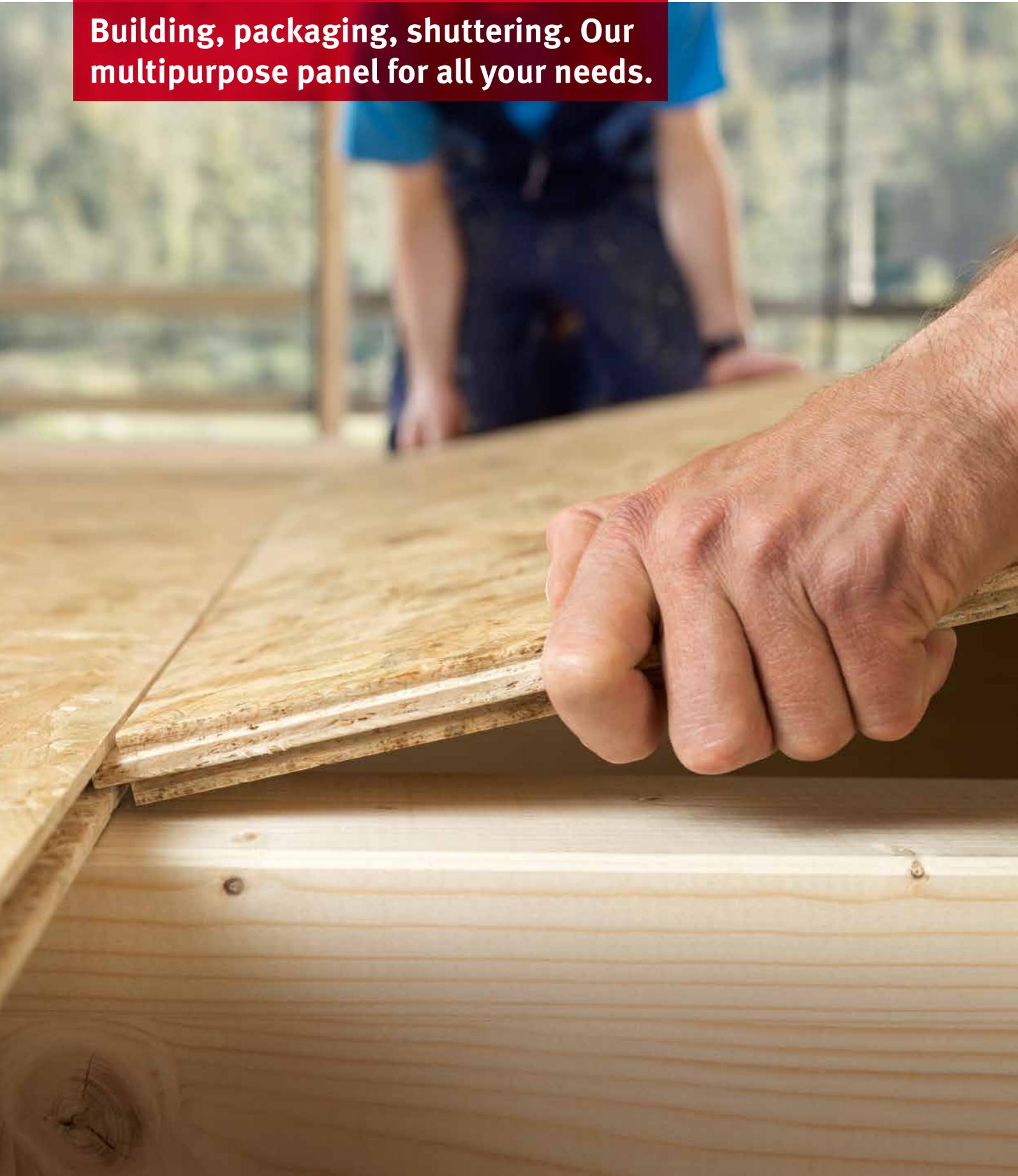


MORE FROM WOOD.



Egger OSB 3

Building, packaging, shuttering. Our multipurpose panel for all your needs.



Content

Content

1	EGGER OSB 3	5
	Natural growth and deep roots	6
	EGGER OSB 3 production	8
2	Product benefits	13
	Outstanding accuracy	14
	High mechanical strength	14
	Reliable density	14
	Fast and easy to install	15
	Optimised tongue and groove profile	15
	Environmentally sustainable	15
3	Areas of application	17
	Timber-frame constructions	18
	Structural insulated panels	20
	Packaging material	21
	Other applications	23
4	Processing and handling	25
	General information	26
	Storage and packaging	27
	Disposal	27
	Material features	28
5	Service and quality	31
	Service	32
	Delivery programme	33
	Quality	34



1 EGGER OSB 3

Made by experience.

“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 18 plants in 8 countries, about 9.000 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 1999 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 **15 years**
of experience in construction with
EGGER Oriented Strand Board (OSB)

Natural growth and deep roots

Creating more from wood: the EGGER Group and its OSB plants

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.

