

MORE FROM WOOD.

E EGGER

Egger Roofing Board

Fast, Easy, Safe: With this board you can reach the top.





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Importance of Roof Sheathing

The roof sheathing fulfills multiple functions in a building and plays a load-bearing role in house construction:

- 1. Enhances roof stiffness**
Braces the roof framing and reduces the effect of dynamic load (wind and earthquake) upon roof structure.
- 2. Improves sound insulation**
Attenuates the airborne and impact sounds (rain, hail) and improves the acoustics of the living habitat under roof.
- 3. Reduces heat losses through roof**
Helps preserving the heat inside, especially when using tongue and groove (or similar) roofing panels or straight-edge panels (OSB, plywood) with joints tape sealed.
- 4. Protection**
Installation inside the roof is important for additional protection from moisture (caused by condensation, rain and snow), considering that most breathable membranes decay and crumble away after few years.
- 5. Tightness**
Better tightness against insects and rodents penetration inside the roof.
- 6. Stability**
Stable support for easy installation of skylights.
- 7. Safety**
Protects craftsmen against falling down through rafters and prevents drop of heavy tools (eg. hammers) that might injure people working under roof.

In order to provide optimal protection from above, EGGER has launched a new, ergonomic roof decking panel, the EGGER Roofing board. It is an innovative product that provides a perfectly even sub-layer for further roof works – get to know all benefits of the Roofing Board on the upcoming pages.

EGGER Roofing Board

Easy to carry – fast to install

The main benefits for you: Work safer and faster thanks to easy handling and installation, allowing you to save time and costs.



Innovation

- Unique combination of shi lap joint and tongue and groove profile with integrated 2 mm expansion gap.
- Fast and easy installation by either “**fold in & slide**” or “**plug in & slip**”.
- The compensation of height differences between rafters is possible to a limited extent.
- Allows endless installation with non-supported joint due to tongue and groove joint at the short edge of the board.



Cost and time savings

- Up to 30 % faster installation compared to OSB with straight edge.
- Twice as fast installation compared to sawn timber.
- Less efforts and less fasteners.
- No additional H-clips required on the horizontal shi lap joint.
- Endless installation minimizes cutting waste.



Safety

- High load bearing capacity and stiffness of an EGGER OSB 3 board.
- Complies with roofing standards due to moisture resistant bonding.
- Tested as safe for pointload with 100 kg man load between the rafters up to cc-span 600 mm according to EN 12871.
- Safe hold of the installed second row of boards until fastening is done.



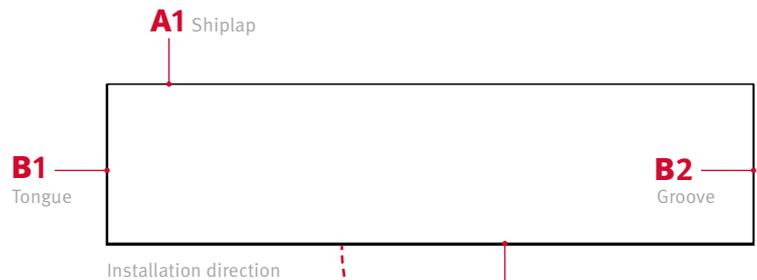
User-friendly

- Narrow panel width for secure grip and transport to the roof.
- Low package weights allow temporary storage on the roof construction.
- One package contains the necessary number of boards for a standard roof of 130 m² including 8 % reserve.
- Efficient one-man-installation due to low panel weight of approximately 12 kg.



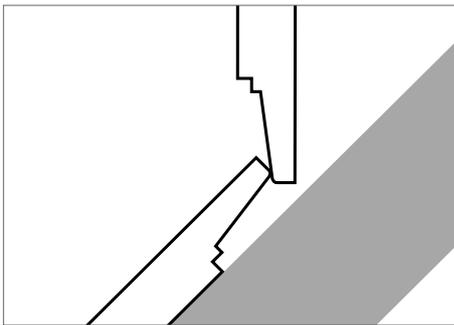
Principles of the EGGER Roofing Board

EGGER Roofing Board is the ergonomic solution for fast and safe roof decking. The small EGGER OSB 3 panel has a special profiling over the edges, which allows fast, precise and truly endless installation as rigid roofing underlay. There are two ways to benefit from the optimised edges of the board.



