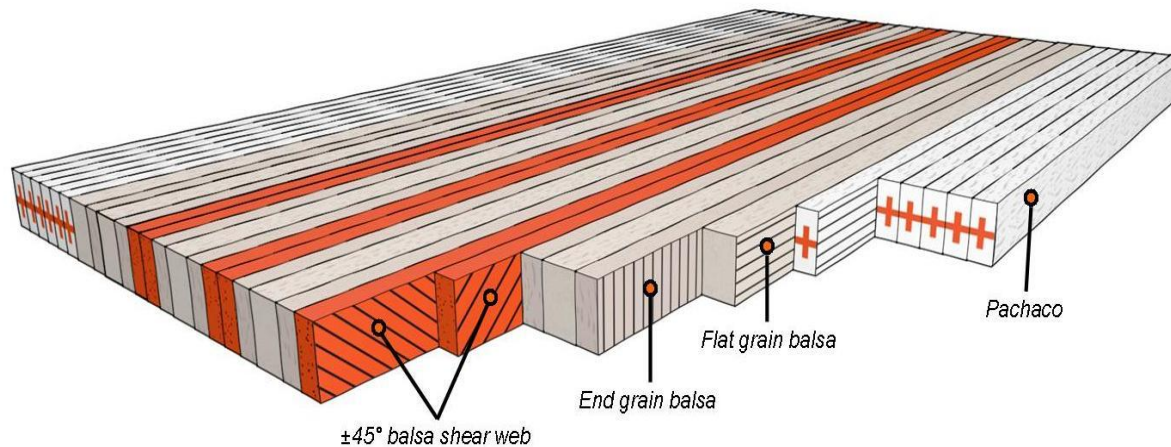


## bCores<sup>®</sup> QX+ Sb



### Mechanical properties on the core width

Density*	260 kg/m <sup>3</sup>
Compression modulus z	1080 MPa
Compression strength z	6.4 MPa
Shear modulus xz	290 MPa
Shear strength xz	4.1 MPa
Flexural modulus x	2860 MPa

x direction is length direction parallel to ribs  
 y direction is width direction  
 z direction is out of plane direction

\* All these values are average values for the complete core. As the high-density fern tree stands on the sides, it is mostly removed when the sidecut is machined. Once machined, a minimum hard wood side wall thickness of 20 mm will remain. Thus the actual density of the core in final shape will be in the range between **240-250 kg/m<sup>3</sup>**.

### Product description

bCores<sup>®</sup> QX+ SB is a structural core suitable for composite applications. The core is made of balsa plywood orientated in 4 different directions (quadri-axial), which significantly improves mechanical properties, especially fatigue and long-term shear properties in length direction. The sidewalls are reinforced with 320 kg/m<sup>3</sup> pachaco. The combination ensures the best weight to solidity ratio, with exceptionally high compression strength and stiffness, which guarantees good bending properties of the core. The patented bCores<sup>®</sup> QX+ SB construction delivers constant quality and density.

### Processing guidelines

- The QX+ SB core can be used in any classical manufacturing method (contact molding (hand/spray), vacuum infusion, resin infusion / injection (VARTM / RTM), adhesive bonding, Pre-preg processing, compression molding (GMT, SMC)).
- Compatible with most standard resins.
- Processing temperatures up to 15°C and manufacturing pressure up to 15 bars can be used.
- Please consider our process guidelines.

### Dimensions

Standard widths: 320 mm  
 Thickness: 2-1220 mm  
 Maximum length: 3070 mm  
 Standard lengths: 1530, 1800 mm

### Core construction

Number of ± 45° shear web: 4  
 Wood types: 72% BANOVA<sup>®</sup> balsa, 28% Pachaco tree.  
 FSC certified.

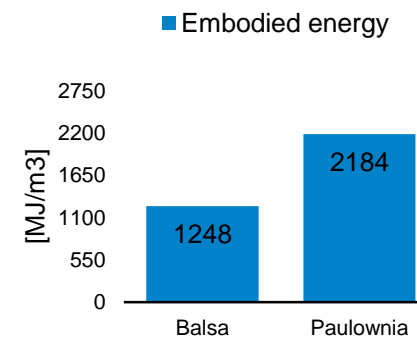
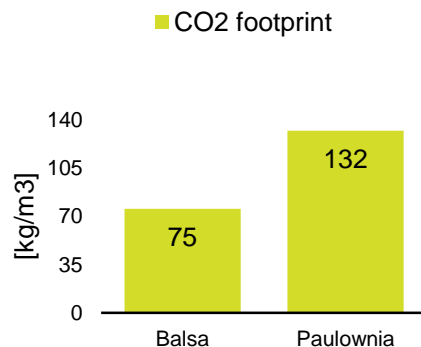
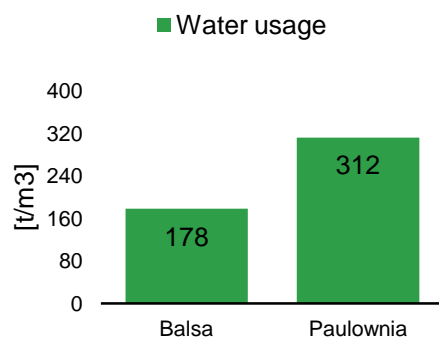


## Ecological aspects

Both balsa and pachaco are among the fastest growing trees in the world

They are FSC-certified, compliant with FSC criteria, which include e.g. taking care of indigenous peoples' rights, maintain biodiversity, resources and landscapes.

Regarding water usage, CO<sub>2</sub> footprint and embodied energy, balsa and pachaco have an overall environmental impact about 40% lower than paulownia wood.



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