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

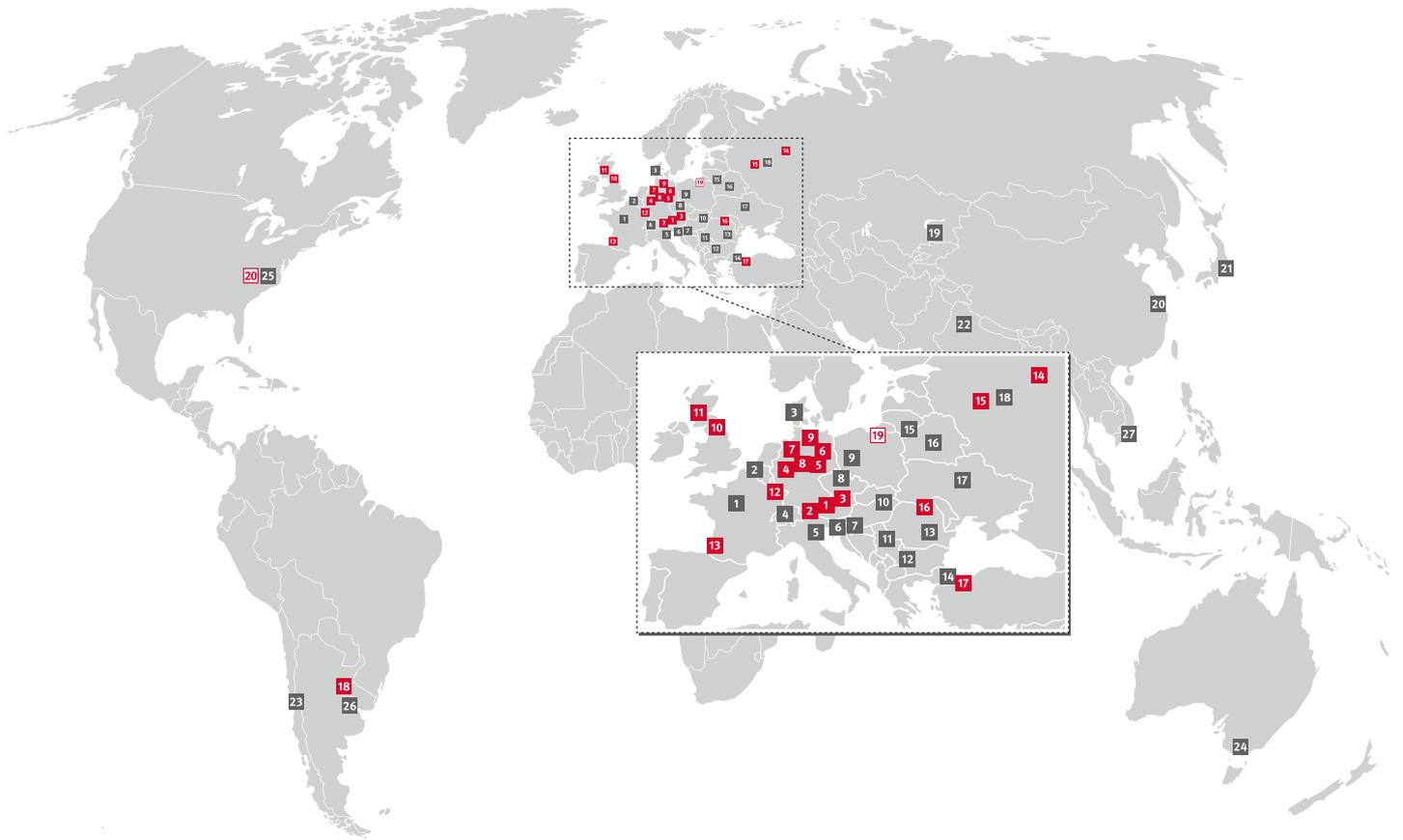
highly innovative machines. That is why our plants in Wismar (Germany) and Radauti (Romania) are among Europe’s most modern production sites for OSB.

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.



The unique location at the Baltic Sea distinguishes the plant in Wismar from other EGGER plants.



16

Production sites

- 1 St. Johann in Tirol (AT)
- 2 Wörgl (AT)
- 3 Unterradlberg (AT)
- 4 Brilon (DE)
- 5 Bevern (DE)
- 6 Gifhorn (DE)
- 7 Bünde (DE)
- 8 Marienmünster (DE)
- 9 Wismar (DE)
- 10 Hexham (UK)
- 11 Barony (UK)
- 12 Rambervillers (FR)
- 13 Rion des Landes (FR)
- 14 Shuya (RU)
- 15 Gagarin (RU)
- 16 Rădăuți (RO)
- 17 Gebze (TR)
- 18 Concordia (AR)

**In planning/
under construction**

- 19 Biskupiec (PL)
- 20 Lexington, NC (US)

Sales locations

- 1 Tours (FR)
- 2 Kortrijk (BE)
- 3 Tistrup (DK)
- 4 Kriens (CH)
- 5 Treviso (IT)
- 6 Šenčur (SI)
- 7 Varaždin (HR)
- 8 Hradec Králově (CZ)
- 9 Poznań (PL)
- 10 Budapest (HU)
- 11 Smederevo (RS)
- 12 Sofia (BG)
- 13 București (RO)
- 14 Gebze (TR)
- 15 Vilnius (LT)
- 16 Minsk (BY)
- 17 Kiev (UA)
- 18 Moscow (RU)
- 19 Almaty (KZ)
- 20 Shanghai (CN)
- 21 Tokyo (JP)
- 22 New Delhi (IN)
- 23 Santiago de Chile (CL)
- 24 Melbourne (AU)
- 25 Lexington, NC (US)
- 26 Buenos Aires (AR)
- 27 Ho Chi Minh City (VN)

On a total surface of 76 ha, approx. 775 employees produce OSB and chipboard.