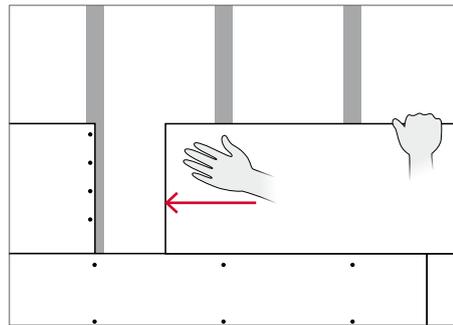
A Fold in & Slide

Fold in



Vertical section

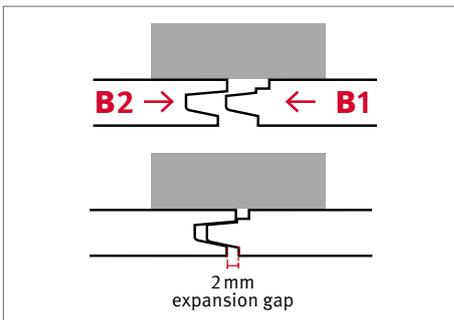
Slide



The first option to guarantee an easy installation is to fold in the shiplap joint of the long panel side and then slide the panel easily in the right position. A 2 mm expansion gap is created automatically due to the edge profile.

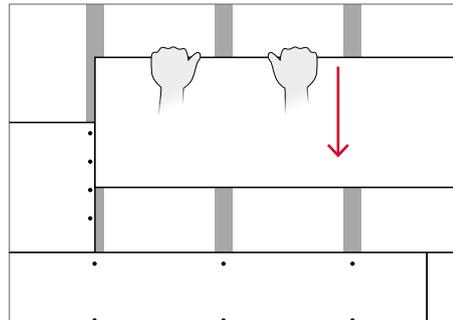
B Plug in & Slip

Plug in



Horizontal section

Slip



The second possibility is to plug in the tongue and groove joint on the short panel side and then slip down the panel. This also creates a 2 mm expansion gap automatically.

