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TECHNICKÁ
A MONTÁŽNÍ
PŘÍRUČKA



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Pozdrávky



What is ecopanel, what are its features and how to use it?

Ecopanel is ecological diffusion open building board. It is molded under high temperature and pressure from cereal straw without using binders, pasted all over recycled cardboard.

Výborné parametry Ekopanelu VPI ocenila také Česká stavební akademie ZLATÁ CENOU v soutěži za nejlepší výrobek a technologii roku 2008.



Properties of Ecopanel reduce construction costs and allow quality and cost-effective housing.

The top is covered by recycled paper, the inside core is from cereal straw. Both materials are not just into the category of high tech, but give ecopanel many excellent properties.

The first mention especially ability to heat accumulation, which significantly reduces the cost of heating and, therefore, Ecopanel is especially suitable for implementation energy-efficient home.

Their mechanical properties allow realization of the self-supporting walls without build a support structure

Because of using paper and straw as organic materials, the ecopanel is fully recycled. The customer is supplied by ecopanel of modified length, thereby minimize waste. After cleaning the surface adjustments can be composted as well. The manufacturer also removes cuttings from the assembly for re-utilization. All this properties make virtually EKOPANELS waste-free building material.

Ecopanel released water vapor. At elevated humidity they absorb moisture inside the porous structure and the reduction in moisture on the contrary, the air released. this mechanism positively affects the microclimate in the interior, especially in winter, when the object is heated.

Production takes place at special Ecopanel production line of its own design. First are selected square bales of straw again loose straw, which is then free binder pressed in the profile panel. Subsequently this core covers recycled cardboard. The endless belt comes from the press. The length of panels is individual, depends on the customer demands. The result is a versatile and modern building material that fully meets today's requirements. As a building system save material cost and time required for installation while maintaining accuracy and quality execution.

In 2008 the ecopanel won the Golden Prize Czech Academy building an ecological construction product is suitable for the construction low-energy and passive wooden buildings. Part of the production is exported to Ecopanel countries European Union and beyond, namely to Germany, France, Holland, Belgium, Poland, Slovakia, Ukraine, Switzerland and Austria.

The first plate of pressed straw in Great Britain was in 1945 that the construction of war-torn home. Our technology Ecopanel production began to develop in the Czech Republic in 1997 and the first prototype engineers have already completed in 1999. In March this year EKOPANELY CZ was established. second line (made Since 2008 in operation third line, replacing the first prototype and is the same size bale chamber 1200 × 58 mm.

Quick and easy installation while maintaining accuracy and quality of execution.

Whether you are a professional or handyman your relation to any building, you all appreciate the easy handling. The working with it is like working with timber, and thus it can be adjusted by common hand tools, such as hand-held circular or jig saw, drill and grooving milling machine. The rung of ecopanel or just install with universal clamps and screws or peg joints. You do not need any special structure or machine. Another advantage of is a high speed, and the dry process assembly. Place in a matter of assembling few minutes.

On the surface of ecopanel, you can apply a wide range of finishes, such as wallpaper, paint, screeds, tiles, etc.

For installing fixtures we need dowels. A common practice is screwed directly into the core without straw predrilling. The ceiling can bear the on the screw 5x100 mm weighing up to 75 kg.

The first reference of the building was built by EKOPANELY CZ in 2001 and is in Jedousov. It is still used as an office building company EKOPANELY CZ. Its unique composition bearing perimeter wall without structure, composed of 3 EKOPANELY combined in a single structural plate jacketed fourth layer Ekopanel with insulating function has excellent construction parameters. After ten years of construction Restored, replaced the windows, all details did not show any degradation Changes straw or mechanical damage surfaces. Ecopanel here are used in several atypical applications.

- Structure perimeter wall
- Penetrations peripheral structures without translation
- Rafter insulation without surface film the direct application of asphalt roofing
- The composition floor strips on the base without using polystyrene as insulation
- Suspension directly into the EKP boiler the perimeter wall

It is currently implemented in the Czech Republic through 350 wooden buildings and countless individual applications such as attic, ceilings, walls, floors, Rafter insulation built-in halls, etc.

Use it anywhere, where you need fast and simple construction of quality material

Ecopanel is designed for installation in all types of wooden structures. They are especially suitable for the construction of energy-efficient home. Very easy one builds such partitions. They are self-supporting, and therefore does not need substructure built partitions and investor overall cost savings.

For the ability of heat accumulation ecopanel is used for the construction of attic area in which they contribute to the thermal stability. Ecopanel also pass on to the finishes vibrations and movements of the structure. Therefore, repeatedly no deformation (cracking) are .

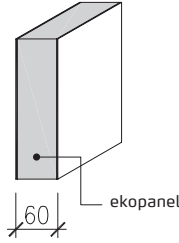


Mechanical and physical properties

Mechanical and physical properties

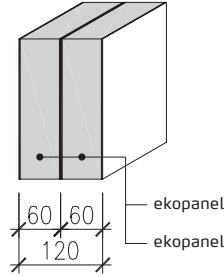
Simple rail

heat transfer coefficient:
 $U = 1,264 \text{ W/m}^2 \text{ K}$
Fire resistance:
PO = 30 min
Acoustic insulation:
 $R_w = 33 \text{ dB}$



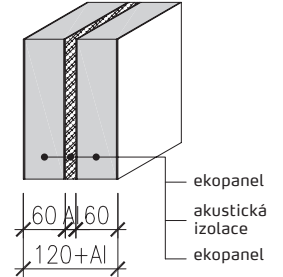
Double rail

Acoustic insulation:
 $R_w = 45 \text{ dB}$



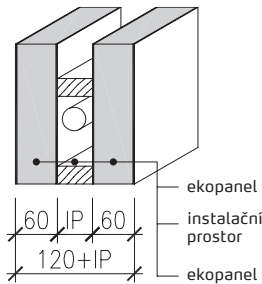
Acoustic partition

heat transfer coefficient:
 $U = 0,716 \text{ W/m}^2 \text{ K}$
Acoustic insulation:
 $R_w > 45 \text{ dB}$



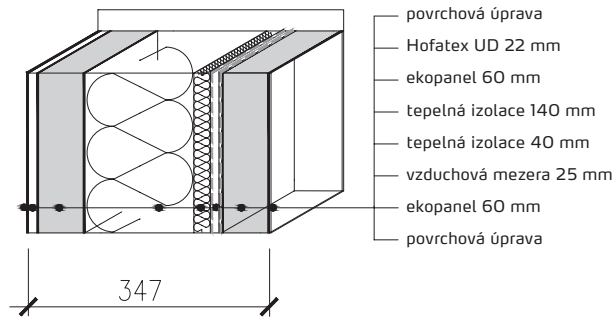
Rail installation

heat transfer coefficient:
 $U = 0,675 \text{ W/m}^2 \text{ K}$



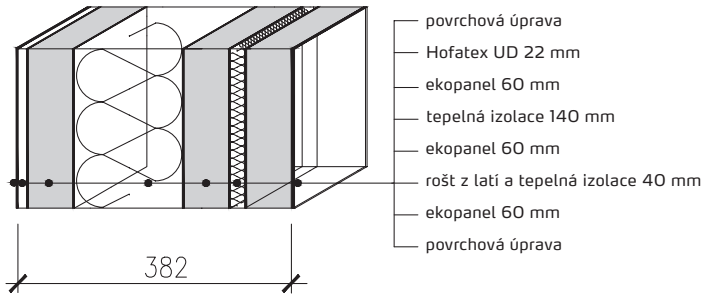
Circumferential wall EKO 2

heat transfer coefficient:
 $U = 0,156 \text{ W/m}^2 \text{ K}$



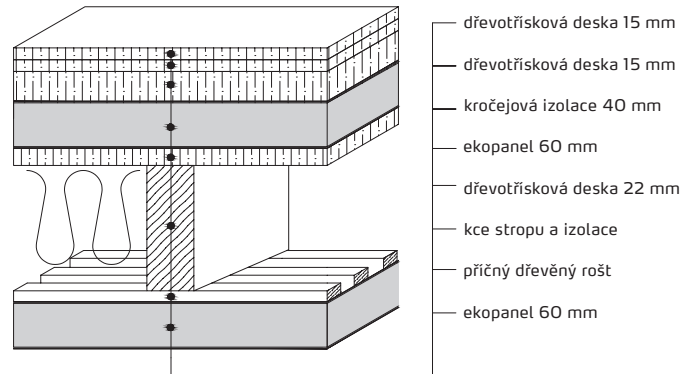
Circumferential wall 3 EKO

heat transfer coefficient:
 $U = 0,143 \text{ W/m}^2 \text{ K}$



Ceiling construction

heat transfer coefficient:
 $U = 0,156 \text{ W/m}^2 \text{ K}$



Ekopanels are manufactured in two widths 800 mm and 1200 mm

Dimensions

width: 800/1200 mm
thickness: 58 mm (+2 mm tolerance)
Length: 1200 – 3200 mm
Ekopanel formats as well as required customer

Values of thermal insulation values

Coefficient of thermal conductivity:
 $\lambda = 0,099 \text{ Wm}^{-1} \text{ K}^{-1}$, $R = 0,58 \text{ m}^2 \text{ KW}^{-1}$
diffusion resistance: $RD = 4,6 * 10^9 \text{ ms}^{-1}$
diffusion coefficient of resistance: $\mu = 9,7$

heat transfer coefficient:

$U = 1,04 - 1,39 \text{ W/m}^2 * \text{ K}$
according to the design position, the and heat flow

The sound attenuation

acoustic attenuation simple partitions: 33 dB
acoustic attenuation double rungs: 45 dB

The average weight

surface from 19 – 23 kg/m^2
volume 379 kg/m^3

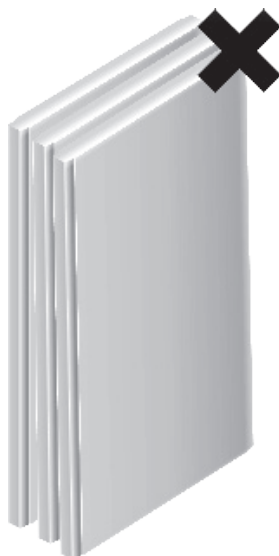
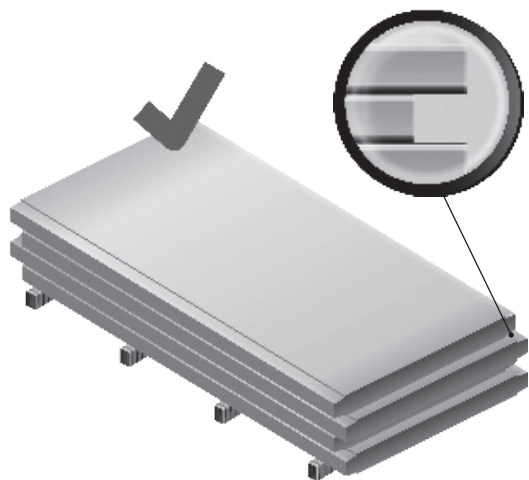
Classification of fire resistance

rung simple EI 30 D3
ceiling EI 45 DP3
lining the perimeter bearing structure REI 45
Reaction to fire: class E

Handling Ecopanel and methods of their processing

Storage and carrying

STORAGE AND CARRYING

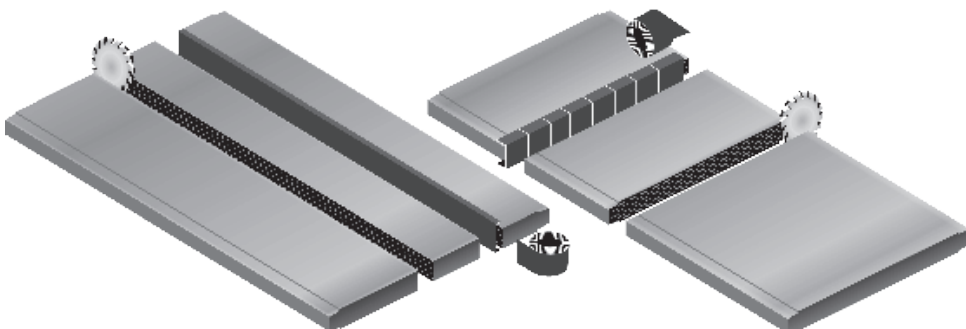


Simplify handling Ekopanel using this simple helper.

Cutting and Finishing cutting edge

Using a circular saw or a leaf Ekopanel easily is adjusted to the required size and shapes. Use special saw blade for cutting EKOPANELY, the leaf blades install to jigsaws. All cut edges sticker by SP100 self-adhesive tape. Longitudinal section sticker cardboard strip sticker by Using a circular saw or a leaf easily Ekopanel adjust to the required size and shapes. To use special saws saw blade for cutting EKOPANELY the leaf blades install proven to jigsaws. All cut edges stickers supplied SP100 self-adhesive tape.

