

# Requested by name

Koskisen Sawn  
and Processed Timber





# Nordic timber producer for over 100 years

Koskisen Sawn and Processed Timber is part of a large family-owned wood products industry company located an hours drive from Helsinki, the capital of Finland. Koskisen is one of the largest privately owned wood products companies in Finland.

Koskisen Sawn and Processed Timber produces spruce and pine sawn timber, planed timber and primed exterior claddings. Most are exported worldwide. Our services are available directly from the mill in Finland or via our own network of representatives and agents abroad.

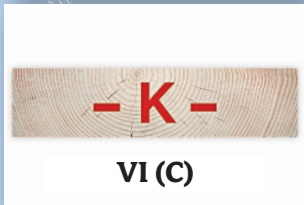
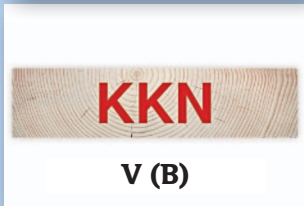
The raw material used comes from the world's best growing areas around 100km radius from the mill. This excellent forest area ensures that the raw materials used are always of the highest quality. All our timber is PEFC certified and all our operations

support sustainability. Having our own wood procurement operations enables us to acquire the right raw material to meet our customers' requirements. The wood that we use has grown slowly, for about 60-120 years, which makes it dense and the logs straight and long with a high proportion of heartwood.

Uniquely in Finland, we are harvesting some of the logs as long stems up to 20 meters in length. This way we are able to cut the logs exactly as our customers need. Koskisen Sawn and Processed Timber production is state of the art and by continuous education of our personnel we ensure that all our operations are of a consistently high standard. Our strengths are quality, reliability, speed and excellent customer service. Over 100 years of history speaks for itself.

## Technical properties of Nordic timber as compared to North American and Japanese timber

TIMBER SPECIES	STRENGTH				STIFFNESS	DENSITY	
	COMPRESSION		TENSILE	BENDING			SHEAR
Trade name <i>Botanical name</i>	along the grain N/mm <sup>2</sup>	against the grain N/mm <sup>2</sup>	along the grain N/mm <sup>2</sup>	against the grain N/mm <sup>2</sup>	along the grain N/mm <sup>2</sup>	MODULUS OF ELASTICITY N/mm <sup>2</sup>	Kg/m <sup>2</sup>
<b>FINNISH</b>							
Spruce <i>Picea abies</i>	39	5.3	95	87	6.8	10 000	470
Pine <i>Pinus sylvestris</i>	50	7.0	116	91	9.1	10 900	540
<b>NORTH AMERICAN</b>							
Douglas fir <i>Pseudot. menziesii</i>	43	5.9	95	66	7.2	11 300	520
Coast redwood <i>Sequoia sempervirens</i>	30	4.1	70	50	6.8	6 800	430
Western hemlock <i>Tsuga heterophylla</i>	44	5.2	69	79	8.2	10 500	480
Longleaf pine <i>Pinus palustris</i>	59	6.9	105	78	9.8	10 900	680
Larch <i>Larix decidua</i>	50	6.5	97	90	8.2	12 500	470
<b>JAPANESE</b>							
Cedar <i>Cryptomeria japonica</i>	35		90	65	6.5	7 500	380
Cypress <i>Chamaecyparis obtusa</i>	40		120	75	7.5	9 000	440
Red pine <i>Pinus densiflora</i>	45		140	90	9.5	11 500	520
Black pine <i>Pinus thunbergii</i>	45		140	85	9.0	10 500	540
White pine <i>Pinus parviflora</i>	35		80	70	8.0	7 000	450



## Quality sorting based on the number, quality and size of the knots

MAIN QUALITY GRADES		U/S	V	VI
Maximum permissible number of knots on the worst 1 m length				
* on FACE: sound / dry of which with bark 1)		4/2	5/3	6/4
* on EDGE: sound / dry of which with bark 1)		2/1	3/2	4/3
SIZE OF KNOTS ALONG FACE		Max.diam. of sound face knot, mm.		
Thickness of piece, mm	Width of piece, mm			
19, 22, 25	100, 115	20	45	50
	125, 150	25	50	55
	175, 200, 225	30	55	60
32, 38	100, 115	25	40	55
	125, 150	30	45	60
	175, 200, 225	35	50	65
44, 50	100, 115	30	45	70
	125, 150	35	50	65
	175, 200, 225	40	55	70
63, 75	100, 115	35	50	65
	125, 150	40	55	70
	175, 200, 225	45	60	75
SIZE OF KNOTS ALONG EDGE		Max.diam. of sound edge knot, mm.		
Thickness of piece, mm				
19		15	3)	3)
22 / 25		20	3)	3)
32 / 38		25	30	3)
44 / 50		30	40	3)
63 / 75		35	50	3)
SIZE OF OTHER KNOTS ON OUTER FACE AND EDGE		Max. Knot diam. % of abovesound knot diameter		
Knot type 2)				
Cluster knot		70	70	80
Dry knot		60	60	100
Knot surrounded by bark		50	60	90
Rotten knot			50	90

