

# **FINNFOREST SPRUCE PLYWOOD**

SOFTWOOD PLYWOOD FOR STRUCTURAL SOLUTIONS

**finnforest**



## CONTENTS

Manufacturing process	4-5
Applications	6-9
Technical details	10-11



## NATURALLY ADVANTAGEOUS

### EXCELLENT PHYSICAL PERFORMANCE COMBINED WITH EASE OF USE

Finnforest Spruce Plywood is an excellent general-purpose construction panel ideal for both interior and exterior construction work as well as numerous uses where strength, stability and light-weight versatility is valued. The natural properties of Nordic Spruce make it light, easy to work with, easy to saw and easy to nail giving you significant advantages when using Spruce plywood over many alternatives.

All of its natural advantages are brought together by Finnforest's high tech, high quality manufacturing process to produce a consistently reliable panel that is fit for structural use with both CE "Structural 2+" and "BS5268-2:2002" accreditation.

Environmental credentials are also secure with all Finnforest Plywoods being PEFC-certified, a UK Government-approved environmental accreditation. Most importantly, our unique Finnish forest farmer ownership, combined with FSC & PEFC Chain of Custody at all UK sites, means every Finnforest panel meets UK government requirements on legal and sustainable procurement.



Finnforest's large scale, modern machinery converts the natural benefits of Nordic Spruce into a consistently reliable structural panel.

## SUPERB STRENGTH AND RIGIDITY

### NATURAL STRENGTHS ENHANCED BY MANUFACTURING PRECISION

Manufactured from Nordic spruce, a long-grained, homogeneous wood with straight fibres, its thick veneer, long-grained structure gives this versatile plywood panel superb strength and rigidity. As well as being a beautiful light coloured wood, the material is also physically light making the final panel up to 20% lighter than many alternatives whilst maintaining similar strength characteristics and resistance to humidity.

At our Finnforest mill in Suolahti, Finland, this natural material is brought through a carefully controlled manufacturing process which includes the application of the adhesive phenolic resin bonding that makes Finnforest Spruce Plywood both weather and boil-proof. Our WBP status is tested and proven to guarantee consistent and reliable performance.

At Suolahti, the latest technologies are employed by our experienced production staff who manage the fully computer-controlled production line. Continuous production processes and an ongoing commitment to the highest quality-control measures safeguard the production of high quality softwood plywood for long term customer satisfaction.

Following a change in UK legislation, Finnforest Spruce Plywood is now "CE" marked to show compliance with the new Construction Products Directive (CPD) that came into force on April 1st 2004. Unfortunately, the "CE" mark alone doesn't mean a product is fit or legal for structural use as a load bearing material (e.g. in floor, wall or roof construction).

That's why Finnforest Spruce Plywood is also stamped with the CE "Structural 2+" and the British Standard "BS5268-2:2002" marks that confirm it as being suitable for structural use. As we are able to meet the UK's toughest legal requirements for wood based structural panels we clearly mark our plywood with this information so that you can choose a panel that's fit for purpose and keeps everyone out of trouble.



Manufactured under strict controls, Finnforest Spruce Plywood meets the UK's toughest legal requirements for wood-based structural products.





The Millennium Centre project in Cardiff utilises the many strengths of Finnforest Spruce as a floor structure.

# ROOFING

Perfect for use as roof sarking, ceilings, beam systems and load bearing applications, lightweight Finnforest Spruce Plywood is easy to install using normal carpentry tools and construction techniques. Both the square edge and tongue & grooved panels allow for quick and easy fitting of low maintenance roof structures.

The natural strengths of Finnforest Spruce Plywood help make the job quicker and easier for you without compromising on quality or safety so that you can, for example, allow wider spans between joists and generate savings on the primary structure.

# FLOORING

Finnforest Spruce Plywood is a durable flooring material which is well suited as a substrate beneath various surfaces both in new constructions and renovation. The smooth surface is an ideal base for wood flooring, carpeting or tiling and its strength and rigidity make it a good load bearing material for solid, strong floors. This, along with its exterior grade glue-line, creates a wide possibility of end uses.