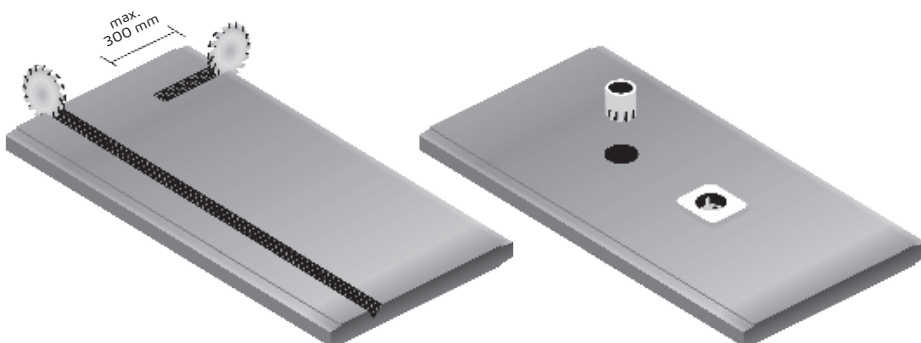
CUTTING AND FINISHING CUTTING S EDGE



Cutouts for electrical

Groove cut circular saw under at 45 ° and subsequently joint sealant. Groove across the slab can be max 30 cm long. Openings for boxes or other openings in various diameters cut with the special jigsaw with universal adapter, they are available in our company. Hole cut out adapter a diameter of 68 mm is prepared exactly for the universal box for insertion into hollow walls (type L KI 68/1 or 2 or 3). If you need to place several boxes beside itself, install them using the traditional method.

CUTOUTS FOR ELECTRICAL



Screwing

Screws install with the electric screwdriver or use a drill with a twist extension. NO predrilling! For a assembling into the wooden structure use screws EP 5 × 100 mm with washer EP-P1. Enjoy screws fastening clips EP 4 × 50 mm. Select the appropriate tightening torque to washer not to torn cardboard surface

Hanging objects

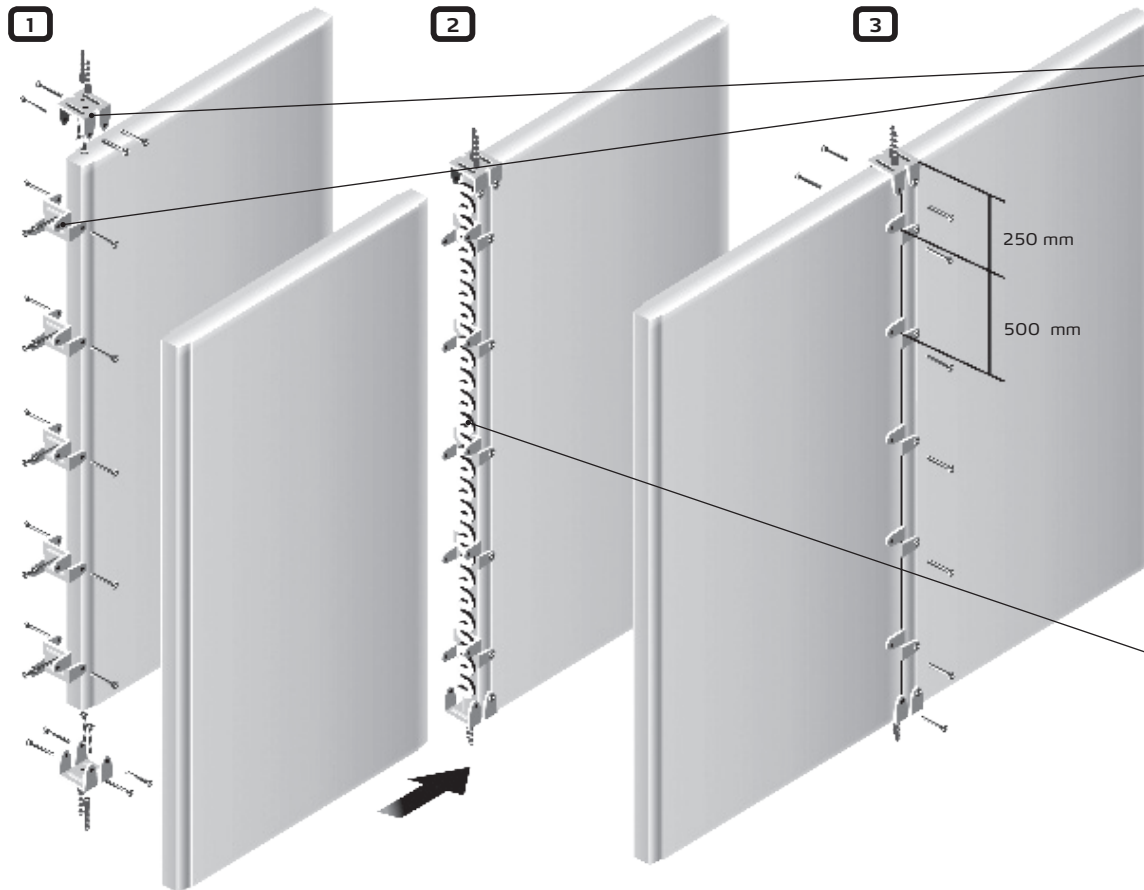
For mounting wall cabinets, radiators, railings and other fixtures on Ekopanely not need anchors. Common practice is directly screwed into the screw straw core without drilling. Ekopanel kidnap even greater than statically applied loads Gypsum board or plasterboard. The screws EP 5 × 100 mm can carry the load up to 75 kg. Anchoring heavy

objects solve using plurality of screws or by inserting the auxiliary construction of sandwich walls.



Ways of connecting

SPOJOVÁNÍ EKOPANELŮ STĚNOVÝMI UNI SPONAMI



plechová UNI spona
á 500 mm,
4 ks vrut EP 4x50 mm

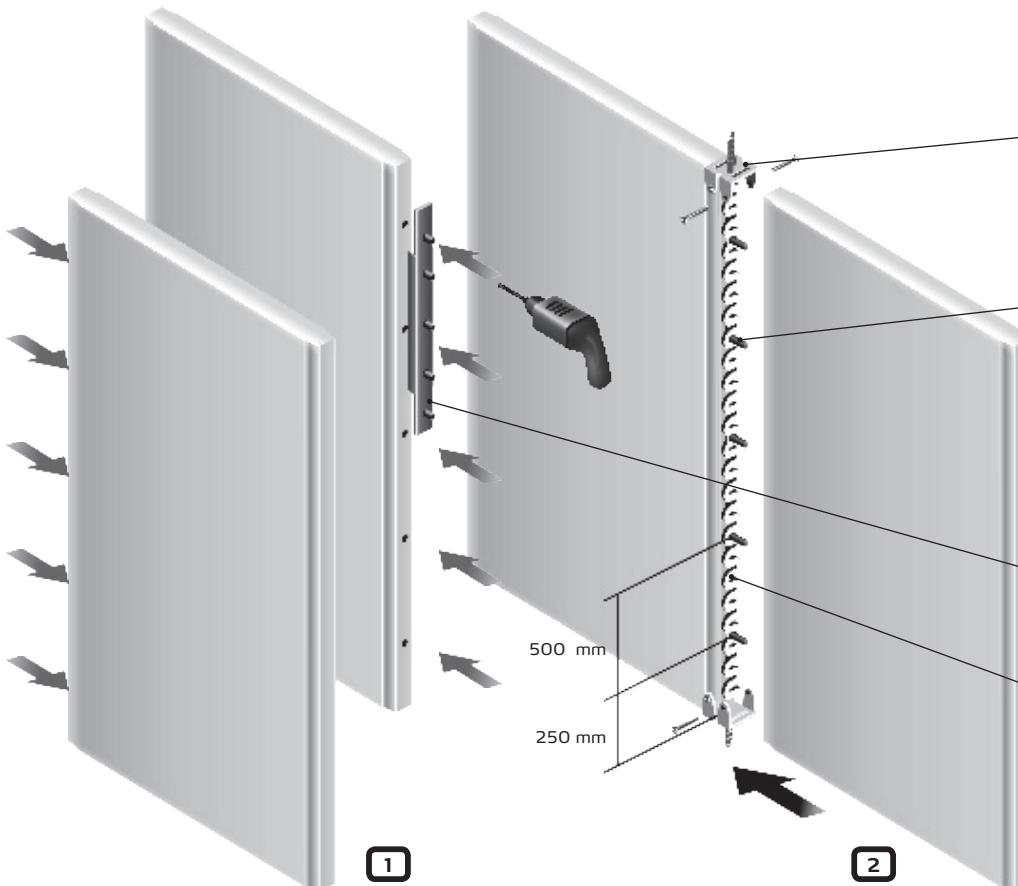
Sponu vždy nejdříve ukotvíte a poté naohýbejte!