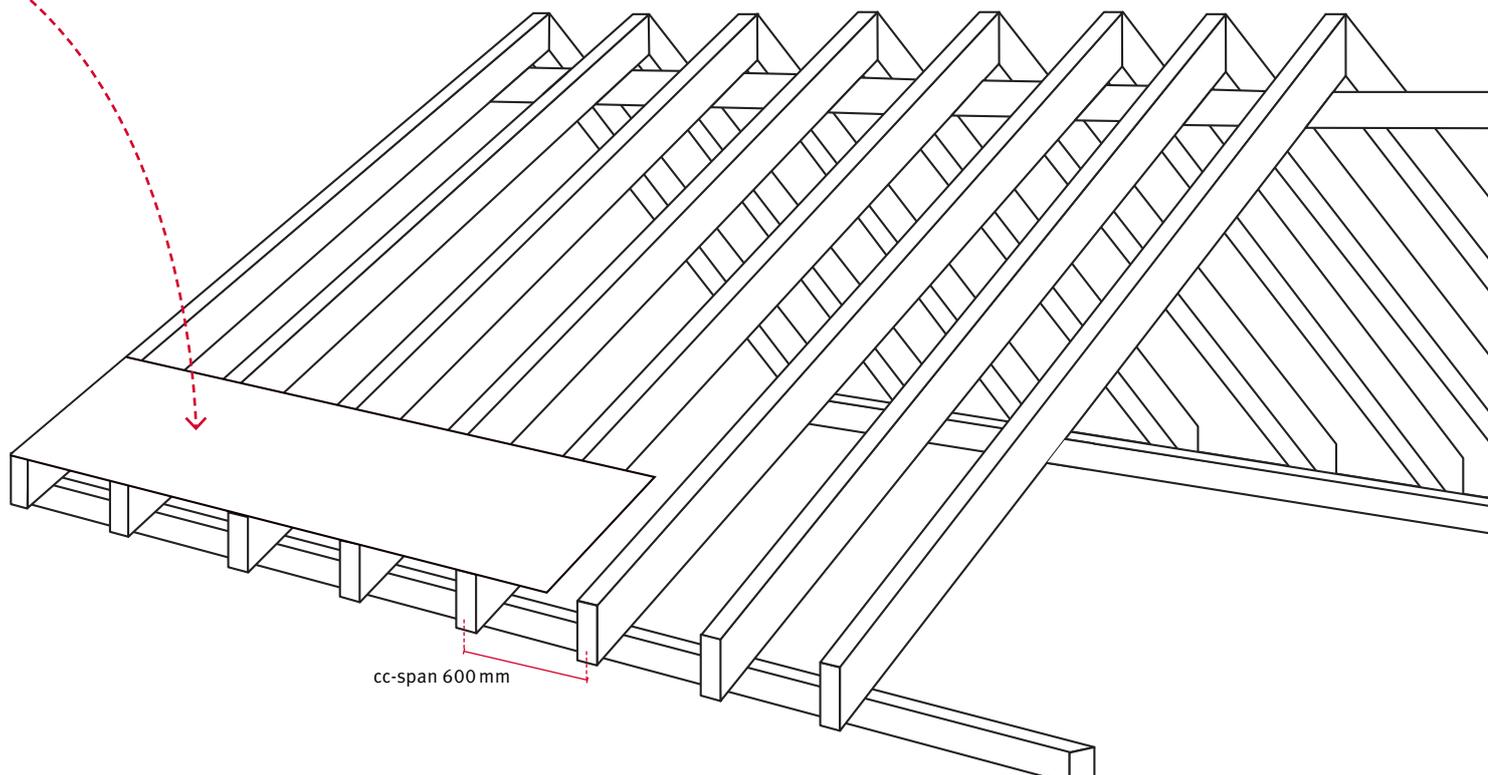
General recommendations for the roof framework

1. For trouble free installation of the roof cladding, it is recommended to use always kiln-dried and planed rafters, which allow perfect alignment of the roof framing and guarantee evenness of the roof boarding layer. Fresh cut rafters will lead to unwanted twisting and bowing which makes flatness of roof cladding underlay difficult to achieve. Therefore their use should be avoided.
2. Ideally, rafters must be spaced exactly 600 mm cc and must be installed perfectly parallel to each other. The dimension of the rafters and permissible centre-to-centre span must result from static design.
3. The rafters should be butt-jointed when fixing them to the ridge purlin. It is not recommended to connect the rafters from the opposite roof slopes laterally at the ridge purlin level.
4. Before proceeding to Roofing Board installation, make sure that all rafters head from the eave end are perfectly aligned horizontal. No rafter head should offset the horizontal roof overhang level set while installation.