EGGER OSB 3 production

Moisture resistant, innovative and environmentally sustainable



EGGER OSB 3 is exclusively produced using fresh, debarked logs, primarily derived from local, sustainably managed forests. Around 70% of the total wood amount used in production is coniferous, predominantly pine and spruce. The remaining 30% includes different broadleaf species like beech, birch, lime tree or willow.

The share of softwood and hardwood species, together with the surface-to-core ratio and the pressing parameters determine the quality and characteristics of the product. In addition to the fresh wood, further components of the EGGER OSB boards are glue, water and paraffin wax emulsion.



→ **Interested in other OSB qualities that we offer?**

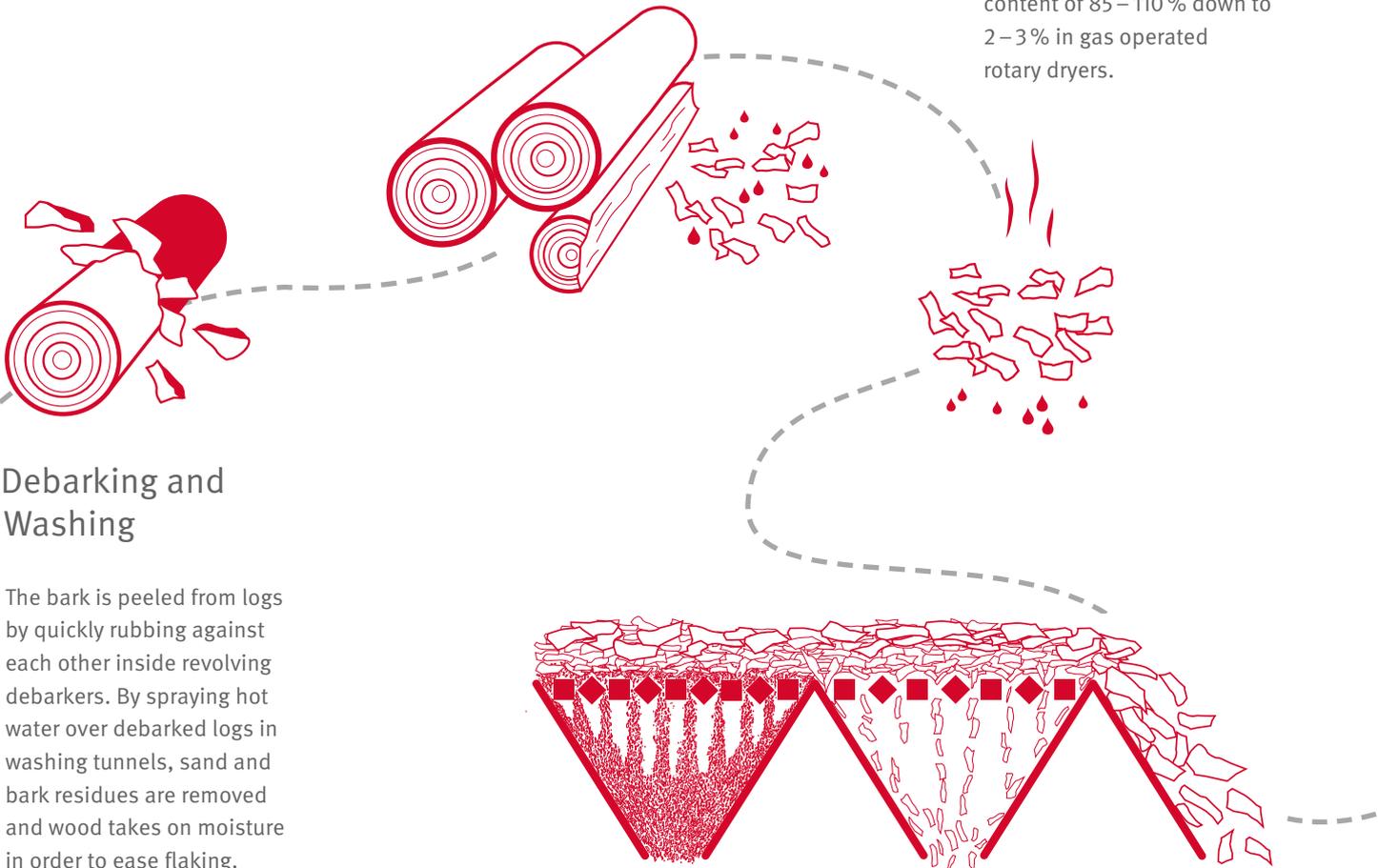
Learn more about our product range at www.egger.com/osb

2. Flaking

Thin wood strands are peeled from logs by means of chipping machines (so-called ring-knife flakers), working like giant pencil sharpeners.

3. Drying

The wet strands are dried from their original moisture content of 85–110% down to 2–3% in gas operated rotary dryers.



1. Debarking and Washing

The bark is peeled from logs by quickly rubbing against each other inside revolving debarkers. By spraying hot water over debarked logs in washing tunnels, sand and bark residues are removed and wood takes on moisture in order to ease flaking.

4. Screening

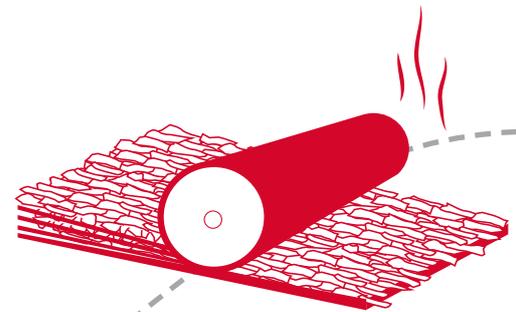
Using the most modern technology, the dried OSB strands are sorted according to certain size fractions and fed to the glue drums. High quality screening is a prerequisite for continuously excellent OSB properties.





