range of use parameters, users themselves are responsible for testing that the product is suitable for their particular required use. Changes and errors excepted.



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