



LIGHT, CLEAN AND FAST-GROWING

Nordic Lodgepole Pine



About SCA and sustainability

SCA is Europe's largest private forest owner, managing 2.6 million hectares of forests, mires, lakes, and mountains in northern Sweden. We also own land in Estonia, Latvia, and Lithuania. As a major forest owner, we are responsible for conducting forestry that balances many different values. This means that we combine a high level of renewable raw material production with extensive consideration for biodiversity, reindeer herding, outdoor recreation, and much more.

The forest is at the core of SCA's operations. SCA has built an integrated and well-invested industry around this renewable resource, utilizing and maximizing the value of the entire tree. Using this raw material, SCA develops products for customers all around the world.

RESPONSIBLE FORESTRY

The forest forms the foundation of SCA's operations and correctly managed it is a perpetual resource. Our goal is to responsibly manage our forests so they are at least as rich in biodiversity, nature experiences and raw material in the future as they are today.

FOSSIL-FREE WORLD

The forest binds large amounts of CO₂ when it grows. But it also yields substantial climate benefits when it has been harvested, as forest products replace fossil alternatives so the use of oil and coal can be phased out. The products also store carbon throughout their lifecycle. In 2024, SCA contributed a total climate benefit of 12.3 million tonnes of CO₂e. This corresponds to more than one quarter of Sweden's fossil emissions.

100 MILLION PLANTS THAT ABSORB CARBON DIOXIDE

Establishing new forests after harvesting is crucial for forestry. At SCA's tree nursery operations, NorrPlant, we lay the foundation for the next generation of forests. Each year, over 100 million seedlings see the light of day at our own tree nurseries.

OUR CLIMATE IMPACT – TRANSPARENT AND TRACEABLE

With SCA Wood's own EPDs and a thorough mapping of our entire value chain – from the forest, through our sawmills, and all the way to the customer – we now have full insight into the climate impact of our sawn timber products. Read more about EPD at sca.com/en/wood/sustainability/our-footprint/

EUDR - EUROPEAN UNION DEFORESTATION REGULATION

The Deforestation Regulation (EUDR) aims to prevent trade in goods that contribute to deforestation and forest degradation around the world. The purpose is to ensure that products imported, exported, or sold within the EU have not contributed to deforestation or forest degradation. SCA welcomes this initiative and is now working to ensure traceability related to wood and fiber products as well as solid biofuels. The regulation applies to those who produce, import, or sell relevant products in the EU internal market or export these products from the Union.

According to the regulation, SCA must apply so-called "due diligence" throughout the entire value chain. This is done by collecting geolocation data (where the trees have grown and been harvested) and then analyzing the risk of deforestation and forest degradation.

To meet the requirements set forth in the EUDR, it is necessary to further develop IT systems throughout the entire value chain, from forestry to finished products. SCA has been working for some time to ensure that IT systems can manage data collection, information flow, and the connection to the EU database to which logging data must be reported. Feel free to contact us if you have any questions about DDS, reference or verification numbers or anything else you'd like to discuss. We want to assure you that SCA is taking all necessary steps to make sure EUDR will not impact how we do business together.

sca.com/en/sustainability/eudr-and-sca/

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High quality wood products that create climate benefits

HIGH-EFFICIENCY PLANTS

From our forests, we've developed the art of producing sawn wood products in the northern part of Sweden for generations. Today, our products reach customers all over the globe and project by project each piece contributes to the formation of a more sustainable future built out of wood.

Bollsta sawmill is one of SCA's largest and one of Europe's most efficient sawmills. The company is working to improve efficiency and competitiveness for all production units. At the Munksund and Rundvik sawmills, a study is underway concerning a potential investment to increase production and enhance competitiveness. The Tunadal sawmill has recently been approved for a new production permit that would allow for the continued development of production and efficiency.