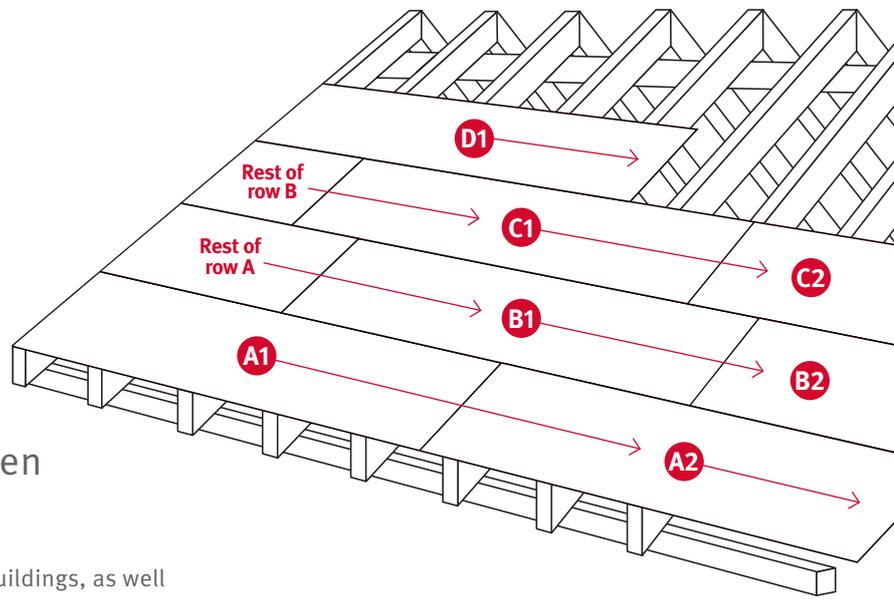
Hint

The span rate of 600 mm complies with most East European building codes and allows the vertical jointing on panel's short sides to be located on top of the rafters when 2.400 × 600 mm EGGER Roofing Board format is used. To achieve faster progress in working, the panel size of 2.800 mm allows endless installation – see graphic below.



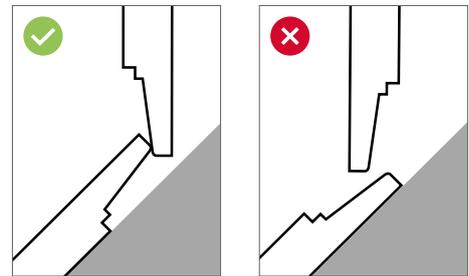
Installation

Horizontal installation with self-supporting panel joint between the rafters

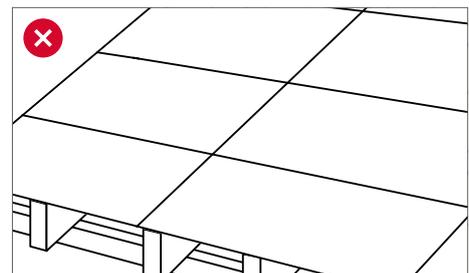
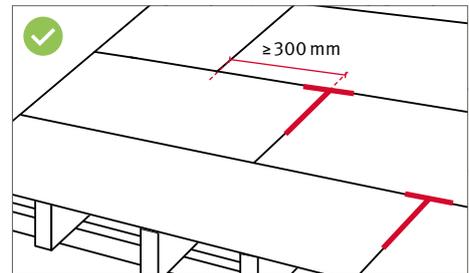


This type of installation is suitable for new buildings, as well as for refurbishment of old roof structures. It doesn't matter if the cc-span between the rafters varies. Due to the panel size of 2.400 or 2.800 mm the boards can be installed fast and easy. The self-supporting tongue and groove panel joint provides enough stiffness to build an even surface and a rigid sublayer for the roof decking.

1. Start with one full size panel **A1** at any corner of the eave. Make sure the shiplap joint on the panel's upper side is facing the carpenter and not the rafters, in other words, the print "this edge up" stays visible.
2. Lay the panel horizontally, with its short edge supported by rafters. Make sure that the lower long side is tangent to the rafters head and rectangular to the aligned rafters. Remark: Never install the boards vertically (parallel to rafters)
3. Fix the board on the rafters.
4. Lay the next panel **A2** and connect it with the previously installed one, by plugging firmly the tongue and groove joint in the field.
5. Fix the 2nd panel on the rafters, once connected on the side.
6. Continue with the next panels until the row is completed.
7. Laying the next row make sure that the panel tongue and groove joints are staggered from row to row (T-joint) by minimum 300 mm.
8. Cut-off-pieces at the end of row **A** can be used as a starting board in the opposite corner of the next row **B** if the length allows a cover of minimum 1,5 spans.
9. It is not essential that the short side of the board ends on the rafters. It is also possible to place the joint between the rafters.



Make sure that the shiplap joint is in the right position.



Make sure that there are staggered T-joints by minimum 300 mm.



For wind-proofing and roof securing against any rain or condense water ingress inside, we recommend to additionally seal all panel joints with UV-resistant strong self adhesive EGGER Tape.