6. Mat forming

With special spreading machines for surface layer (disk orientator) and middle layer (fan roller orientator), the screened strands are scattered in three cross-aligned layers. The strands have their greatest load capacity in the fibre direction and the outer surface layers thus provide the highest strength and stiffness in the direction of the main axis of the OSB plates. This makes OSB the ideal timber building product.



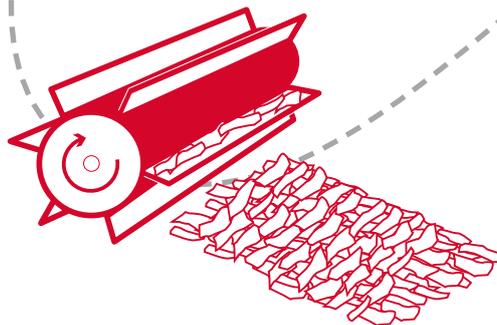
7. Pressing

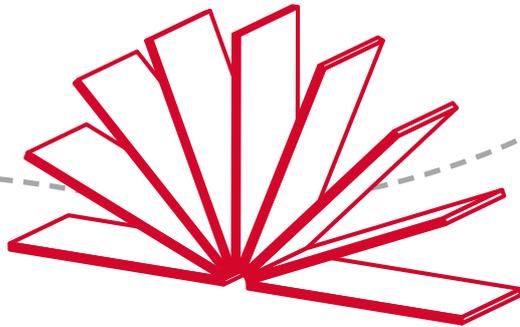
At the end of the forming line, the mat goes into a hot continuous press (Contiroll), where it is progressively pressed until it reaches the final sturdiness and thickness.



5. Blending

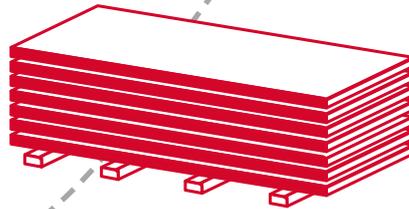
In order to strongly bind the strands to one another, they are sprayed with a special moisture resistant synthetic resin, which undergoes a full chemical reaction inside the press.





8. Cooling and Acclimatisation

When leaving the press, the panels are too hot to be stored safely, therefore they need to be cooled down to 30–40 °C before being stacked and warehoused. This is done by two star coolers, where each panel is rotated half-circle 0°–180° and back.



9. Cut-to-size and Packing

Upon exiting the star coolers, the side edges of the board are trimmed at the nominal width, and the boards are cross-cut by a diagonal saw at the master-size format. After conditioning the boards in the warehouse for at least 48 hours, the master-size panels are brought back in the production area for their final processing, which includes: cutting to size, tongue-and-groove edge profiling (if necessary), marking, palletizing and labeling.





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.

Outstanding 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.

High mechanical strength



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.



Fast and easy to install

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.



Optimised tongue and groove profile

The optimised tongue and groove profile of our EGGER OSB 3 boards is sure to impress due to the high degree of precision and the simplified process of joining boards that it facilitates. Furthermore, the tongue and groove profile provides impressive resistance

against heavy weights caused by concentrated loads. Due to its geometry, the profile is also resistant to damage that could otherwise be incurred during transport and processing.

