MORE FROM WOOD.

EGGER



EGGER OSB 3 JAS TOP

Rely on experience and sustainability oriented strand board

Structural JAS Panel with F****

Content

Content

1 EGGER OSB 3 JAS TOP 5

The EGGER OSB plants part of the sustainability circle 6

OSB plant Wismar – JAS certified production 6

EGGER OSB production 8

EGGER OSB – Made for Japan 10

2 Product benefits 13

No added formaldehyde 14

Less hassle, more accuracy 14

Safe, strong, dense 14

Saving time & costs 15

For a better working result 15

Responsible, sustainable, trustworthy 15

3 Application, processing and handling 17

Structural application 18

Processing and handling 20

General guidelines 22

Storage and packaging 23

4 Service and quality 25

Quality 26

Delivery programme 27

Technical data of OSB 3 JAS TOP 28



1

1 EGGER OSB 3 JAS TOP

Made by experience.

As a modern family-owned business, we have become a leading manufacturer of wood-based products in the European market. Continuously expanding, we achieve sustainable international growth based on our own performance while preserving our independence. We provide customers worldwide with innovative solutions and market-oriented products and services based around a natural and renewable material – wood.

“We make more from wood” – It was this high standard that motivated Fritz Egger Snr. to open the first chipboard plant in St. Johann in Tirol (Austria) in 1961 and thus lay the foundation for the EGGER success story. What do we have to add to that today? Strictly speaking, a total of 22 plants in 11 countries, about 11,000 employees, sales offices in all major industrial nations of the world and a global sales and distribution network serving over 85 countries worldwide. This is the proud result of an Austrian vision, which drives us forward every day at EGGER and also encourages us to continuously develop for our customers, partners and employees.

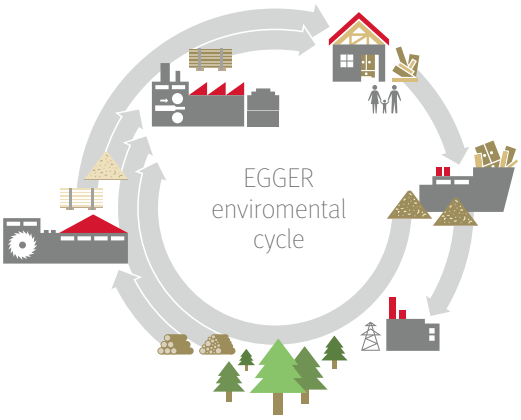
With the commissioning of our OSB plants in Wismar (Germany) in 2000 and in Radauti (Romania) in 2011, we significantly expanded our product range. Together with our products in furniture and interior design as well as our wood-based flooring, we are able to offer high-quality solutions for a wide range of areas.

Built on more than **20 years**
of experience in construction with
EGGER Oriented Strand Board (OSB)

Creating more from wood:
The EGGER OSB plants part of the sustainability circle

Respect, trust, loyalty and a good attitude towards each other define our everyday actions. A high level of professionalism and efficient decision-making processes constitute our key success factors. With a strong sense of quality, our well-trained employees certainly contribute to that success and our aim for perfection is reflected in the nature of our products. In order to ensure the high standards of our products, we employ the latest technology and highly innovative machines. That is why our plants in Wismar (Germany) and Radauti (Romania) are among Europe's most modern production sites for OSB. Both plants are surrounded by sustainably managed forests to ensure the fast supply of raw materials. They also benefit from good logistic access to rail and road routes. In addition, Wismar has direct access to the Baltic Sea, providing an enormous logistical advantage for shipping.

Creating significant synergies, we also merge (in both locations) the production of glue and resins as well as a biomass facility. Biogenic fuels that can't be used in products are transformed into heat and environmentally friendly electricity by EGGER. That's what we call the closed loop of sustainability.