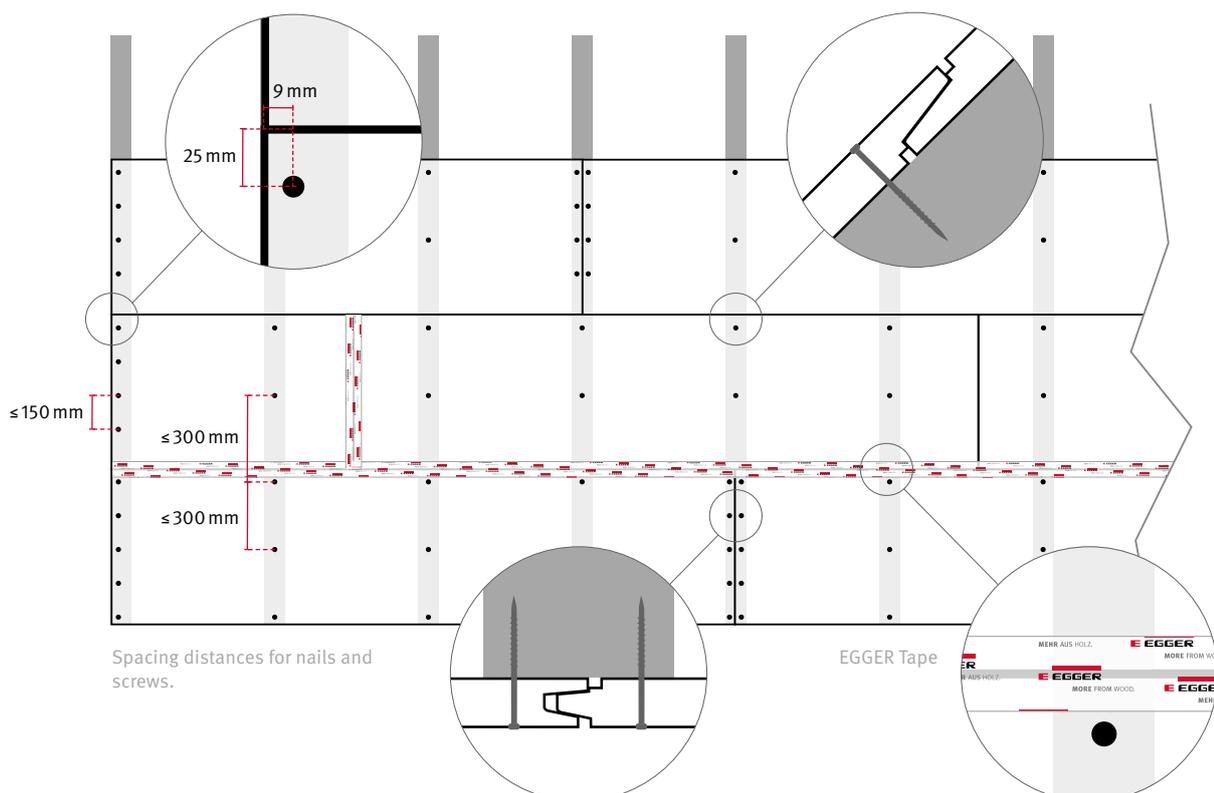
Fastening recommendations

To use the EGGER Roofing Board we recommend the following fastener types:

Fastener type	Fastener size
Wood screws with countersunk head	4,0 × 45 mm
Ring nails	3,0 × 50 mm
Pneumatically gun-shot staples	1,53 × 11 × 50 mm

Please observe the following spacing distances:

	Maximum fastener spacing		Minimum fastener spacing from board's edge	
	Centres at edges (on board's perimeter)	Centres at the intermediate supports	Distance from the edge of the board	Distance from the corner of the board
Nails and screws	150 mm	300 mm	9 mm	25 mm
Staples	75 mm	150 mm	20 mm	25 mm



Snow load capacity

Depending on location specific snow load conditions, the thickness of EGGER Roofing Board panels has to be chosen by taking into account various influencing factors.

If the EGGER Roofing Board is applied under roof shingles, we recommend the following panel thickness, depending on rafter span, roof slope and snow load.

