

# Hemp lumber



**Strumber® hemp lumber** is an innovative substitute for traditional solid wood, widely used in joinery for the production of interior and finishing elements.

- It helps reduce pressure on domestic forest resources while enabling the full use of hemp by valorising straw – a by-product of cultivation – thereby supporting the agricultural sector.
- The material is processed in a way similar to solid wood, which makes it perfectly suited for manufacturing products such as furniture, interior fittings, stairs, flooring, as well as wall and ceiling decorative elements.
- Strumber is a bio-based material, made from natural raw materials and safe, formaldehyde-free binders. Thanks to this, it can be used in spaces that require high health and safety standards, such as homes, kindergartens, schools, and offices.



## Product advantages



Pleasant, natural texture that serves as an ideal alternative to solid wood



Yield of 90–100%



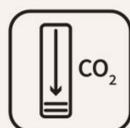
Three unique structures within a single beam



Joinery and finishing processing comparable to standard wood



A production technology based on easily renewable natural raw materials



Increased sustainability of finished products (lower carbon footprint)



A fully biodegradable raw material



Densities comparable to solid wood

## Hemp beams

### DIMENSIONS

Width: 170 mm  
Height: 170 mm  
Length: 2550 mm

### TOLERANCES

Width: ±1 mm  
Height: ±1 mm  
Length: +50/0 mm

### PERMISSIBLE DEVIATIONS

Right angle: ±2 mm/m  
Edge straightness: ±1,5 mm/m

### DENSITY (±10%)

DENSITY (±10%)	WEIGHT
Strumber Hemp 500 kg/m <sup>3</sup>	36,9 kg
Strumber Hemp 550 kg/m <sup>3</sup>	40,5 kg
Strumber Hemp 750 kg/m <sup>3</sup>	55,3 kg
Strumber Hemp 900 kg/m <sup>3</sup>	66,3 kg



## Hemp planks

### DIMENSIONS

Width: 170 mm  
Thickness: 40 mm  
Length: 2550 mm

### TOLERANCES

Width: ±1 mm  
Thickness: ±1 mm  
Length: +50/0 mm

### PERMISSIBLE DEVIATIONS

Right angle: ±2 mm/m  
Edge straightness: ±1,5 mm/m

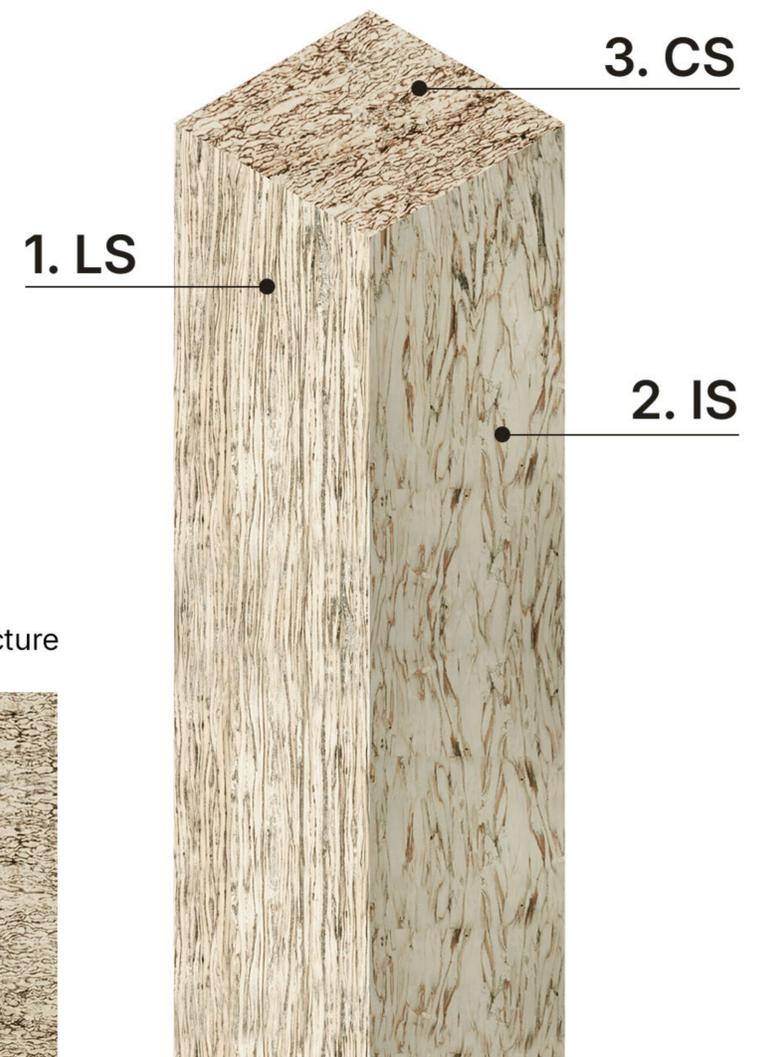
### DENSITY (±10%)