Quality U/S = A  
 Quality V = B  
 Quality VI = C  
 Quality S/F = U/S + V = A + B

The grade is determined on the basis of the outside face and both edges.

The reverse face may be one grade lower. At least 90% of the pieces shall not have wood features with values exceeding the maximum permitted values of the grade in question.

Note:  
 1) In grades V and VI there are no restrictions for the number of sound or dry knots with max. diam. of 10 mm.

2) In grades U/S and V no loose knots are allowed.

3) The diameter of the knot equals the thickness of the timber.

The values of the chart are normative



# Pine (Pinus sylvestris)

Pine (commercially known as Redwood) is a straight-trunked conifer, with the main part of its lower trunk free of branches. The Pine favours dry and barren sites with plenty of light. It has a clearly visible heartwood of a reddish colour, whereas the sapwood is reddish or yellowish white. The annual rings can also be clearly seen. Every year Pines form a round, airy crown of branches. Pine is resinous, pleasant smelling and it is easy to dry and work. Average density is between 450-550kg/m<sup>3</sup>.

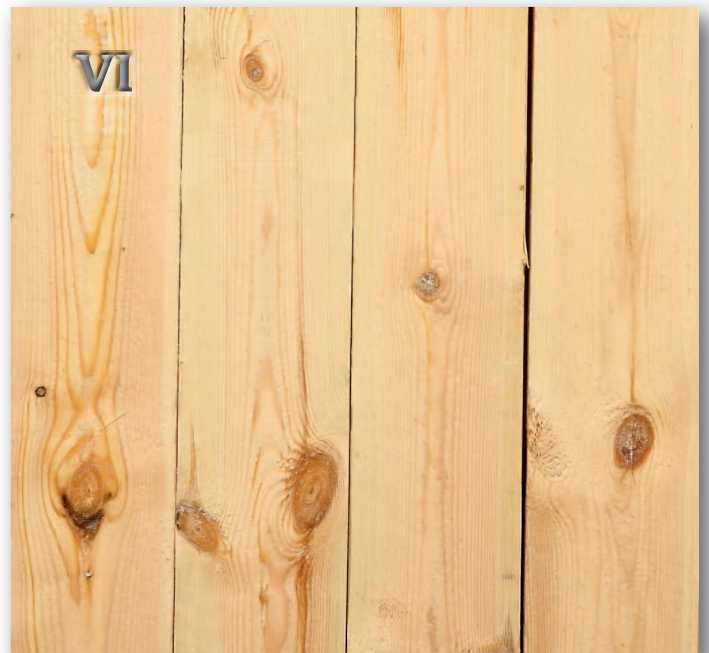
About 25% of Koskisen sawn timber production is Pine. The advantages of our wood procurement area are it's long and large logs, this makes our sawn timber longer and wider than average.

Our redwood is used around the world for many different end-uses. From very visually demanding interior decorative applications to traditional construction purposes. Some of these applications may require a knotless grade whereas others favour a "knotty pine" appearance.

	100	125	150	175	200	225
19	SB	SB	SB			
25	SB	SB	SB	SB	SB	SB
32						
38						
44						
50						
63						
75						
100						

SB = Sideboards

TYPICAL SIZES PRODUCED







## Spruce ( Picea Abies)

The main species cut in our sawmill is spruce, commercially known as whitewood. All the raw material comes from the boreal coniferous zone, which offers good characteristics of the fibre right from the start. Whitewood sawn goods from this area are a typically dense material at ca. 370 – 450 kg/m<sup>3</sup> at 12 – 14% moisture content. It offers a uniform sound knotted visual appearance.

The slow growth rate due to the short summer growing season and natural straightness of the trunk provide good strength for load bearing applications. Whitewood is the typical material used in both visual and mechanical strength grading. Due to our unique method of strength class marking all pieces 32 mm and thicker the sawn goods are also CE – approved.