montážní pěna

Ways of connecting

KOLÍČKOVÝ SPOJ EKOPANELŮ



plechová UNI spona
á 500 mm,
4 ks vrut EP 4x50 mm

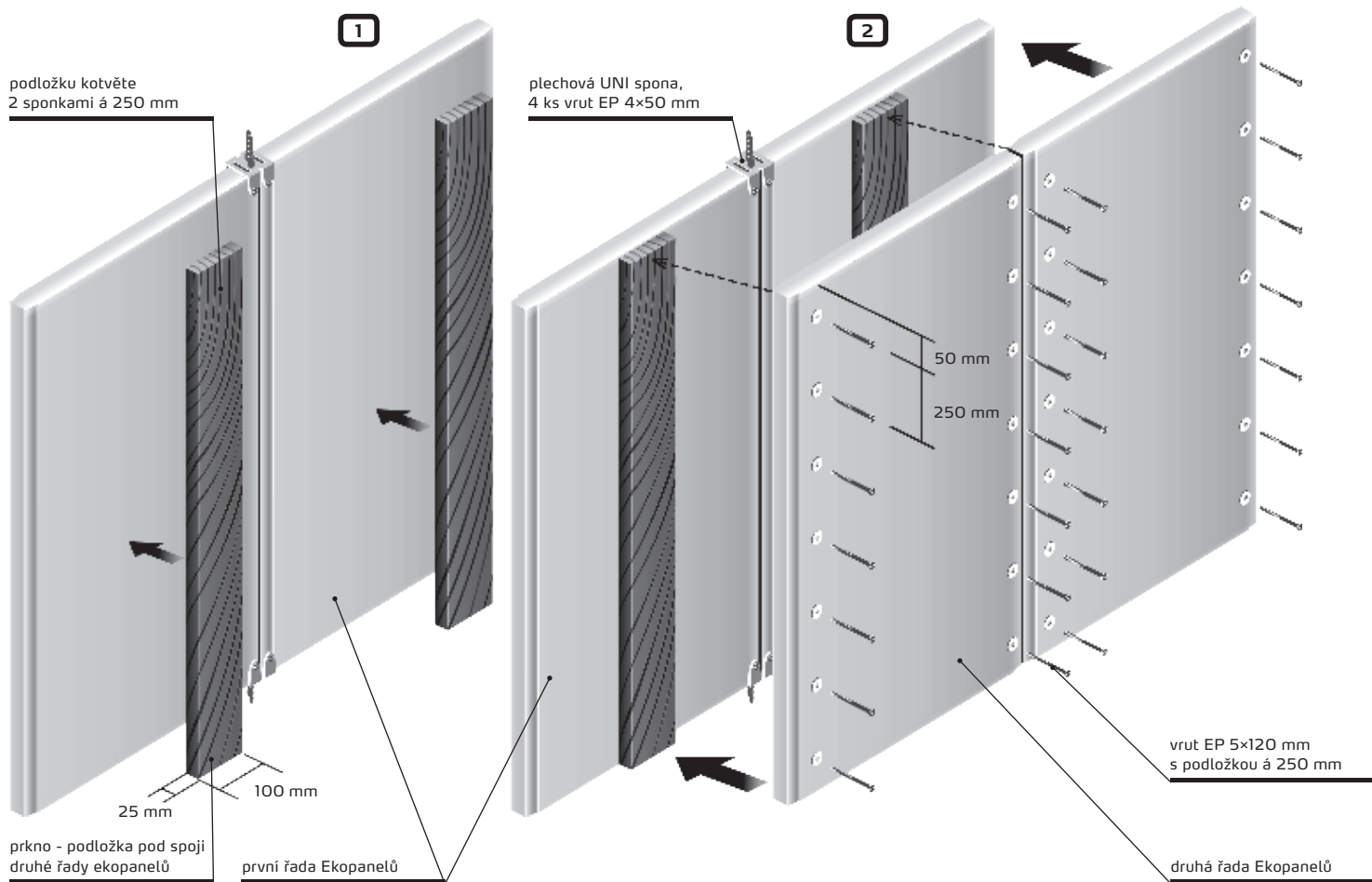
dřevěný kolíček
délky 100 mm,
3 ks/1 bm



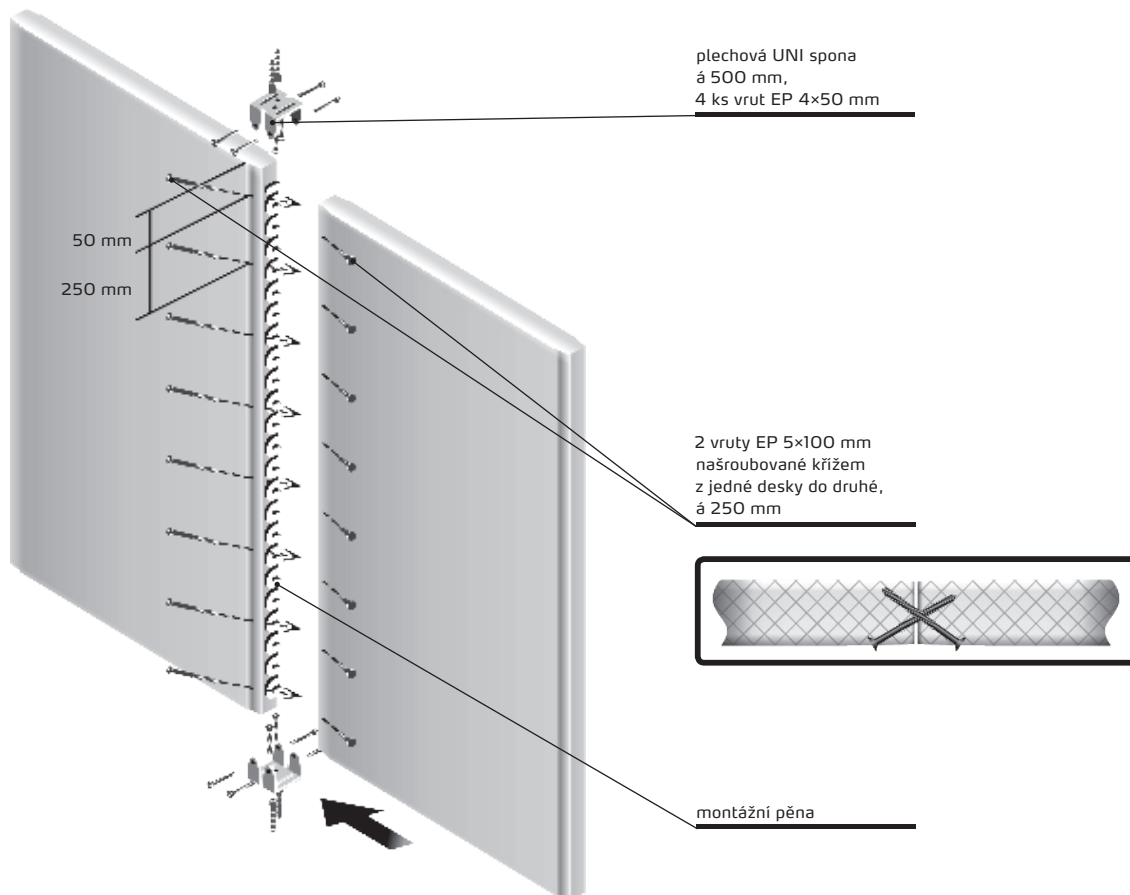
šablona pro předvrtání
správné vzdálenosti kolíčků

montážní pěna

SPOJOVÁNÍ EKOPANELŮ S PODLOŽENÝM SPOJEM



SPOJOVÁNÍ EKOPANELŮ VRUTY





Establishing the buildings

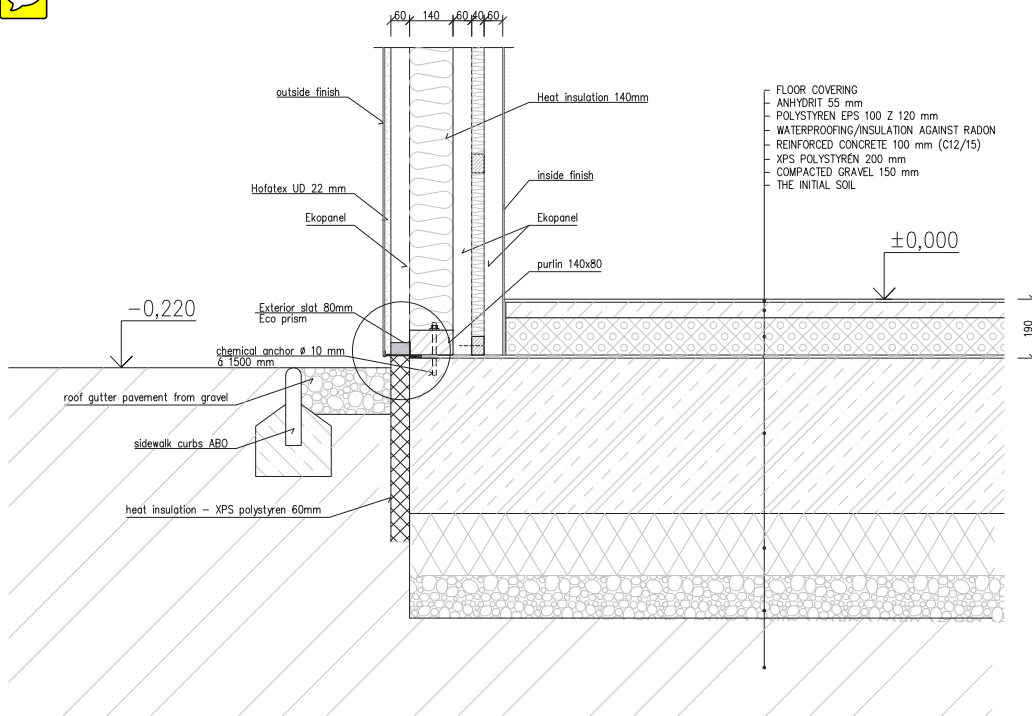
The designer must always design or structural engineer must always desing construction of foundation under wooden building. Here are described some most common methods for substructure Wooden Building.

Základová deska

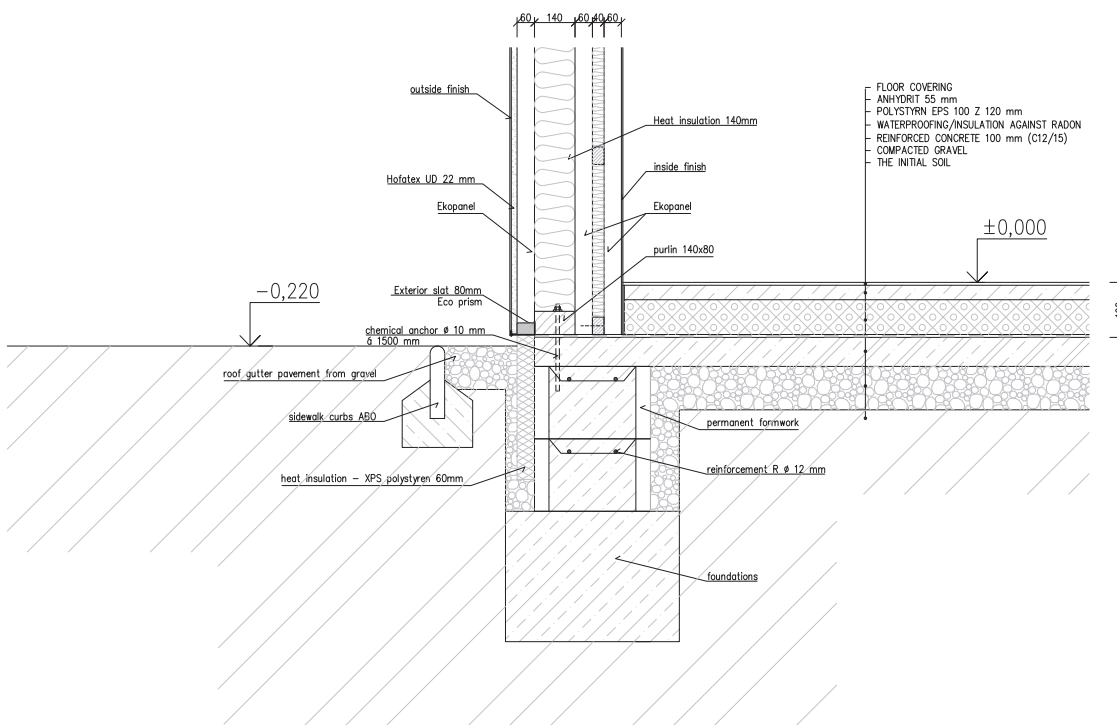
The topsoil at desired depth is removed on the building land. The surface covers with a nationwide compacted aggregate embankment with subsequently XPS heat insulation polystyrene or other solid insulation on the top. Foundation formwork is

built. At the bottom of the base plate is stored steel bondage and is concreted. After removing the formwork base plates around is covered by completed insulation XPS -polystyrene. Loading

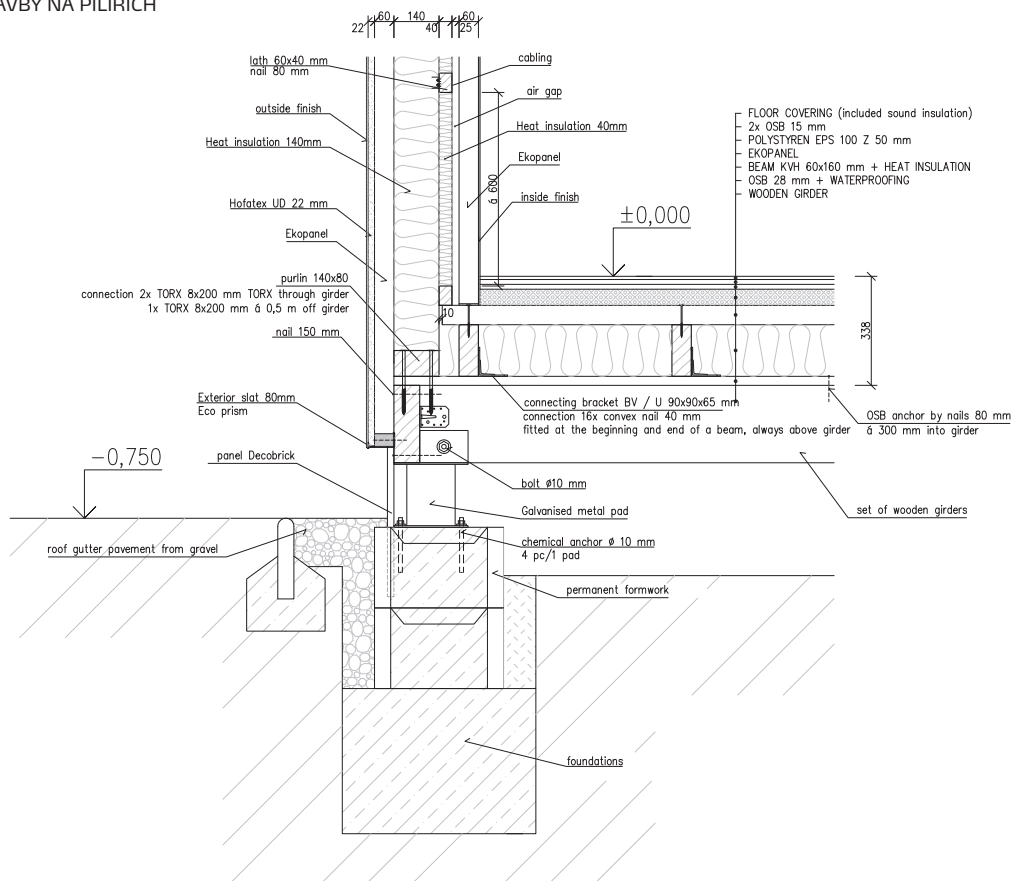
ZALOŽENÍ STAVBY NA ZÁKLADOVÉ DESCE



ZALOŽENÍ STAVBY NA PÁSECH



ZALOŽENÍ STAVBY NA PILÍŘÍCH



Strip foundation and concrete slab

It is the most common method of establishment. The land in the area where the building removed topsoil. Subsequently, dig a trench for foundation strips. After the circuit construction and the supporting walls to be cast strip usually width 600 mm, height 450 to 500 mm which stiffens the steel as needed rods. After the initial setting of the concrete at belt build the foundation walls of the lost formwork is filled with concrete with steel reinforcement. Between the bases is done compacted embankment aggregate. On the mound welded mesh and saves the plate vybetonuje tl. 100 to 120 mm. Strip foundation is hot from the outside extruded polystyrene XPS.