DENSITY (±10%)	WEIGHT
Strumber Hemp 500 kg/m <sup>3</sup>	8,7 kg
Strumber Hemp 550 kg/m <sup>3</sup>	9,5 kg
Strumber Hemp 750 kg/m <sup>3</sup>	13,0 kg
Strumber Hemp 900 kg/m <sup>3</sup>	15,6 kg



Strumber® is characterised by three distinct visual structures, which expand its design possibilities and allow the surface appearance to be tailored to the final application.

Protected industrial designs, including flooring, facade, and wall boards, have been registered as Community designs with the European Union Intellectual Property Office (EUIPO).



1. Linear structure



2. Irregular structure



3. Cross-section structure



Density ±10% according to PN-EN 323	750 kg/m <sup>3</sup>	900 kg/m <sup>3</sup>
Moisture content according to PN-EN 322	9-11%	9-11%
Modulus of elasticity in static bending E according to PN-EN 310	7 630 MPa	9 091 MPa
Static bending strength Rg according to PN-EN 310	40,7 MPa	65,9 MPa
CO <sub>2</sub> absorption per m <sup>3</sup> of raw material	1407 CO <sub>2</sub> /m <sup>3</sup> dry raw material	1689 CO <sub>2</sub> /m <sup>3</sup> dry raw material
Biodegradability	Yes	
Bio-based	Yes	
VOC	No added volatile organic solvents	
Formaldehyde emission	No additional formaldehyde emissions	



Transparent  
environmental impact



Negative carbon footprint



No additional  
formaldehyde emissions

## Joinery processing

Strumber can be processed on standard joinery machines, similarly to solid wood. Due to its fibrous structure, proper selection of tools and working parameters is essential.

### Cutting

Tools	band saws for solid wood, circular saws with carbide tips
Guidance	when cutting finishing elements, use a scoring blade to achieve a clean bottom edge

### Planing and thicknessing

Tools	system planer knives, e.g. TERSA
Guidance	machine along the grain; cutting depth 0,5-1,0 mm

### Milling

Tools	solid carbide compression cutters (VHM), spiral cutters
Guidance	guide the cutter in a direction that "compresses" the fibres; remove fine fibres by sanding

### Sanding

Tools	corundum sanding papers and belts
Guidance	grit 100–120; sand along the grain; interlayer sanding is mandatory

## Transport and storage

Strumber should be stored at a temperature of 10–25°C in dry and well-ventilated rooms, under conditions that protect it from precipitation, moisture, and direct sunlight.

During transport, the use of covered vehicles is recommended. Before processing, the material should be acclimatised at the production site for a minimum of 24 hours.

## Waste management

Waste generated during the processing of Strumber should be managed in the same way as waste from wood-based materials. The material is fully biodegradable, and further waste handling should comply with applicable local regulations.

## Research centres

The properties and performance characteristics of Strumber are evaluated in collaboration with independent, reputable research institutions.



Wood-Based Panels Industry  
Research and Development  
Centre in Czarna Woda



Medical University of Lublin



Kazimierz Wielki University  
in Bydgoszcz

## Surface finishing

Strumber is fully compatible with standard woodworking chemicals used for solid wood and can be finished with oils, hardwax oils, stains, and water-based, acrylic, polyurethane (PU), or UV-cured lacquers. Due to its natural porosity, thin applications and mandatory interlayer sanding are recommended.

The material absorbs pigments effectively, making it possible to achieve a wide range of stain colours while maintaining the visible fibre texture.

Where improved fire performance is required, surface fire-retardant treatments designed for lignocellulosic materials can be applied.



strumber®

part of  GREEN  
LANES

**This is not wood!**

The True Green S.A.  
ul. Tomaszowska 19  
22-604 Tarnawatka-Tartak  
Poland  
VAT ID (NIP) 713 312 69 91

strumber@greenlanes.pl  
+48 600 497 605



strumber.eu