These main characteristics make whitewood the preferred species for planing various exterior products such as outdoor claddings. Due to its light colour, spruce is also ideal for interior decoration i.e. wall paneling, flooring and mouldings. It's hard enough to provide a good finish yet soft enough to be easily worked.

	100	125	150	175	200	225
22	SB	SB	SB	SB	SB	
32	SB	SB	SB	SB	SB	
32						
38						
44						
47						
50						
63						
75						
100						

SB = Sideboards

TYPICAL SIZES PRODUCED





## Further processed products

Koskisen has further processed sawn timber since 1935. Decades of experience, coupled with modern production technology ensures that we meet our customers' requirements. Over the last few years we have undertaken a massive investment programme in our further processing capabilities to ensure excellent surface quality and customer satisfaction.

Koskisen Processed Timber includes the following products:

- interior and exterior cladding
- flooring panels
- strength graded and calibrated construction timber
- planed all around timber
- fencing timber

For customised solutions, please contact us.

## Planed timber

The raw material used for our planed timber products is graded beforehand with camera sorting technology to ensure that the planed timber products will meet the requirements set by our customers. Depending on the end use the raw material used is normally SF (AB) quality spruce or V(B) or US (A) quality pine. Our planed timber is also available with a tongue and groove on the short ends to reduce waste during installation. The goods are packed in shrink-wrap bundles and can be EAN-coded if required. The goods are available in full or smaller packages.











# Primed and painted exterior cladding products

We at Koskisen have long experience in priming and painting exterior claddings. The raw material used for exterior claddings is of the highest quality – dense and small knotted spruce. Depending on market specific building traditions or our customers' requirements these exterior claddings can be supplied with either a fine sawn or planed surface.

## Advantages

- high and even surface quality
- good absorption of paint into the timber due to its optimal moisture content and the painting conditions.
- priming and undercoating provides a good surface for the subsequent paint layers
- protects the surface from UV-radiation
- saves time during construction

## Industrial priming and painting

We at Koskisen possess a highly modern and efficient priming and painting line. All the coatings are applied by vacuum method which ensure an even final result. All the coatings used are environmentally friendly with water borne primers and paints that contain compounds to protect against blue stain and mould. The paints also contain pigments to protect the timber from UV-radiation before final coating.

Final coating can be done with both oil & water based paints.

## Tinting

Our own professional and highly skilled personnel can tint both primers and paints with a modern tinting system. Having our own tinting facility means that we are able to serve our customers better, be more flexible and faster. Primed goods need to be top coated twice in accordance with the primer or paint manufacturers instructions. If our customer wishes to have a one stop solution, we can also offer ready painted products.

## Packaging

Primed and painted goods can be delivered in industrial packs, bundled or shrinkwrapped in accordance with the customer's requirements. Today's shrinkwrapping is environmentally friendly and ensures that end user will receive his product onsite in a clean and undamaged condition.

## A path to durable outdoor cladding

Properly designed and produced outdoor cladding lasts from one generation to the next – and beyond. We at Koskisen advise the use of outdoor cladding thick enough to, when properly primed and painted, endure severe weather conditions and the stress caused by biological factors.

