

OSB<sup>SUPERFINISH</sup>**ECO**



WITH A 100 % FORMALDEHYDE-FREE BINDER







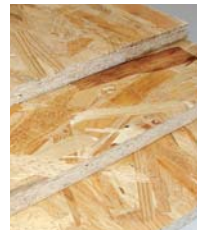
## OSB SUPERFINISH ECO with a 100% formaldehyde-free binder

OSB stands for „Oriented Strand Board“ and is a wood-based product made from thin veneer strands that are bonded together with a synthetic resin. OSB SUPERFINISH ECO consists of three cross-oriented layers with the surface of the board formed from strands oriented along the length of the board and the core strands arranged in cross orientation. This crosswise orientation of the individual layers achieves a high level of dimensional stability and an excellent mechanical performance.

OSB SUPERFINISH ECO is manufactured from quality softwood, primarily spruce. The veneer strands are precisely sliced from the side of clean, debarked wood logs so that the plane of the strand is parallel to the grain of the wood. These freshly cut strands are then dried, sorted and blended with a synthetic resin binder and a defined portion of paraffin emulsion before they are formed into large continuous mats. These mats are oriented in cross directional layers and pressed into panels by means of high temperature and pressure in the course of an uninterrupted continuous pressing process. Because of its bending strength OSB SUPERFINISH ECO is the ultimate engineered wood product for timber framed construction. With its light and uniform wood surface it provides an attractive natural appearance and is used for a variety of decorative applications.

### Glued with a 100% formaldehyde-free binder

**In addition to the above OSB SUPERFINISH ECO is one of the most advanced OSB boards currently available. OSB SUPERFINISH ECO is manufactured using a formaldehyde-free polyurethane resin-based binder and contributes to a more environmentally friendly living environment. With the formaldehyde content of OSB SUPERFINISH ECO being limited to the natural formaldehyde content of wood (< 0.03 ppm HCHO – as determined by the chamber method) stringent ecological requirements of the timber framed construction industry are met. A permanent quality control and a regular supervision by independent certification agencies (VVÚD – Timber Research and Development Institute, Prague) ensure full compliance to stringent quality standards and emission regulations. With its wide range of OSB SUPERFINISH ECO products KRONOSPAN Jihlava promotes the environmentally friendly timber framed construction.**



## Environmentally friendly construction

Contemporary timber framed construction is a lifestyle choice. Architects, developers and builders are looking increasingly at the environmental impact of their projects. Home buyers and consumers are both design conscious and environmentally aware. Due to its environmental and overall sustainability credentials timber as a construction material, has a significant role to play in helping to protect



the environment. Timber framed construction delivers high build quality, a more efficient construction process and the opportunity to design beautiful and durable homes. **Being a wood-based product with 95 % of its volume made of wood of woodlot thinnings sourced from well-managed forests OSB SUPERFINISH ECO supports and contributes to sustainable construction.**



## Advantages of OSB SUPERFINISH ECO

- Environmentally friendly wood-based panel both for interior and exterior use
- Exceptional dimensional stability and stiffness
- Excellent load bearing properties with high bending, compression and tension strength values
- Excellent fastener retention, also near the edge
- Low thickness swelling
- Can be used for both diffusion-open and diffusion-closed structure systems
- The surface of OSB SUPERFINISH ECO has a certain degree of resistance to short-term wetting
- Advantageous thermal insulating and sound absorbing properties when compared to similar construction materials
- Can be custom manufactured to meet specific requirements in thickness and panel size
- Suitable for humid conditions (OSB/3 and OSB/4)
- Is easy to cut and fix using conventional woodworking tools
- Natural wood surface finish
- Quick assembly
- Excellent price-performance ratio
- Good environmental credentials
- Formaldehyde content limited to the natural formaldehyde content of wood