With ever tightening government legislation on thermal and sound insulation, it's reassuring to know that the solid wood construction of Finnforest Spruce Plywood provides naturally good sound and thermal insulation properties. At the same time, its strength and light weight allow thinner than usual panels to be used for suspended floor structures without having any negative effect on the load-bearing properties of the floor structure at all.

# WALL SHEATHING

With its excellent racking strength and wind break properties, Finnforest Spruce Plywood makes a versatile wall material for both interior and exterior walls and load bearing structures. As mentioned, the panels also have natural heat retention and noise insulation properties.

# STRUCTURALLY SOUND

All panels are CE "Structural 2+" and British Standard "BS5268-2:2002" certified to guarantee conformance with UK Building Regulations for wood based structural panels. As with all untreated plywood, when used in external applications it must be coated and edge-sealed and well maintained during its lifetime.



Light, strong and reliable, Finnforest Spruce Plywood is perfect for all kinds of structural applications.





The benefits of off-site construction methods are enhanced with the reliability of Finforest Spruce.

# RENOVATION WORK

Easy to install by the DIY enthusiast or construction professional alike, Finforest Spruce Plywood is the best solution for all types of renovation, alteration, general repair work, upgrading or replacing floors and repairs to roof structures.

The lightweight nature of these panels combined with their inherent strength and durability makes for simple installation and finishing with conventional woodworking tools. These strengths are particularly useful when dealing with difficult structures or where space is limited.

# PACKAGING

A clean and safe raw material for packaging and transporting foodstuffs, Finforest Spruce Plywood can tolerate a wide range of weather conditions including extreme humidity. This makes it superbly suited to all kinds of industrial packaging applications such as transport crates and pallets.

Its strength and lightweight characteristics make it ideal for highly protective and durable box construction with heavy-duty uses, whilst remaining easy to handle. Once its productive life is over, Finforest Spruce Plywood can be easily recycled, contributing to the packaging company's positive environmental activities.

# FURNITURE

With both strength and lightweight properties, Finforest Spruce Plywood is ideally suited to a number of areas in the Furniture Industry. A major area of its use is within the manufacture of upholstery furniture, where it is used in conjunction with products such as chipboard to provide additional strength to the overall structure.

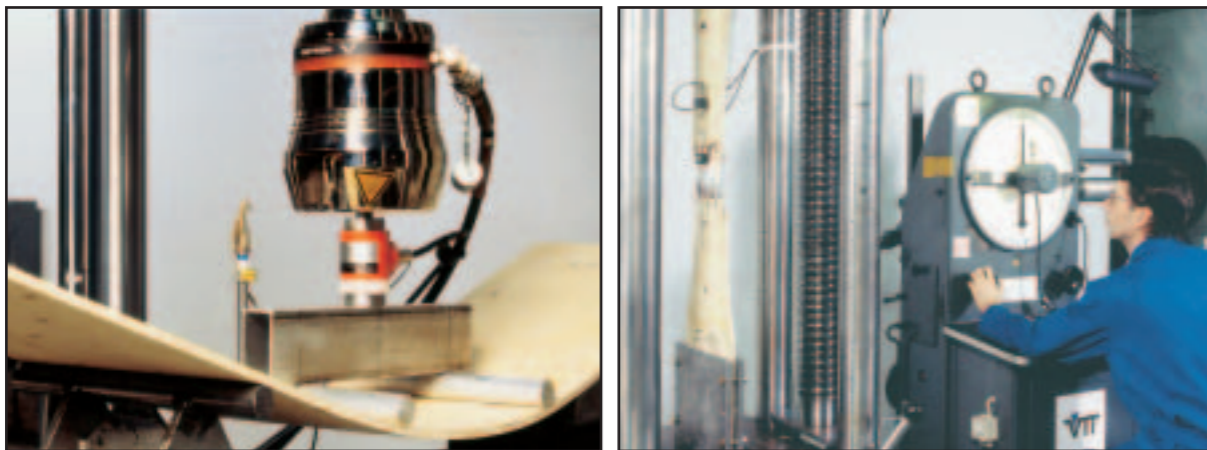
# CONCRETE FORMWORK

Finforest Spruce Plywood is suitable for use as a good all-round formwork panel due to its strength and rigidity but for more details on our wider range of specialist concrete formwork panels please request a copy of our 'Concrete Formwork' brochure.