Foundation construction on piers

Foundation construction on the ground screws The top soil is removed on the building area. Subsequently, dig a trench for foundation strips. After the circuit construction and the supporting walls to be cast belt widths typically 600 mm, height 450 to 500 mm which stiffens the steel as needed rods. After the initial setting of the concrete at belt build pillars of shuttering, which is filled with concrete with steel reinforcement. After hardening of the concrete pillars by chemical anchors fixed metal

arms, the system that stores the wooden girders. The girders are stores nationwide OSB tl. 25 or 28 mm, which is fixed nails dL. 80 mm and 300 mm. The OSB is performed lateral carrier grate flooring planks usually 60 × 160 mm, which are placed under the planned joint. Among the planks are inserted thermal izolace. Na planks are then saved and screws EP 5 × 100 mm Single 500 mm fixed Ecopanel. The Ecopanel then performs the floor dry.

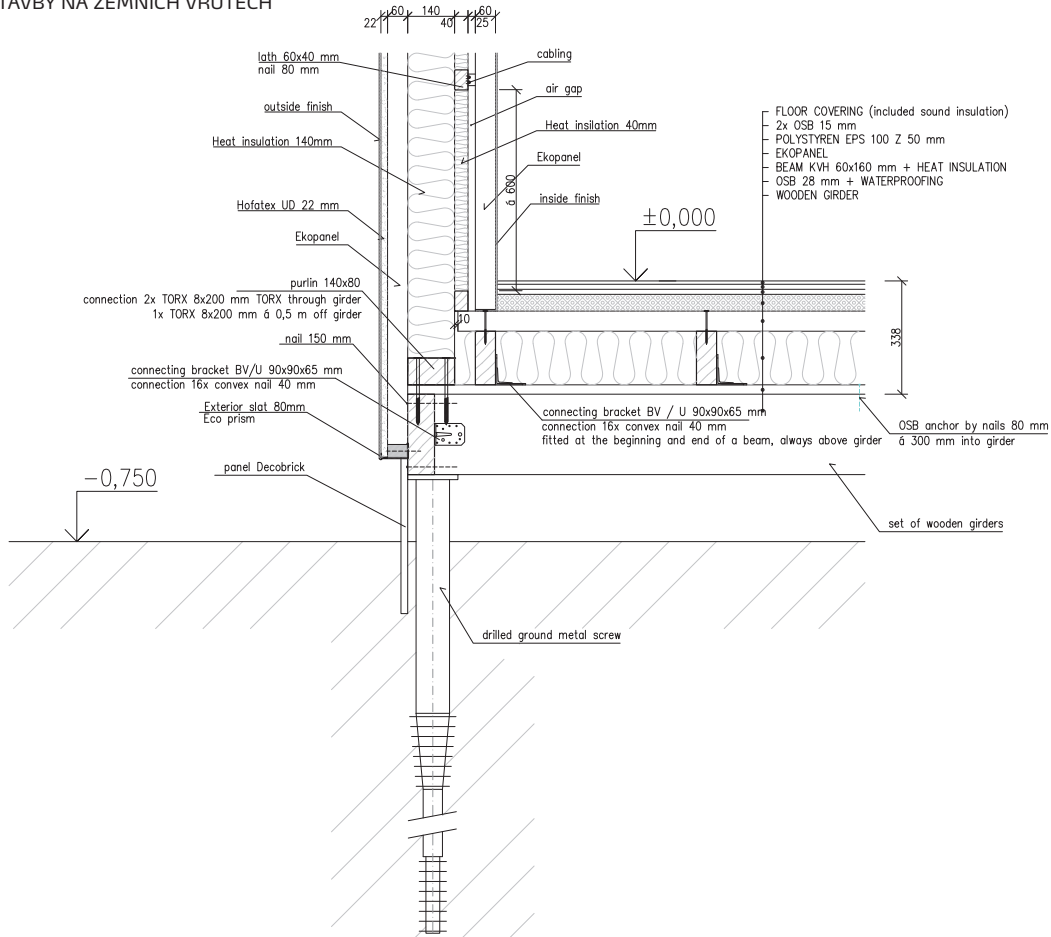
Foundation construction on the ground screws

On the building land at predetermined distances machine put earth metal screws (design type screws made by local contractor conditions). After the drilling screws is fastened timber system ginders. The girders are nationwide stores OSB thickness. 25 or 28 mm, which is strengthen nails dL. 80 mm and 300 mm. The OSB is performed lateral carrier grate flooring planks usually 60 × 160 mm, which are placed under the planned joint. Among the planks are inserted thermal insulatin. On the planks are saved and screws EP 5 × 100 mm Single 500 mm fixed Ecopanel. The Ecopanel then perform the floor dry.

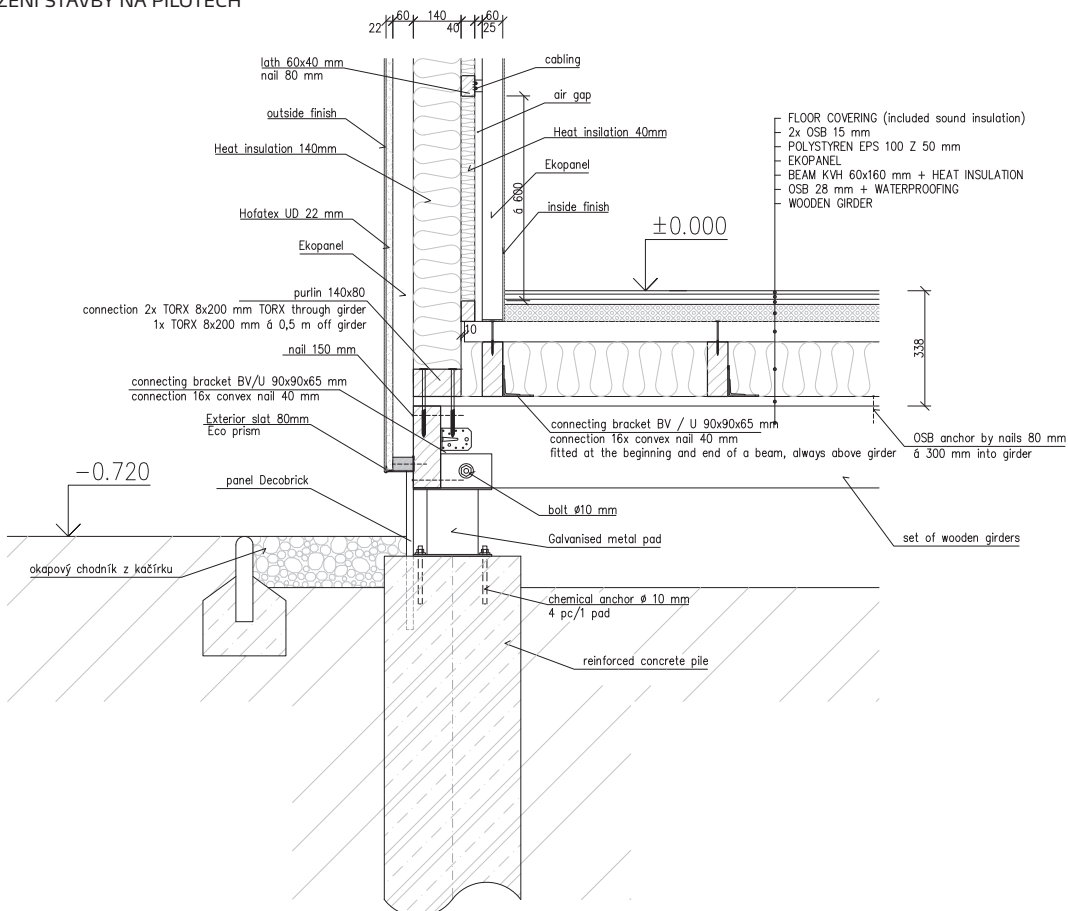
Foundation building on stilts

The land in the area where the building at predetermined distances machine drill holes but in aboveground supplemented by a casing in the desired shape. Subsequently inserted into the pit steel basket reinforcement and filled with concrete. After hardening of the concrete pile by chemical anchors fixed metal arms, the system that stores the wooden girders. The girders are stores nationwide OSB tl. 25 or 28 mm, which is fixed nails dL. 80 mm and 300 mm. The OSB is performed lateral carrier grate flooring planks usually 60 × 160 mm, which are placed under the planned joint. Among the planks are inserted thermal izolace. Na planks are then saved and screws EP 5 × 100 mm Single 500 mm fixed Ecopanel. The Ecopanel then performs dry floor

ZALOŽENÍ STAVBY NA ZEMNÍCH VRUTECH



ZALOŽENÍ STAVBY NA PILOTECH



Foundation walls

Each plate must be anchored at the bottom. Anchoring is either universal wall with metal ties or on a wooden board.

Anchoring metal wall UNI clips

On the floor to indicate the exact position future positions. Below the crossbar will be saved belt of no-sand insulation. Wall clips UNI Single 500 mm fixed with screws and dowels the floor. Before fitting the individual Ekopanel applied to the substrate low-expansion mounting foam. This foam, respectively clamps, place the plate and using screws EP 4 × 50 mm is attached to the buckle.

Anchoring the wooden planks

The floor is fitted in a plane in the area where the wooden partition board 60 × 25 mm, that s 600 mm anchor with hammer Rawplug the floor. Until that boards are anchored either Ekopanel using wooden pegs or screws EP 5 × 100 mm.

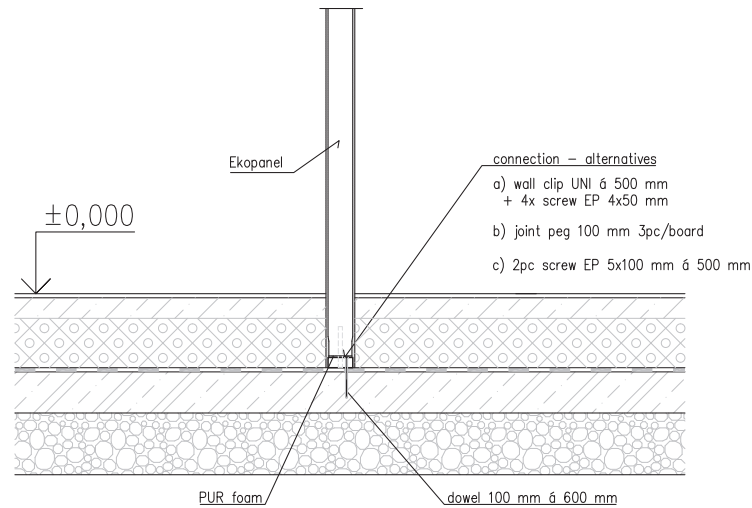
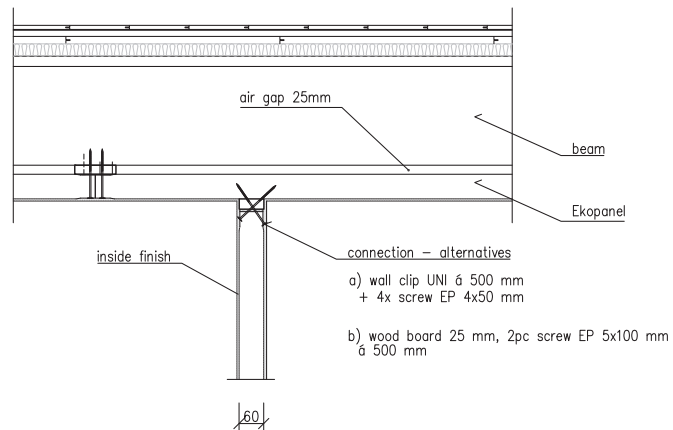
In the case of using anchoring pins are into the boards at regular spacings drilled holes into which pins are inserted dL. 100mm. After the holes are drilled into the bottom Part Ecopanel applied at equal spacing (at least three pins on the one width 800 mm, four pins on width 1200 mm). Pegs are glued wood glue. Before fitting Ecopanel individual will be applied to the board low-expansion foam installation.

In the case of fixing with screws to before installation of individual applied EKOPANELY low-expansion foam mounting to that the plates are inserted. Then using a pair of screws EP 5 × 100 mm anchor the wooden planks. Screws are placed always in pairs against each other and 500 mm respectively. 3x at Ecopanel width of 800 mm or 4 × the width 1200 mm.

