

MORE FROM WOOD.



PROFESSIONAL



## EGGER EUROSTRAND® OSB/2 AND OSB 3 E0

› The **environmentally friendly board** for wood construction and interior design

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



EUROSTRAND® OSB 3 E0 has outstanding technical characteristics and good dimensional stability.

# EUROSTRAND® OSB 3 E0

## THE ENVIRONMENTALLY FRIENDLY BOARD FOR WOOD CONSTRUCTION AND INTERIOR DESIGN



### PRODUCT DESCRIPTION

#### PRODUCTION

EUROSTRAND® OSB is a flat hardboard with a three-layer structure of oriented distributed strands (micro-veneers) according to DIN EN 300. The special strand geometry (length up to 160 mm) has a high degree of strand orientation in the grain direction of the outer layer which assures outstanding technical characteristics and very good inherent stability. EUROSTRAND® OSB boards for use in humid conditions are made with 100% formaldehyde-free adhesives.

#### RAW MATERIALS USED

- Debarked softwood from domestic forestry
- Paraffin wax emulsion
- PU resin
- Water
- MUF resin, only in the outer layer of EUROSTRAND® OSB/2 EN 300

#### OSB BOARD TYPES

EGGER EUROSTRAND® OSB boards are available from inventory in three technical classes according to EN 13986.

- EGGER EUROSTRAND® OSB/2 EN 300, CE
- EGGER EUROSTRAND® OSB 3 E0, CE
- EGGER EUROSTRAND® OSB 4 TOP, CE, Z-9.1-566

Additional information on EUROSTRAND® OSB 4 TOP can be found in our separate OSB product brochure.

The materials are available:

- in board thicknesses from 6 to 25 mm
- with 2-sided and 4-sided asymmetrical tongue and groove
- with sanded and unsanded surface

#### Usage class

According to ENV 1995-1-1 (EC5), EUROSTRAND® OSB 3 E0 can be used for applications in usage class 1 (dry conditions) and 2 (humid conditions), EUROSTRAND® OSB/2 EN 300 in usage class 1.

## EUROSTRAND® OSB AREAS OF APPLICATION



### IN WOOD AND RESIDENTIAL CONSTRUCTION AS

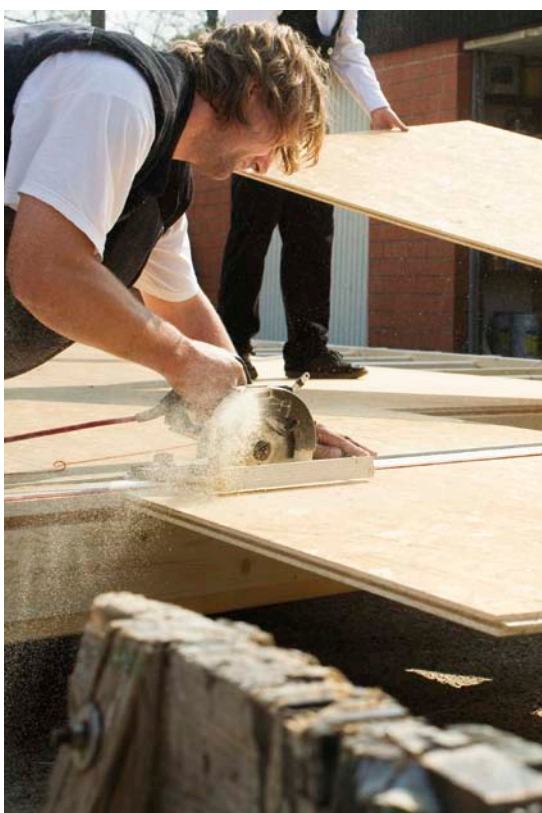
- load-bearing, reinforcing sheathing for wood frame construction
- airtight vapour barrier in roofs and walls
- floor to ceiling sheathing for thermal-bridge-reducing components in passive houses
- OSB 3 E0 load-bearing sheathing for metal siding and roof waterproofing