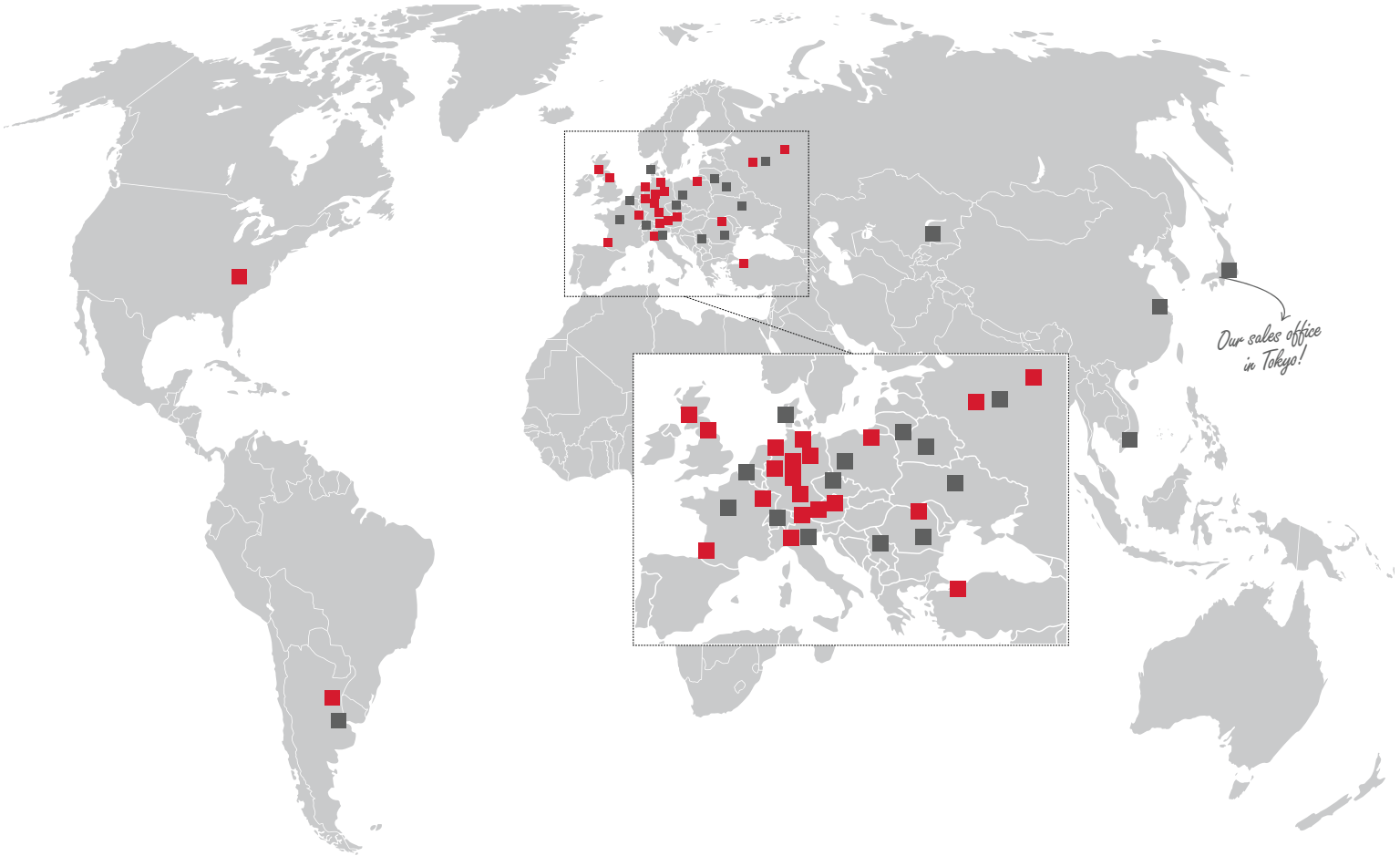
OSB plant Wismar – JAS certified production

EGGER invested 445 Mio. Euro including 135 Mio in environmental investments. Approx. 900 co-workers are employed on the 90 ha plant area and manufacture OSB, MDF/HDF fibreboards, laminate floor, glue and resin. 90 percent of wood can be purchased in Germany (MV. Lower saxonia, Brandenburg) and 10 percent come from the baltic countries, Scandinavia. The OSB plant with its 38.5 m continious press offers a capacitiy ofapprox. 400,000 m³ per year.

Two biomass power stations provide the necessary thermal and electrical energy for a environmentally friendly production process. A container loading area and 5 km of company owned railway support the efficient logistics to world-wide markets.



Wismar (DE)





Rădăuți (RO)

Plants

Sales offices

EGGER OSB production

Modern technology, innovative and environmentally sustainable



EGGER OSB 3 JAS TOP is a three-layered, flat-pressed OSB panel of oriented strands (micro-veneers) bonded with moisture resistant formaldehyde free synthetic isocyanate resin in accordance with F**** requirement.

