

MORE FROM WOOD.



PROFESSIONAL



EGGER EUROSTRAND® OSB 4 TOP

- › **High-performance and sustainability**
– for elevated wood construction requirements

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HIGH-PERFORMANCE SUSTAINABILITY

100% FORMALDEHYDE-FREE BONDING WITH BUILDING AUTHORITY APPROVAL Z-9.1-566 OF THE DIBT



PRODUCT DESCRIPTION

PRODUCTION

EUROSTRAND® OSB 4 TOP is a synthetic-resin-bonded flat hardboard with a three-layer particleboard structure consisting of especially aligned strands (micro-veneers) according to building authority approval Z-9.1-566 of the Deutsches Institut für Bautechnik (DIBt).

The special strand geometry (strand length up to 160 mm) has a high degree of strand orientation and combined with the raw materials used assure above-average technical characteristics.

RAW MATERIALS USED

- Debarked softwood from domestic forestry
- Paraffin wax emulsion
- PU resin
- Water

EUROSTRAND® OSB 4 TOP AREAS OF APPLICATION

- Timber frame and engineered wood construction
- Prefabricated house construction
- Refurbishment, renovation and modernisation
- Store construction and exhibition stands (decorative applications)
- Hall and commercial construction



Approval Z-9.1-566 regulates the following:



- Rated values for board thicknesses up to 40 mm
- Rated values for fasteners, screws, nails and clamps
- Constructive gluing of the unsanded boards on surfaces and edges



THE CERTIFICATES

- General building authority approval Z-9.1-566 from the Deutsches Institut für Bautechnik (DIBt)
- OSB/4 CE certification by WKI Braunschweig
- Environmental product declaration (EPD) including ecological balance sheet according to ISO 14040, Institut für Bauen und Umwelt e.V.
- F30/F60 test certificate for load-bearing, space-enclosing wall construction
- FSC Controlled wood (CW) certificate
- Test certificate for ball-impact-resistant wall construction
- Food-safe test report
- ISO 9001 certification
- Test reports on emission characteristics (formaldehyde / MDI)



EGGER EUROSTRAND® OSB 4 TOP DELIVERY PROGRAMME (Z-9.1-566)

Product / length × width (mm)	Board thickness d (mm)													
	6	8	9	10	11	12	15	18	20	22	25	30	35	40
Straight edge unsanded														
5,000 × 2,500							•	•		•	•*			
5,000 × 1,250							•	•		•	•*			
2,960 × 2,500							•*							
3,000 × 1,250							•							
2,800 × 1,250						•	•	•						
2,650 × 1,250						•	•							
2,500 × 1,250						•	•	•		•	•	•**		
T&G 4 sides unsanded														
2,500 × 675						•	•	•		•	•			
2,500 × 1,250							•	•		•	•			
T&G 4 sides sanded														
2,500 × 675							•			•				
T&G 2 sides unsanded														
6,250 × 675/625										•**				
3,000 × 675 ** NEW												•		
3,000 × 1,250 ** NEW												•		

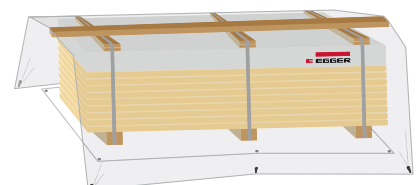
Changes to the delivery programme reserved.

* available upon request (by full loads)

** for roof and ceiling construction with enhanced fire protection F30-B

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.





The assembly hall of the Swiss company Pilatus Flugzeugwerke AG in Stans has 8,800 m² of usable space and was made almost entirely of wood. EUROSTRAND® OSB 4 TOP and EGGER DHF was selected for sheathing of the framework behind the wood and metal façade, the outstanding static and physical construction properties were crucial.

EUROSTRAND® OSB 4 TOP – The features speak for themselves



- for use in load-bearing, reinforcing construction with board thicknesses of up to 40 mm
- for high load dissipating construction in humid conditions (NK2)
- for the use in timber structure applications with large spans and high fire protection requirements
- for decorative applications with a nearly blueness-free and closed surface

STRUCTURAL-PHYSICAL CALCULATION VALUES

EUROSTRAND® OSB 4 TOP according to Z-9.1-566

Characteristic	Test standard	Unit	EUROSTRAND® OSB 4 TOP
Raw density	EN 323	kg/m ³	600 – 640
μ-value*	EN ISO 12572	–	200 / 200
Thermal conductivity λ _R	EN 13986	W/(mK)	0.13
Specific thermal capacity c	DIN 4108-4	J/(kgK)	1,700
Reaction to fire	EN 13986	–	D-s2, d0
24h thickness swelling	EN 317	%	d ≤ 10 mm: ≤ 12 / d > 10 mm: ≤ 10
Linear expansion per 1% of moisture content	EN 318	%/%	0.03
Formaldehyde emission	EN 717-1	ppm	< 0.03

* Calculation values for water vapour diffusion factor μ correspond to the general building authority approval Z-9.1-566.