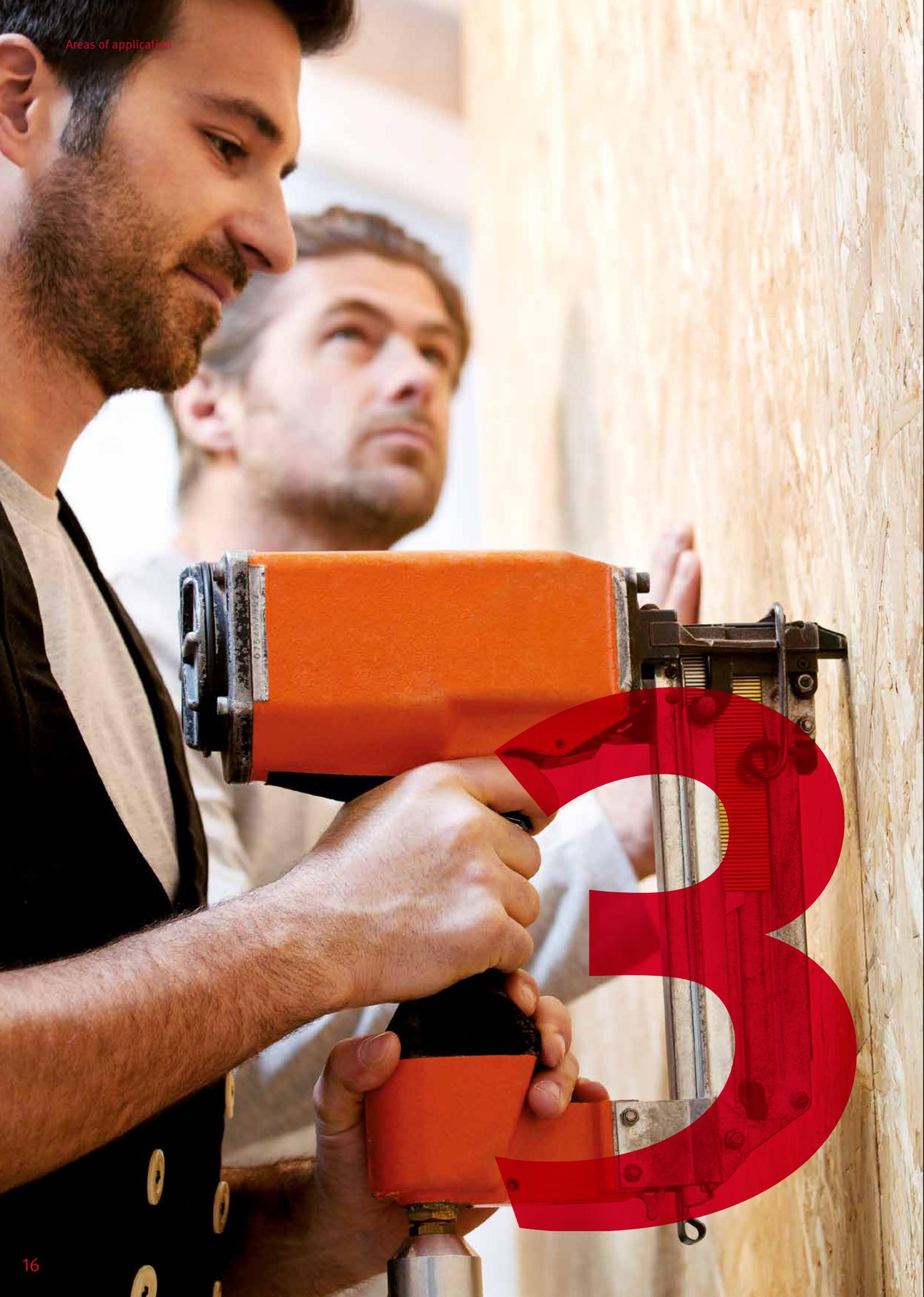


Environmentally sustainable

EGGER gets the best out of wood – 1m³ of OSB binds 864 kg of CO₂. The wood used in the production of EGGER OSB 3 boards is primarily derived from sustainably managed forests.

FSC® (Forest Stewardship Council®, FSC-C017963) or PEFC (Programme for the Endorsement of Forest Certification Schemes) certified OSB 3 boards are available upon request.





3 Areas of application

One board.

Many applications.

Lots of possibilities.

Its versatility is what makes this board so special – timber-frame constructions, structural insulated panels, packaging material or temporary constructions. Straightforward and fast processing without special tools and the high static stressability guarantees the wide variety of applications.

EGGER OSB 3 for timber-frame constructions

OSB 3 boards can be used in wood constructions under normal stress conditions as load-bearing and bracing panels for walls, ceilings and roofs.

Wall

In interior design, wall sheathing made of OSB serves as load-bearing sub-layer for cantilever loads, such as wardrobes. The use of EGGGER OSB 3 boards as a load-bearing and stiffening sheathing in wall panels must be certified by a structural

engineer for the specific construction project. Plastering EGGGER OSB 3 boards is only possible in combination with a thermal insulation composite system or plaster-base sheathing. Plaster boards must always be flush abutted when mounted on a substructure made of wood-based materials. This prevents the self-levelling compound from adhering to the substructure and sub-layer tensions to be passed on directly to the joints.



Ceiling and flooring

EGGER OSB 3 boards are available as flooring boards with a 4-sided tongue and groove profile in various formats and thicknesses and are best suited as dry screed and ceiling cladding for making load-bearing and stiffening under-floors. In new constructions or renovations, OSB 3 boards as light dry screeds are an economic alternative to heavy screed.

EGGER OSB 3 boards can be installed to upgrade existing wood beam ceilings, as new ceiling sheathing on old wooden boards, or as new structural floor directly on wooden beams. In the production of dry screed, a distinction is made between floating installation on impact resistant sound insulation and installation on flooring sleepers. The OSB 3 board is installed in lattice and almost cut-free, particularly in the case of floating installation.

Roof

EGGER OSB 3 boards can be used in the roof as inner cladding, as sheathing of rafters or as supporting formwork and sub-structure for underlays. The requirements of DIN 68800-2 and EN 335 for wood preservation in construction have to be met.

→ For a perfectly even sub-layer for further roof works, we provide an ergonomic and innovative solution for fast and safe roof decking: **EGGER Roofing Board**. Based on an OSB 3 panel, the Roofing Board is characterized by its small format, low weight and innovatively milled edge profiles.

Learn more about our Roofing Board at www.egger.com/roofingboard



EGGER OSB 3 for structural insulated panels

Structural insulated panels (SIPs) are a high performance building system for residential and light commercial constructions. The panels consist of an insulating foam core sandwiched between two OSB structural facings. SIPs are manufactured under factory controlled conditions and can be fabricated to fit nearly any building design. The

result is a building system that is extremely strong, energy efficient and cost effective. The thickness of the OSB sheathing results from static calculations, but not less than 10 mm is commonly used. Due to their high density and constant low thickness tolerance, EGGER OSB 3 panels are perfectly suitable for any kind of wall or roof SIP element.



