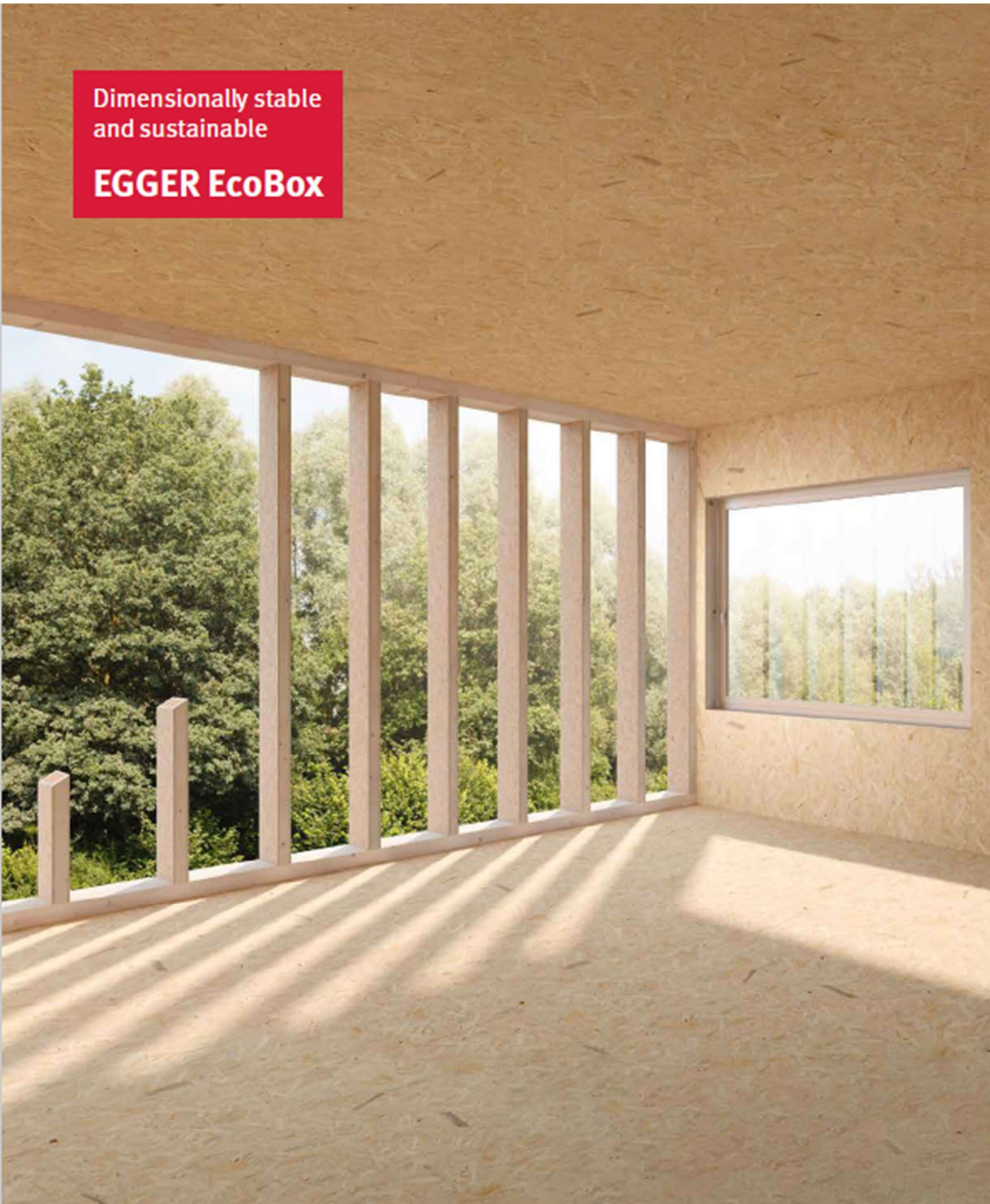
MORE FROM WOOD.

EGGER



Dimensionally stable and sustainable

EGGER EcoBox

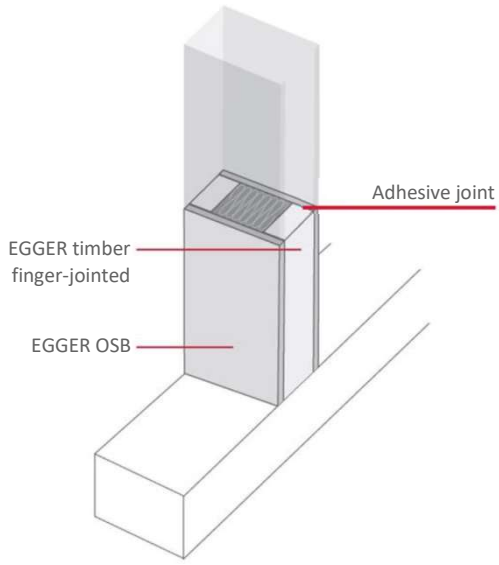
Content

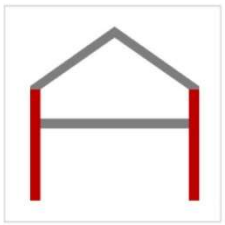
Content

EGGER EcoBox

Product description

The EGGER EcoBox is a compact box cross-section with flanges made of softwood, webs made of OSB and cavity insulation made of soft wood fibre.
The EGGER EcoBox is characterised by its **efficient and resource-conserving** use of materials. The individual parts are joined and glued together in an industrial production process. The optimum combination of the properties of the raw materials and the precise assembly results in a straight and even product with very high stability. This makes the EcoBox ideal as a starting product for manual production and highly automated production processes for elements and room modules.





External wall

Ceiling

Roof

Interior wall

Areas of application

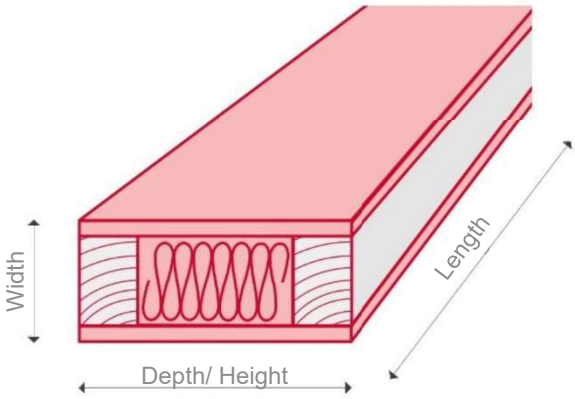
The basic application of the EGGER EcoBox as a beam and stud in timber frame construction is defined in the European Technical Assessment (ETA-23/0669). This ensures safe and standard-compliant use in planning and application in the European Union.

The EcoBox shows its strengths particularly for automated, efficient production, high thermal insulation requirements and resource-conserving use of materials, especially as a stud in timber frame construction and similar applications.

Dimensions

The EGGER EcoBox is available in lengths of up to 6.5 metres. The width is always 80 mm, while the height varies in 20 mm increments between 160 mm and a maximum of 400 mm, up to a maximum of 280 mm in the standard delivery programme.

In addition to the maximum length, fixed lengths are also available, which enable processing without waste or with optimised offcuts.



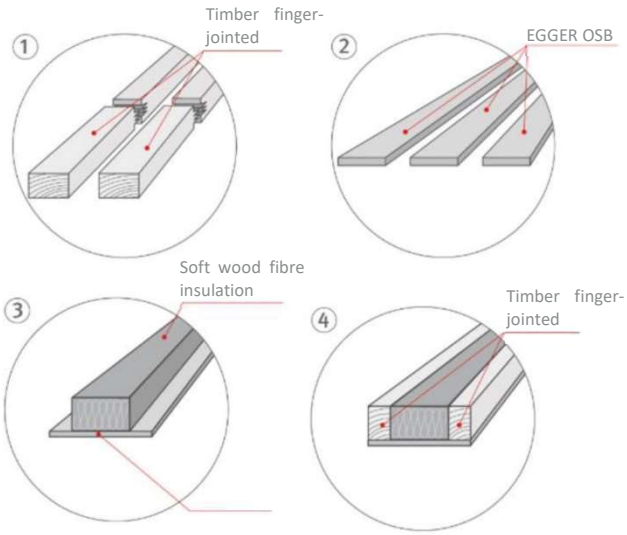
Composition of the EcoBox

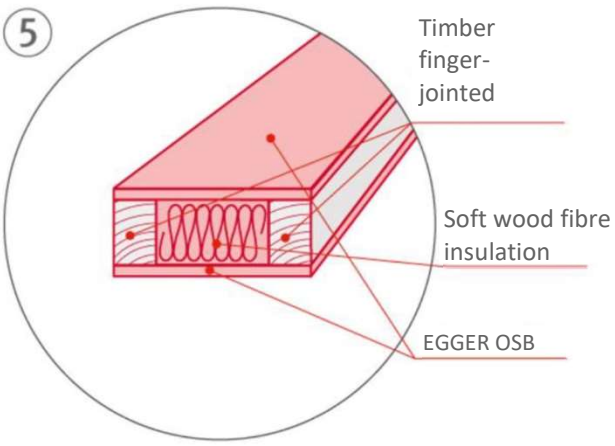
The EGGER EcoBox consists of the components softwood, OSB, soft wood fibre insulation and adhesive. The insulation mat is only inserted loosely. Softwood and OSB are bonded with an emission-free PU adhesive approved for permanent load-bearing purposes.