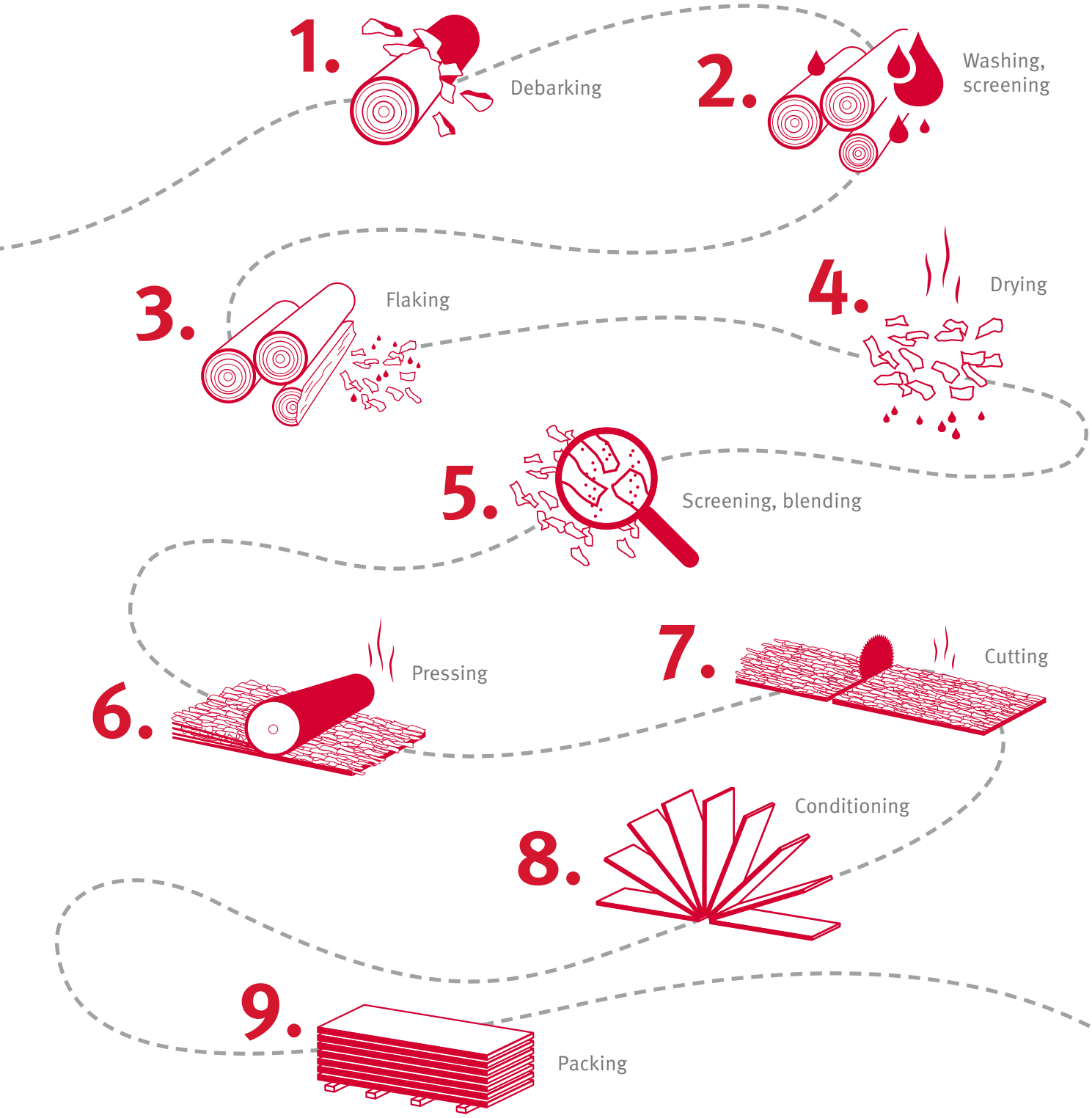
Standardly EGGER OSB is exclusively produced using fresh, debarked logs, primarily derived from local, sustainably managed forests predominantly pine and spruce.

Special strand geometry and a high level of orientation of the surface strands in the direction of the wood-fibre optimizes EGGER OSB's structural performance and physical appearance.

Interested in other OSB qualities that we offer?

Learn more about our product range at
www.egger.com/osb

Production process



Made for Japan

The environmentally friendly and sustainable structural JAS panel

EGGER OSB 3 JAS TOP is a high quality, moisture resistant, environmentally sustainable and structural panel designed and manufactured specifically for Japanese building and construction applications. Since 2001 EGGER OSB is bearing the JAS quality mark first issued by the JPIC office Tokyo. EGGER manufactures EGGER OSB 3 JAS TOP with formaldehyde free bonding since the JAS Standard was revised in 2003 and introduced the new formaldehyde emission class F****. The Wismar plant was one of the first using PMDI bonding technology providing OSB panels with emission like natural wood.
Since 2011 EGGER OSB 3 JAS TOP is manufactured under surveillance by TECO which is accredited by the Ministry of Agriculture, Forestry and Fishery (MAFF) as Registered Oversea Certification Body.