## Main application areas

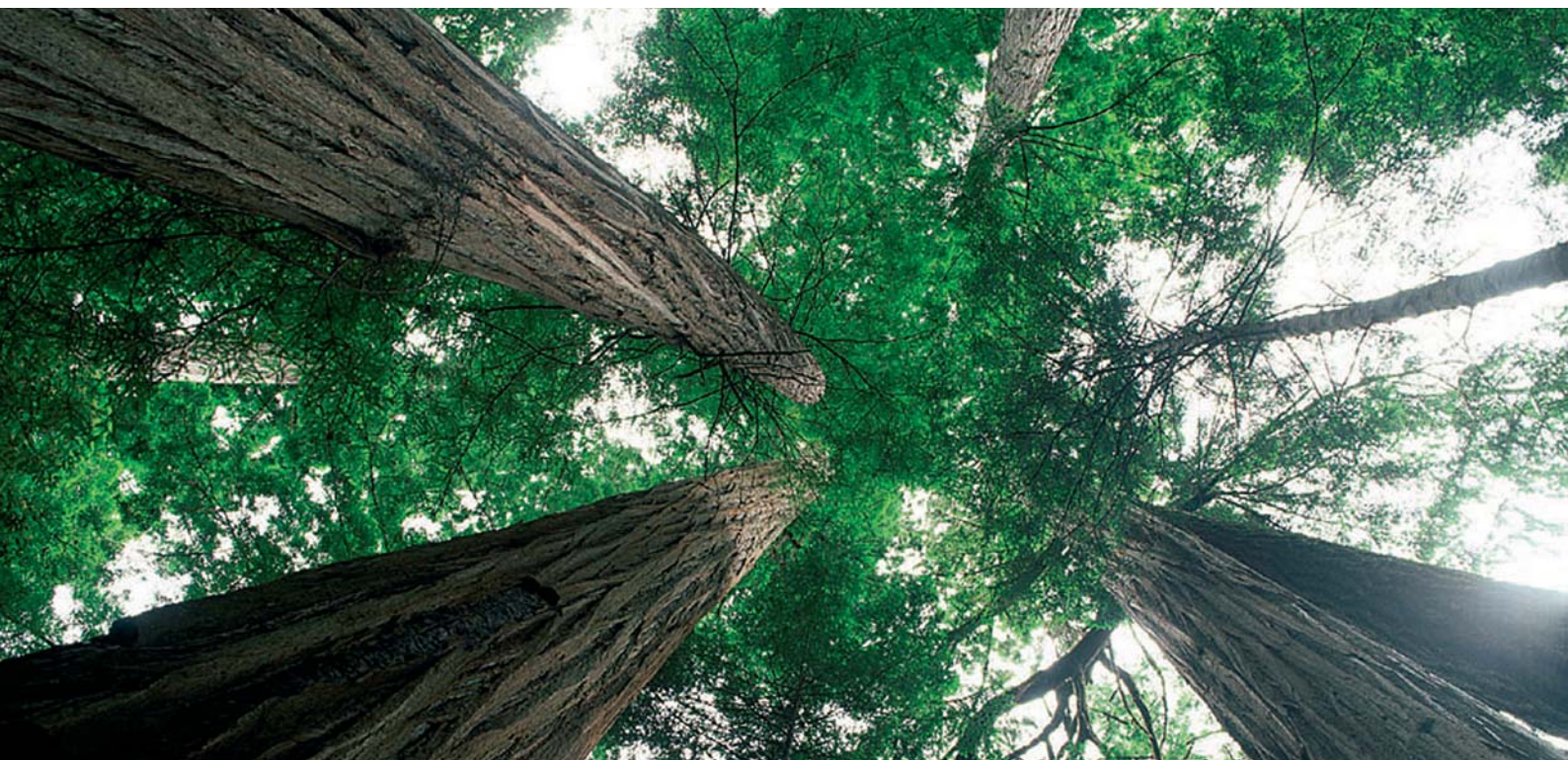
OSB SUPERFINISH ECO offers a wide range of possible applications both for interior and exterior use. Its exceptional properties make OSB SUPERFINISH ECO ideal for timber framed construction. At the same time the growing popularity of this product result in new areas of use.

### Construction

- Construction of timber framed buildings
- Ideal for low-energy and passive environmentally friendly buildings
- Roof sheathing
- Wall sheathing (both for interior and exterior walls)
- Flooring / Subfloor
- Cladding
- Sandwich panels
- Webs of wooden I-joists
- Renovation projects
- Hoardings around building sites.
- Concrete boarding: sacrificial shuttering, foundation shuttering, pre-cast concrete shuttering
- Production of containers and site barracks
- Warehouse construction and agricultural buildings

### Other areas of use

- Furniture industry (e.g. frames for upholstery, doors and windows)
- Exhibition stand construction, displays, platforms
- Pallet and crate packaging industry
- Vehicle linings
- Shelving and racking manufacturing
- Billboard manufacture
- Shop fitting, decorative paneling



## Properties and technical data

General requirements for OSB boards, type OSB/2, OSB/3 and OSB/4:

property	test method	requirement	
Tolerance	in length	EN 324 -1	± 3 mm
	in width	EN 324 -1	± 3 mm
	in thickness	EN 324 -1	± 0,8 mm
Edge straightness tolerance <sup>1)</sup>	EN 324 -2	1,5 mm/m	
Squareness tolerance <sup>1)</sup>	EN 324 -2	2 mm/m	
Moisture content	EN 322	2 – 12 %	
Tolerance on the mean density within a board	EN 323	± 15 %	
Formaldehyde content <sup>2)</sup>	EN 120	class E1 max. 8 mg/100 g	

<sup>1)</sup> These values are characterised by a moisture content in the materials corresponding to a relative air humidity of 65% and a temperature of 20 °C

<sup>2)</sup> As determined by the perforator method

Technical requirements for OSB boards, type OSB/2 and OSB/3:

property	test method	thickness				
		6 to 10 mm	>10 to <18 mm	18 to 25 mm	>25 to 32 mm	
Bending strength	major axis	EN 310	22 MPa	20 MPa	18 MPa	16 MPa
	minor axis	EN 310	11 MPa	10 MPa	9 MPa	8 MPa
Modulus of elasticity in bending	major axis	EN 310	3 500 MPa			
	minor axis	EN 310	1 400 MPa			
Internal bond		EN 319	0,34 MPa	0,32 MPa	0,30 MPa	0,29 MPa
	after boiling test	EN 1087-1	0,15 MPa	0,13 MPa	0,12 MPa	0,06 MPa
	after cycling test	EN 321	0,18 MPa	0,15 MPa	0,13 MPa	0,10 MPa
Bending strength after cycling test – major axis (OSB/3)	EN 321		9 MPa	8 MPa	7 MPa	6 MPa
Swelling in thickness	OSB/2	EN 317	20 %			
	OSB/3	EN 322	15 %			