The following mass percentages result for the components, based on the average cross-section size of 80/240 mm with an average raw density of 290 kg/m3:

- Softwood: 36.2 %
- OSB: 54.52 %
- Soft wood fibre insulation: 8.62 %
- PU adhesive / hotmelt: 0.48 % / 0.06 %

The weight proportions in relation to one cubic metre of EcoBox only change for softwood and soft wood fibre insulation with increasing or decreasing cross-section size, due to the geometry; OSB and adhesive proportions remain the same.





The benefits briefly

- **More sustainability:** efficient, resource-conserving use of wood
  → **up to 38 % less wood consumption** conserves the raw material and minimises the ecological footprint.
- **Easier handling** and transport
  → on average **150 kg/m³ lighter than solid wood**,
- Energy efficiency and thermal insulation
  → **Better insulating properties** reduce thermal bridges and improve the U-value (heat transfer coefficient) - less material, same insulating performance.
- **Sustainable material supply**
  → Use of thinning wood and **raw materials from our own production** ensures **availability** and promotes environmental protection.
- Industrialised production for consistent quality
  → **High dimensional accuracy and dimensional stability** guarantee efficient work and economical construction projects.
- Large cross-sections, less over-insulation
  → Large cross-sections enable (energy) **efficient components** with fewer component layers.

*Summary of the information put together below.

» Less is more

Thanks to efficiently using materials, the product is particularly economical with resources.

Planning with EGGER EcoBox

Statics

The EGGER EcoBox is a bonded box cross-section, calculable in accordance with Eurocode 5 (EN 1995-1-1). On this basis and through extensive testing, the European Technical Approval (ETA) provides the relevant cross-sectional values, mechanical strengths and stiffnesses for the static calculation. The ETA tables make it possible to dispense with the individual verification of each box profile and considers the advantages of the material composite through homogenisation factors.

Essential detailed verifications for dealing with a "hollow" stud and the possible applications of fasteners are described in the detailed section.

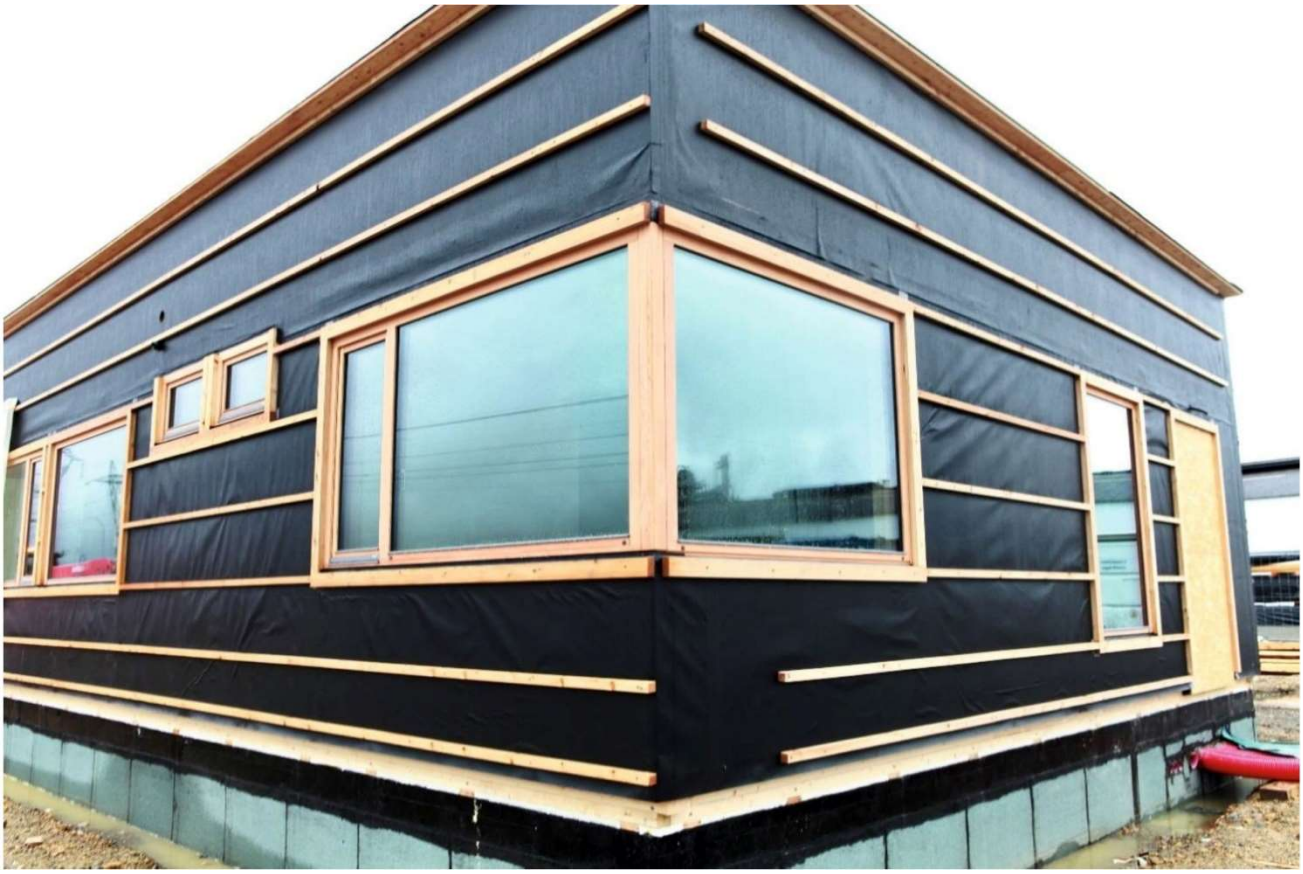
A dimensioning aid is available on our homepage for the pre-dimensioning of load-bearing and stiffening walls in timber frame construction with the EcoBox or various frame timbers.

EGGER planning support - structures for wood construction

Benefit - thermal conductivity

The insulated structure of the EGGER EcoBox significantly reduces thermal conduction via the stud cross-section compared to solid wood cross-sections. The thermal conductivity λ is between 0.77 and 0.68 W/(m*K) and not 0.13 W/(m*K). This reduces heat loss via the frame parts of the wall and improves thermal insulation (U-value) by up to 10 %. This enables thinner insulation, which creates more living space, or the use of cheaper insulation materials with the same insulation performance.

More detailed calculation bases for thermal insulation can be found from page 19 onwards.



Moisture protection

In the vapour-permeable timber frame construction method, which is characterised by external components with an Sd value of 2.0 m on the warm side and less than 0.3 m on the outside, there is no harmful condensation waste in the cavity of the EcoBox (boundary layer insulation - outer softwood beam!).

As a composite and insulated cross-section, the EGGER EcoBox must be used and processed with care with regard to moisture loads. The use in prefabricated building components closed on both sides is preferable to on-site processing.

Protection against excessive moisture loads during the construction phase and in use, which is generally required when building with wood, also applies to the EcoBox. The goal in this case is to be able to classify the EcoBox in the lowest service classes in all phases of use.

As a load-bearing component, the EGGER EcoBox can be used and calculated in use classes 1 and 2 in accordance with EN 1995-1-1.