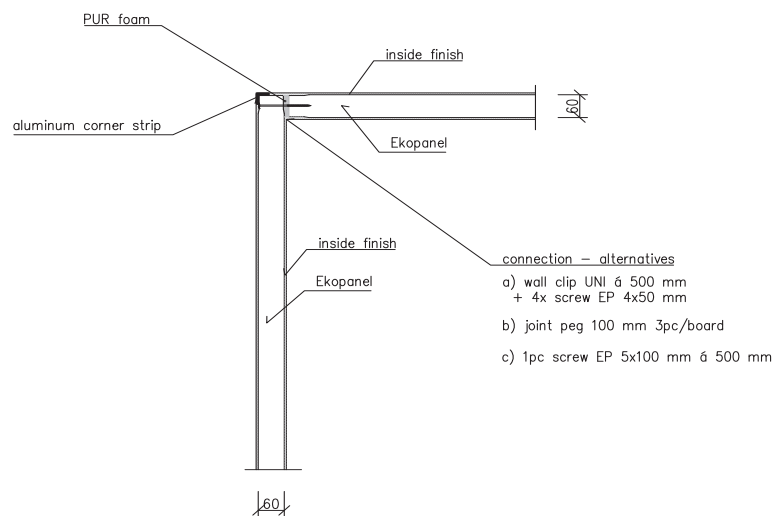
Joining Ecopanel

Installed on the individual using two screws EP 4 × 50 mm fitted Universal metal wall clips UNI. The clips are mounted and 500 mm in height boards with the first fastener is mounted approximately 200 mm above the floor. Two opposite ear clips are bend the already standing and screwed Screws EP 4 × 50 mm. After placing all clips EKOPANELY the entire height of the interface before casting another EKOPANELY bear low-expansion foam installation. After casting further Ecopanel the remaining two handles anchor clips bends the newly staffed and attached with screws EP 4 × 50 mm.

DETAIL KOTVENÍ JEDNODUCHÉ PŘÍČKY V PŘÍZEMÍ



DETAIL PROVEDENÍ ROHU JEDNODUCHÉ PŘÍČKY



Holes

In a simple partition is not recommended carve holes larger than 150 × 150 mm. Holes are drilled boxes special Hole diameter 68 mm. greater or irregular holes can be cut jig Hole saw or other means. Cutting surfaces are treated paper sticking tape.

Anchoring to the ceiling

Individual Ekopanely after casting will must be anchored to the top of the ceiling. Anchoring is done either by using metal universal clamp or on a wooden board.

Anchoring metal wall

UNI clips

The ceiling shall be shown the exact position future positions. Wall mounted clamp UNI with screws EP 4 × 50 mm into ceiling and 500 mm. Before fitting the individual Ekopanely applied to the substrate low-expansion mounting foam. This foam, respectively. clamps, place the plate and using EKO-PANELY screws EP 4 × 50 mm is attached to the buckle.

Anchoring wooden pegs

The ceiling shall be shown the exact position future positions. Pins with Single 500 mm fixed into drilled holes in the ceiling. same openings in the same pitch are drilled into Ecopanely upper plate and the pins attached. Joining perform with glue for wood.

Peg board in the upper part is not used, if the peg board used in the lower part.

Anchoring the wooden planks

The ceiling in the area where the partitions fitted wooden board 60 × 25 mm, which attach Single 250 mm shooting nail dl. Of 50 mm. Before installing individual EKOPANELY will be applied to the ceiling low-expansion construction foam, in which the plates are inserted. Then, using a pair of screws EP 5 × 100 mm with washers into a wooden dock Ecopanely boards. The screws are each mounted in pairs against him and 500 mm, respectively. 3 times the width EKOPANELY 800 mm or 4 × 1200 mm in width.

Anchoring simple partitions to the perimeter wall

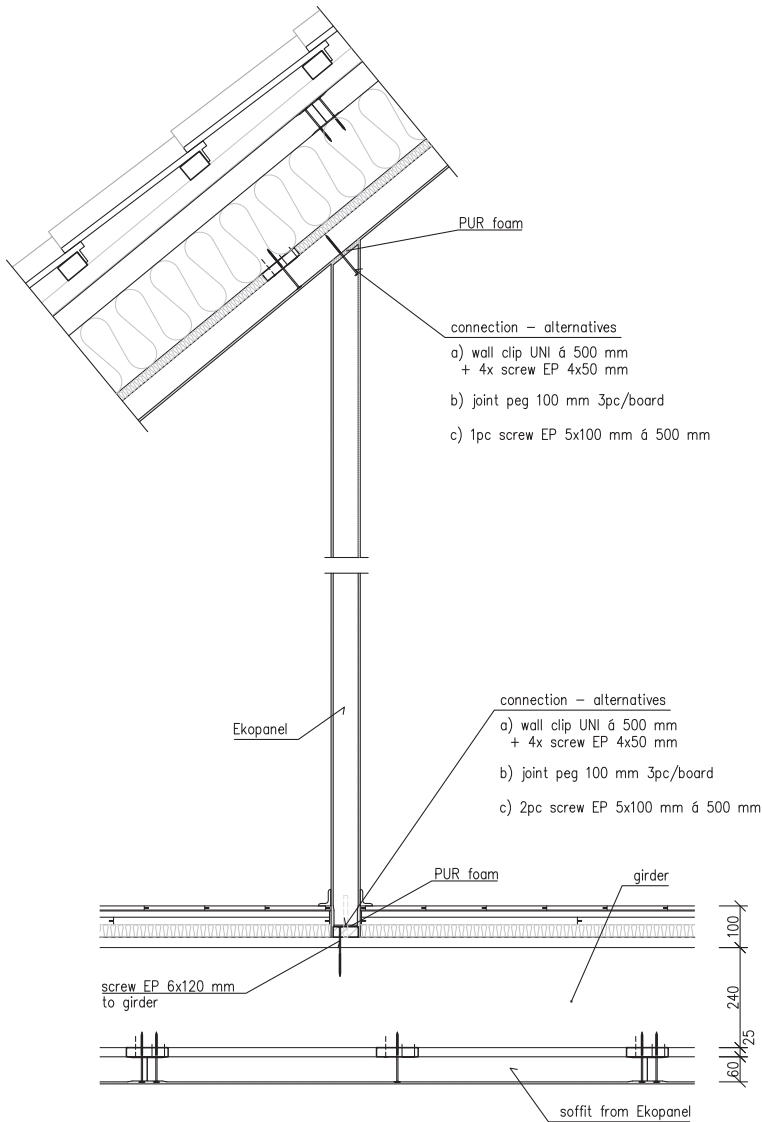
Rail is being built to completion soffit and external walls, and therefore Ecopanely forming rail anchored to the inner EKOPANELY envelope perimeter. Anchoring is done using universal wall clips UNI, wooden pegs or screws.

Anchoring metal wall

UNI clips

On the wall mark the exact future position of the rails. Wall clips UNI Single 500 mm fixed with screws 4 × 50 mm in

DETAIL KOTVENÍ JEDNODUCHÉ PŘÍČKY V PODKROVÍ



EKOPANELY perimeter. The first clip is mounted 500 mm above the floor. Before installing individual EKOPANELY applied to the substrate low-expansion mounting foam. This foam, respectively. clips place the plate with screws and EKOPANELY EP 4 × 50 mm is attached to the buckle.

Anchoring wooden pegs

On the wall to mark the exact future position of the rails. Pegs are fixed into holes drilled in the circumferential Ekopanely wall. Corresponding holes in the same pitch will be drilled into the side of EKOPANELY plates and the pins attached. It is necessary

use at least 3 pieces on pins 1 m Ecopanely. Joining is made by using adhesives for wood.

Anchoring screws

On the wall to mark the exact future position of the rails. Before installing Ecopanely partitions will be applied to the external wall low-expansion foam assembly, in which the plate is inserted. Then, using a pair of screws EP 5 × 100 mm EKOPANELY grounds to EKOPANELY perimeter. Screws are placed always against each other in pairs and 500 mm.

Anchoring simple partitions to the structural wall

Rail is being built after completion inside bearing walls, and thus forming Ecopanel anchored in place EKOPANELY bearing casing wall. Anchoring is done using universal wall clips UNI, wooden pegs or screws. To apply the same rules as for anchoring to the outer walls.

Anchoring simple partitions to double rung

Rail shall be suspended for the implementation of the first row. Anchoring is done using universal wall clips UNI, wooden pegs or screws.

Anchoring metal wall UNI clips

The double rung to mark the exact future position of simple partitions. wall UNI plated buckles 500 mm fixed with screws EP 4 × 50 mm in the double walls. first clip is mounted 500 mm above the floor. before Stepped individual Ecopanel to the substrate applies a low-expansion foam installation. This foam, respectively clamps, place the plate Ecopanel with screws and EP 4 × 50 mm fastened in the buckle.

Anchoring wooden pegs

The double rung to mark the exact future position of simple partitions. pins is fixed to the drilled holes in EKOPANELY double walls. Corresponding holes in the same pitch will be drilled into the side of EKOPANELY simple walls and slabs on the pegs attached. It is necessary to use at least 3 pieces pins on one meter EKOPANELY. Joining perform using adhesives for wood.

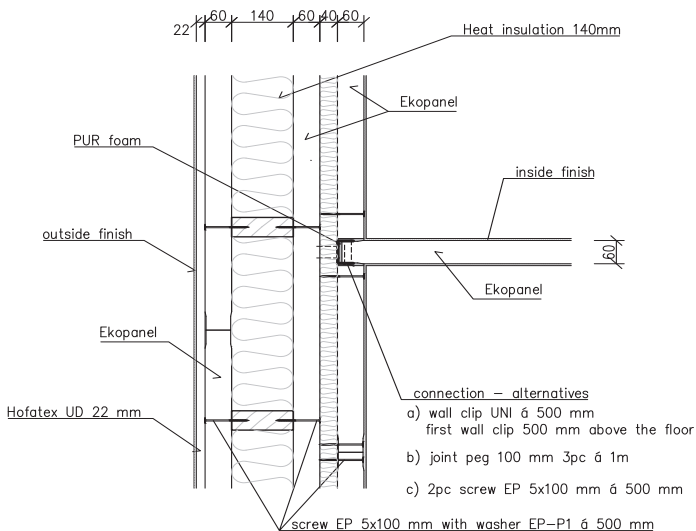
Anchoring screws

The double rung to mark the exact future position of simple partitions. before casting Ecopanel simple partitions will double walls Ecopanel applied low-expansion foam assembly, in which plate inserts. Then using a pair of screws EP 5 × 100 mm Ecopanel grounds to EKOPANELY double walls. The screws are each mounted in pairs against him and 500 mm.

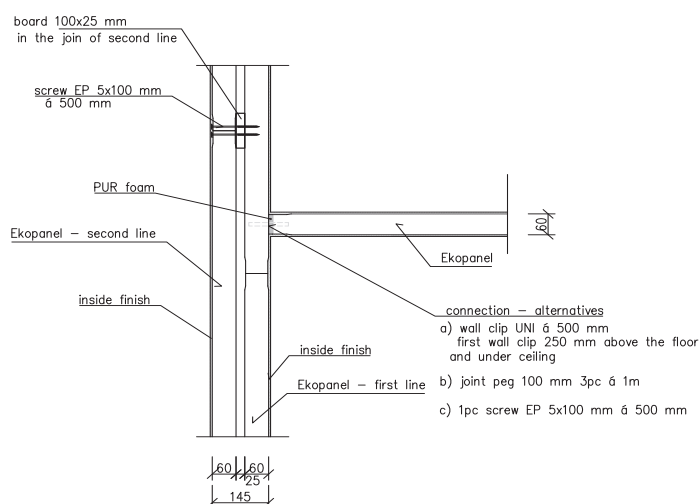
Finishes

Ecopanel can be applied to various surface adjustments. A more detailed description can be found in a separate chapter FINISHES

DETAIL NAPOJENÍ JEDNODUCHÉ PŘÍČKY K OBVODOVÉ STĚNĚ



DETAIL NAPOJENÍ JEDNODUCHÉ PŘÍČKY K PŘÍČCE



COMMON ERROR

- Simple rung meets normative values for sound insulation, and therefore its use is limited to partitions eg sloping loft, light curtains, under the stairs, etc.
- Wide gap between each fitted Ekopanel filled with structural foam - deterioration of fire resistance walls
- Omission applications foams when trimming Ecopanel individual plates together to enforced by area - the possibility of thermal bridges
- Ordering boards EKOPANELY to-ceiling without the required expansion gap at the top of 10 to 15 mm - complex structure, likelihood of cracking due to mechanical stress Ecopanel
- Use fasteners screws without the required finishes - and the possibility of corrosion disintegration of structures
- Ecopanel nailed nails or bonding individual Ecopanel nails - generally does not hold nails in Ecopanel
- Hanging items on walls EKOPANELY with screws and dowels - dowels in Ecopanel not hold, it is necessary to use Only screw.
- Use of uncertified or manufacturer untested materials such as adhesives, plaster mixtures fasteners etc., may be damaged structures buildings popping finishes, etc.
- Ecopanel drilling screws - no pre-drilling!