Span	Roof slope	Snowload on the ground (kN/m ²), S _g					
		0,80	1,20	1,80	2,40	3,20	4,00
0,56 m	25° - 65° 0° - 25°	12 mm	12 mm	12 mm	15 mm	15 mm	15 mm
		12 mm	12 mm	15 mm	15 mm	18 mm	18 mm
0,60 m	25° - 65° 0° - 25°	12 mm	12 mm	12 mm	15 mm	15 mm	18 mm
		12 mm	12 mm	15 mm	15 mm	18 mm	22 mm
0,70 m	25° - 65° 0° - 25°	12 mm	15 mm	15 mm	18 mm	18 mm	22 mm
		15 mm	15 mm	18 mm	18 mm	22 mm	22 mm
0,80 m	25° - 65° 0° - 25°	12 mm	15 mm	18 mm	22 mm	22 mm	22 mm
		15 mm	18 mm	22 mm	22 mm	25 mm	25 mm

Calculations acc. EN 1995-1-1 (Eurocode 5); double span; all short edge splices on rafters; service class 2; medium-term load duration class; characteristic load combination; l/150 (deflection limit); S=S_g*m; m=0,7 (for 25° - 65° roof slope); m=1,0 (for 0° - 25° roof slope); k_{mod}=0,6; γ_M=1,2; k_{def}=2,25; ψ=0,2; 0,25 kN/m² (dead load for shingles and roofing board)



Roof systems

We would recommend these two types of roof systems as ventilated pitched roofs.

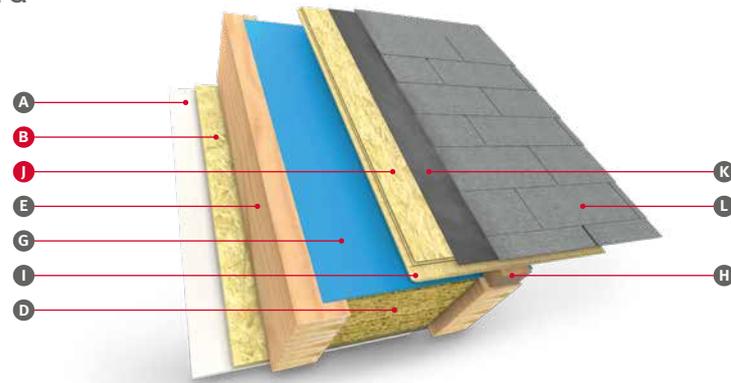
The first recommendation is a vapour-permeable warm roof construction with ventilated bituminous roof decking on EGGER Roofing Board. This system is a very robust construction and free of condensation. The second suggestion is a non-permeable

warm roof construction with ventilated metal-profile cover. This system complies with traditional constructions and allows refurbishment from the outside.

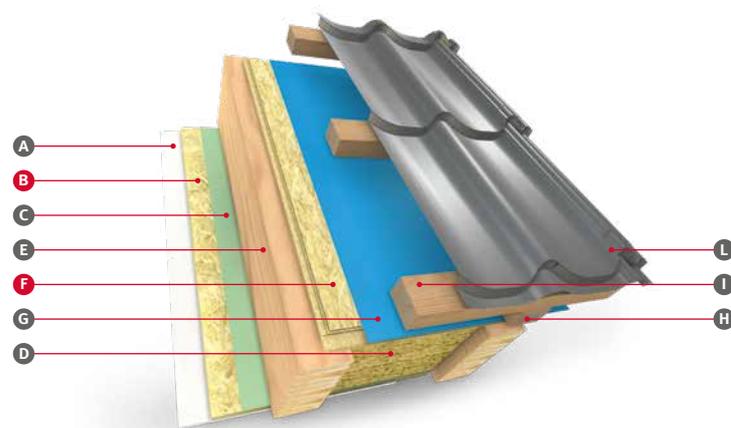
 Installation of the roof construction (from inside out) 		Vapour-permeable warm roof construction with ventilated bituminous roof decking on EGGER Roofing Board	Non-permeable warm roof construction with ventilated metal-profile cover
A	Plasterboard	12,5 mm	12,5 mm
B	EGGER OSB 3 with airtight sealed joints with EGGER Tape	15 mm	15 mm
C	Vapour barrier s_d	–	5 – 10 m
D	Glass wool $\geq 11 \text{ kg/m}^3$ Rock wool $\geq 30 \text{ kg/m}^3$ Cellulose insulation $\geq 50 \text{ kg/m}^3$ between the rafters	min. 200 mm	min. 200 mm
E	Rafters	section acc. to static design	section acc. to static design
F	EGGER Roofing Board	–	12 mm
G	Diffusion-open roofing membrane (permeable)	yes	yes
H	Counter roof battens	40 × 60 mm	40 × 60 mm
I	Roof battens	–	40 × 60 mm
J	EGGER Roofing Board	12 mm	–
K	Bitumen membrane	yes	–
L	Asphalt shingles	yes	–
	Cold-formed metal sheeting	–	yes