Fire protection

Fire protection test REI60

Due to its individual components, the EGGER EcoBox is categorised as having "normal flammability" in class B2 or Euroclass D-s2, d0.

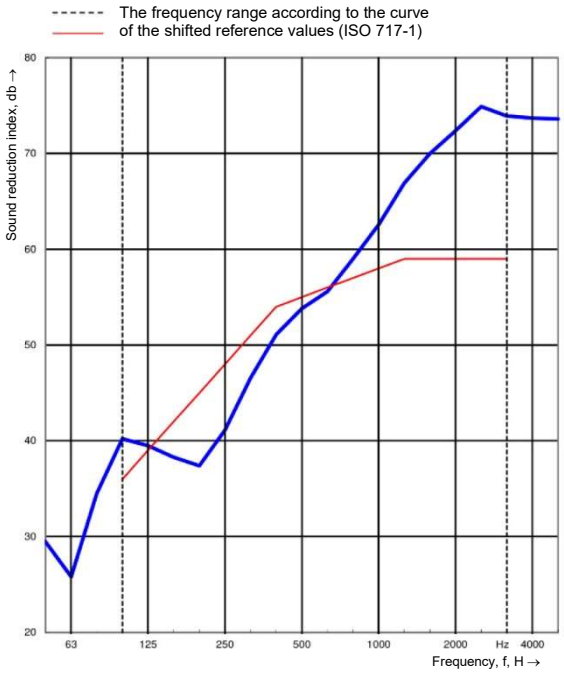
Component tests for the classifications F30-B/REI30 and F60-B/REI60 were carried out to ensure safe use in compliance with building regulations. The corresponding classification reports and a test certificate are available. The vertical test load of 52 kN/m applied during the tests corresponds to the test loads for comparable walls with solid wood studs of strength class C24. You can find an overview of the currently tested structures in our planning support at: https://digitale-planung.egger.services/

Sound insulation

There are clear assumptions when assessing the sound insulation of components with a stud frame made from the EGGER EcoBox:
Less sound is transmitted through the thin OSB webs than through solid wood. This means that the outer cladding of the walls (formwork) is better decoupled from each other, which improves sound insulation.

Initial test results confirm this assumption. The airborne sound reduction index of walls in timber frame construction can be improved by up to 5 dB compared to structural timber framework, depending on the depth of the cavity and the number of cladding layers.

Until detailed test reports are available, when assessing sound insulation we recommend assuming equivalence between solid timber framework and such with the EGGER EcoBox.



Sustainability

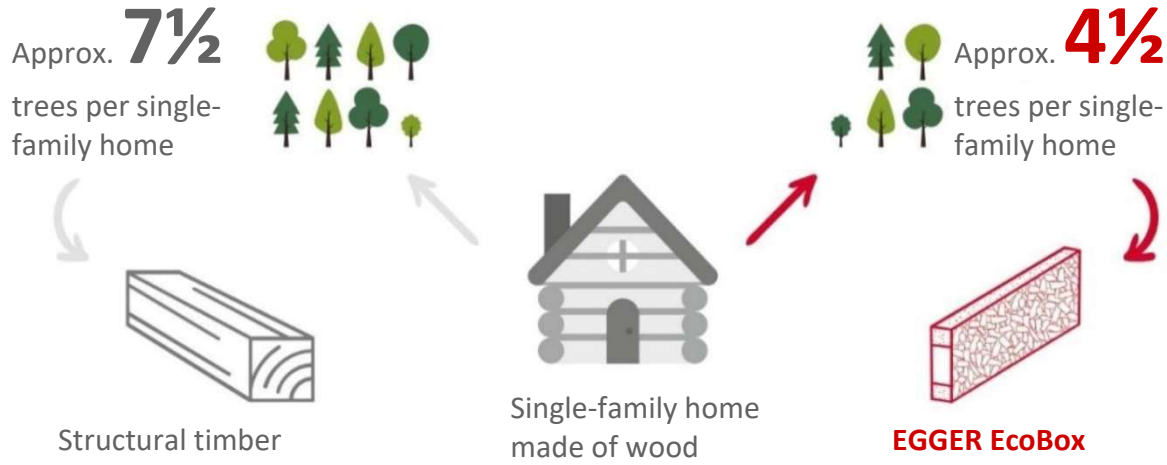
We are committed to promoting sustainable forestry. The wood used to manufacture the EGGER EcoBox comes exclusively from sustainably managed forests, as confirmed by the EcoFacts and, on request, by PEFC certification. When developing the EcoBox, we placed particular emphasis on conserving valuable wood resources.

With the EcoBox, you can plan and build in a low-emission and resource-conserving way - for generations to come. The product is therefore ideal for sustainable construction projects.

This also convinced the jury of the German Sustainability Award 2024, which recognised the EGGER EcoBox as the winner in the Products/Resources category.

The EGGER EcoBox conserves resources

Wood consumption based on the example of single-family wood houses



Recycling and reuse

In principle it is possible to reuse the EGGER EcoBox for comparable applications after damage-free dismantling. The resulting residues from cutting and processing should primarily be recycled.

After separating the wood/OSB and soft fibre insulation components, the EcoBox components can be fed into the recycling cycle. Waste offcuts from processing fall under the waste code (EWC / AVV) 170201/ 030105 and waste wood category II.

For disposal after dismantling, the waste code (EWC / AVV) 170201/030105 applies, such as wood and wood-based materials, waste wood category I.

If neither reuse nor material recycling are possible, energy recovery should be prioritised instead of landfilling. Given the high calorific value of the components, up to approx. 17 MJ/kg for OSB, energy recovery from residues on the construction site is recommended. They may only be burned in suitable and legally compliant facilities. Local determinations are available from the relevant authorities.

Processing and work safety

EGGER EcoBox can be sawn, milled, planed and drilled in the same way as solid wood, using standard stationary machines and (electric) hand-held machines. A slightly reduced feed speed is advisable due to the OSB components. Hard metal-tipped tools are recommended. The safety measures that are usual for solid wood processing must be observed (safety shoes, work gloves). A dust mask and safety goggles must be worn when using manual tools without suction. Whereby suction is always recommended. Standard clamps, nails and bolts can be used for mechanical fastening. Structural bonding can be achieved with approved adhesives on clean, dust-free and grease-free surfaces

Transportation and storage

The EcoBox is packed and dispatched ex works in packages of 27 to 63 units, lying flat on supports with plastic strapping without film.

The packages must be protected from the weather, such as rain and snow, during transport and loading. Storage should ideally be in a well-roofed open-air warehouse, preferably in closed halls.

During processing and installation, the EcoBox, like other wood-based materials or wooden components, must be protected from the effects of moisture. During use, the boundary conditions applicable to use classes 1 and 2 of EN 1995-1-1 must be observed.

Building physics

Thermal insulation certificate

The introductory chapter on thermal insulation already describes the benefits of the EGGER EcoBox for improving the thermal insulation of the building envelope. The benefits resulting from the low thermal conductivity are derived and described in detail below.

Determining the U-value is extremely straightforward with the existing thermal conductivity values:

- If the EGGER EcoBox is not already stored as a component in your U-value calculator, a wood cross-section of the same dimensions, for example 80x240mm, can be selected.
- The next step is to overwrite the thermal conductivity of the wood with the corresponding value of the EcoBox.
- This can then be used to determine the U-value of the component.

Table 1: Thermal conductivity EGGER EcoBox

Thermal conductivity	λ (W/(m*K)	EcoBox EB 80.10
Height (cavity depth)	160	0.077
	180	0.074
	200	0.072
	220	0.071
	240	0.070
	260	0.069
	280	0.068

Based on the example of the U-value calculation for a wall with EcoBox or KVH (studwork timber) in the appendix, Table 2 shows the potential for improvement through the use of the EcoBox.

The optimisation potential lies

- in the improvement of thermal insulation,
- in the reduction of the wall cross-sections or
- the use of (cheaper) cavity insulation with higher thermal conductivity

Table 2: Comparison of U-value - benefits

Wall type Timber frame/panel structure ...	U-value (W/m^2K) Thermal conductivity group Cavity insulation WLG 039	 Thermal conductivity group Cavity insulation WLG 036	 Thermal conductivity group Cavity insulation WLG 032
... with EcoBox.80/10 x 240	0.166	0.156	0.143
... with KVH 60/240	0.181	0.171	0.158
... with EcoBox.80/10 x 220	0.180	0.170	0.156
... with KVH 80/240	0.191	0.181	0.169

Every single point can be used to optimise the structure. In addition, the EcoBox creates the possibility of producing wall cross-sections with greater cavity depths beyond the available solid timber dimensions without the need for additional costly external insulation of the wall.

