

bolderaja

OSB

SUPERFINISH®  
**ECO**





## ABOUT COMPANY

Mission – Provide solutions to enhance customers product value.

Vision - To be a leader among wood based panel producers in the region.

Values – Innovation, integrity and team commitment .



# BOLDERAJA 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 good 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.



## 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 aware of environmentally design. 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 wellmanaged forests OSB SUPERFINISH® ECO supports and contributes to sustainable construction.

## 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 formaldehydefree 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) stronger ecological requirements of the timber framed construction industry are met. A permanent quality control and a regular supervision by independent certification agencies (WKI) ensure full compliance to stronger quality standards and emission regulations. With its wide range of OSB SUPERFINISH® ECO products Bolderaja LTD promotes the environmentally friendly timber framed 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.

## AREAS OF USE

- 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
- 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



## WHY BOLDERAJA OSB SUPERFINISH ECO? WHY TIMBER FRAME CONSTRUCTION?

Contemporary timber frame housing 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 local and global environment. Timber frame construction delivers high build quality, a more efficient construction process and the opportunity to design beautiful and durable homes. When deciding to build with timber, you make a positive contribution to tackling climate change.

Bolderaja OSB SUPERFINISH® ECO as a wood based product – 95% of the board's volume consists of wood – supports and contributes to sustainable construction.



# QUALITY THAT WINS

Bolderaja OSB SUPERFINISH® ECO is manufactured to a series of inter-related European standards, of which the main product standard EN 300 – Oriented Strand Board (OSB) : Definitions, classification and specifications refers to other standards, such as EN 13986 – The harmonized European Standard for wood-based panels for use in construction.

Bolderaja OSB SUPERFINISH® ECO complies with the strict requirements both of EN 300 and EN 13986.

Permanent quality control and regular supervision by national certification agencies ensure full compliance to these standards. This includes test sampling on raw materials and the finished product during and after production process and provides third party guarantee of Bolderaja OSB Superfinish's ECO excellent performance.

## DESCRIPTION OF OSB BOARDS ACCORDING TO EN 300

### GENERAL REQUIREMENTS FOR OSB SUPERFINISH® BOARDS, TYPE OSB/2, OSB/3 AND OSB/4:

Property		Test method	Unit	Nominal thickness (mm)			
				6-10	>10-18	>18-25	>25-32
Tolerance on nominal dimensions	Lenght and widht	LVS EN 324-1	mm	± 3			
	Thickness	LVS EN 324-1	mm	± 0,8			
Edge straightness tolerance <sup>1)</sup>		LVS EN 324-2	mm / m	1,5			
Squareness tolerance <sup>2)</sup>		LVS EN 324-1	mm / m	2			
Moisture content		LVS EN 322	%	2 -12			
Tolerance on the mean density within a board		LVS EN 323	%	± 15			
Formaldehyde release according to EN300	E1	LVS EN 120	mg/100 g	≤ 8			
	E2	LVS EN 120	mg/100 g	>8 ≤ 30			
Density		EN 323	kg/ m <sup>3</sup>	620-635	595-615	570-590	550±10%

1) These values are characterised in the material corresponding to a relative humidity of 65 %, and temperature of 20° C .

2) Perforator values are related to boards with moisture of 6,5%. In the case of boards with different moisture content the perforator value is recalculated.

### TECHNICAL REQUIREMENTS FOR OSB SUPERFINISH® ECO BOARDS, TYPE OSB/2 AND OSB/3:

Property		Test method	Unit	Nominal thickness (mm)			
				6-10	>10-18	>18-25	>25-32
Bending strenght	Major axis	EN 310	N/mm <sup>2</sup>	22	20	18	16
	Minor axis	EN 310	N/mm <sup>2</sup>	11	10	9	8
Biegeelastizitätsmodul	Major axis	EN 310	N/mm <sup>2</sup>	3500			
	Minor axis	EN 310	N/mm <sup>2</sup>	1400			
Internal bond		EN 319	N/mm <sup>2</sup>	0,34	0,32	0,3	0,29
Swelling in thickness - 24h immersion	OSB/2 ECO	EN 317	%	20			
	OSB/3 ECO	EN 317	%	15			

