



Specialty heartwood timber from oversized Scots pine logs

Natural Scots pine heartwood is a valuable resource because of extractives, which make it moisture and decay resistant. The older and larger the tree gets, the more heartwood it contains. Most of the sawmills are unable to saw oversized logs rich in heartwood and thus the fate of the valuable logs would be in energy production as wood chips.

Since 1994 the family owned business Finnstamm Oy has been specialized to saw extra large knot-less butt logs of Scots pine. According to the Scandinavian standards those logs are oversized for other sawmills. The logs come from PeFC-certified sources and are sawn to high quality heartwood timber for the woodworking and furniture industry. Dimensionally stable solid heartwood material without any adhesive layers is especially suitable for window and door frames.

For the sawing, the butt logs with high heartwood proportion are selected and then guided through metal detector. The butt end is reduced and debarked and got through an extra large horizontal saw and circular saw. The saw may be used to radial cutting, which makes the timber more weatherproof and increases the durability.

A customer specifies the drying method, which can be performed in a three-chamber hot air drying kiln or in open-air. The dry timber is guided to cut-off line and planing, if needed. After packaging the product is ready to be dispatched to the customer.

Use of durable wood in constructions increases the storage time of carbon and provides foundation for the recovery of wooden building materials. Now that the era of hazardous super-effective wood preservatives is over, more benign solutions are searched for to attain optimal durability. Durability related characteristics of Scots pine heartwood have been studied in Natural Resources Institute Finland (Luke).



KEY WORDS

sustainability, technological innovations, practices, small and medium-sized industry, rural areas

COUNTRY/REGION

AUTHORS

Heikki Rytönen (Finnstamm)
Anni Harju (Luke)
Martti Venäläinen (Luke)

DISCLAIMER

This Practice Abstract reflects only the author's view and the Branches project is not responsible for any use that may be made of the information it contains.

DOWNLOAD

www.branchesproject.eu

ADDITIONAL INFORMATION

Favourable properties of Scots pine heartwood:

- durability against decay and moulding
- moisture resistance
- dimensional stability
- aesthetic appearance
- antibacterial properties

Applications in buildings and constructions:

- claddings, patios, and furniture prone to rain and moisture
- window and door frames
- massive log houses
- engineered building elements (beams, plywood, LVL, CLT)
- utility poles (only sapwood layer needs impregnation)

Contact information: <https://finnstamm.fi/index.php/en/company-gb>

Coordinator: Johanna Routa - (Luke) johanna.routa@luke.fi

Dissemination: itabia@mclink.it



ABOUT BRANCHES

BRANCHES is a H2020 “Coordination Support Action” project, that brings together 12 partners from 5 different countries. The overall objective of **BRANCHES** is to foster knowledge transfer and innovation in rural areas (agriculture and forestry), enhancing the viability and competitiveness of biomass supply chains and promoting innovative technologies, rural bioeconomy solutions and sustainable agricultural and forest management.



This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No. 101000375.

THE PARTNERSHIP