EGGER EPD OSB – Environmental Product Declaration
The EGGER EPD OSB was issued by the Institut Bauen und Umwelt e. V. (IBU) which is an association of building product manufacturers. IBU operates an international program for environmental product declarations. EGGER as a member of IBU is committed to sustainable building and is of the opinion that those who advertise with sustainability should be able to demonstrate this. This is exactly what EGGER does under the umbrella of the IBU with Environmental Product Declarations (EPD), an internationally recognized and standardized instrument for the sustainability certification of buildings.

You can rely on:
- Consistent quality
- An environmentally friendly product
- Certified JAS strength classes : class 1, 2, 3, 4
- Availability in common sizes and thicknesses from 8 to 30 mm
- Available in common thicknesses and sizes
- Formaldehyde free bonding for ultralow emission F****
- IBU EPD verified contribution as an important component in “green” construction practices



JAS 認定書

PFS·TECO

EGGER Holzwerkstoffe Wismar GmbH & CO. KG

エッガーホルズヴェルクシュトッフェウイスマール GmbH & CO. KG
AM ハッフェルド 1
D-23970 ウイスマール、ドイツ

構造用パネル（OSB）

上記生産者は農林物資の規格化及び品質表示の適正化に関する法律（昭和 25 年法律第 175 号）－平成 18 年 3 月 1 日施行－の認証を受けました。同生産者は PFS TECO の JAS 検査及び認定手続きで定めた農林水産省通知第 2904 号に規定される認定構造用パネルを生産するための要件を満たしていることを認定されました。
認可製品は F 4-Star ホルムアルデヒド排出製品（F☆☆☆☆）です。

ティコでは下記主要審査を行い Type 5（ISO/IEC 17067）認定プログラムを運営しています。
- 適用される規格の製品適合検査
- 生産者品質管理マニュアル及び品質管理システムの適合性
- 生産者品質管理システム定期的調査
- 定期的製品検査

スティーブ G. ウイニストーファー
上級副社長
PFS TECO

JAS

2011 年 10 月 13 日
認定付与日

認定
農林水産省日本農林規格登録外国認定機関
International Accreditation Service – TL207
Standards Council of Canada – No. 1003-10/50

この証書の有効性を http://www.tecotested.com/clients-jas にて確認することができる。
上記認定はティコに帰属し、最低基準を満たさない場合、ティコに返還しなければなりません。

PFS コーポレーション dba PFS TECO • 1507 マットパス • コテイジグローブ・ウイスコンシン 53527 • アメリカ合衆国 • www.pfsteco.com

F**** JAS Structural Panel certificate obtained from PFS TECO (ROCB).



CERTIFICATION

As the Registered Foreign Certification Organization (RFCO) of record, **Professional Service Industries Inc**. has approved **Egger Holzwerkstoffe Wismar GmbH & Co. KG** to produce and certify ***Structural Panel*** products.

The recognition for this certification is based on the Japanese ***LAW*** Concerning Standardization and Proper Labeling of Agricultural and Forestry Products, (Law No. 175 of 1950 as amended in 1999) Article 19-3 Clause 1. The regulations of the above mentioned LAW are to be followed within the certification guidelines.

Effective Certification Date: April 10, 2003

Certified Producer: **Egger Holzwerkstoffe Wismar GmbH & Co. KG**
Am Haffeld, D-23970 Wismar, Germany

Product Type: **Structural Panel (OSB)**

Product Classification: **Class 1, 2, 3 & 4**

Formaldehyde Emission: F☆☆☆☆

TTO: **PSI Engineered Wood Products**

PROFESSIONAL SERVICE INDUSTRIES, INC.
Engineered Wood Products
Eugene, Oregon USA

Director
Ralph M. Vaughn

Director, Tech Services
Randy T. Webb

The first F**** certificate for JAS certified OSB obtained from PSI/PTL (RFCO) in 2003.



ENVIRONMENTAL PRODUCT DECLARATION
as per *ISO 14025* and *EN 15804+A1*

Owner of the Declaration	Fritz EGGER GmbH & Co. OG
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-EGG-20180107-IBD2-EN
Issue date	03.09.2018
Valid to	02.09.2024

EGGER OSB boards
Fritz EGGER GmbH & Co. OG

www.ibu-epd.com | https://epd-online.com

Institut Bauen und Umwelt e.V.