### INTERIOR DESIGN AND DECORATIVE APPLICATIONS

- for floor renovations
- as ball-impact-resistant wall and sports facility sheathing
- for trade fair and store construction and interior design (decorative applications)
- for sturdy sub structures in the furniture industry

### IN INDUSTRIAL APPLICATIONS AS

- For load-bearing and shaping components used in the car industry
- load-bearing flooring in stage and warehouse construction
- robust construction site fencing
- durable, long-lasting packaging material



### OSB 3 E0 IN CONCRETE CONSTRUCTION AS

- Sheathing for repeated use
- Structured facework
- Ceiling edge formwork and foundation formwork
- Low-cost alternative to lost formwork and as a fitted board

#### EUROSTRAND® OSB – The features speak for themselves



- straightforward and fast processing without special tools
- high static loading capacity for the greatest possible application versatility
- dry, clean processing for shorter construction times

## STRUCTURAL-PHYSICAL CALCULATION VALUES

EUROSTRAND® OSB/2 and OSB 3 E0 according to EN 300:2006

Characteristic	Standard	Unit	EUROSTRAND® OSB	
			OSB/2	OSB 3 E0
Raw density	EN 323	kg/m <sup>3</sup>	≥ 580	≥ 600
μ-value	EN ISO 12572	–	200	200
Thermal conductivity λ <sub>R</sub>	EN 13986	W/(mK)	0.13	0.13
Specific thermal capacity c	DIN 4108-4	J/(kgK)	1,700	1,700
Reaction to fire	EN 13986	–	E, D-s1, d0	(≥ 9 mm) D-s2, d0
24h thickness swelling	EN 317	%	≥ 20	≥ 15
Linear expansion per 1% change of moisture content	EN 318	%/%	0.04	0.03
Formaldehyde emission	EN 717-1	ppm	0.1	< 0.03

We will gladly provide you with material values for additional moisture dynamics calculations.

## CHARACTERISTIC STRENGTH VALUES AND STIFFNESS

EUROSTRAND® OSB/2 and OSB 3 E0 according to EN 300:2006

The typical static rating calculation values are based on EN 12369-1.

Thickness (mm)	Strength values (N/mm <sup>2</sup> )						Panel shear	Planar shear
	Bending		Tension		Compression			
t <sub>nom</sub>	f <sub>m</sub>		f <sub>t</sub>		f <sub>c</sub>		f <sub>v</sub>	f <sub>r</sub>
	0° 1)	90° 2)	0°	90°	0°	90°	–	–
8 – 10	18.0	9.0	9.9	7.2	15.9	12.9	6.8	1.0
> 10 < 18	16.4	8.2	9.4	7.0	15.4	12.7	6.8	1.0
18 – 25	14.8	7.4	9.0	6.8	14.8	12.4	6.8	1.0

Thickness (mm)	Stiffness values (N/mm <sup>2</sup> )						Panel shear	Planar shear
	Bending		Tension		Compression			
t <sub>nom</sub>	E <sub>m</sub>		E <sub>t</sub>		E <sub>c</sub>		G <sub>v</sub>	G <sub>r</sub>
	0°	90°	0°	90°	0°	90°	–	–
8 – 10	4,930	1,980	3,800	3,000	3,800	3,000	1,080	50
> 10 < 18	4,930	1,980	3,800	3,000	3,800	3,000	1,080	50
18 – 25	4,930	1,980	3,800	3,000	3,800	3,000	1,080	50

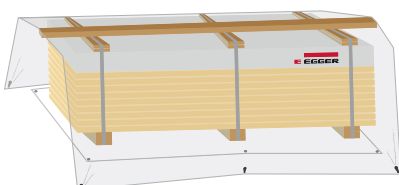
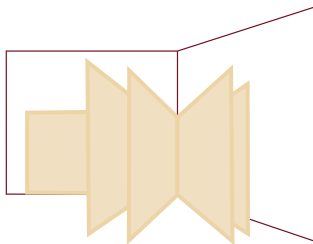
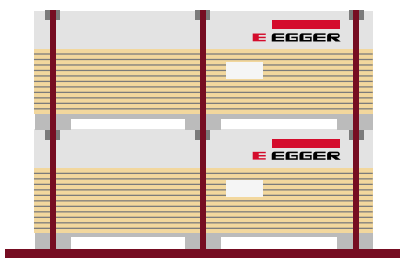
- 1) 0°-major axis  
2) 90°-minor axis