The following basic structure is used for the tabular comparison and only the material of the studs or the insulation is changed in the variants:

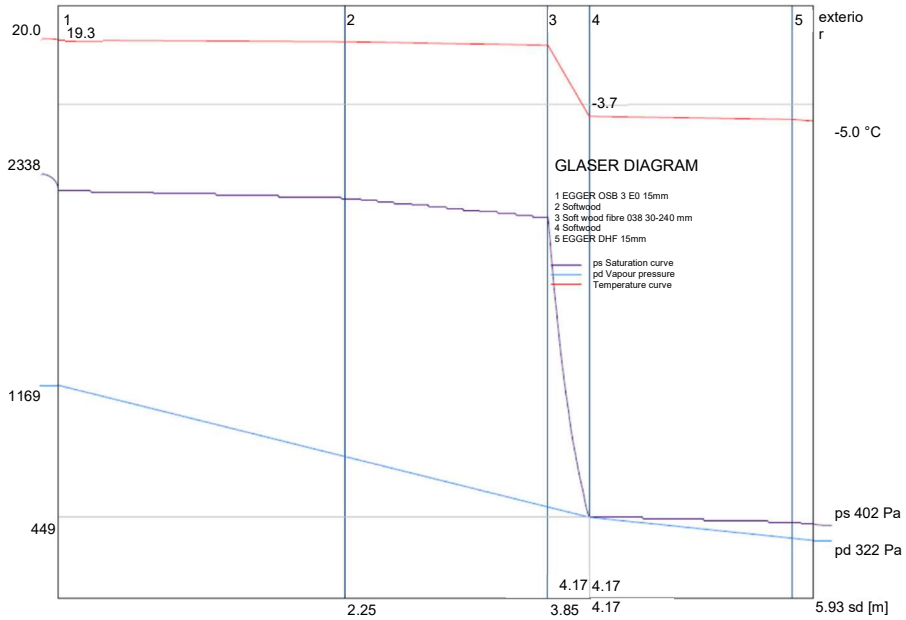
- 15 mm OSB
- 240 mm EGGER EcoBox / KVH or cavity insulation 240 mm EGGER EcoBox / KVH or cavity insulation
- 15 mm EGGER DHF

Moisture protection verification

The reduced thermal bridge effect of the EcoBox leads to a greater temperature gradient across the EcoBox cross-section than with solid timber cross-sections. As a result, the dew point temperature may also be in the critical area of the insulated EcoBox cavity or in the area of the boundary layer between the insulation and the outer softwood flange and condensation may occur.

For this reason, the wall cross-section is not classified as a verification-free structure in accordance with german standard DIN 68800-2. The mathematical moisture protection verification for an external wall in accordance with DIN 4108-3 (see appendix) for the most unfavourable scenario with a maximum EcoBox cross-section of 80x400 mm results in a small amount of condensation on the inside of the outer flange. However, the increase in moisture is only 0.9% by mass (3.0% by mass is permissible). This evaporates completely during the summer period and is therefore not critical. If the wall construction has an additional exterior insulation of 50 mm condensation is no longer calculated.

The moisture protection verification can, simply be carried out using the "Glaser method" by replicating a closed row of EcoBox studs, for example. This can be done in the standard U-value programmes using the option for timber frame construction, i.e. splitting a layer into insulation and stud frame.



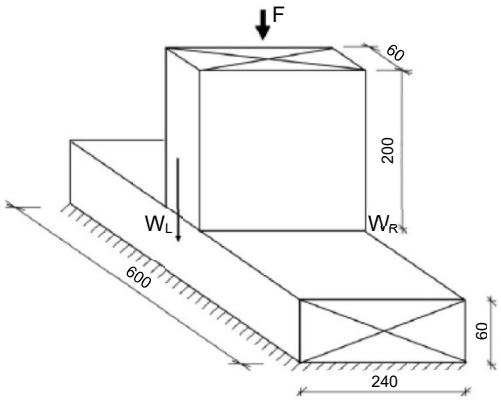
Dimensioning and design

Stud verification

The benefits of the EGGER EcoBox result from the more efficient use of raw materials. Using less material leads to a more economical structure, fewer thermal bridges and easier handling. Shouldn't the other side of the coin be a lower load-bearing capacity?

In order to answer this question, it must first be clarified which failure case of the timber frame wall is decisive for the dimensioning:

- Buckling of the stud around the weak axis
- Buckling of the stud around the strong axis
- Exceeding the permissible threshold pressure (pressing the stud into the threshold)



The EcoBox is particularly suitable for external walls due to its good insulating properties. Buckling around the weak axis can generally be ruled out, as the studs in the direction of the wall plane are held over the entire wall height by the bracing. Due to the thermal insulation requirements, the studs arne quite large in the direction of the strong axis, so buckling analysis is usually not relevant in this direction either. Exceptions can be load concentrations due to supported joists.

In standard timber frame buildings in many cases the limiting factor in dimensioning the framework is very often the permissible pressure on the threshold (contact area of the stud cross-section on the longitudinal timber of the threshold). Therefore table 3 shows a comparison of different EcoBox cross-sections with comparable wood cross-sections.

Table 3: Comparison of transverse compression load-bearing capacity of softwood thresholds for different studs (edge stud)

Middle stud	Softwood C24 60/160	EcoBox 80/160	Softwood C24 60/240	EcoBox 80/240	Softwood C24 60/280	EcoBox 80/280
A_{eff}, edge [mm²]	14,400	12,800	21,600	16,800	25,200	18,800
characteristic compression load-bearing capacity	45 kN	40 kN	67.5 kN	53 kN	78.7 kN	59 kN
Difference	- 9 %		- 21.5 %		- 25 %	

As the wall thickness is usually defined by the thermal insulation requirements (U-value), the stud cross-section in conventional timber frame construction is usually oversized. The lower characteristic load-bearing capacity of the EcoBox compared to solid wood is therefore to be assessed as a more efficient use of material.

Appendix

Technical characteristics

General											
Class of use	Classes of use 1 and 2										EN 1995-1-1 / DIN 68800
Use of standard fasteners and fixing materials	Nails, clamps and bolts										
Surface finish	OSB unsanded / softwood fine-sawn / chamfered edges										
Moisture content	Average timber moisture content or OSB moisture content of the elements upon delivery (%)										12 +/- 3 % or 8 +/- 3 %
Dimensions / Sizes / Tolerances											
Length L (Z)	up to 6.5 m										
Width B (Y)	80 mm										
Height H (X)	160	180	200	220	240	260	280	320	360	400	Availability according to the delivery programme
Weight	4.32	4.63	4.95	5.26	5.57	5.88	6.20	6.82	7.45	8.08	kg/lm
	337	322	309	299	290	283	277	267	259	252	kg/m^3
Dimensional stability	> 12 cm and ≤ 340 cm = ±1.0 mm)										DIN EN 336, dimensional stability class 2
Tolerance L	+/- 1.0										or for prefabrication according to customer requirements
Finishing	capped at straight angle / chamfered edges										
Tolerance H/B	+/- 1.0 mm										
Longitudinal curvature	≤ 2 mm/2m										
Appearance											
Knots	permitted according to the machine stress rating of the wood										
bark pocket	not permitted										
discolouration	blue stain: permitted nail-resistant brown and red streaks up to 2/5 brown rot, white rot not permitted										
resin pockets cracks	possible according to machine stress rating										
OSB	according to OSB 3 (no optical properties)										
Building physics / Fire protection											
Fire resistance	normal flammability / B2 / D-s2, d0										
Moisture protection	in vapour-permeable construction with s_D value inside ≥ 2.0 m and outside ≤0.3 m fulfilled										according to DIN 4108-3
Heat insulation	Thermal conductivity λ										
	160	180	200	220	240	260	280	320	360	400	
	0.077	0.074	0.072	0.071	0.070	0.069	0.068	0.067	0.066	0.065	

