Scrimber CSC

Producing load-bearing and CO_2-storing building materials

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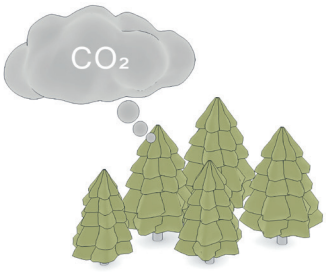
Carbon Sink Concrete

Scrimber process

From forest to building

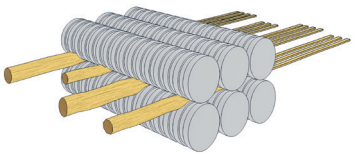
Trees store up to 20 tonnes of CO_2 as they grow. Using the scrimber process, the tree trunks and branches are rolled and processed into construction products. The CO_2 originally stored in the wood, remains stored in our products.



1

Trees grow

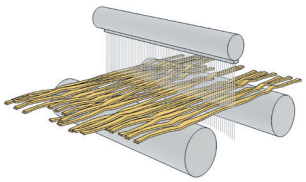
Through photosynthesis, trees extract large quantities of CO_2 from the atmosphere and turn it into wood, our raw material of the future.



2

Rolling tree trunks

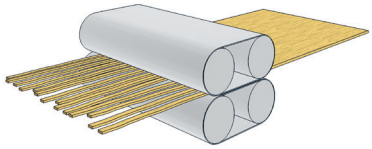
Tree trunks are passed through several pairs of rollers and shredded into individual wood splinters. The fibre strands remain intact



3

Glue the fibres

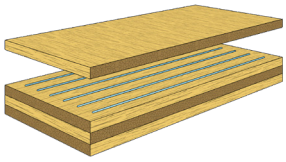
The wood splinters (scrims) are dried and mixed with adhesive. The aim is to use a bio-based adhesive.



4

Produce raw panels

The glued splinters are pressed into scrimber boards. They are suitable for further processing into building products.



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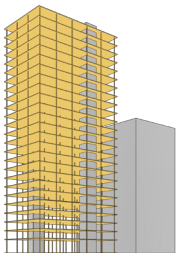
Manufacture building products

Glulam and cross-laminated timber manufacturers process the scrimber raw panels industrially and cost-effectively into wooden building products.



6

Replacing steel and concrete

Scrimber can be used to create columns, beams and slabs for the load-bearing area. They replace reinforced concrete.

Bern University of Applied Sciences as a competent research partner

Bern University of Applied Sciences BFH is one of the world's leading wood technology research institutions. As a competent research partner, it plays a key role in the Scrimber project. The Institute for Materials and Wood Technology (IWH) at BFH is the ideal partner for the successful development of scrimber technology thanks to its many years of experience, specialist expertise and the infrastructure it provides.

Association IG Scrimber

The IG Scrimber interest group brings together various national and international players such as forest owners, wood processing companies and potential local communities, thus helping to develop scrimber technology quickly and efficiently.

Would you like to become part of IG Scrimber?
We look forward to receiving your application!

Berner Fachhochschule
Haute école spécialisée bernoise
Bern University of Applied Sciences

IG Scrimber
Verein Interessensgemeinschaft Scrimber

Scrimber CSC

Absorbing CO_2 and transforming it into building materials

Scrimber technology is being developed to provide a sustainable alternative to concrete, steel and bricks in the construction industry, as their production is very resource-intensive and large quantities of climate-damaging CO_2 are emitted.

Conventional engineered wood products are typically made from high quality solid sawn timber. However, their production generates a significant amount of secondary assortments and sawmill residues, which have remained largely unused until now, often ending up as fuel for thermal energy (incineration), releasing CO_2 stored over decades back into the atmosphere.

The advantages of scrimber technology

Efficient use of resources
Up to 90 % of a felled tree can be processed into load-bearing components in the long term, which means that the carbon bound in the wood remains stored for decades and serves as a CO_2 storage.

Cost savings
The continuous scrimber production process offers a cost-effective, homogeneous wood-based material that helps to minimise risk of resource shortages and enables large-scale timber construction projects.

Utilisation of raw materials
Unutilised raw material sources such as branches, thinnings and sawmill residues keep raw material costs low and offer additional income opportunities for forest owners and the sawmill industry.

Improved strength
In contrast to conventional wood based materials, where wood fibres are chipped without regard for the natural fibre orientation, scrimber technology increases the tensile and compressive strength of the boards by means of a crushing process that preserves the original wood structure.

Flexibility
The scrimber technology can be flexibly adapted to future tree species, which supports the transition of forests into climate-resilient mixed forests.

Overall, scrimber technology offers a sustainable and cost-effective solution for the construction industry and helps to store the carbon in wood in the long term and maintain healthy forests.

«Do you have any questions about Scrimber? Please feel free to contact me.»

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