Double rail

Foundation walls - first line

Double rail is being built as a simple rung (first row EKOPANELY) jacketed second row Ecopanel. Anchoring is therefore applies only to the first row EKOPANELY. Individual plates are anchored in Ecopanel bottom. Anchoring is universal metal clips. To the gap between Ecopanel To insert a vertical wooden board.

Anchoring metal clasps

On the floor to indicate the exact position future positions. Below the crossbar will be saved nosand strip of cardboard. wall clips UNI Single 500 mm fixed in the joint with screws and dowels into the floor. Before installation of the EKOPANELY low-expansion is applied to the substrate assembly foam. This foam, respectively. ties, with Ecopanel and place the plate with screws EP 4 x 50 mm is attached to the buckle.

Anchoring the wooden planks

The floor is fitted in a plane in the area where the wooden plank walls 140 x 25 mm, that s 600 mm anchor with hammer Rawplug the floor. To the boards are anchored either by Ekopanely wooden pegs or screws 5 x 100 mm.

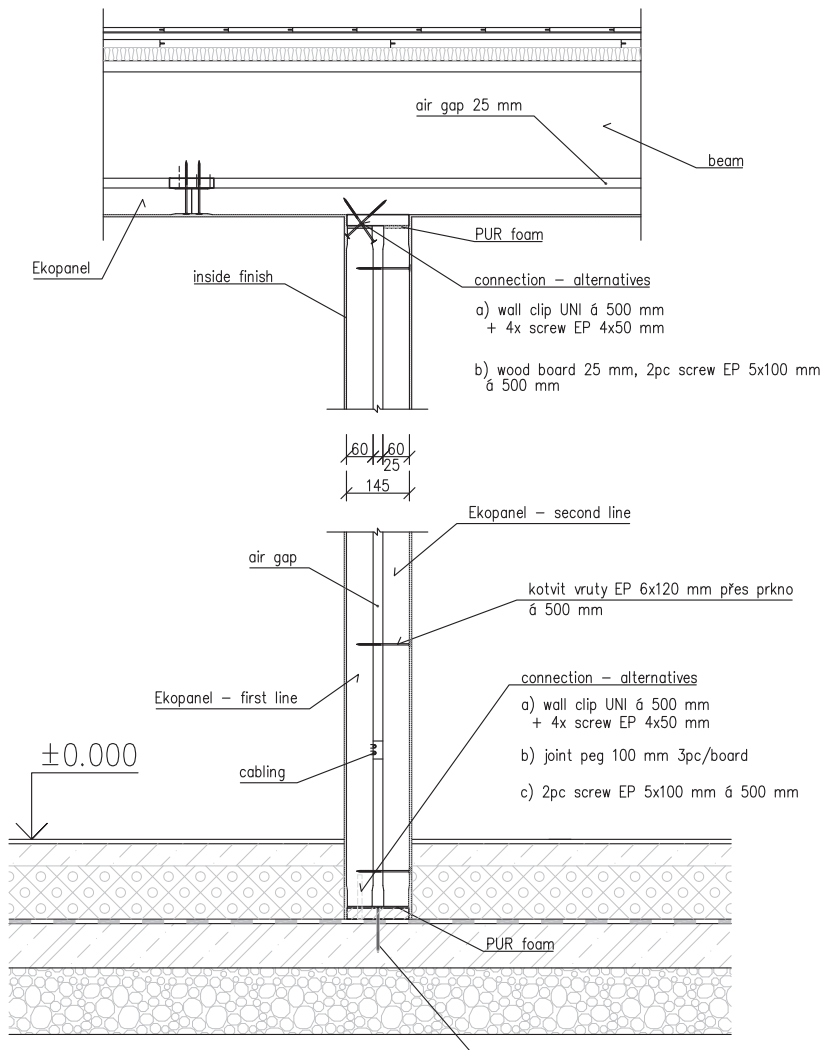
In the case of using anchoring pins are into the boards at regular spacings drilled holes into which pins are inserted dL. 100 mm. After the holes are drilled into the bottom Part Ecopanel applied at equal spacing (at least three pins on the one Ecopanel width 800 mm, four pins on Ecopanel width 1200 mm). Pegs are glued wood glue. before fitting Ecopanel individual will be applied to the board low-expansion foam installation.

In the case of fixing with screws to before installation of individual applied EKOPANELY low-expansion foam mounting to that the plates are inserted. Then using a pair of screws EP 5 x 100 mm with washers EKOPANELY anchored to a wooden plank. Screws are placed always in pairs against each other and 500 mm, respectively. 3 x a width of 800 mm or EKOPANELY 4 x 1200 mm in width.

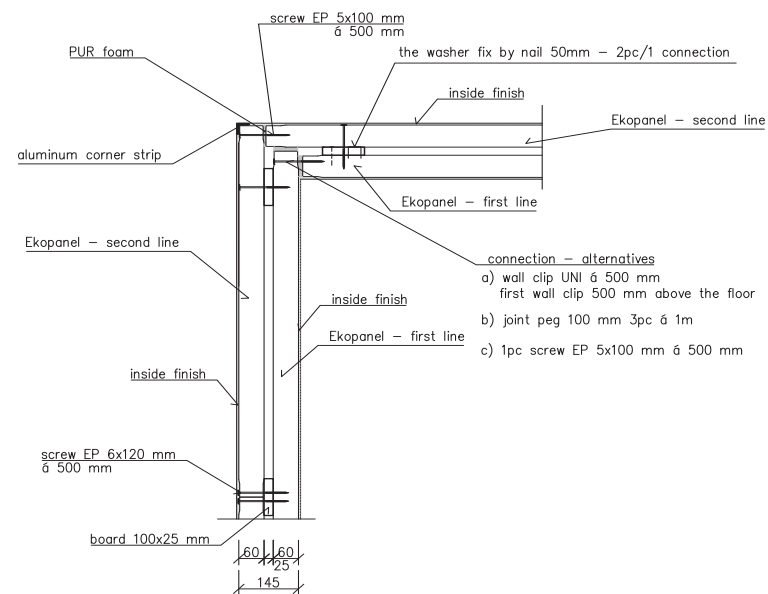
Joining Ecopanel

On stalled on the individual EKOPANELY using two screws EP 4 x 50 mm fitted Universal metal wall clips UNI. The clips are mounted and 500 mm in height boards with the first fastener is mounted approximately 200 mm above the floor. Two opposite ear clips are bend the already standing EKOPANELY and screwed Screws EP 4 x 50 mm. After placing all UNI ties the entire height of the Liaison EKOPANELY surface before mounting another EKOPANELY affix mounting low-expansion foam. after casting another Ecopanel the remaining pairs uch anchor clips ohne the newly staffed Ecopanel and attached with screws EP 4 x 50 mm.

DETAIL KOTVENÍ DVOJITÉ PŘÍČKY V PŘÍZEMÍ



DETAIL PROVEDENÍ ROHU DVOJITÉ PŘÍČKY



Anchoring to the ceiling

Individual Ekopanely after casting will must be anchored to the top of the ceiling. Anchoring is done either using metal universal UNI clips or on a wooden board.

Anchoring metal clasps

The ceiling shall be shown the exact position future positions. Wall clips are plated 500 mm fastened with screws 4 x 50 mm into the ceiling. Before installation of the EKOPANELY low-expansion is applied to the substrate assembly foam. This foam, respectively. clips are inserted Ecopanel and plate with screws 4 x 50 mm fastened in the buckle.

Anchoring wooden pegs

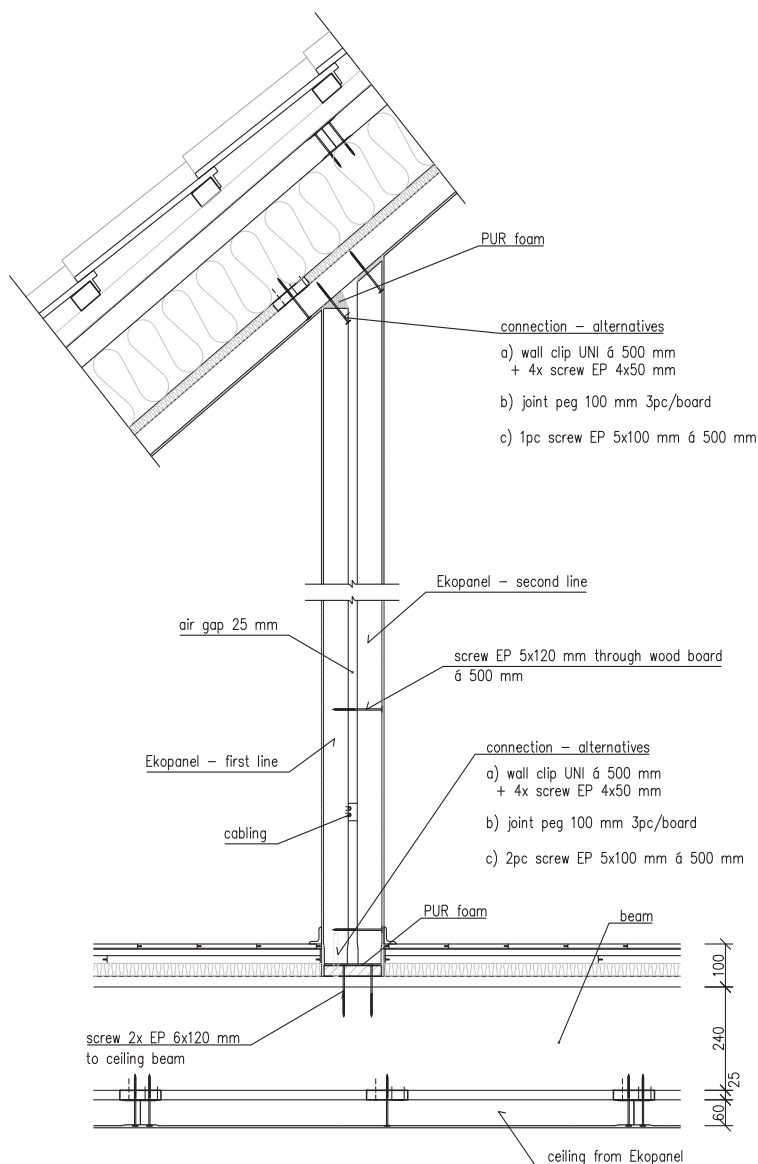
The ceiling shall be shown the exact position future positions. Pins with Single 500 mm fixed into drilled holes in the ceiling. same openings in the same pitch are drilled into Ecopanel upper plate and the pins attached. Joining perform with glue for wood.

Peg board in the upper part is not used, if the peg board used in the lower part.

Anchoring the wooden planks

The ceiling in the area where the partitions fitted wooden board 140 x 25 mm, which is Single 250 mm fixed to the ceiling nastřelením Nail length 50 mm. Before installing individual EKOPANELY will be applied to the ceiling low-expansion construction foam, in which the plates are inserted. Then, using a pair of screws EP 5 x 100 mm Ecopanel anchored into the wooden planks. The screws are each mounted in pairs opposite each other Single 500 mm or 3 x the width EKOPANELY 800 mm or 4 x 1200 mm in width.

DETAIL KOTVENÍ DVOJITÉ PŘÍČKY V PODKROVÍ



Druhá řada Ekopanelů

The installed "simple place" is boards mounted 100 x 25 mm and in those places where communications are scheduled each Ecopanel second row. These connections must be always substantiated. Fixing boards to Ekopanelům first row is done nastřelením nails or staples and 250 mm. before fitting second row on the base board or applying low-expansion substrate assembly foam. Ekopanely second row are anchored Screws EP 6 x 120 mm and 500 mm. before fitting the second row to the first Ecopanel number of fixed cabling wiring. In the case of a transfer cable management board manned the second joint series is necessary to prune the board.

Door openings shall be increased by 50 mm on each side than the planned clearance doors. Height of door opening for standard Door 1970 is 2020 mm. In the case of door holes are best suited as a frame Door systems.

Kotvení dvojité příčky k obvodové stěně

Rail to build a circuit to realization wall, and thus forming the first Ecopanel number of partitions is anchored to the inner EKOPANELY envelope perimeter. Anchoring is done using the universal clamp, timber pins or screws..

Anchoring metal wall UNI clips

On the wall to mark the exact future position of the rails. Wall clips are Single 500 mm fixed with screws EP 4 x 50 mm to Ecopanel perimeter. The first clip is fitted 500 mm above the floor.

Anchoring wooden pegs

On the wall to mark the exact future position of the rails. Pegs are fixed into holes drilled in the circumferential Ekopanely wall. Corresponding holes in the same pitch will be drilled into the side of EKOPANELY plates and the pins attached. It is necessary use at least 3 pieces on pins 1 m Ecopanel. Joining is made by using adhesives for wood.