Located on the island of Öhn in Gällö, Gällö sawmill is the largest in Jämtland in terms of production volume. With roots dating back to 1879, the sawmill has played a key role in Jämtland's forest industry for nearly 150 years. SCA became a part-owner of Gällö in 2010, in 2024 Gällö became a fully integrated part of SCA.

The mill produces approximately 350,000 cubic metres of sawn wood annually, using spruce, pine and lodgepole pine. Deliveries are made to customers in Sweden and Norway, as well as exports to Europe, North Africa and China.

SCA WOOD MARKETS

The global market for softwood solid-wood products is about 350 million m³, the majority of which is used in traditional construction and renovation. Long-term demand is expected to grow by approximately 2 % per year.

The European market for softwood solid-wood products amounts to approximately 100 million m³. SCA's share of this is approximately 2 %. The market is characterized by a large number of mid-sized and small suppliers that target different products and geographic markets.

SCA Wood produces from wood species: Spruce, pine and nordic lodgepole pine.

CAPACITY

MUNKSUND, PITEÅ

Solid-wood products: 400,000 m³/year

RUNDVIK, NORDMALING

Solid-wood products: 320,000 m³/year

BOLLSTA, KRAMFORS

Solid-wood products: 600,000 m³/year

TUNADAL, SUNDSVALL

Solid-wood products: 600,000 m³/year

GÄLLÖ, BRÄCKE

Solid-wood products: 360,000 m³/year

WOOD PROCESSING AND DISTRIBUTION

Planed products: 600,000 m³/year

Distribution to building materials trade:
Scandinavia | France

SCA Wood plants

- 1. Munksund sawmill
- 2. Rundvik sawmill
- 3. Bollsta sawmill
- 4. Gällö sawmill
- 5. Tunadal sawmill
- 6. Stugun planing mill
- 7. Bollsta planing mill
- 8. Tunadal planing mill



About Nordic Lodgepole Pine

The Nordic Lodgepole pine, made out of the contorta pine, has amazing growth and is also highly resistant to several diseases and fungal attacks that can strike Swedish pines. The rapid growth also offers major climate benefits, as it so quickly binds the carbon dioxide.

When the North American contorta pine was first planted in Sweden in the 1970s, it was with a clear objective in mind: to restore balance to forest stocks as quickly as possible, thus ensuring the long-term availability of raw materials. Today, just over 50 years later, SCA is ready to introduce this new tree species to the market and begin large-scale production of sawn timber products in Lodgepole pine.

Although the contorta pine has long been one of the most common and most popular tree species on the other side of the Atlantic, only now is the Swedish stock reaching a harvestable age, marking the end of one chapter and the beginning of another. Having experimented, tested and built up a knowledge bank in anticipation of larger volumes of mature timber, everything is now in place to start scaling up the production of sawn timber products from lodgepole pine.

CAPACITY

300 000 hectares. Equivalent to half of Sweden's forest area under active management. We regenerate 25% of the area annually, and the forest grows faster compared to spruce and pine. Production of sawn lodgepole pine at Gällö Sawmill. Nordic Lodgepole Pine grows 15% faster and thereby binds 800 000 ton additional than the alternative species.

APPLICATIONS

Exterior and interior cladding, studs, decking, glued panels, heat-treatment, knot-free components (knot-cut and finger-jointed).

GRADING

Homogeneous appearance graded into three quality levels: US-V or SF, and 6th and 7th grade similar to spruce.

LENGTHS

Primarily 4.2 m and 4.8 m, with full back lengths to 3.9 m and 4.5 m.

VOLUME

Annual capacity: 120,000 m³ of roundwood, 60,000 m³ of sawn timber.
Possible growth.

FUTURE-PROOFED PRODUCTION AT GÄLLÖ SAWMILL

Nordic Lodgepole Pine grows in SCA's own forests and currently makes up X% of our forest holdings, alongside Scots pine and spruce. With advanced log optimization technology, we ensure maximum yield from every tree. Our sawmill operations have been streamlined through a new length program, focusing on 4.30 and 4.90 meter logs. We've also invested in expanding kiln capacity to meet rising demand. At the grading mill, AI-powered camera technology from FinScan allows for precise board inspection from both sides without rotation, improving both accuracy and efficiency across production.