ECO PLATFORM
EPD
VERIFIED

Environmental Product Declaration – EPD OSB update issued in 2018 by IBU e.V.



2

2 Product benefits

This board is full of wood and full of benefits.

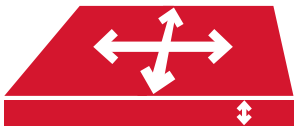
This board combines characteristics that are essential for various applications. Thanks to its high degree of fitting accuracy, perpendicularity and dimensional stability, it can be used to cover large areas without reworking. The dependable bulk density of at least 600 kg/m³ ensures that all other mechanical and physical properties are maintained. Plus, the machine-profiled and precision tongue and groove profile makes installation easy.

No added formaldehyde

F * * * *
NO ADDED
FORMALDEHYDE

EGGER OSB JAS TOP is a three-layered, flat-pressed OSB panel of oriented strands bonded with formeldehyde free synthetic isocyanate resin in accordance with JAS Standard for structural panels. EGGER manufactures OSB 3 JAS TOP with formaldehyde free bonding since 2003 when the new formaldehyde emission class F**** was introduced. By using a formaldehyde free resin, this allows for a healthy indoor environment.

Less hassle, more accuracy



Precision manufacturing and the boards' low dimensional tolerances mean that they can be used to cover even large areas at the correct angles, without the need for reworking. This is where EGGER OSB 3 boards really come into their own, thanks to their high degree of fitting accuracy, perpendicularity and dimensional stability.

Safe, strong, dense



EGGER OSB 3 is a board with remarkable mechanical properties. It has a high load bearing capacity and rigidity which guarantees you safety during use in numerous applications.

Reliable density



The bulk density has a significant effect on mechanical and physical construction properties, such as edging strength, air tightness and vapour retardant capacity. That is why EGGER OSB 3 boards have a guaranteed minimum bulk density of 600 kg/m³.



Saving time & costs

EGGER OSB 3 boards can be processed with standard wood-working tools. The easy processing and handling result in a shorter completion time, meaning that buildings are less exposed to weather – highly important for projects located in difficult climates. The application enables a clean installation where no water is needed, thus eliminating the drying time.



For a better working result

The optimised tongue and groove profile of our EGGER OSB 3 TOP JAS flooring boards is sure to impress due to the high degree of precision and the simplified process of joining boards that it facilitates. The asymmetric tongue and groove profil provides impressive resistance against heavy weights caused by concentrated loads. Expansion gaps of 1 mm on the top and bottom side prevent buckling ad squeaking floors. Due to high board density and its geometry, the profile is also resistant to damage that could otherwise be incurred during transport and processing.



Responsible, sustainable, trustworthy

EGGER gets the best out of wood – 1 m³ of OSB binds 753kg of CO_2. The wood used in the production of EGGER OSB 3 boards is primarily derived from sustainably managed forests.

EGGER OSB is manufacured in European plants which are certified according to the chain-of-custody schemes.





3 Application, processing and handling

EGGER OSB 3 JAS TOP for timber contructions

Architects, builders and home owners appreciate the beauty, flexibility and advantages of using wood as a building material. Designed to perform OSB 3 JAS TOP F**** made by EGGER fulfills these expectations. The boards are perfectly for 2'×4' timber–frame construction and also for structural flooring in post- and–beam constructions.

Structural application

Sheathing of walls and roofs

The stable OSB sheathing panels are available in sizes and JAS strength classes fit for use. High stiffness, moisture resistance and dimensional stability provide high perfomance characteristics for the whole structure.





Structural Floor

The easy installation and excellent load perfomance make EGGER OSB 3 TOP JAS with tongue and groove an ideal structural floor.

Low deflection longterm durability are appreciated for the use phase of the building.



SIPS – Structural insulated panels

Structural insulated panels (SIPs) are a high performance building system for residential and light commercial constructions. EGGER OSB 3 panels are perfectly suitable for any kind of wall or roof SIP element. Commonly not less than 10 mm OSB board thickness is used.