For load-bearing, reinforcing construction with elevated static requirements and / or construction where board thicknesses in the range > 25 mm are used. Only EUROSTRAND® OSB 4 TOP boards with building authority approval (Z-9.1-566) are suitable for this application.



## THE CERTIFICATES

- OSB/2, OSB 3 E0 and OSB 4 TOP CE certification by WKI Braunschweig
- F30/F60 test certificate for load-bearing, space-enclosing wall construction
- Environmental product declaration (EPD) including ecological balance sheet according to ISO 14040, Institut für Bauen und Umwelt e.V.
- FSC Controlled wood (CW) certificate
- Test certificate for ball-impact-resistant wall construction
- Food-safe test report
- ISO 9001 certification



## WHAT TO WATCH FOR

### STORAGE AND TRANSPORTATION

- Store in a dry place, lying flat on several squared timbers of uniform height - the maximum spacing between the squared timbers is 80 cm.
- The steel bands around the packages must be removed promptly upon reaching the fabricator.
- The boards should be installed under moisture conditions equivalent to their use. We expressly recommend a 48-hour acclimatisation period.
- The absorption of additional moisture, e.g. due to weather, is not recommended and must be prevented.

### PACKAGING

EUROSTRAND® OSB boards are covered in cardboard as a package and secured with steel bands. Sanded tongue and groove boards are also packaged in stretch film or with protective edges.

### UTILISATION AND DISPOSAL

Untreated wood-based materials may be used for material or thermal applications. Wood-based materials are assigned to the waste codes (EWC codes) 030105, 150103 and 170201.



## DELIVERY PROGRAMME

### EUROSTRAND® OSB 3 E0

Product / length × width (mm)	Board thickness d (mm)													
	6	8	9	10	11	12	15	18	20	22	25	30	35	40
<b>Straight edge unsanded</b>														
5,000 × 2,500						•*	•*	•*		•*				
5,000 × 1,250							•*			•*				
2,800 × 1,250						•	•*							
2,070 × 2,770						•*								
2,500 × 1,250	•	•	•	•	•**	•	•	•	•**	•	•			
<b>T&amp;G 4 sides unsanded</b>														
2,500 × 1,250							•			•				
2,500 × 675						•	•	•		•	•			
1,830 × 675						•**	•	•		•				
<b>T&amp;G 4 sides sanded</b>														
2,500 × 675						•	•	•		•	•			
1,830 × 675						•**	•	•		•				
<b>T&amp;G 2 sides unsanded</b>														
2,440 × 1,205						•	•	•						

\* per truck load minimum 24 to

\*\* delivery on request, minimum order quantity = 250 m<sup>3</sup>

### EUROSTRAND® OSB/2 EN 300

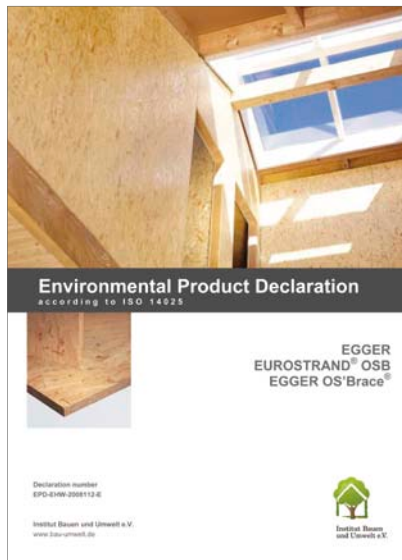
Product / length × width (mm)	Board thickness d (mm)													
	6	8	9	10	11	12	15	18	20	22	25	30	35	40
<b>Straight edge unsanded</b>														
2,440 × 1,220			•		•		•	•						
2,070 × 2,770								•						

Changes to the delivery programme reserved.