EGGER OSB 3 for packaging material

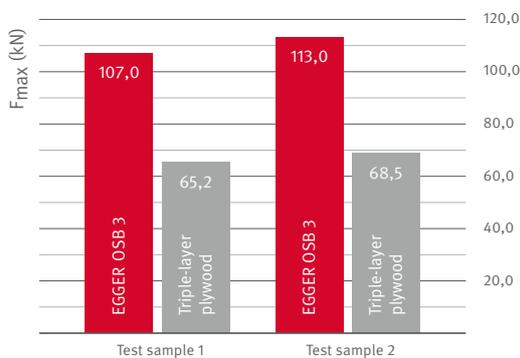
Thanks to the good strength and stability, straightforward processing, high pull-out resistance of fasteners and low breakout tendency in the edges area, EGGER OSB 3 becomes the perfect product choice for packaging:

- protective cases for heavy-weight components
- pallets
- vegetable boxes

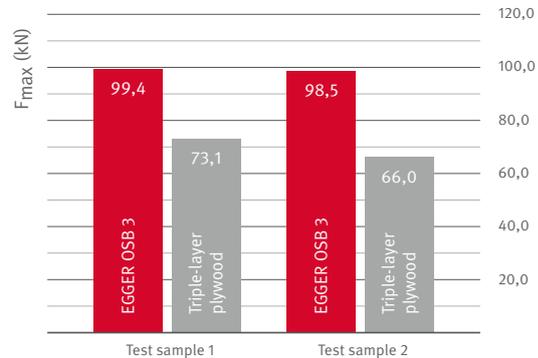
The use of OSB 3 as a wood packaging product is tested and certified by independent institutes. EGGER OSB 3 fulfills the food grade requirements of ISPM 15 standard, and is resistant to Sirex wasp attacks, too. All these features, along with its excellent price-to-quality report, make the OSB 3 an ideal material for packaging.

Clear advantages for EGGER OSB 3 as compared to triple-layer plywood

Full-surface compression load at delivery



Full-surface compression load after 4 weeks outside storage



When using EGGER OSB 3 for box constructions there are clear advantages regarding quality and strength as compared to triple-layer plywood, as comparative research shows. Source: BFSV, Test Report No. 4887/02



The right choice
for every project.



Other applications for EGGER OSB 3

In addition to use in wood construction, EGGER OSB 3 boards are also an economic material for temporary building applications. The affordable multipurpose panel can be used for garages, sheds, canopies, site hoardings, billboards or shelves.

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. Depending on the application, the processing follows the same principles as for use in timber construction or for dry screeds.





4 Processing and handling

Making it easier for you
to get your hands on.

In addition to everything important for cutting and fastening, this chapter also contains information on the subject of incoming goods inspection, material moisture and utility classes. To ensure that no unpleasant surprises occur during processing, EGGER OSB 3 boards must be properly packed and stored. Disposal is a simple matter too. Find out more on the next pages.

General information

Sawing – Drilling – Milling

With the right electric and manual machines, the EGGER OSB 3 board can be processed like solid wood. Make sure to select a slightly lower feed rate. As a rule, it is also recommended to use dust aspiration or dust protection masks when processing wood and wood-based materials.

Incoming goods inspection

Prior to installation, the following should be checked and compared to planning specifications:

- board type and utility class
- board thickness
- CE mark and declaration of performance

Material moisture

Special gluing technology ensures that moisture levels are similar to those of a building at $8 \pm 3\%$. At a relative humidity of 85%, material moisture balance of EGGER OSB 3 boards can be expected to be below 18%.

Surface coating

Sanded OSB boards should be used when coating the surface with lacquer or glazing. As a rule, it is also possible to clad with additional elements, such as laminate flooring, parquet or carpet. If OSB boards are covered with thin and flexible floor covers, such as linoleum or vinyl, we recommend a full-surface filling of the floor surface. This will prevent the emergence of board joints or the surface texture.

Fastening

EGGER OSB 3 boards can be fastened with connecting elements typical in wood construction, such as screws, cleats and nails. A certificate of suitability for the construction sector, like a permit or standard, are required for the fasteners.

- The recommended length of the fasteners is 2,5 times the board thickness and no less than 50 mm.
- Staples should have a minimum wire thickness of 1,52 mm.
- Fasteners should be resistant to corrosion and made of galvanised or stainless steel.
- Flat-head nails with gutter groove, screw nails, or annularly threaded nails should be used.

Utility classes

When applied as a static, load-bearing element, the OSB 3 board can be used according to EN 1995-1-1 in the utility classes 1 and 2. For other permanent, non load-bearing applications we also recommend compliance with the content conditions of the utility classes 1 and 2.

The **easy processing** of our boards results in **shorter completion time** of your project which **saves money** compared to other construction products.

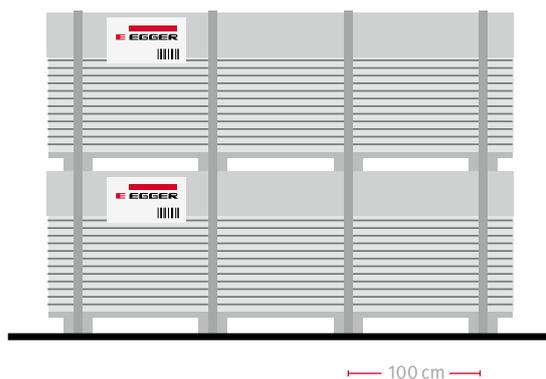
Storage and packaging

Correct storage and packaging are essential for problem-free processing. OSB 3 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:

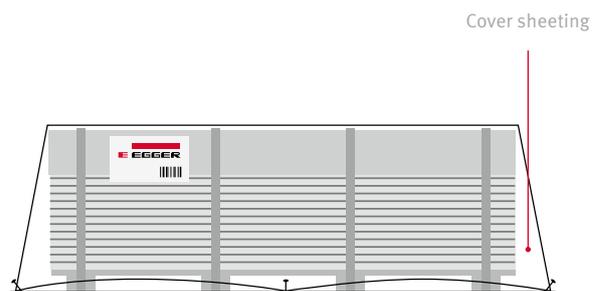
- OSB 3 boards should be placed in a horizontal position on squared timbers with a maximum distance of 100 cm. It is important to ensure a consistent height of the squared timbers.