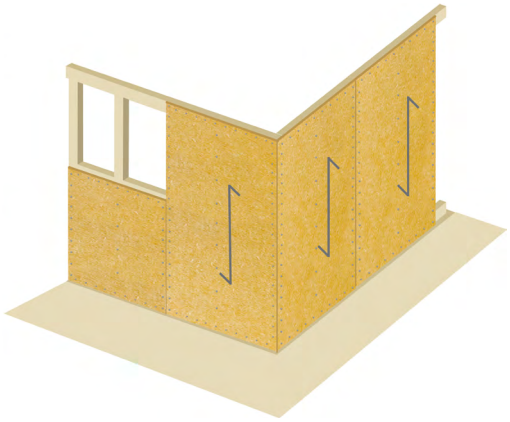
Interior non-structural and decorative use

In addition to use in timber construction, EGGER OSB boards are also an economic material for temporary building applications. In trade fair and shop construction, OSB 3 is mainly used for load-bearing coverings. Thanks to its high static rigidity, it is the perfect material for stage or storage room construction. It also serves as a decorative element with a colored surface design. The affordable multipurpose panel can be used for garages, sheds, canopies, site hoardings, billboards or shelves.

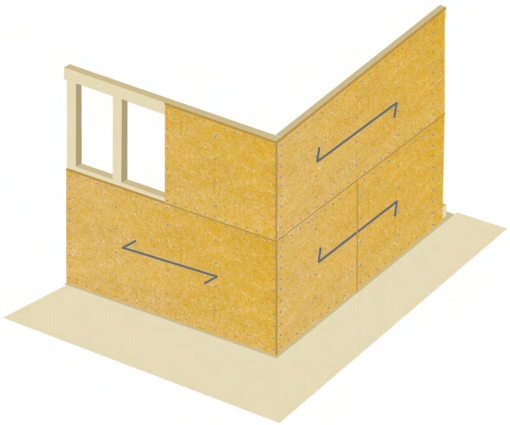


Processing and handling

Wall sheathing
EGGER OSB 3 JAS TOP panels certified according to the strength class 3 and 4 are fit for use as wall sheathing. Select the appropriate OSB panel thickness or grade for the application. Fasten the boards directly to framing members. Wall sheathing may be installed horizontally or vertically. Leave a 3 mm expansion gap at all panel edges. Nail spacing should be more than 150 mm on center along panel edges and 300 mm on center along intermediate supports. Fasteners shall be located a minimum 9.5 mm from panel edges.

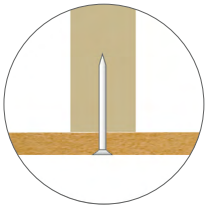


Vertical installation



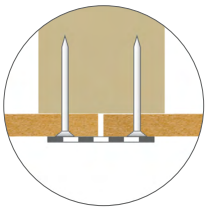
Horizontal installation

A



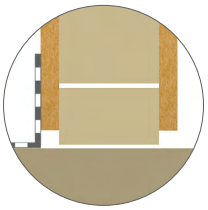
Fastening
(Horizontal section)

B



Panel joint with
airtight sealer tape
(Horizontal section)

C



Airtight connection to
base plate/foundation
(Vertical section)

Structural Flooring

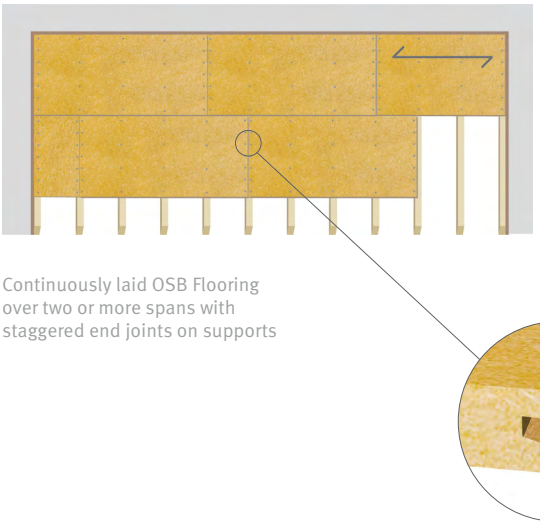
Select the appropriate strength class, panel thickness or span rating for the application. Apply the strength axis perpendicular to the supports. All panels should be continuous over two or more spans; all end joints must be staggered and lie over supports.

Fasteners shall be located a minimum 9.5 mm from panel edges. Install panels leaving a 3 mm gap at all panel ends and edges to allow dimensional change according to surrounding climate.

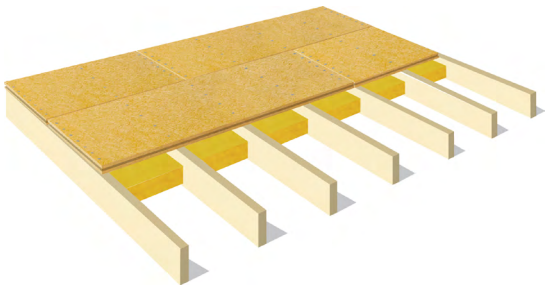
Stand over supports (joists, trusses or rafters) when nailing. Nail spacing should be no more than 150 mm along panel perimeter edges and 300 mm along intermediate supports.