Determination of heat transfer coefficients

Thermal resistance of cavity area

from the inside	s cm	ρ kg/m³	kg/m2	λ W/(mK)	R m²K/W
R_{si}					0.130
01 EGGER OSB 3 E0 15mm	1.50	600	9.0	0.130	0.115
02 wood fibre insulation material WF 039	24.00	160	38.4	0.039	6.154
03 EGGER DHF15mm	1.50	625	9.4	0.100	0.150
R_{se}					0.040
Total:	27.00		56.8		R_T = 6.59

U_{cavity} = 0.152 W/(m2K)

Frame area with studwork timber

Frame width	Axis distance	assembled component	
6.0 cm	62.5 cm	9.6 %	62.8 kg/m²

Frame part from inside	S cm	ρ kg/m³	kg/m2	λ W/(mK)	R m²K/W
R_{si}					0.130
01 EGGER OSB 3 E0 15mm	1.50	600	9.0	0.130	0.115
02 Softwood	24.00	420	100.8	0.130	1.846
03 EGGER DHF15mm	1.50	625	9.4	0.100	0.150
R_{se}					0.040
	27.00		119.2		R_T = 2.28

$U_{(R)}$ = 0.438 W/(m²K)

R'_T = 1 / (90.40% * 1/6.589 + 9.60% * 1/2.282) = 5.58 m²K/W

R''_T = 0.13 + 1/(0.904/0.115+0.096/0.115) + 1/(0.904/6.154+0.096/1,846) + 1/(0.904/0.150+0.096/0.150) + 0.04 = 5.46 m²K/W

R_T = (R'_T + R''_T)/2 = 5.52 m2K/W (maximum error = R'_T - R''_T / 2 * R_T = 1 %)

Heat transfer coefficient U = **0.181 W/(m²K)** (without corrections)

Frame area with EGGER EcoBox

Frame width	Axis distance		assembled component
8.0 cm	62.5 cm	→ 12.8 %	61.4 kg/m²

Frame part from inside	S cm	ρ kg/m³	kg/m2	λ W/(mK)	R m²K/W
R_{si}					0.130
01 EGGER OSB 3 E0 15mm	1.50	600	9.0	0.130	0.115
02 EGGER EcoBox 10/80x240	24.00	310	74.4	0.070	3.429
03 EGGER DHF15mm	1.50	625	9.4	0.100	0.150
R_{se}					0.040
	27.00		92.8		R_T = 3.86

$U_{(R)}$ = 0.259 W/(m²K)

R'_T = 1 / (87.20% * 1/6.589 + 12.80% * 1/3.864) = 6.04 m²K/W

R''_T = 0.13 + 1/(0.872/0.115+0.128/0.115) + 1/(0.872/6.154+0.128/3,429) + 1/(0.872/0.150+0.128/0.150) + 0.04 = 6.02 m²K/W

R_T = (R'_T + R''_T)/2 = 6.03 m²K/W (maximum error = R'_T - R''_T / 2 * R_T = 0 %)

Heat transfer coefficient U = **0.162 W/(m²K)** (without corrections)

Condensation water verification

Calculated verification of condensation water performed in accordance with DIN 4108-3:2018 for the largest available EcoBox cross-section 80x400 mm as the most unfavourable case.

Standard climate DIN 4108-3:2014.

Dew period	Outdoor climate	5.0 °C	φ = 80 %
2160 hours	Indoor climate	20.0 °C	φ = 50 %

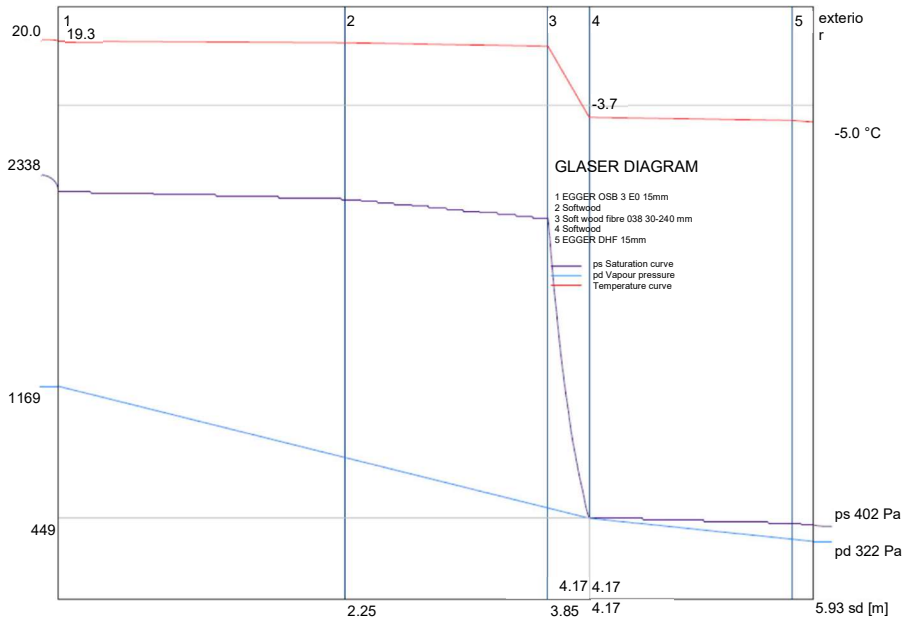
Evaporation period	$p_{d,i}$ / $p_{d,a}$	1200 Pa vapour pressure
2160 hours	p_s	1700 Pa saturation vapour pressure

Heat transfer resistances	R_{si}	0.25 m²K/W
	R_{se}	0.04 m²K/W

Boundary layer temperatures and saturation vapour pressures

from the inside prior to the layer boundary	Dew period T_{gr} [°C]	p_s [Pa]	p_d [Pa]
indoor air	20.0	2338	1169
1 EGGER OSB 3 E0 15mm	19.3	2246	1169
2 Softwood	19.0	2204	781
3 Soft wood fibre 038	18.2	2096	504
4 Softwood	-3.7	449	449
5 EGGER DHF15mm	-4.5	419	334
	-4.9	405	322
Outside air	-5.0	402	322

Boundary layer temperatures T_{gr} with R_{si} = 0.25, R_{se} = 0.04 and R_T = 9.59 m²K/W



Calculated verification of condensation water

Diffusion resistances

Layer	μ_{min} [-]	μ_{max} [-]	μ_{min}*s [m]	μ_{max}*s [m]	s_d [m]
1 EGGER OSB 3 E0 15mm	150	200	2.25	3.00	2.25
2 Softwood	40	40	1.60	1.60	1.60
3 Soft wood fibre 038	1	2	0.32	0.64	0.32
4 Softwood	40	40	1.60	1.60	1.60
5 EGGER DHF15mm	11	11	0.16	0.16	0.16

		S µ*s =	5.93		

Climate-related moisture protection DIN 4108-3:2018

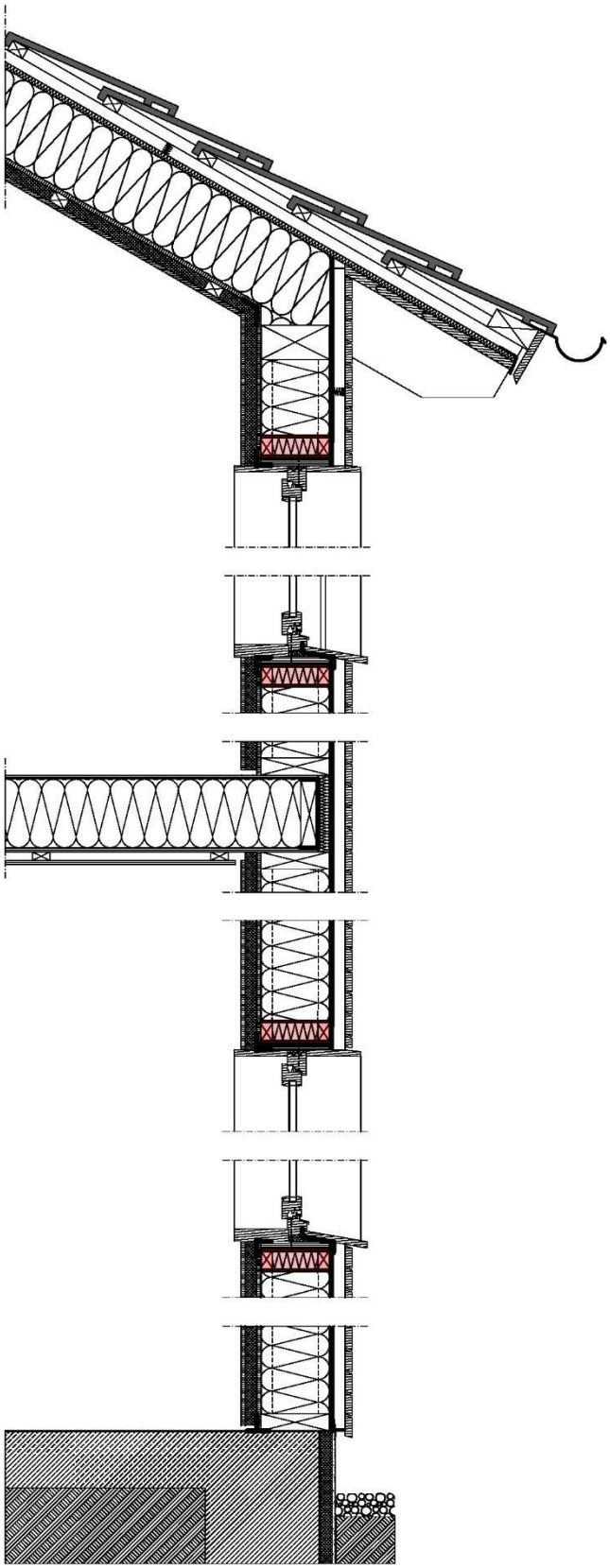
Condensation inside building components (A.2)