Anchoring screws

On the wall to mark the exact future position of the rails. Before installing Ecopanel partitions will be applied to the external wall low-expansion foam assembly, in which the plate is inserted. Then, using a pair of screws EP 5 x 100 mm EKOPANELY grounds to EKOPANELY perimeter. The screws are each mounted in pair against him and 500 mm.



Openings, eg for electrical boxes Ecopanel drilled into a special jig saw drill. If electrical sculpt saw, cut surface is treated by sticking adhesive tape SP 100th.

Anchoring the double walls to the structural wall

Rail is being built to support the implementation of internal wall, and thus forming the first Ecopanel number of partitions anchored in EKOPANELY cladding bearing walls. Anchoring is done using universal wall clips, wooden pegs or screws. To apply the same rules apply as for anchoring to the outer walls.

Anchoring the double walls to double rung

Rail shall be suspended for the implementation of the first row Ecopanel double rails. Anchoring is done using universal wall clips UNI, wooden pegs or screws EP.

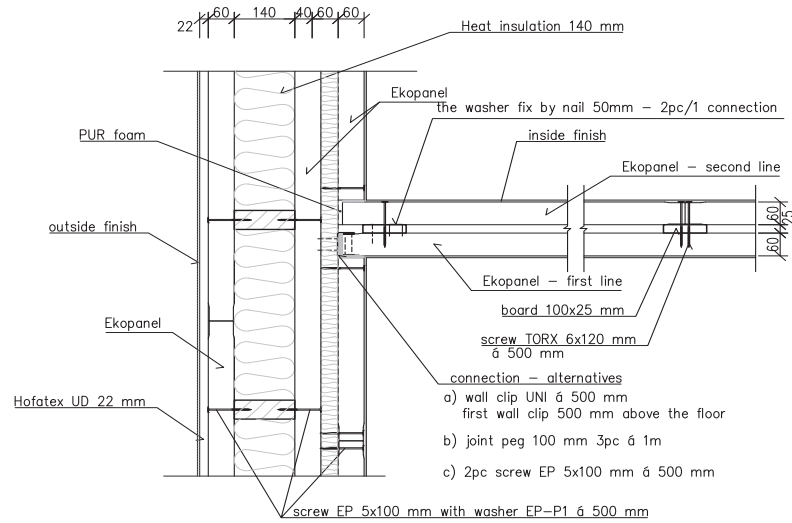
Kotvení kovovými stěnovými sponami UNI

The standing double rung to mark the exact location of the future built walls. Wall clips are plated 500 mm fixed with screws EP 4 × 50 mm in standing positions. first clip is mounted 500 mm above the floor. before Stepped individual Ecopanel to the substrate applies a low-expansion foam installation. This foam, respectively. clamps, place the plate Ecopanel with screws and EP 4 × 50 mm fastened in the buckle.

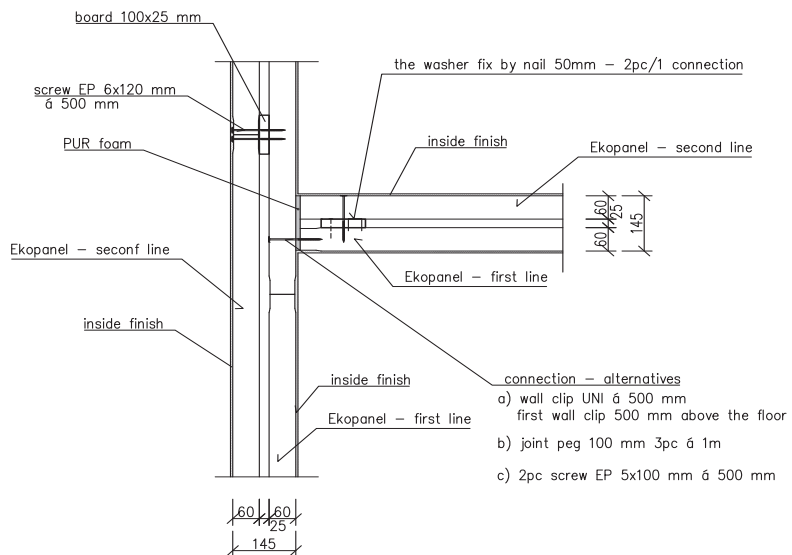
Kotvení dřevěnými količky

The standing double rung to mark the exact location of the future built walls. Pegs are fixed in holes drilled Ecopanel standing in the double walls. same openings in the same pitch are drilled into side of Ecopanel jointed rails plates and the pins attached. It is necessary use at least 3 pieces on pins 1 m Ecopanel. Joining is made by using adhesives for wood.

DETAIL NAPOJENÍ DVOJITÉ PŘÍČKY K OBVODOVÉ STĚNĚ

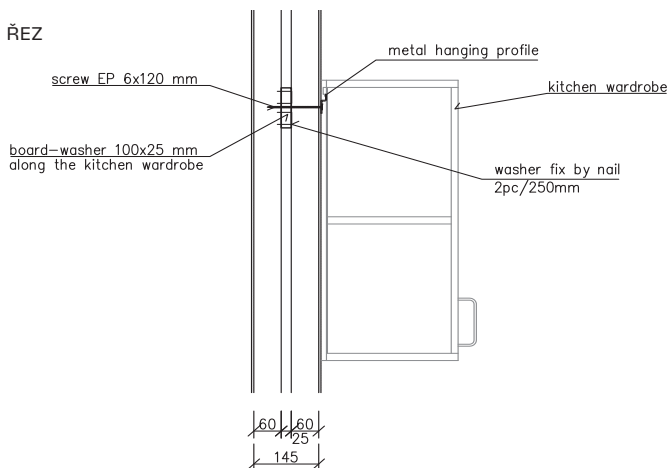


DETAIL NAPOJENÍ DVOJITÉ PŘÍČKY K PŘÍČCE

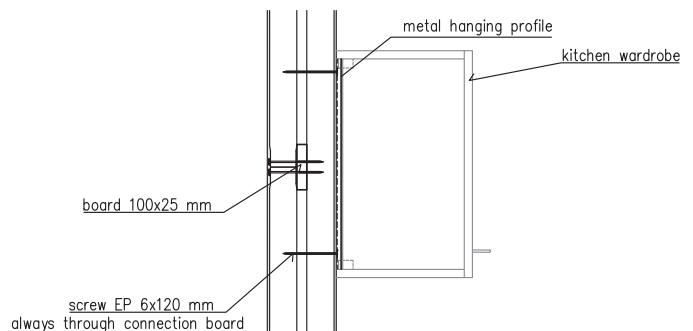


DETAIL ZAVĚŠENÍ KUCHYŇSKÉ LINKY

ŘEZ



PŮDORYS



By mounting rails use more screws or utilize embedded construction lines

Anchoring screws

The standing double rung to mark the exact location of the future built walls. Before installing Ecopanel walls will double walls standing Ecopanel applied low-expansion foam mounting to that the plate is inserted. Then using a pair of screws EP 5 × 100 mm with washers EKOPANELY grounds to Ecopanel standing positions. the screws are always mounted in pairs facing each 500 mm

Finishes

Ecopanel can be applied to various surface adjustments. A more detailed description can be found in a separate chapter FINISHES

COMMON ERROR

- Simple rung meets normative values for sound insulation, and therefore its use is limited to partitions eg sloping loft, light curtains, under the stairs, etc.
- Wide gap between each fitted Ekopanel filled with structural foam - deterioration of fire resistance walls
- Omission applications foams when trimming Ecopanel individual plates together to enforced by area - the possibility of thermal bridges
- Ordering boards EKOPANELY to-ceiling without the required expansion gap at the top of 10 to 15 mm - complex structure, likelihood of cracking due to mechanical stress Ecopanel
- Use fasteners screws without the required finishes - and the possibility of corrosion disintegration of structures
- Ecopanel nailed nails or bonding individual Ecopanel nails - generally does not hold nails in Ecopanel
- Hanging items on walls EKOPANELY with screws and dowels - dowels in Ecopanel not hold, it is necessary to use Only screw.
- Use of uncertified or manufacturer untested materials such as adhesives, plaster mixtures fasteners etc., may be damaged structures buildings popping finishes, etc.
- Ecopanel drilling screws - no pre-drilling!



Attics and ceilings

Sloping attic trim parts

Lining can be applied to new construction, but also for renovations of existing buildings. The reconstruction should always consult with the designer or structural engineer to assess and let capacity of existing wooden trusses.

The space between the rafters with hot thermal isolation of the desired thickness. The rafters are then mounted transverse grid of boards 100 x 25 mm and that in those places where they are planned individual connections Ecopanel ceiling. These connections must be substantiated. fixing boards to rafters is done nastřelením nails or staples and 250 mm. Where Ekopanely 800 mm sufficient to substantiate board only joints, but Ecopanely in width 1200 mm is mounted board and in the middle of the panel, ie. 0.6 m axially.

If necessary, the insert between the boards 20 mm of thermal insulation. Otherwise, the default leaves free space and is primarily Conduit wiring.

The planks are then performs ceiling the boards Ecopanely to be anchored Screws EP 5 x 100 mm with washer and 0.25 m across the board to the rafters.

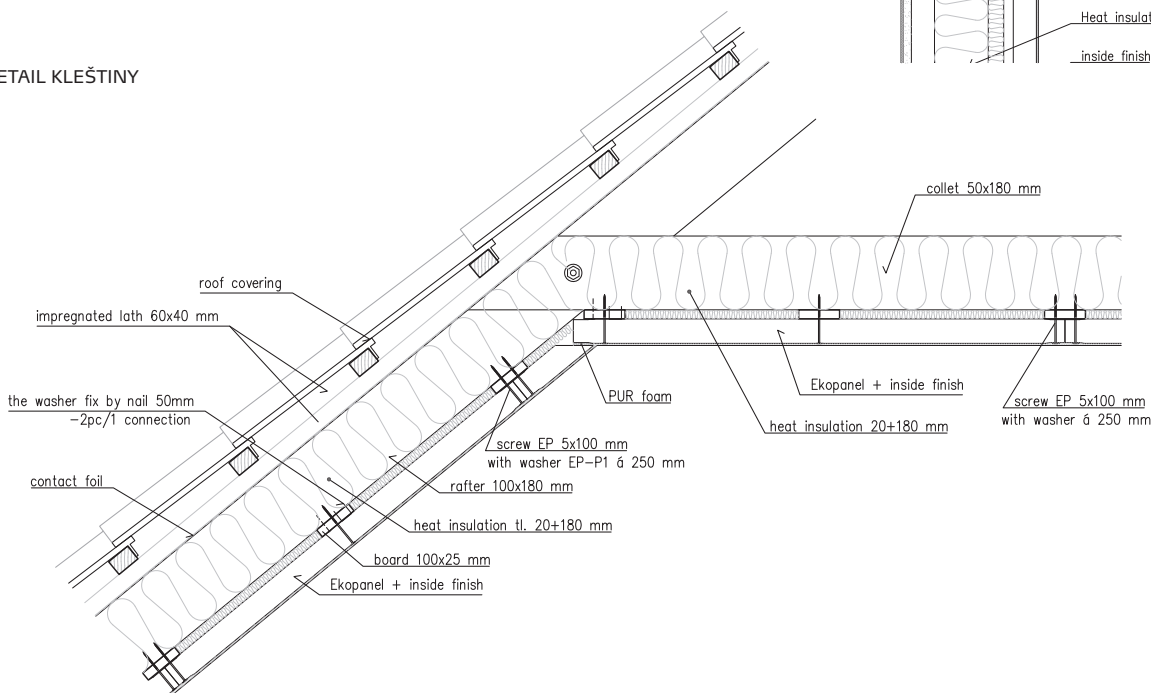
Ecopanely forming the ceiling in the attic not be fixed to the wooden structure perimeter walls, as well as should not be firmly knocked out. The space may be free to leave, or are filled with thermal insulation or mounting foam.

If it is possible to substantiate joints can Ecopanely installed on slopes as.