SCA WOOD

PRODUCT PORTFOLIO

SCA is currently grading Lodgepole pine in three main grades with related B-grades. The portfolio can be updated and all products might not be available for all markets.

Centercut	US-V KD18%	SF 1-6* KD18%	SF KD 8-10%	6th	Schaal	7th
32x125		X				X
42x92		X				X
44x125	X			X		X
47x100	X			X		X
47x125	X			X		X
47x150	X			X		X
50x150			X	X		X
75x150		X				
95x95		X				X
Side boards						
19x75		X			X	X
19x100		X			X	X
25x100		X			X	X
25x125		X			X	X
28x100		X			X	X
28x115		X			X	X
32x100		X			X	X

* SF 1-6 , better 6th

Products in the above table are available in the following length specification. Sideboard dimensions trend toward a shorter average length distribution than center cut.

SCA Lodgepole Pine length program 2025

Lengths	3,6m	3,9m	4,2m	4,5m	4,8m
Share of volume	5%	10%	35%	10%	40%

Future possible grading

- Stress graded C16 (C24) for construction
- Sound knot grading for panels and heat-treated products.

The advantages of using Nordic Logepole Pine

Nordic Lodgepole Pine has sound knots, a light color, and a low weight free from checks. It is also possible to have it heat treated, which makes it more stable, protected from rot, and requires less maintenance.

SOUND KNOTS

The growth rate of the lodgepole pine means that the distance between branch whorls is much longer than on Swedish pine. The percentage of sound knots is higher and the share of black knots is low

EASY TO PROCESS

The species features soft, straight fibers with a subtle grain pattern on the sideboards. Its color is noticeably lighter than Swedish pine.

LOW WEIGHT AND FREE FROM CHECKS

Lodgepole pine has a lower density than Swedish pine, averaging 420 kg/m³. It meets the standard requirements for C-grade structural classification.

SCAN FOR PICTURES



SCA WOOD



Nordic Lodgepole Pine opens up new opportunities

Norsk Limtre leads the way

Norsk Limtre is a company with a long tradition in glulam production, offering a wide range of products from interior paneling to decking. Since the early 1990s they have been a customer of SCA, and today they are looking at new ways of using Lodgepole Pine. This partnership combines experience with innovation to develop the wood products of tomorrow.

- Testing Lodgepole Pine gives us valuable insights and opportunities for new products. We always appreciate the chance to develop new innovations, says Ragnar Berg, CEO of Norsk Limtre.

SCA WOOD

FOUR YEARS OF VALUABLE EXPERIENCE

Norsk Limtre began working with Lodgepole Pine four years ago, after being introduced to the material during a visit to SCA's sawmill in Bollsta.

– We asked ourselves: can Lodgepole Pine be used for the same types of products we normally manufacture from Scots Pine? Ragnar explains.

This led to a three-year research project where Norsk Limtre has tested Lodgepole Pine in interior paneling, exterior cladding, and furniture components, with very promising results so far.

STRONG POTENTIAL AND ROOM FOR OPTIMISATION

The combination of lower weight and an attractive knot pattern makes Lodgepole Pine suitable for a wide range of product groups. This is clearly visible among Norsk Limtre's customers, who see potential in everything from furniture and interior paneling to coffin production, where the lighter weight simplifies both handling and the end use of the product.

– Our customers are curious and open to trying new things. It's a clear sign that we're heading in the right direction, Ragnar says.

But the wood also presents challenges. Internal stresses in the wood can sometimes cause twisting or warping during processing. To address this, SCA and Norsk Limtre are working together to optimize the drying process, making the material easier to work with.

– The results are promising, but the process can be demanding. As we gain better control over drying and internal stresses, we believe the outcome will be excellent, says Ragnar.