Vapour pressures	P_i	P_c	P_e
Dew period [Pa]	1,169	449	322
Evaporation period [Pa]	1,200	1,700	1,200
s_d value [m]	0	4.17	5.93
Dew level / dew area	M_c g/m²	M_{ev} g/m²	t_{ev} h
prior to softwood	156	628	537

Layer 4 "Softwood" in the dew zone. The moisture increase is 0.9 % by mass.
Fulfils the requirements of DIN 4108-3, 5.2.1.

The formation of condensation in the component is harmless in the sense of DIN 4108-3 (para. 5.2.1)
Condensation water masses $M_c \leq 500$ g/m², Evaporation masses $M_{ev} \geq M_c$
with condensation water mass M_c, evaporation mass M_{ev} and evaporation time t_{ev}

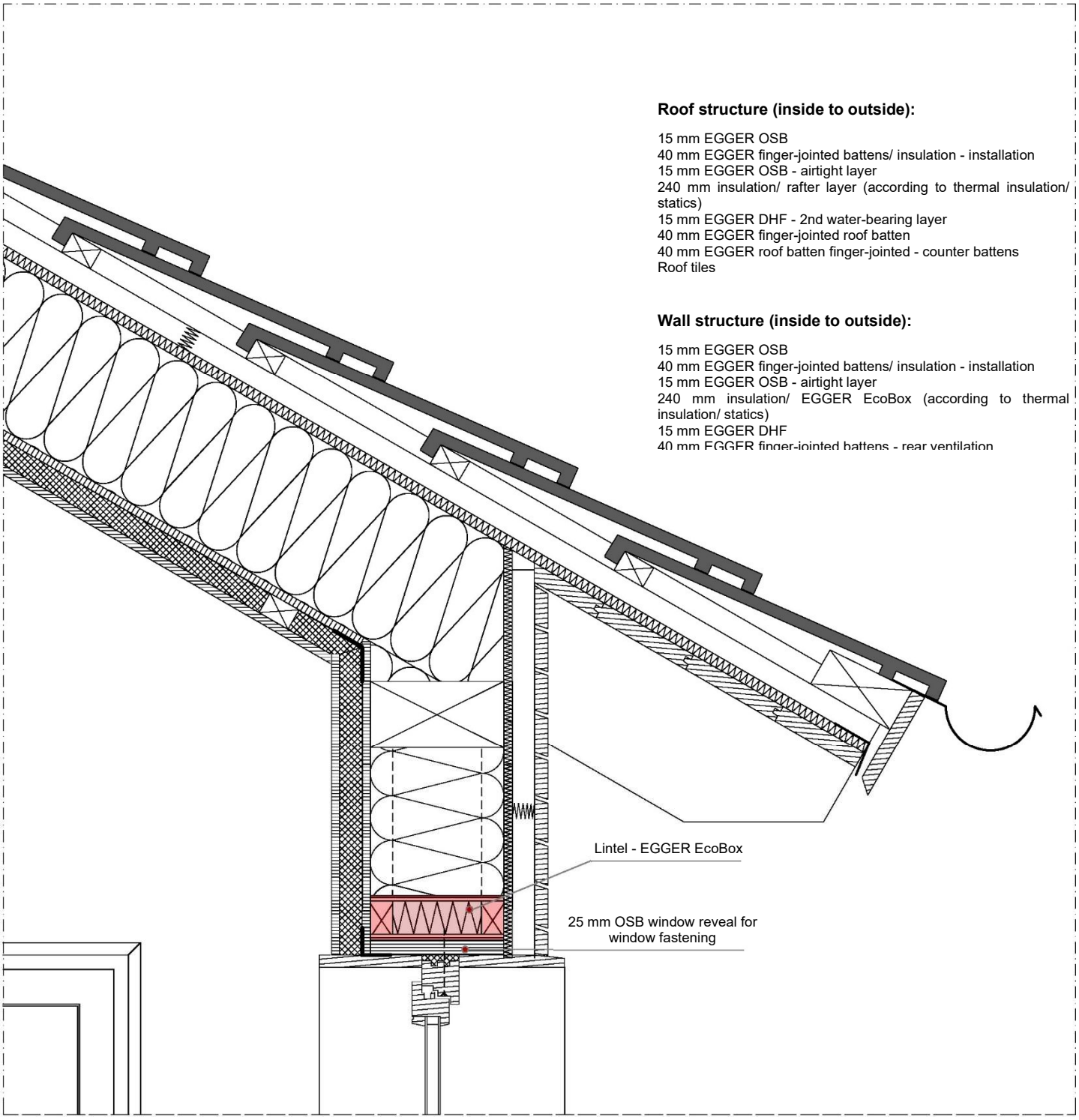
Details - Building with the EcoBox



Index: Vers. 1 (16.12.2024): New creation
Plan creation: PM/ EBP

EGGER EcoBox - Construction details

Vertical section: Pitched roof & external wall with window connection



Ensure an airtight construction during planning and realisation!

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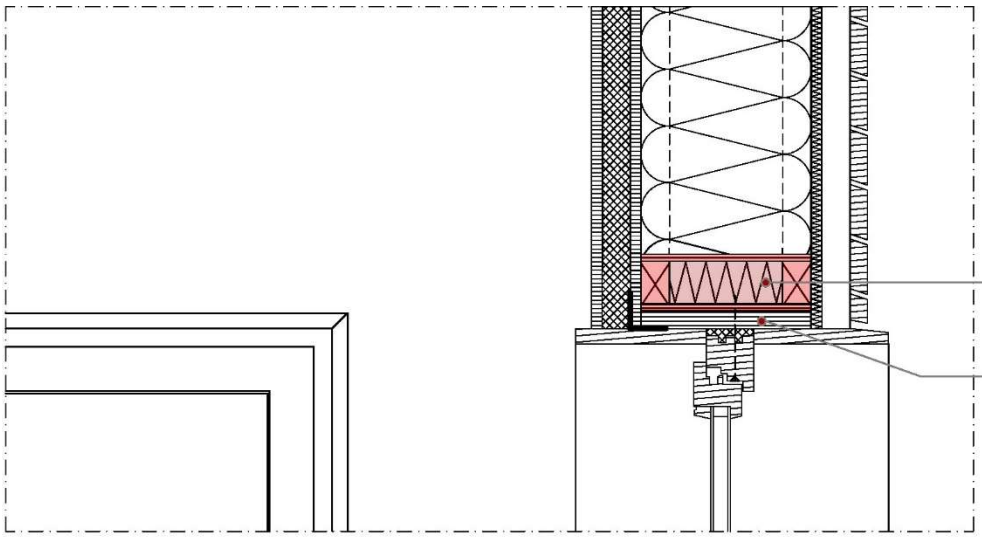
EGGER EcoBox - Construction details