- The maximum spacing of the rafters is recommended with a cc-span of 600 mm. For this span the Roofing Board passed performance testing for point load and man loads successfully.
- The s_d -value of the vapour barrier needs to be checked by calculation.

Vapour-permeable warm roof construction with ventilated bitumenous roof decking on EGGER Roofing Board



Non-permeable warm roof construction with ventilated metal-profile cover



→ We strongly recommend to seal off all panel joints or open penetrations from inside wall sheathing and outside roof decking with **EGGER Tape**, to get efficient air and wind tightness.

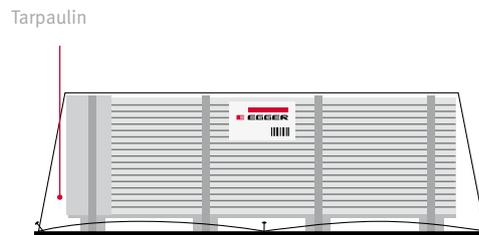
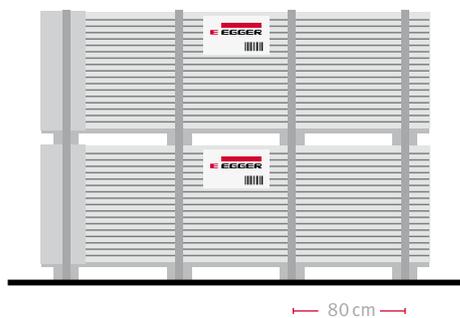
Handling

Storage and packaging

Correct storage and protective measures during transport are essential for problem-free handling. The following simple principles should be taken into account:

- EGGER Roofing Board should be stored flat in a dry area on several pieces of squared timber. The span width should be no greater than 80 cm and the pieces of squared timber should all be the same height.
- If several pallets are stacked on top of each other then the squared timber should be aligned by height.

- General rule for safe pallet stacking: ratio H (stacking height) / W (pallet width) ≤ 6:1. Please find the max. number of pallets allowed for vertical stacking in the table below (stock programme**).
- Steel bands should be undone immediately on site to prevent compressive strain on the pallet.
- When stored outside provide clear space from the ground and cover with a waterproof tarpaulin on wooden battens, providing air circulation around the panel.
- Before using the boards, a 48-hour conditioning period is recommended to allow the wood to acclimatise to local humidity.



Stock programme EGGER Roofing Board

Panel size Length × Width × Thickness*	Weight / board	Area covered / board	Number of boards / pallet	Area covered / pallet	m ³ / pallet	Max. number of pallets**
2.800 × 600 × 12 mm	12,1 kg	1,68 m ²	84 pcs	141,12 m ²	1,69 m ³	3
2.400 × 600 × 12 mm	10,4 kg	1,44 m ²	84 pcs	120,96 m ²	1,45 m ³	3
2.400 × 600 × 15 mm	13 kg	1,44 m ²	68 pcs	97,92 m ²	1,47 m ³	3
2.400 × 600 × 18 mm	15,6 kg	1,44 m ²	56 pcs	80,64 m ²	1,45 m ³	3

* The coverage size incl. 2 mm expansion gap.