## ENVIRONMENTAL PRODUCT DECLARATION

EUROSTRAND® OSB/2 AND OSB 3 E0



1 m<sup>3</sup> (35 1/3 cubic feet) of OSB from EGGER binds approximately **864 kg CO<sub>2</sub>** (calculation based on GWP 100 production)

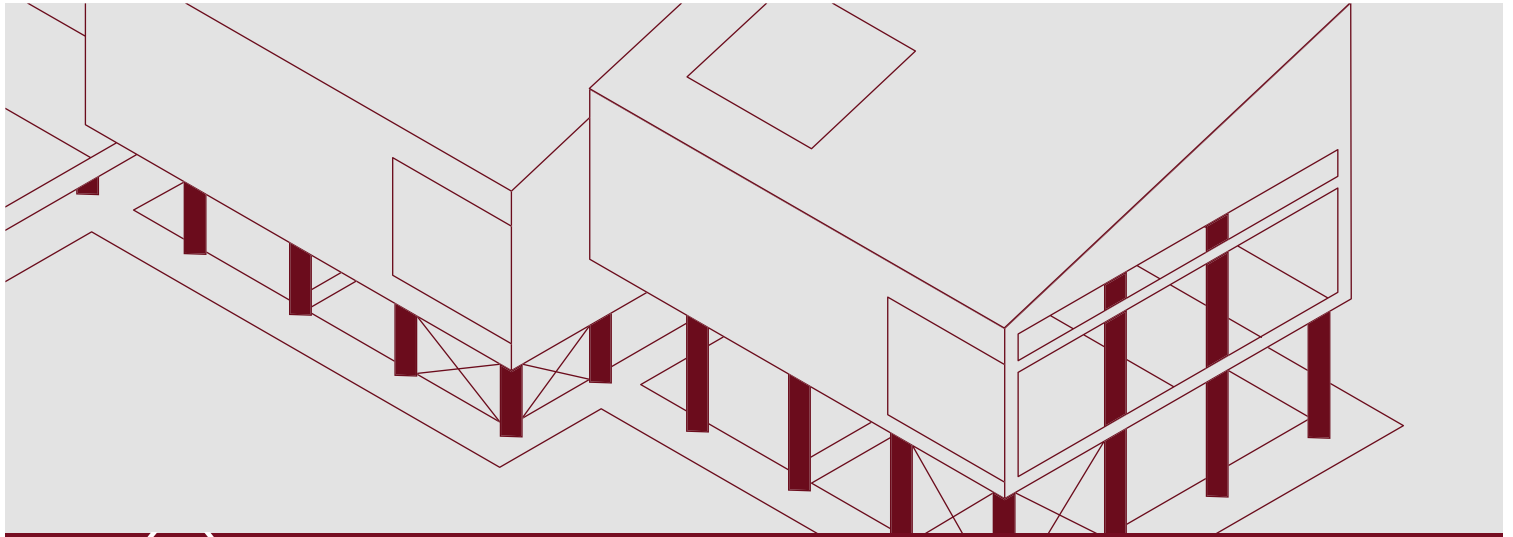


••••• We had the **sustainability and environmental compatibility** of our products confirmed through independent tests and have disclosed this information in our **environmental product declarations (EPDs)**.

These are used in **certifying** the sustainability of buildings. EPDs are available for all key EGGER product groups.

••••• This corresponds to the average CO<sub>2</sub> emissions for a mid-size car over a distance of **6,647 km** (calculation based on the planned European standard of 130 g – 4 1/2 oz – CO<sub>2</sub> /km).

••••• For more information, please consult the **EGGER Environment & Sustainability brochure** or visit [www.egger.com](http://www.egger.com)



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