Technical requirements for OSB boards of OSB/4 type:

property	test method	thickness				
		6 to 10 mm	>10 to <18 mm	18 to 25 mm	>25 to 32 mm	
Bending strength	major axis	EN 310	30 MPa	28 MPa	26 MPa	24 MPa
	minor axis	EN 310	16 MPa	15 MPa	14 MPa	13 MPa
Modulus of elasticity in bending	major axis	EN 310	4 800 MPa			
	minor axis	EN 310	1 900 MPa			
Internal bond		EN 319	0,50 MPa	0,45 MPa	0,40 MPa	0,35 MPa
	after boiling test	EN 1087-1	0,15 MPa	0,13 MPa	0,12 MPa	0,06 MPa
	after cycling test	EN 321	0,21 MPa	0,17 MPa	0,15 MPa	0,10 MPa
Bending strength after cycling test – major axis	EN 321		15 MPa	14 MPa	13 MPa	6 MPa
Swelling in thickness	EN 317		12 %			

## Properties of OSB SUPERFINISH ECO

OSB SUPERFINISH ECO complies with EN 300 for OSB/3 but has a lower formaldehyde content.

property	test method	requirement
Formaldehyde content <sup>3)</sup>	EN 717-1	< 0,03 ppm

<sup>3)</sup> As determined by the chamber method

OSB SUPERFINISH BAU ECO complies with EN 300 for OSB/4 and meets the building regulations registration No. Z-9.1-627.

property	test method	thickness		
		>10 to ≤18 mm	18 to 30 mm	
Bending strength	major axis	EN 310	33 MPa	36 MPa
	minor axis	EN 310		16 MPa
Modulus of elasticity in bending	major axis	EN 310	6 300 MPa	7 400 MPa
	minor axis	EN 310	2 000 MPa	2 300 MPa
Density	EN 323		550 kg/m <sup>3</sup>	590 kg/m <sup>3</sup>
Internal bond after boiling test	EN 1087-1			0,14 MPa

Remark: The values listed in this European Standard relate to product properties but they are not characteristic values to be used in design calculations. For more details please see [www.kronospan.cz](http://www.kronospan.cz).

## Product availability

OSB SUPERFINISH ECO is available in a large variety of thicknesses and dimensions, either with straight edge or with tongue and groove.

### OSB SUPERFINISH ECO – OSB/3

	format [mm]	thickness [mm]						pallets per truck
		12	15	18	22	25	30	
straight edge	5 000×2 500	22	18	15	12	11		12
	5 000×1 250	38	31	26	21	19		14
	3 000×1 250	59	47	39	32			12 – 15
	2 800×1 250	59	47	39	32	28		15 – 18
	2 650×1 250	59	47	39	32	28		17 – 18
	2 500×1 250	59	47	39	32	28		18
	2 440×1 220	59	47	39	32	28		18
4 T&G	2 500×1 250	59	47	39	32	28		15
	2 500×625	59	47	39	32	28	23	36 – 40
2 T&G	2 500×1 250		47	39	32			15
	5 000×1 250		31	26	21	19		8
4 T&G, sanded	2 500×625		47	39	32	28		36 – 40

	format [mm]	thickness [mm]						pallets per truck
		8	9	10	11			
straight edge	2 500×1 250	84	75	69	64			18

### OSB SUPERFINISH ECO – OSB/4 BAU

	format [mm]	thickness [mm]						pallets per truck
		12	15	18	22	25	30	
straight edge	5 000×2 500	22	18	15	12	11	9	11
	5 000×1 250	38	30	25	21	18		13
	3 000×1 250	58	47	39	31	28	23	12
	2 800×1 250	58	47	39	31	28	23	12
	2 650×1 250	58	47	39	31	28	23	16
	2 500×1 250	58	47	39	32	28	23	17
	4 T&G	2 500×1 250	58	47	39	32	28	23
2 500×625		58	47	39	32	28	23	33 – 35
2 T&G	5 000×625				23	20		18

xx	Express programm (number indicates amount of panels per pack)	in stock
xx	Production programm (number indicates amount of panels per pack)	minimum quantity: 120m <sup>3</sup> per thickness and size
	Availability of other sizes on request	

- **OSB 3** – load-bearing boards for use in humid conditions
- **OSB 4** – heavy duty load-bearing boards for the use in humid conditions
- **2 T&G** – boards profiled with tongue-and-groove on two longitudinal edges
- **4 T&G** – boards profiled with tongue-and-groove on all four edges

For more information please see

[www.kronospan.cz](http://www.kronospan.cz)



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