EXPLORING THE FULL POTENTIAL OF LODGEPOLE PINE

For Norsk Limtre, the focus on Lodgepole Pine is about more than today's production, it is a strategic effort to stay ahead. By testing and developing new ways of using this wood now, they can offer a wider product range and meet more customer needs, while strengthening their position as an innovative player in the industry.

– For us, it's about staying at the forefront and continuously developing how we use our raw materials. By continuing to explore the strengths of Lodgepole Pine, we see opportunities to create products that not only meet today's demands but also help shape the future of timber construction, Ragnar concludes.

An innovation that maximizes the potential of raw material

At SCA we see opportunities in developing new applications for our Swedish forest resources. Heat-treated Lodgepole Pine is one result of this innovation process, a product that combines dimensional stability, durability, and an attractive appearance. Through heat treatment, Lodgepole Pine gains properties similar to heartwood, opening up many new areas of use.

– Heat-treated Lodgepole Pine is a way of maximizing the potential of the wood and getting even more out of it. It delivers strong results and offers significant opportunities across many product categories, says Johan Larsson, Business Developer.

HEAT TREATMENT THAT GIVES WOOD NEW STRENGTHS

Heat treatment is carried out in controlled stages at temperatures up to 212°C. The high heat alters the structure of the wood, making it more dimensionally stable. Unlike untreated wood, which can twist, cup, or crack when absorbing moisture, heat-treated Lodgepole Pine retains its shape over time.

– The treatment also improves the wood's resistance to decay, as the sapwood gains properties similar to heartwood, Johan explains.

Heat treatment gives Lodgepole Pine characteristics that make it a strong alternative to traditional materials. This is especially clear in facade shingles, which place high demands on dimensional stability and long-term durability to avoid gaps and maintain a tight facade layer over time. Cedar is often used for this product. But thanks to the improved rot resistance and stability provided by heat treatment, combined with the naturally sound knots of Lodgepole Pine, it is possible to achieve the same technical performance as cedar, while using a locally sourced, non-toxic raw material that eliminates the need for imports.

– Dimensional stability is absolutely crucial for facade shingles. With heat-treated Lodgepole Pine, you get a facade that stays tight and looks good for longer, Johan says.



APPLICATIONS FOR THE FUTURE

According to European building standards for facade materials, heat-treated Lodgepole Pine meets the same fire classification (D) as untreated pine or spruce. If needed, the wood can also be treated with fire retardants to reach even higher classifications.

– Lodgepole Pine has a cell structure that makes it highly receptive to impregnation. This means fire retardants and other treatments can penetrate effectively. The sapwood of Lodgepole Pine absorbs impregnation all the way through the plank, unlike wood with a higher proportion of heartwood, which does not absorb as easily, says Johan.

The demand for heat-treated wood has steadily increased over the past decade, and production capacity has grown in line with this trend.

– We see a growing demand for natural facades with low maintenance, low life cycle costs, no chemical additives, and minimal climate impact – and for this, heat-treated Lodgepole Pine is an excellent alternative, Johan concludes.

SCA WOOD



Visual properties

The share of sound knots is higher in Lodgepole Pine in relation to traditional Swedish Pine. The knot distance in Lodgepole Pine is approximately 35-45 centimeters in comparison with Swedish Pine which is approximately 10-15 centimeters. These properties make Lodgepole Pine suitable in manufacturing knot-free components, skirtings and frames.

Lodgepole Pine is a lighter wood species than Swedish Pine due to the absence of resinous red heartwood. This is of great advantage in treatment with translucent stains, waxes and oils, giving the ready-made panels and skirtings an even-looking surface.

A low share of heartwood is also a plus in gluing finger-jointed products and edge-glued panels. Due to the lack of fat resinous heartwood, adhesion properties are great, and the risk of production deficiencies and later product delamination is lowered.