Vertical section: External wall with window and base

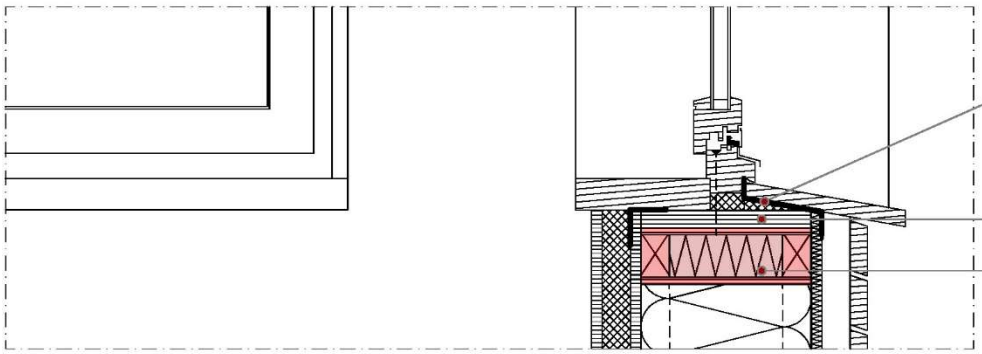


Wall structure (inside to outside):

15 mm EGGER OSB
40 mm EGGER finger-jointed battens/ insulation - installation
15 mm EGGER OSB - airtight layer
240 mm insulation/ EGGER EcoBox
(according to thermal insulation/ statics)
15 mm EGGER DHF
40 mm EGGER finger-jointed battens - rear ventilation
24 mm rhombus formwork - facade

Lintel - EGGER EcoBox

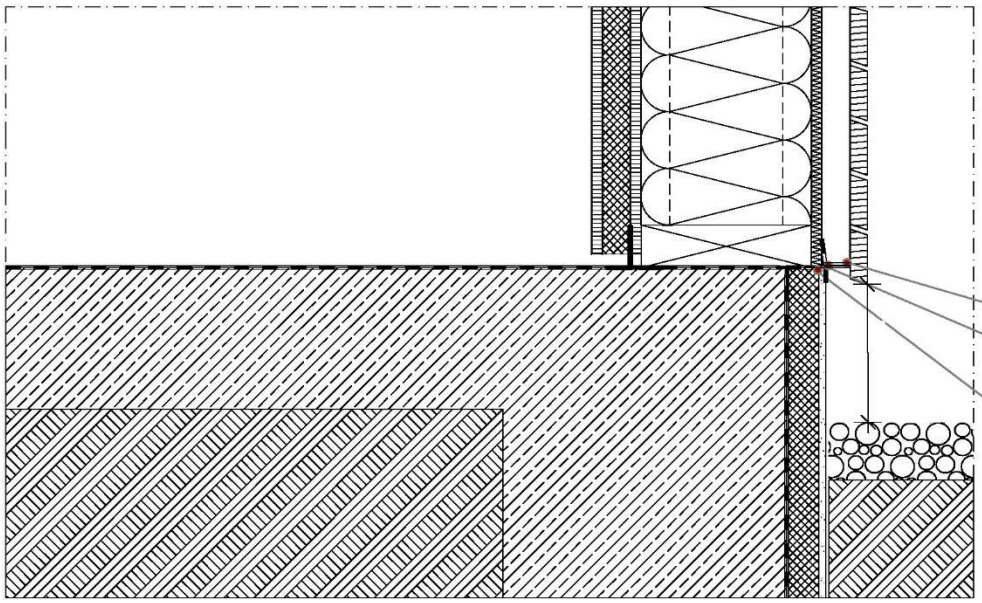
25 mm OSB soffit cladding for window fastening



Sealing

25 mm OSB soffit cladding for window fastening

Parapet - EGGER EcoBox



Ventilation grid / rodent protection

Joint cover e.g. EPDM

Joint sealing tape between DHF and perimeter insulation

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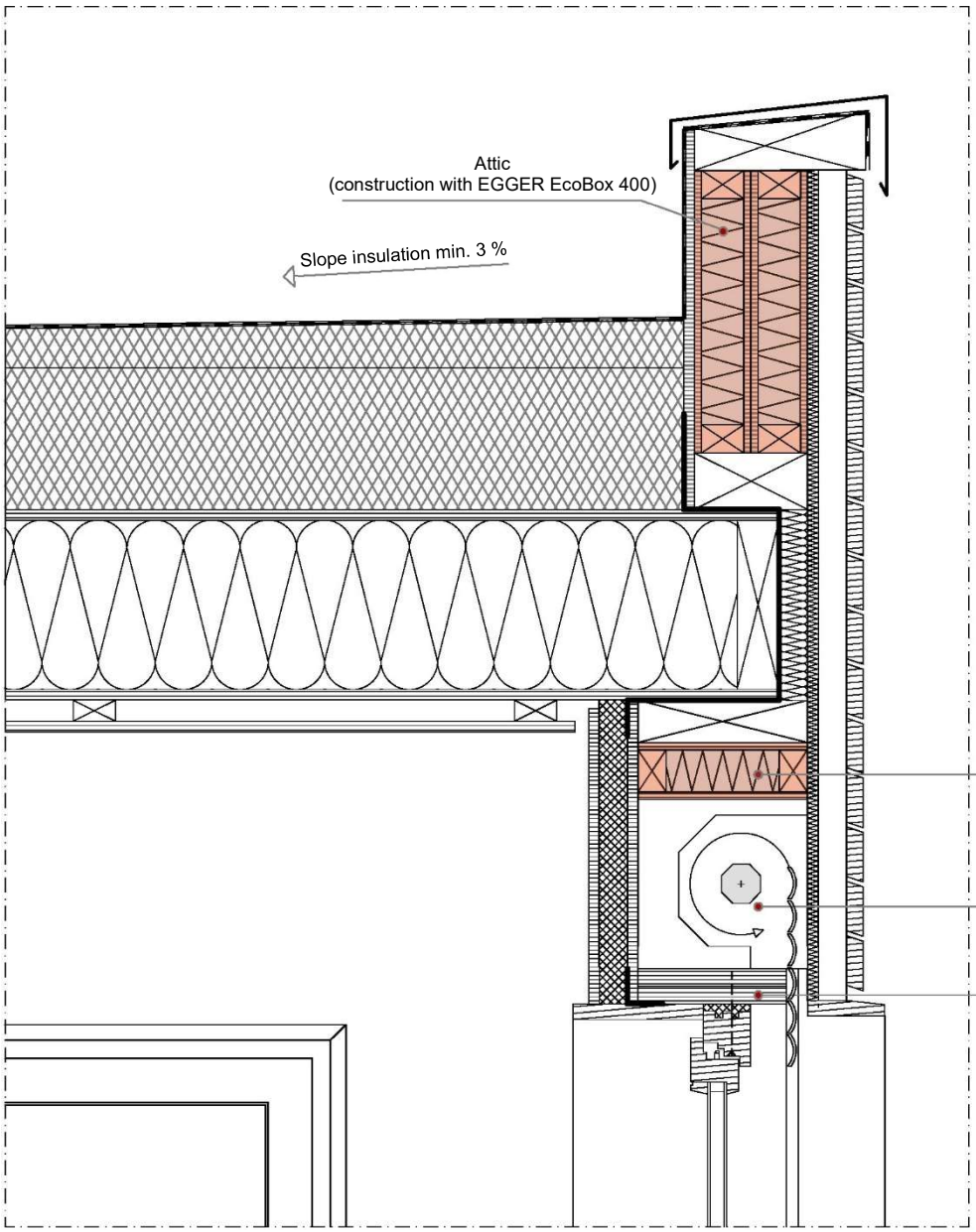
EGGER EcoBox - Construction details

Vertical section: External wall & flat roof with EcoBox attic



Flat roof structure (top to bottom):

2 mm bitumen waterproofing
270 mm slope insulation (according to thermal insulation)
240 mm insulation/ joist layer (according to thermal insulation/statics)
15 mm EGGER OSB - airtight layer
30 mm EGGER finger-jointed batten - installation

Wall structure (inside to outside):

15 mm EGGER OSB
40 mm EGGER finger-jointed battens/insulation - installation
15 mm EGGER OSB - airtight layer
240 mm insulation/EcoBox (according to thermal insulation/statics)
15 mm EGGER DHF
40 mm EGGER finger-jointed battens - rear ventilation

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EGGER Construction details EcoBox