→ In the case of a board thickness of **< 12 mm**, wood spacers 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 a tongue and groove profile may only stand on the groove 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 acclimatised to the expected use moisture for a period of 48 hours.



Disposal

Wood-based material may be used in some material or energy applications. Residues of OSB boards from construction sites, as well as those from demolition sites, should primarily be utilised materially. If this is not possible, they must be utilised for energy generation (waste material key according to European waste material catalogue: 170201/030103). Wood-based materials can be used for energy generation in enclosed combustion

plants that do not require a permit, with a thermal output of more than 15 kW, or in combustion plants according to the 13th Federal Emission Protection Ordinance (BImSchV) (large-scale combustion plants) and the 17th Federal Emission Protection Ordinance (BImSchV) (waste incineration plants), insofar as the wood-based materials are approved as fuel in the latter.

Material features

For when you want to use EGGER OSB 3 easily and quickly.

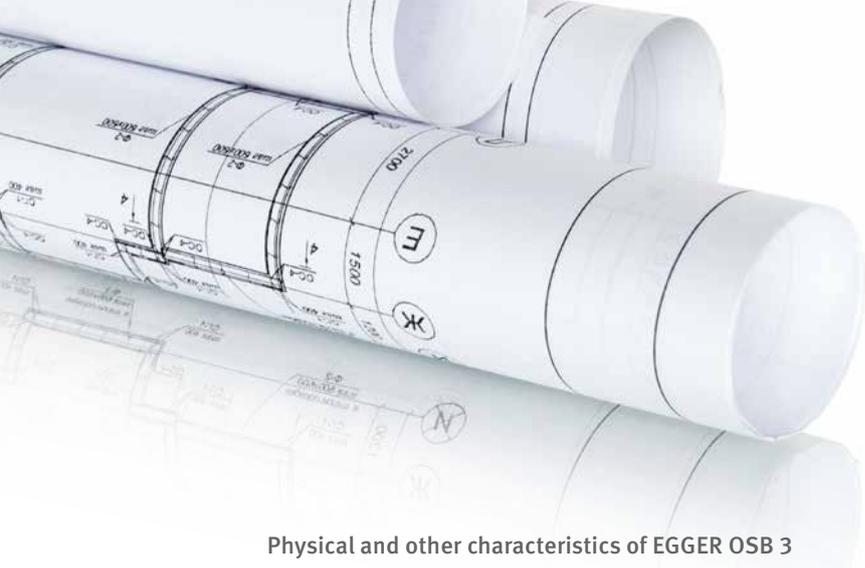
Characteristic strength values and computational values of stiffness in N/mm² (EN 12369)

Thickness t_{nom} mm (50,87" × 9,65")	Strength values (N/mm ²)							
	Deflection		Pulling		Pressure		Pressure per- pendicular to the board plane	Shear in board plane
	f_m		f_t		f_c		f_v	f_r
	0°	90°	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 t_{nom} mm (50,87" × 9,65")	Stiffness values (N/mm ²)							
	Deflection		Pulling		Pressure		Pressure per- pendicular to the board plane	Shear in board plane
	E_m		E_t		E_c		G_v	G_r
	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

0° = main axis

90° = secondary axis



Physical and other characteristics of EGGER OSB 3

Property	Standard	Unit	Value	
Density	DIN EN 323	kg/m ³	≥ 600	
Diffusion resistance factor μ^* (dry cup/wet cup)	EN ISO 12572	–	200/150	
Thermal conductivity λ_r	EN 13986	W/(mK)	0,13	
Specific thermal capacity c	EN 12524	J/(kgK)	1.700	
Building materials class	DIN 4102-1	–	B2 – normal flammability	
Fire behaviour (d ≥ 9 mm)	EN 13501-1	–	D-s2, d0	
Length change per 1% material humidity change	EN 318	%/%	0,03	
Formaldehyde emission	EN 717-1	ppm	E1	
Thickness tolerance unsanded	EN 324	mm (inch)	± 0,5	
Thickness tolerance sanded	EN 324	mm (inch)	± 0,3	
Edge straightness	EN 324	mm/m	± 1,5	
Squareness	EN 324	mm/m	≤ 2,0	
Dimensional tolerance length / width	EN 324	mm	± 3,0 / ± 3,0	
Thickness swelling 24 h	EN 317	%	15	
Noise insulation measure R (1 kHz – 3 kHz)	EN 13986	dB	15 mm	26,4
			18 mm	27,4
			22 mm	28,5
			25 mm	29,2

s_d conversion table for EGGER OSB 3

Board thickness d in mm	10	12	15	18	22	25
dry cup	2,0	2,4	3,0	3,6	4,4	5,0
wet cup	1,5	1,8	2,2	2,7	3,3	3,7