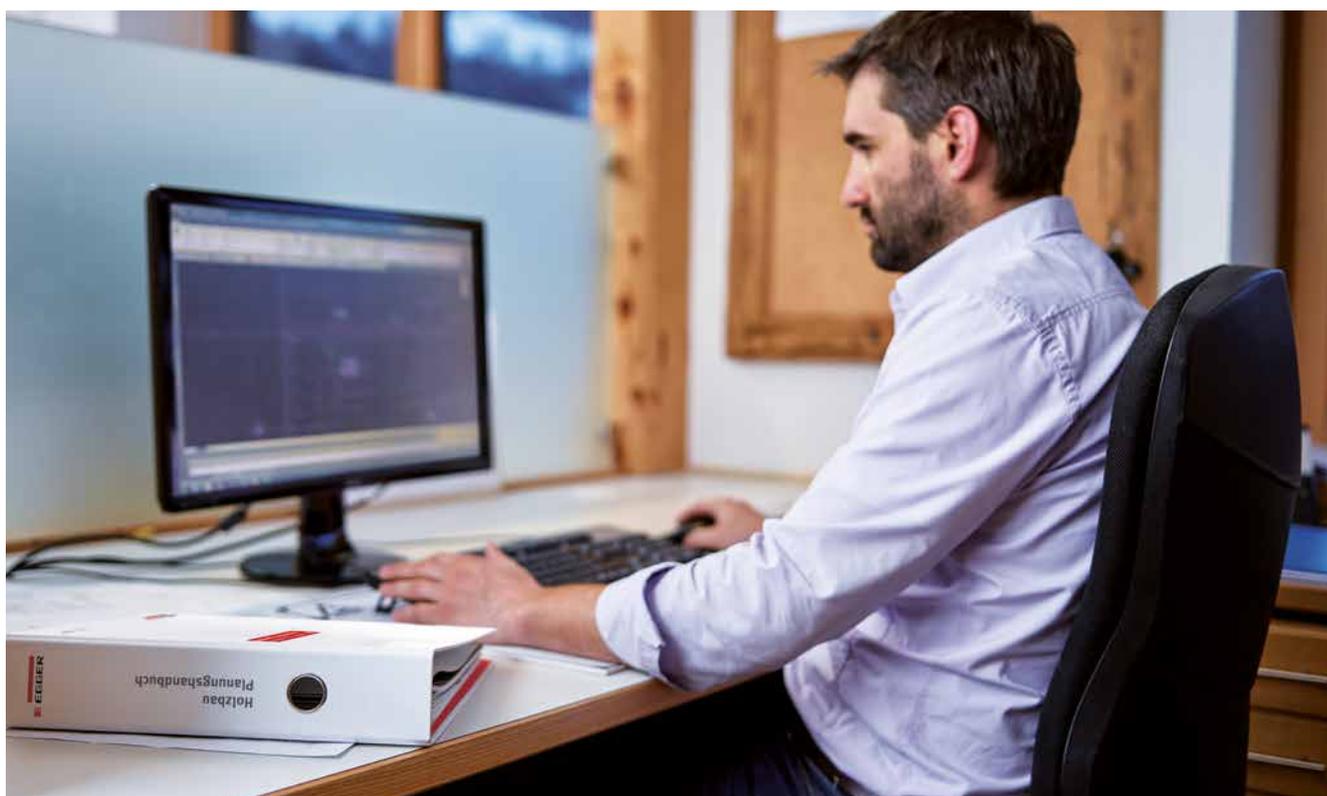
** Maximum number of pallets allowed for vertical stacking

Service

- technical information portal on the internet
www.egger.com/buildingproducts
- targeted support and professional advice upon purchase and assembly
- technical field service
- extensive planning and product documentation
- participation in trade fairs
- association work
- technical training
- plant visits



Find all information and benefits as well as the installation video about the Egger Roofing Board also online www.egger.com/roofingboard



www.egger.com/roofingboard

T +40 372 4-38000 · F +40 372 4-68000 · info-ro@egger.com



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SC EGGER Romania SRL

Str. Austriei
725400 Rădauti,
jud. Suceava
Romania

EGGER Building Products GmbH

Weiberndorf 20
6380 St. Johann in Tirol
Austria