All fasteners must penetrate a minimum of 25 mm into structural supports and be with nail head flush with panel surface.

Ensure adequate ventilation as specified in the appropriate building code.



Continuously laid OSB Flooring over two or more spans with staggered end joints on supports



General guidelines

Sawing– Drilling – Milling
The OSB board can be machined like solid wood with the right electrical and hand tools. Fitting the cutting tools with hard metal is recommended. During the use of manually guided power tools without dust extraction by suction a breathing mask should be used. Make sure to select a slightly lower feed rate. For a good cross-section on visible boards, the following should be noted

- Sharp tools
- Vibration-free work piece feed
- Correct blade protrusion Expansion gaps

Material moisture balance
OSB 3 JAS TOP boards absorb a certain amount of equilibrium moisture depending on the relative humidity and temperature of the surrounding air. The figure is around 3 % below the equilibrium moisture of solid wood. Equilibrium moisture specified in the table can be expected in the in-service condition for wood and OSB boards. The occurrence of condensation is prevented by professional planning and assembly.

Expansion gaps
Expansion gaps to walls and adjacent elements are to be planned according to the anticipated change in length caused by the climate. For edge lengths › 10 m, additional expansion gap from **10 to 15 mm** are to be arranged within the component area. For planning expansion gaps, a possible change in length of 0.03 % per 1 % of material moisture change is to be taken into account.

Installation conditions	Equilibrium moisture
Fully centrally heated building	6 to 9 %
Building with part-time central heating	9 to 15 %
Unheated new buildings	9 to 18 %

Storage and packaging

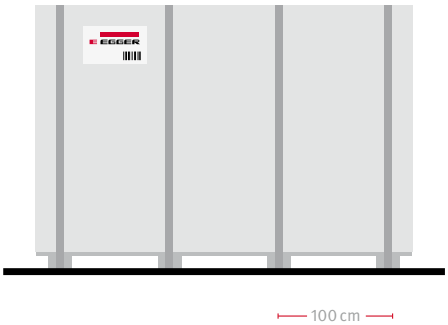
EGGER OSB boards are secured in a package with a cardboard cover, as well as protective strips and packaging straps to prevent transport and moisture damage. Packages with tongue and groove boards also have stretch film for short-term protection against precipitation and dirt. The following principles should generally be observed:

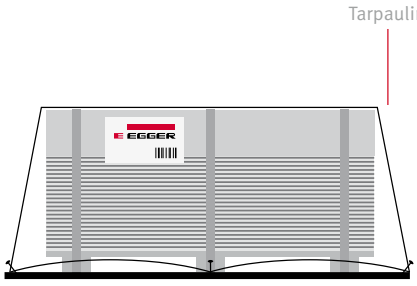
- OSB boards should be placed in a horizontal position on squared timbers with a maximum distance of 80 to 100 cm. It is important to ensure a consistent height of the squared timbers.

→ In the case of a board thickness of **9 to 12 mm**, flooring sleepers should be used at a distance of approx. **60 cm**.

- Upright storage (standing nearly vertical) is only possible in exceptional cases with a few boards and only on a dry surface. In this case, boards with tongue and groove profile may only stand **on the tongue side**.

- If several packages are stacked one on top of the other, the squared timbers have to be vertically aligned.
- When using a forklift for transportation, the squared timber must be high enough to prevent damage.
- The boards must be protected during transport and storage against direct weathering (closed truck platforms, cover film).
- The storage facilities should be air-conditioned without the risk of high humidity and temperature fluctuations.
- The packaging straps around the packages should be removed promptly in order to avoid compression stress in the package during storage in the fabricator's warehouse or on the construction site.
- Prior to installation, the boards must be acclimatized to the expected use moisture for a period of 48 hours.





Disposal

OSB boards may be used in both material or energy recycling. Residues of OSB boards from construction and demolition projects can be used as recycled material.



4 Service and quality

Something you can rely on.

Not only do we point the strands in the right direction – our tailored services mean that you will never be kept in the dark. Targeted support, expert advice and an extensive delivery programme are all integral to our service. Just another instance of the high quality you expect from EGGER.

Quality

EGGER OSB boards are resin-bonded, three-layer wood material boards from oriented micro-veneers (strands). The majority of wood used is debarked, fresh spruce from sustainably managed forests. Mixed wood variants or special hardwood varities are also used where boards must meet specific demands.