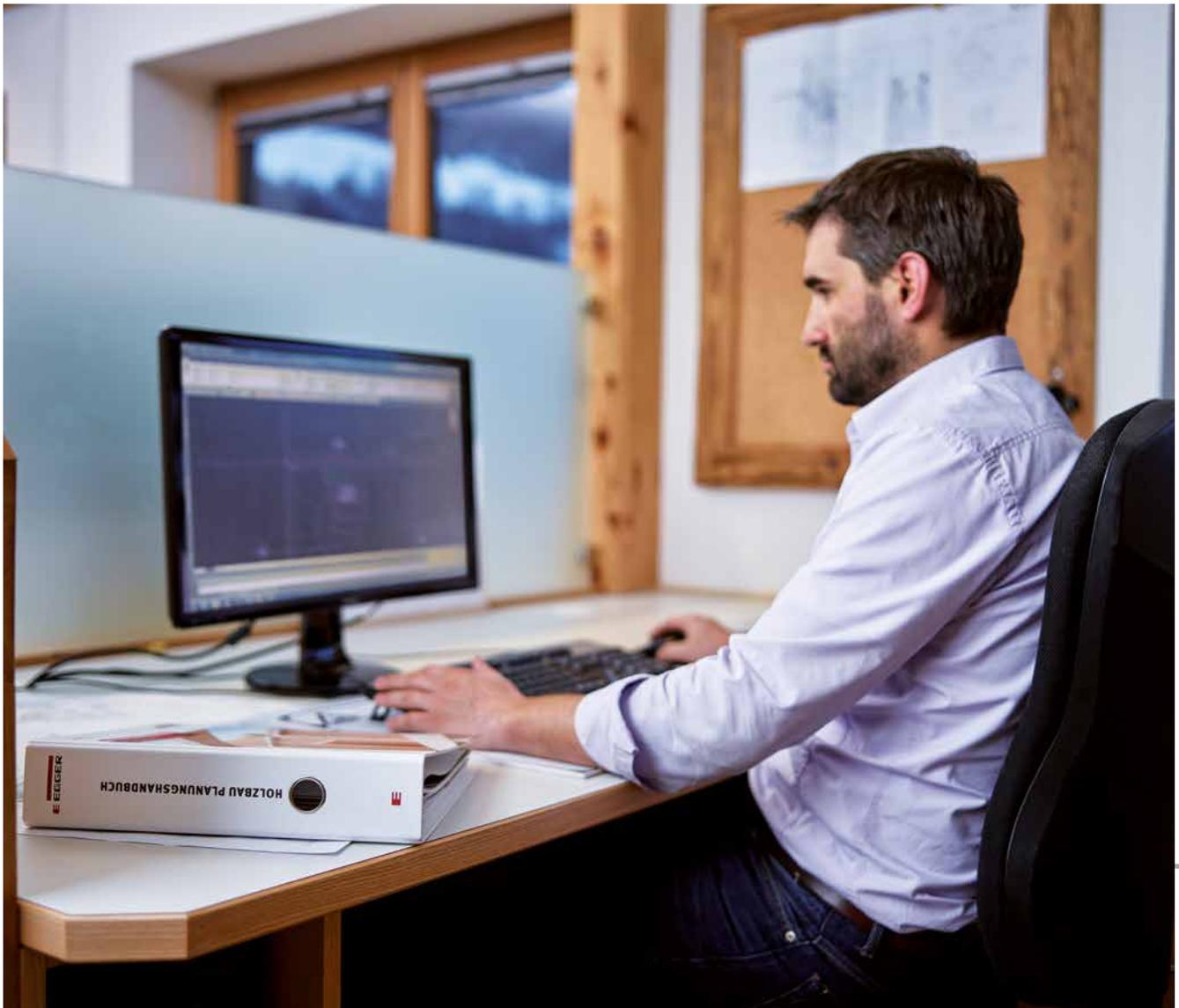
5 Service and quality

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.

Service

- Targeted support and professional advice for material selection and fabrication
- Technical field service
- Technical information on our website www.egger.com/buildingproducts
- Email support at buildingproducts@egger.com
- Comprehensive planning and product documentation
- Trade fair attendance
- Technical training
- Plant visits



Delivery programme

EGGER OSB 3	Product/ length × width (mm)	Thickness (mm)													
		6	8	9	10	11	12	15	18	20	22	25	30	35	40
Square edge unsanded	5.000 × 2.500							•**	•**		•**	•**			
	5.000 × 1.250							•*	•*		•*	•*			
	2.800 × 1.250						•	•*	•*						
	2.500 × 1.250	•	•	•	•	•**	•	•	•	•**	•	•			
	2.440 × 1.220					•		•							
4-sided tonge and groove profile unsanded	2.500 × 1.250						•	•	•		•	•**			
	2.500 × 675						•	•	•						

* Minimum delivered quantity is 2 full trucks, approximately 70 m³

** Customer order with minimum order volume (MOV) 250 m³ for the first order, 500 m³ for the following orders

For a size that is not mentioned please ask for a quotation



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 varieties are also used where boards must meet specific demands.

Raw materials

- Fresh wood
- Paraffin wax emulsion
- MUF 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

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.

- CE certification and declaration of performance
- GOST certification
- ISO 9001 certified quality management
- PEFC upon request
- CoC certification according to FSC (CW)
- European Timber Regulation EUTR



→ **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



Custom-made
quality – from
day one.

www.egger.com/osb3

Technical support

buildingproducts@egger.com



Would you like to know more?
Simply scan here and
get detailed information.

FRITZ EGGER GmbH & Co. OG

Holzwerkstoffe
Weiberndorf 20
6380 St. Johann in Tirol
Österreich

EGGER Holzwerkstoffe Wismar

GmbH & Co. KG
Am Haffeld 1
23970 Wismar
Deutschland

SC EGGER România SRL

Str. Austriei 2
PO Box 38
725400 Radauti, jud. Suceava
Romania