## TECHNICAL REQUIREMENTS FOR OSB SUPERFINISH® ECO BOARDS OF OSB/4 TYPE:

Property	Test method	Unit	Nominal thickness (mm)				
			6-10	>10-18	>18-25	>25-32	
Bending strenght	Major axis	EN 310	N/mm <sup>2</sup>	30	28	26	24
	Minor axis	EN 310	N/mm <sup>2</sup>	16	15	14	13
Bending strenght after cyclic test - major axis <sup>1,2</sup>	EN 321	N/mm <sup>2</sup>	15	14	13	6	
Modulus of elasticity in bending	Major axis	EN 310	N/mm <sup>2</sup>	4800			
	Minor axis	EN 310	N/mm <sup>2</sup>	1900			
Internal bond		EN 319	N/mm <sup>2</sup>	0,5	0,45	0,4	0,35
	after cyclic test <sup>1)</sup>	EN 1087-1	N/mm <sup>2</sup>	0,21	0,17	0,15	0,10
	after boil test <sup>3)</sup>	EN 321	N/mm <sup>2</sup>	0,17	0,15	0,13	0,06
Swelling in thickness - 24h immersion	EN 317	%	12				

1 Option 1;

2 For the calculation of bending strenght after cyclic test, the thickness taken to account is the thickness measured after cyclic test;

3 Option 2

## 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>1)</sup>	EN 717-1	< 0,03 ppm

1) As determined by the chamber method

## BENCHMARK WEIGHTS OF INDIVIDUAL BOARDS\*

	Format (mm)	Thickness (mm)									
		8	9	10	11	12	15	18	22	25	30
OSB/2, OSB/3	[kg/m <sup>3</sup> ]	620	610	610	605	600	585	580	570	560	545
	[kg/m <sup>2</sup> ]	4,96	5,49	6,1	6,655	7,2	8,775	10,44	12,54	14,1	7,44
T&G OSB/2, OSB/3	[kg/m <sup>3</sup> ]					610	595	590	580	570	555
	[kg/m <sup>2</sup> ]					7,32	8,925	10,62	12,76	14,25	17,76
OSB/4	[kg/m <sup>3</sup> ]	635	620	620	615	610	595	590	580	570	555
	[kg/m <sup>2</sup> ]	5,08	5,58	6,2	6,765	7,32	8,925	10,62	12,76	14,25	17,76

\*Producer has a right to change technical specifications without prior notice.

## OSB SUPERFINISH® ECO – DIMENSIONS

Thickness (mm)	Palett			Shipment					
	pcs/palett	m <sup>2</sup>	m <sup>3</sup>	Paletts	m <sup>2</sup>	m <sup>3</sup>	Density kg / m <sup>3</sup>	kg	kg/palett
8	84	263	2,10	17	4463	35,70	645	23027	1355
9	75	234	2,11	18	4219	37,97	629	23882	1327
10	69	216	2,16	17	3666	36,66	626	22947	1350
11	64	200	2,20	17	3400	37,40	626	3412	1377
12	59	184	2,21	17	3134	37,61	628	23621	1389
15	47	147	2,20	18	2644	39,66	605	23992	1333
18	39	122	2,19	18	2194	39,49	598	3614	1312
22	32	100	2,20	18	1800	39,60	588	23285	1294
24	28	88	2,19	18	1575	39,38	580	22838	1269
30	25	75	2,35	18	1350	40,50	575	23286	1294

More information you will find in [www.bolderaja.lv](http://www.bolderaja.lv).

## 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	5000 x 2500	22	18	15	12	11		12
	5000 x 1250	38	31	26	21	19		14
	3000 x 1250	59	47	39	32			12 – 15
	2800 x 1250	59	47	39	32	28		15 – 18
	2650 x 1250	59	47	39	32	28		17 – 18
	2500 x 1250	59	47	39	32	28		18
4 T&G	2440 x 1220	59	47	39	32	28		18
	2500 x 1250	59	47	39	32	28		18
2 T&G	2500 x 625	59	47	39	32	28	24	36 – 40
	2500 x 1250		47	39	32	28		15
	2440 x 1220	59	47	39	32			15

	Format (mm)	Thickness (mm)						Pallets per truck
		8	9	10	11			
Straight edge	2500 x 1250	84	75	69	64			18

### OSB SUPERFINISH® ECO – OSB/4

	Format (mm)	Thickness (mm)						Pallets per truck
		12	15	18	22	25	30	
Straight edge	5000 x 2500	22	18	15	12	11		11
	5000 x 1250	38	30	25	21	18		13
	3000 x 1250	59	47	39	31	28		12
	2800 x 1250	59	47	39	31	28		12
	2650 x 1250	59	47	39	31	28		16
	2500 x 1250	59	47	39	31	28		17
4 T&G	2500 x 1250	59	47	39	32	28		15
	2500 x 625	59	47	39	32	28	24	33 – 35
2 T&G	2500 x 1250		47	39	32	28		15

XX Express programm (number indicates amount of panels per pack)

XX Production programm (number indicates amount of panels per pack)

Availability of other sizes on request

in stock

minimum quantity: 200m<sup>3</sup> per thickness and size

More information you will find in [www.bolderaja.lv](http://www.bolderaja.lv).

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