CHARACTERISTIC STRENGTH VALUES AND STIFFNESS

EUROSTRAND® OSB 4 TOP according to Z-9.1-566, determined based on EN 1058 and EN 789

Thickness (mm)	Strength values (N/mm ²)							
	Bending		Tension		Compression		Panel shear	Planar shear
	f _m		f _t		f _c		f _v	f _r
t _{nom}	0° ¹⁾	90° ²⁾	0°	90°	0°	90°	–	–
8 – 10	25	15	12	10	19	16	9.0	1.6
> 10 < 18	25	15	12	10	19	16	9.0	1.6
18 – 25	25	15	12	10	19	16	9.0	1.6
> 25 – 30	25	15	12	10	17	15	8.0	1.6
> 30 – 40	20	15	10	10	15	14	6.0	1.6

Thickness (mm)	Stiffness values (N/mm ²)							
	Bending		Tension		Compression		Panel shear	Planar shear
	E _m		E _t		E _c		G _v	G _r
t _{nom}	0°	90°	0°	90°	0°	90°	–	–
8 – 10	7,000	3,000	4,300	3,200	4,300	3,200	1,500	160
> 10 < 18	7,000	3,000	4,300	3,200	4,300	3,200	1,500	160
18 – 25	7,000	3,000	4,300	3,200	4,300	3,200	1,500	160
> 25 – 30	7,000	3,000	4,300	3,200	4,300	3,200	1,300	140
> 30 – 40	6,000	3,000	4,000	3,200	4,000	3,200	1,200	140

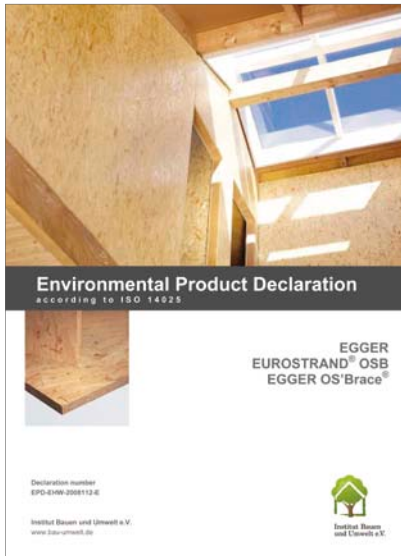
¹⁾ 0°-major axis ²⁾ 90°-minor axis



Additional information on ratings for EUROSTRAND® OSB 4 TOP is found under www.egger.com



**ENVIRONMENTAL
PRODUCT DECLARATION**
EUROSTRAND® OSB 4 TOP



1 m³ (35 1/3 cubic feet) of OSB from EGGER binds approximately **864 kg CO₂** (calculation based on GWP 100 production)

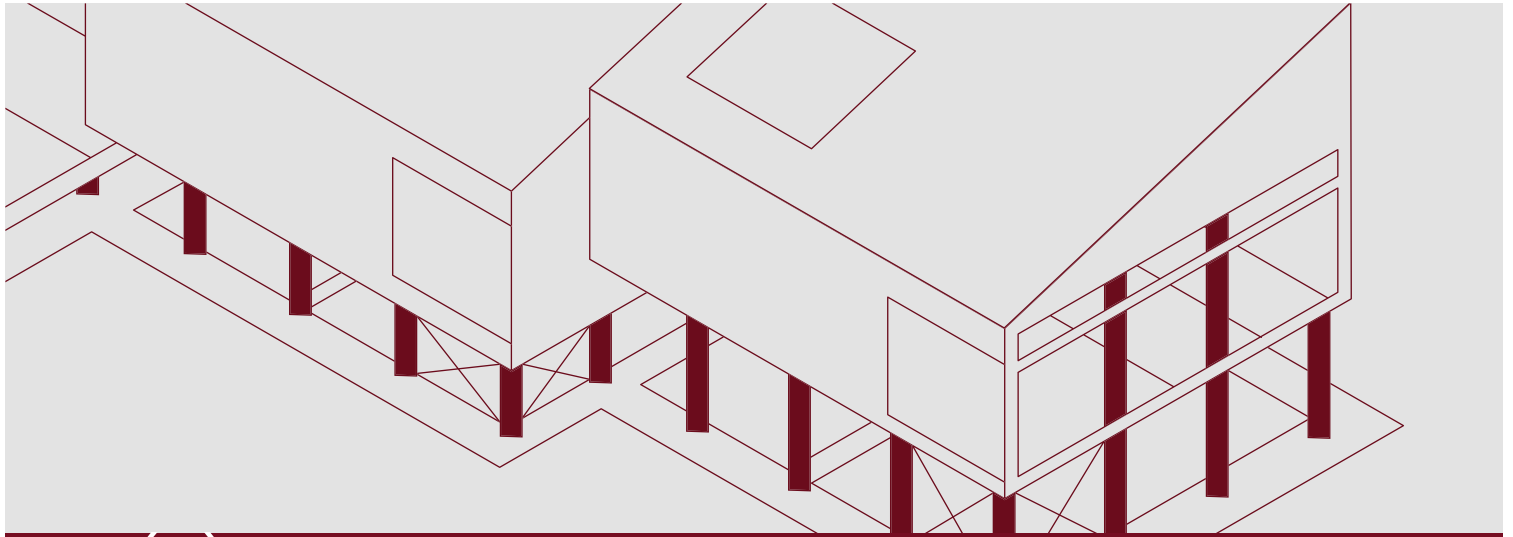


••••• We had the **sustainability and environmental compatibility** of our products confirmed through independent tests and have disclosed this information in our **environmental product declarations (EPDs)**.

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

••••• This corresponds to the average CO₂ 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 – CO₂ /km).

••••• For more information, please consult the **EGGER Environment & Sustainability brochure** or visit www.egger.com



www.egger.com

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