Raw materials
- Fresh wood
- Paraffin wax emulsion
- PMDI resin
- Water

Environmental sustainability
Stringent care is taken to ensure that EGGER OSB boards are made according to all environmental requirements in a resource-friendly way. All EGGER products undergo regular environmental impact investigations.

- IBU Environmental Product Declaration (EPD) according to EN 15804 and ISO 14025
- Free from chemical wood preservatives
- Wood fresh from the forest

Services
- Technical information on our website **www.egger.com/buildingproducts**
- Local EGGER sales office in Tokyo for your support
- Plant visits on your request

Monitoring
EGGER OSB boards afford planners and fabricators an incredible degree of product and application security. The highest quality standards are guaranteed thanks to national and international product standards combined with product-specific construction approvals. The boards are subject to an ongoing external monitoring by an accredited institute. This regular, independent inspection of the products is documented by the CE certification.

- ISO 9001 certified quality management
- ISO 14001 certified environmental management
- JAS certification
- CE certification and declaration of performance
- Certification on wood origin available on request
- Fullfillment of legal requirements

EGGER sourcing sustainable wood

THIRD-PARTY VERIFIED EPD ISO 14025 and EN 15804 Institut Bauen und Umwelt e.V.

CE



What do we have to say on the topic of the environment?
Find answers and insights in our environment and sustainability brochure.
www.egger.com/environment

Delivery programme

Thickness [mm]	JAS class	Lenght × Width [mm]	Edge	Surface
9,0	4	3030 × 910	Square edge	unsanded
9,0	4	2730 × 910	Square edge	unsanded
9,0	4	2440 × 910	Square edge	unsanded
9,0	4	1820 × 910	Square edge	unsanded
12,0	3	2440 × 910	Square edge	unsanded
15,0	2	1820 × 910	Square edge	unsanded
15,0	2	1820 × 910	Tongue & Groove	unsanded
24,0	1	1820 × 910	Tongue & Groove	unsanded
28,0	1	1820 × 910	Tongue & Groove	unsanded

Other panel sizes or thickness, order volumes and batch sizes to be requested.



Technical data of OSB 3 JAS TOP

Mechanical properties	Unit	Requirement						
Board thickness	[mm]	9.0	9.5	11.5	12.0	15.0	24.0	28.0
Class		class 4		class 3		class 2	class 1	
Density [1]	[kg/m³]	630	630	620	620	610	600	600
Internal bond	[N/mm²]	≥0.30						
Bending strength dry major axis	[N/mm²]	≥26.26	≥23.89	≥27.79	≥25.52	≥24.61	≥12.25	≥9.00
Bending strength dry minor axis	[N/mm²]	≥7.86	≥7.06	≥8.52	≥7.83	≥7.40	≥3.66	≥2.69
Modulus of elasticity dry major axis	[N/mm²]	≥4705	≥4001	≥4511	≥3970	≥3920	≥2162	≥1362
Modulus of elasticity dry minor axis	[N/mm²]	≥1344	≥1143	≥1289	≥1134	≥1161	≥638	≥402
Bending strength wet major axis	[N/mm²]	≥13.31	≥11.94	≥14.08	≥12.93	≥12.41	≥6.13	≥4.5
Bending strength wet minor axis	[N/mm²]	≥4.23	≥3.8	≥4.08	≥3.74	≥3.70	≥1.87	≥1.38
Modulus of elasticity wet major axis	[N/mm²]	≥2016	≥1715	≥2255	≥1985	≥2033	≥1063	≥670
Modulus of elasticity wet minor axis	[N/mm²]	≥672	≥572	≥644	≥567	≥581	≥319	≥201
Delamination after 2h boil test		no delamination						
Nail withdrawal resistance	N	≥88						
Neil-shear-strength (max. strength divided by 4)	N	≥686 (≥2744)						
Swelling in thickness 72h	[%]	≤24						
Moisture content [2]	[%]	≤13						
Formaldehyd Emission	[mg/l]	≤0.3 mg/l (average value) / ≤0.4 mg/l (maximum value)						

General tolerances	Unit	Requirement
Length tolerance	[mm]	+0/-4
Width tolerance	[mm]	+0/-4
Thickness tolerance	[mm]	±0.8
Squareness (difference of diagonals)	[mm]	≤4.0

1) The mean density is subject to a production technology related dispersion of ±20 kg/m³.
2) When dispatched.

Notes

Notes

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