The natural benefits of Finforest Spruce are valued across many industries from leading furniture manufacturers to general construction.





Quality is consistently assured through the use of both manual checks and the latest modern technologies.

# TECHNICAL INFORMATION

## TECHNICAL CERTIFICATION

Finnforest Spruce plywood has been officially approved for use in wood-framed load-bearing structures. The strength characteristics of Finnforest Spruce Plywood have been granted a product certificate (no. 3/95) by the Technical Research Centre of Finland (VTT) on 31st May 1995. The certificate was renewed on 15th May 2000. The product has been tested in accordance with existing EN standards. The panels have been approved for use in most European countries and in Japan.

## SPRUCE PLYWOOD GRADES

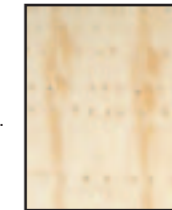
Grade class II: sound surface, small defects allowed.

Grade class III: open defects allowed.

The plywood surfaces used in production are primarily classified as belonging to grade class II/III and grade class III/III sanded or unsanded.

Quality class descriptions RT 22-10731 (2000).

Panels are available on request with both long sides (TG2) or all four sides (TG4) tongued and grooved.



Grade II



Grade IIÛ

Panel sizes (mm)	
Standard size:	2440 x 1220
Special sizes:	2440 x 1200
	2400 x 1200
	2500 x 1250
	1830 x 915
Additional panel sizes:	2440 x 600
	2400 x 600
	Both sizes available in TG2

The first measurement refers to the length in the grain direction of the surface veneers

Panel tolerances	
Length and width	Tolerance area
< 2000 mm	± 2 mm
> 2000 mm	± 3 mm
Squareness of panels	± 1 %
Straightness of panel edges	± 1 %

## BONDING

Finnforest Spruce Plywood panels are glued with weather and boilproof phenolic resin adhesive. The gluing process meets the requirements of the SFS-EN 314-1, SFS-EN 314-2/class 3, BS 6566 Part 8/Type WBP (1985) and the DIN 68705/BFU 100 standards. In addition, the Technical Research Centre of Finland (VTT) continuously monitors the quality of the gluing process.

Thicknesses, layup and weight	
Nominal thickness (mm)	Number of plies
9	3
12	4
15	5
18	6
21	7
24	8
27	9
30	10

Finnforest Spruce Plywood weighs approximately 460 kg/m<sup>3</sup>

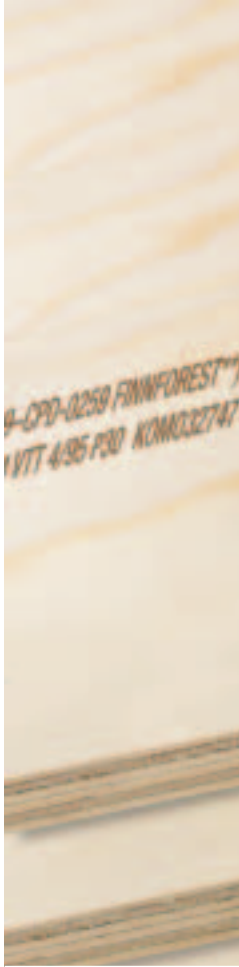
Panel content per package	
Thickness (mm)	Pcs
9	110
12	85
15	65
18	55
21	45
24	40
27	35
30	30

Veneer thickness = 3.0mm

## USER SAFETY

The formaldehyde emission levels of Finnforest Spruce plywood are very low, only 1/10 of the E1 allowed level! E1 is the highest class of standard EN 13986.

Local Stockist



# finnforest

For more information and a list of stockists in your area visit [www.finnforest.co.uk](http://www.finnforest.co.uk) or call **0800 00 44 44**.

Wood is the only building material that is truly renewable, if well managed. Forest certification schemes give assurance that the timber is legal and from sustainable sources. Finnforest UK sources certified timber over uncertified and is an approved Chain of Custody supplier.

FF795 August 2004.

The photographs in this brochure are for illustration purposes only. Finnforest reserves the right to change the range without notice.

All information correct at time of going to print.