Equally, a high share of sapwood makes the Lodgepole Pine a suitable wood species for pressure treatment. High sapwood share will give a high uptake leading to a treated product

with great protection, no matter if it is against rot or fire. In time, this property makes it possible to fully use Lodgepole Pine in garden products such as decking, poles, fences and panels.

Mechanical properties

Density, stiffness and bending strength are all grade determining properties, which together define strength class according to EN 338 Structural timber – Strength classes.

Extensive testing of mechanical strength has proven that strength class C16 can be reached using a saw falling specification from the whole of north Sweden. This is well adapted to usage in construction purposes such as inner walls and battens with non-load bearing function. When calculating load-bearing capacity and stiffness, use the characteristic values stated in Eurocode 5,

The lower density (424 kg/m³) makes Lodgepole Pine well suited for use in packaging where low weight is of great interest for cheaper transport and an improved working environment. Low density is also an advantage when nailing and screwing, as the wood does not risk cracking to the same extent as wood with a higher density.

Table: Mechanical properties for Swedish Lodgepole Pine (Pinus Contorta) in comparison with pine (Pinus Sylvestris) and spruce (Picea Abies). MPa = N/mm².

Properties		Pine (Pinus Sylvestris)	Spruce (Picea Abies)	Northern Lodgepole Pine (Pinus Contorta)
Moisture content (%)	II	12	12	12
Basic density (kg/m ³)	II	420	380	380
Density (kg/m ³)	II	470	440	424
Tensile strength (MPa)	II	104	90	80
Bending strength (MPa)	II	87	75	60
Compressive strength (MPa)	II	46	40	33,7
	I	(7,5)	(6)	(7,0)
Shear strength (MPa)	II	10	9	8,2
Hardness (Brinell)	II	4	3,2	3,8
	I	(1,9)	(1,2)	(1,3)
Modulus of elasticity (MPa)	II	12 000	11 000	10 000
Strength class	II	C14-C-30	C14-C30	C14-C16

The values for strength and modulus of elasticity are average values, and refer to small test samples, with no imperfections, at an average temperature of 20°C. The figures with no brackets state properties parallel to the fibers (II) and the figures in brackets state properties perpendicular to the fibers (I). All the values relate to wood with 12% moisture content. Source: RISE

ThermoWood and reaction to fire class D

ThermoWood facades are increasingly popular in both residential and commercial properties.

Advantages of ThermoWood cladding:

- Natural design
- Low maintenance
- Low life cycle cost
- Low environmental impact
- No additives - pure timber.

When selecting raw materials for the ThermoWood treatment one of the main properties is knot structure and quality. High share of sound knots is of high importance to limit unwanted holes, cracks and discolouration. These aspects make it very suitable to use Lodgepole pine for ThermoWood products. With its high share of fresh knots, even in wider dimensions, this species makes a good choice for high quality ThermoWood facades.

SCA has full documentation on reaction to fire performance with third party certificate proofing class D on ThermoWood Lodgepole pine 19 mm and thicker. This equals traditionally used pine and spruce, both with and without ThermoWood treatment. SCA ThermoWood Lodgepole Pine is tested at the Latvian Forest and Wood Products Research and Development Institute MeKa.

Unique façade with SCA Wood ThermoWood Shingle facades

Our cladding shingles are available in heat-treated lodgepole pine from northern Sweden. The shingles are wedge-shaped, ranging from 5 to 18 mm from the thinnest to the thickest edge, and are available in widths from 70 to 150 mm.

The heat treatment ensures the shingles maintain their shape. ThermoWood shingles are warm brown upon delivery and gracefully turn gray over time. When correctly installed, they have a long lifespan without added chemicals.

Shingles are traditionally used in both roofing and facades and are normally made from heartwood pine to guarantee a long life. With ThermoWood modification of fresh knot timber the wood is given similar properties as heartwood, but with a higher yield resulting in a lower cost.

In modern construction western red cedar has become an attractive alternative to heart wood shingles. With increasing focus on sustainability and increasing the threat of possible trade barriers a local supply of shingle material is of great importance.

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