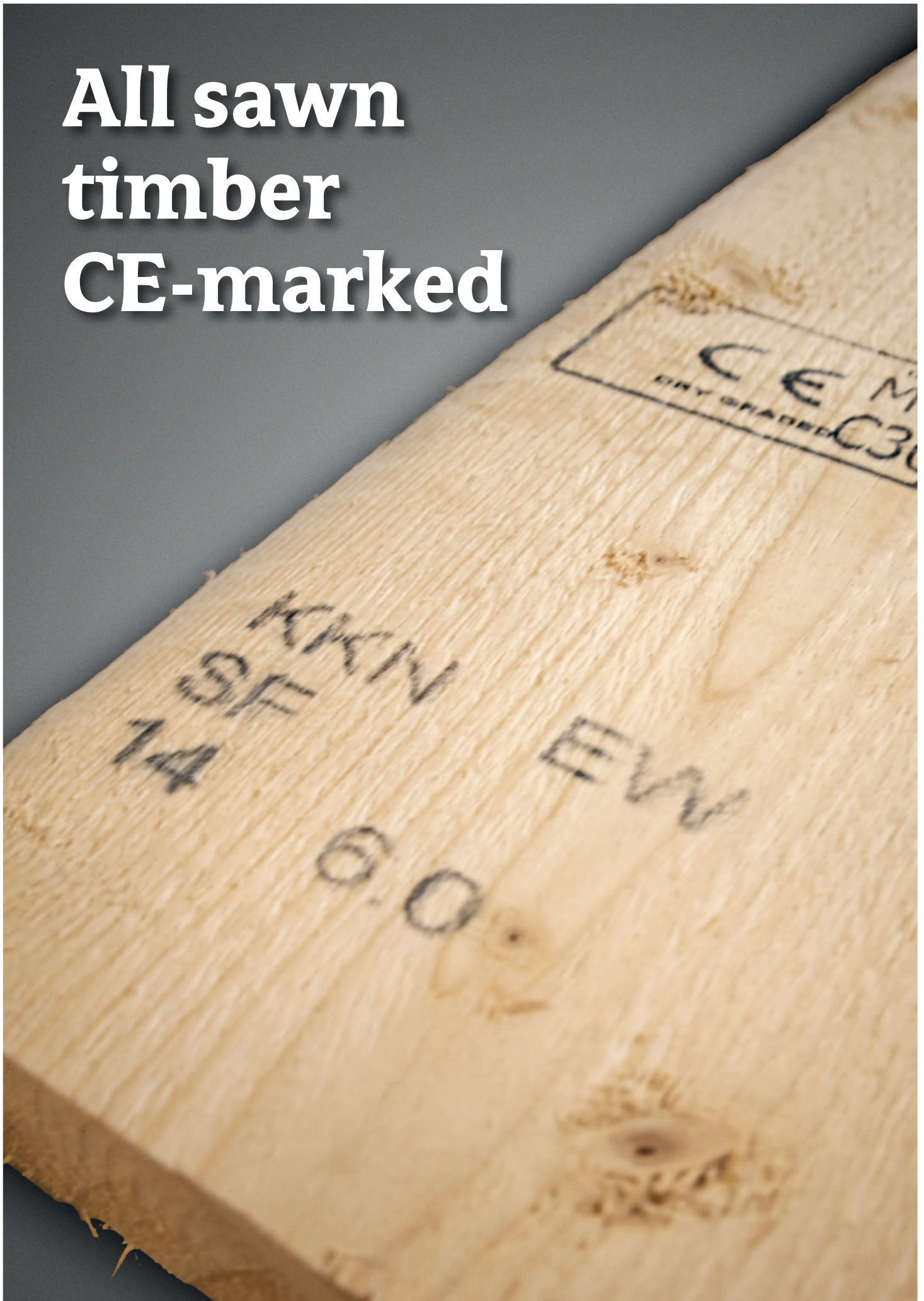
Also structural solutions such as proper drainage systems and having eaves & soffits wide enough enable the outdoor cladding to stay looking good for long time.

From our stock You can find a wide range of standard products such as UTV, UYV or fine sawn and calibrated outdoor claddings. Special products and smaller volumes we customise in close cooperation with our customers.

## Environmental issues are the corner stone

Environmental issues are the driving force in our activity and so are they in painting matters as well. The raw materials used have been purchased from sustainably managed and PEFC-certified forests. All the primers and paints are water based and contain only environmentally friendly wood protective substances. From the waste material, that is created during the manufacturing process, we separate the solid material before waste water processing. For drying we use heat produced by modern techniques in our bark burning unit.

# All sawn timber CE-marked





## Forerunner in CE-marking

Koskisen has been a forerunner in developing CE-marking for sawn timber. Since 1st of October 2010 Koskisen's sawn timber has been CE-marked without extra charge. Koskisen's unique method of marking includes both strength and visual data.

Timber is packaged on the basis of visual quality, but the pieces will also include a mark indicating the strength grade. In practice, each sawn timber package will contain several different strength classes from C18 to C30. Sawn timber dimensions of 32 mm and thicker in qualities of VIth and better in both redwood and whitewood are quality graded with this method of CE-marking pioneered by Koskisen.

This extra service and the additional information it provides on the products will give customers new opportunities to make use of sawn timber and to reach several target groups with one product.

Importers and wholesalers can, for example, sell the same CE-marked timber as a strength-graded product to the construction industry or as a visually graded product to the wood-working industry. Similarly, consumers can use the pieces they have received in their package for various end-uses, based either on the visual quality or strength grade.

At request, Koskisen continues to offer, both sawn timber and planed products in a single specific strength class ranging from C18 all the way up to C40. Of course all other Koskisen planed products such as indoor profiles, outdoor claddings and floorings are also supplied with CE-marking to indicate that the product is in compliance with the relevant harmonised product standard and that it complies with the essential requirements of the European Construction Products Directive.





# Committed to Wood



[www.koskisen.com](http://www.koskisen.com)

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