Vertical section: External wall with window connection

Version 1

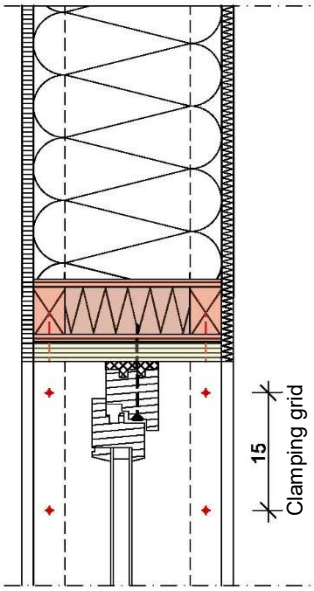
Reveal cladding for element installation:

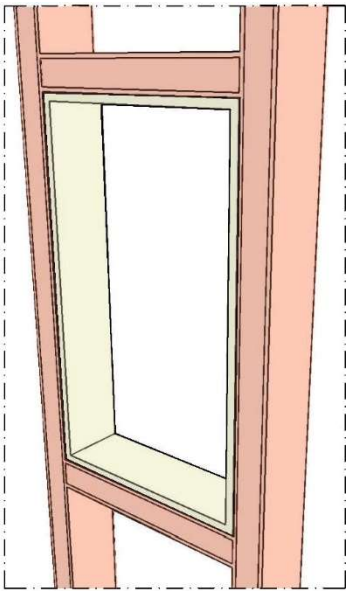
To connect windows and doors to the EcoBox, the reveal can be reinforced all round with 25 mm OSB. The strip corresponds to the depth of the EcoBox.

The clamping grid is at least 15 cm.
The strips must be fastened in the solid wood beam of the EcoBox.

The element is installed using frame screws Ø 6-8 mm.
The distance between the screws should be a maximum of 40 cm.

The screws must be at least 35 mm long.





Version 2

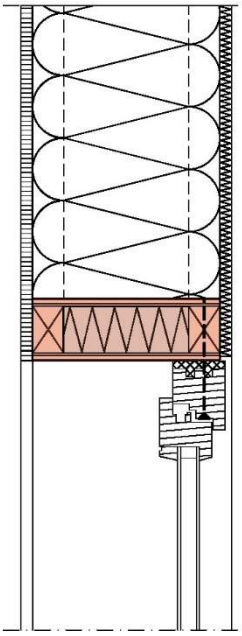
Element installation in the solid wood beam:

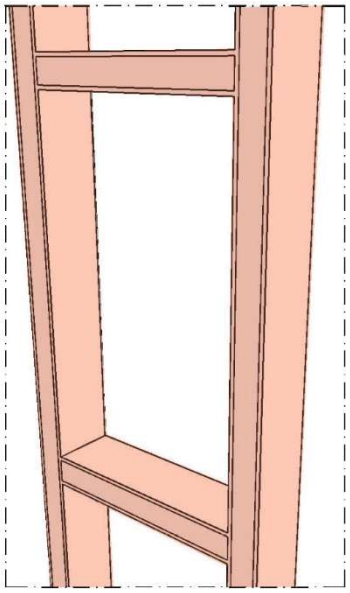
If the element is not attached in the insulation cross-section of the EcoBox, but flush on the inside or outside, it can be fastened directly in the solid wood beam of the hollow box. In this case, no doubling of the EcoBox is necessary.

Sufficient edge distances must be ensured. The element must be anchored with Ø 6 mm frame bolts in the centre of the batten cross-section.

The prerequisite for this installation variant is that the hole in the window frame is at the correct depth. This is the only way to maintain the edge distances (observe the rebate levels!).

Benefit: Simple sealing on the outside (frame level flush with DHF if applicable).





Ensure an airtight construction during planning and realisation!

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EGGER Construction details EcoBox

Horizontal section: External wall corner installation

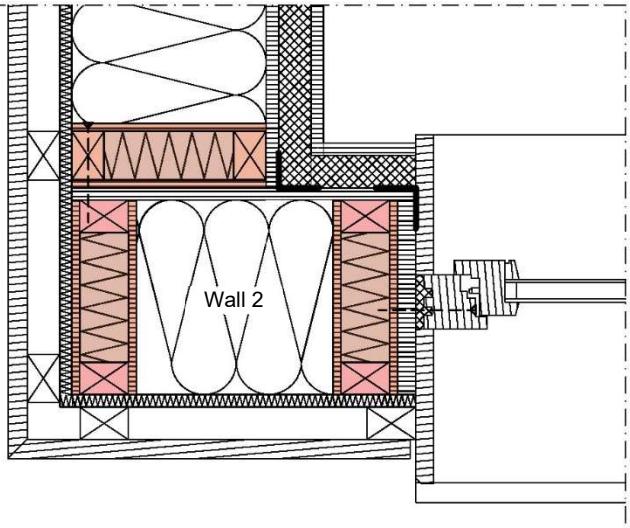
Installation of wall elements closed on one side

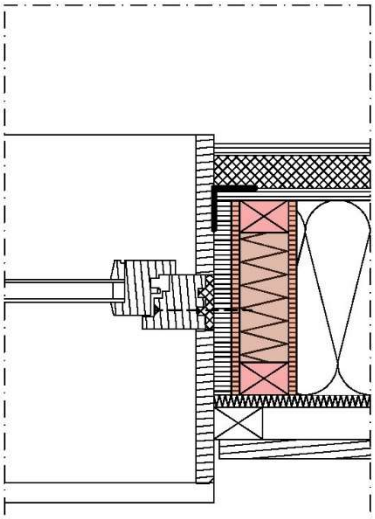
External corner construction sequence:

1. Placement of 1st wall with internal cladding (OSB)

2. Placement of 2nd wall with internal cladding (OSB)

3. Screw connection of the 1st wall through the EcoBox into the internal cladding of the 2nd wall





Installation of wall elements closed on both sides

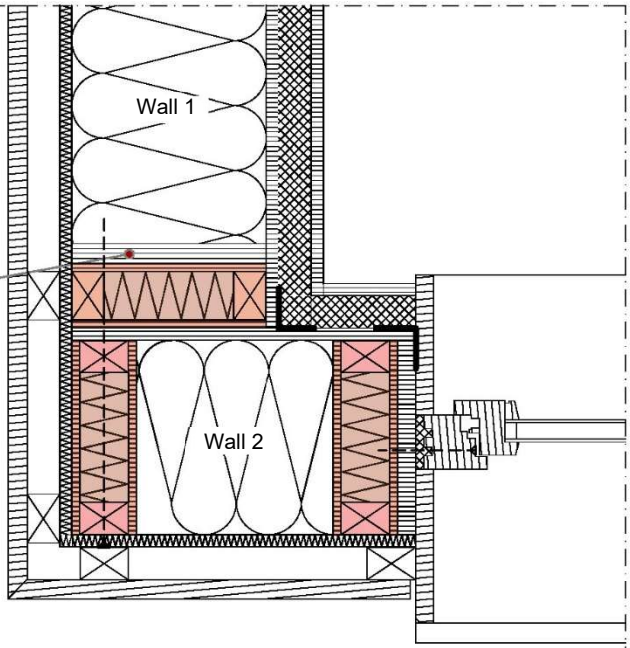
External corner construction sequence:

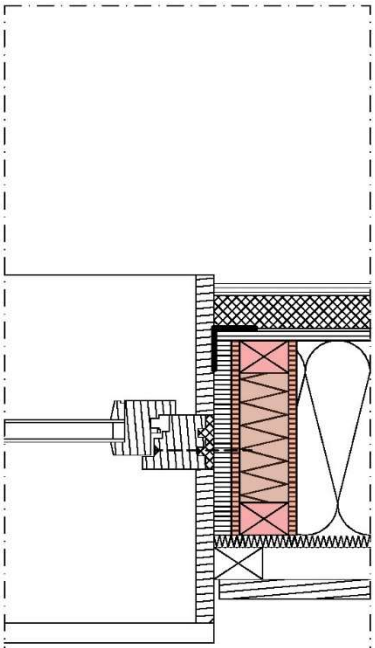
1. Double the EcoBox of wall 1 on the inside with 25 mm OSB (prefabrication!)

2. Placement of 1st wall with cladding on both sides on the construction site

3. Placement of 2nd Wall with cladding on both sides

4. Pre-drilling and screwing of the 2nd wall through the EcoBox into the 25 mm OSB





Ensure an airtight construction during planning and realisation!

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