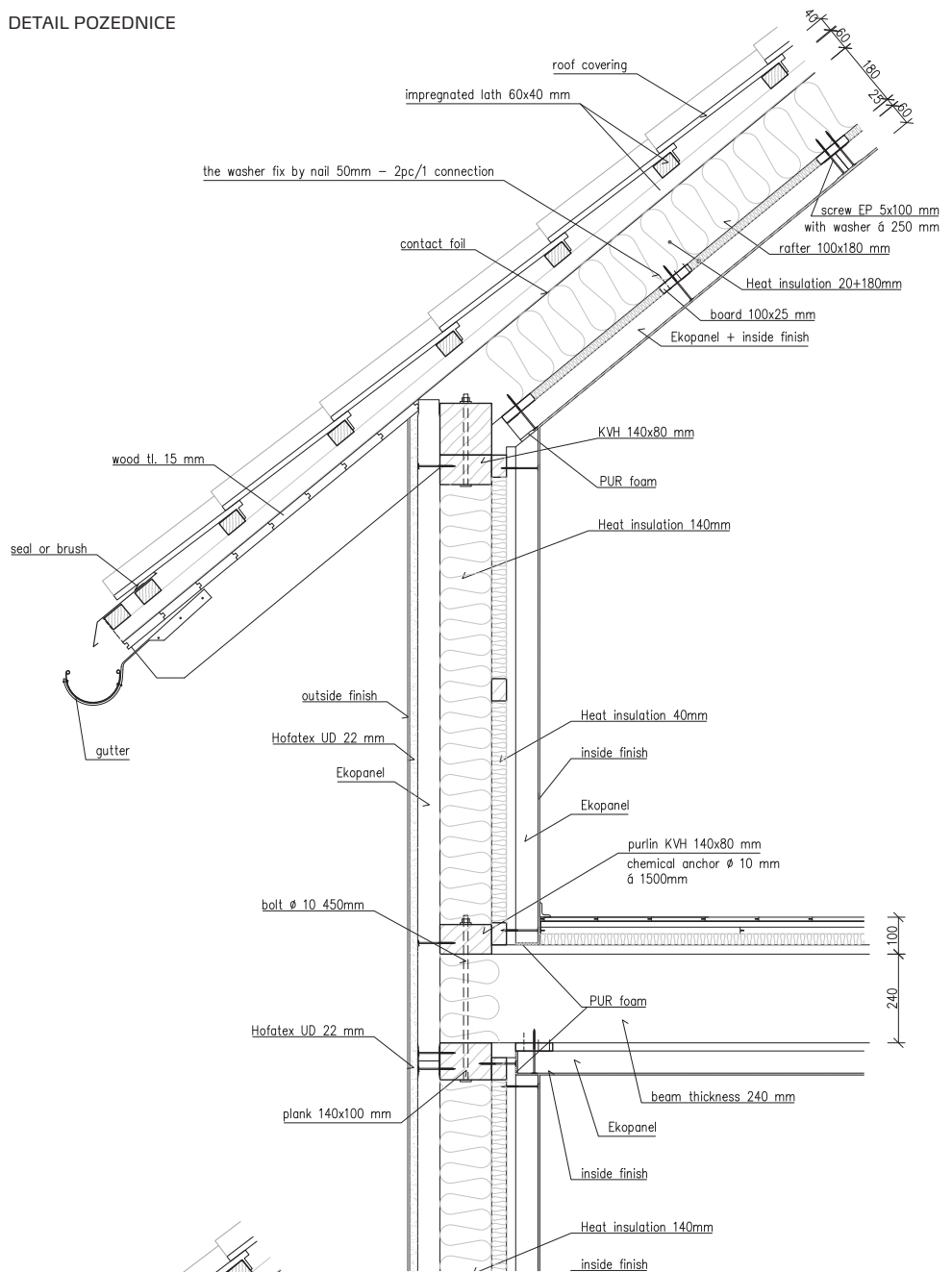
Podřád na kleřtinách

Obložení pod kleřtinami bude dodřžovat stejné zásady a postupy jako u aplikace na řikmých plochách.

DETAIL KLEřTINY



DETAIL POZEDNICE



Ceilings wood walkable ceilings

Under construction wooden ceilings requiring the ceiling is fixed Ecopanel boards 100 × 25 mm and in those places where planned connections of EKOPANELY ceiling. These connections must be substantiated. Fixing boards to the ceiling frames is done shooting nails or staples and 250 mm. When using EKOPANELY width of 800 mm is sufficient to substantiate board only joints, but EKOPANELY width 1200 mm is mounted board and in the middle panel, ie. 0.6 m axially.

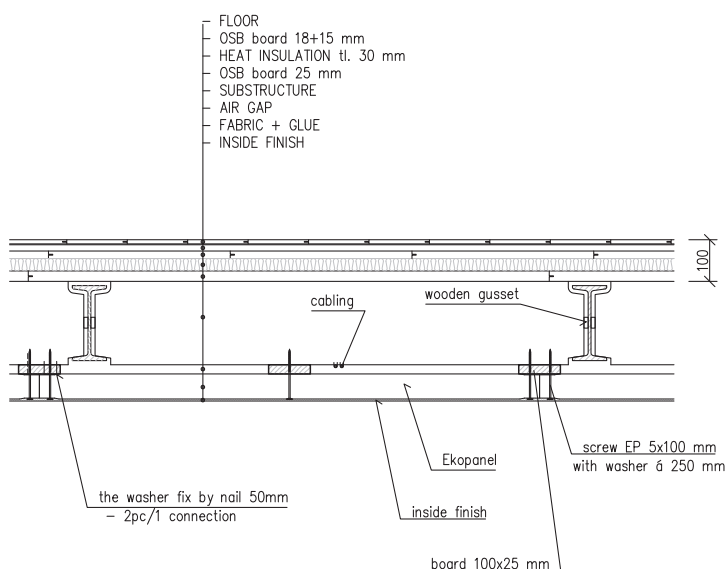
The planks are then performs ceiling the boards Ecopanel to be anchored Screws EP 5 × 100 mm with washer and 0.25 m through the boards into joists.

Ecopanel forming the ceiling should not be fixed to the wooden structure circumferential walls, as well as should be firmly knocked out. The space, min. 10 mm, with may be a free or are filled thermal insulation or structural foam

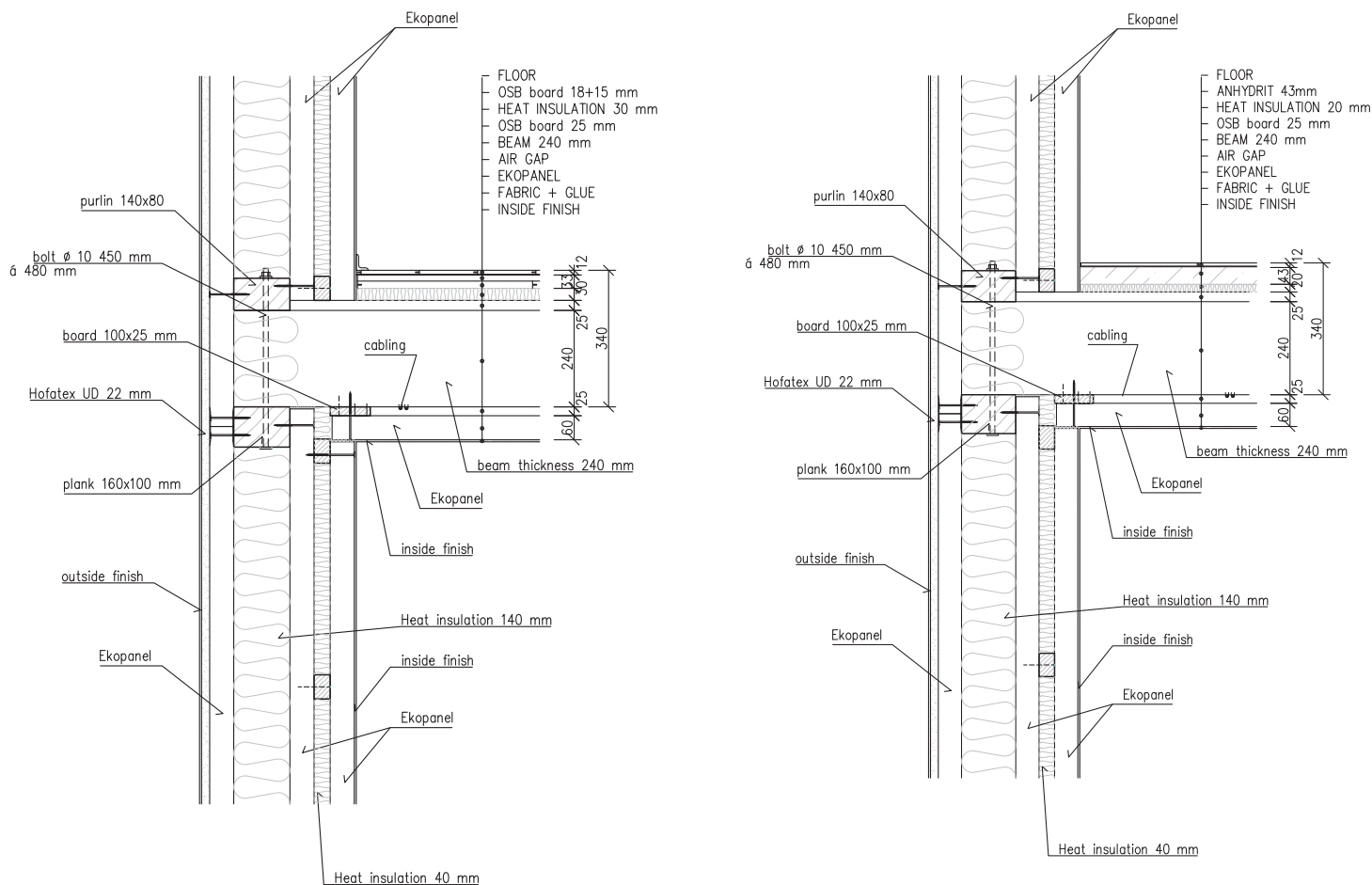
Ceilings nonwalkable ceilings

Ceilings wood nonwalkable ceilings walkable ceilings, such as bungalows, Assemble the steel beams, in which is placed upright planks and using wedges to ensure upright. Then a under the planks in areas planned connections Ecopanel boards and ceiling installation as in the case of a wooden ceiling

DETAIL STROPU A PODLAHY



DETAIL STROPU A PODLAHY



Snížený pohled

If it is necessary to reduce existing headliner, It is also possible to construct a Ekopanely. The existing walls thus indicate required height of the false ceiling and anchored with metal elements BOVA BV / T. to these anchor straps are placed planks or joists and attached with screws or convex nails. proposal for wood need for design engineers.

Then in areas planned connections EKO-PANELY need the planks installation boards and ceiling as in the case of wood ceiling.

Holes

Openings, eg for electrical boxes, EKOPANELY to drill special jig saw drill. If sculpt electric saw, cut surface is treated sticking adhesive tape SP100.

In case of installation climbs on the ground will hole carved according to the required size, cut surface is treated with sticking paper SP100 tape.

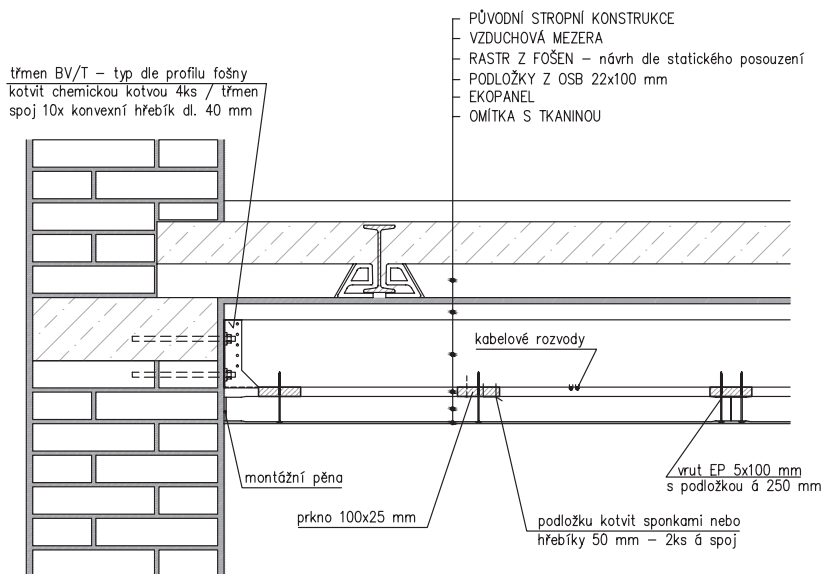
Going through the ceiling chimney, EKOPANELY carved into the hole of 50 mm larger on each side than the dimension chimney. The resulting gap is filled mounting foam or sealing rope.

Going through the ceiling pipe drains, vent pipes, etc., will be EKOPANELY carved a hole of 10 mm larger on each side, than the dimension of the pipe. The resulting gap is filled mounting or sealing foam strands.

Finishes

Ecopanely can be applied to various surface adjustments. A more detailed description can be found in a separate chapter FINISHES

DETAIL SNÍŽENÉHO PODHLEDU



COMMON ERROR

- Simple rung meets normative values for sound insulation, and therefore its use is limited to partitions eg sloping loft, light curtains, under the stairs, etc.
- Wide gap between each fitted Ekopanely filled with structural foam - deterioration of fire resistance walls
- Omission applications foams when trimming Ecopanely individual plates together to enforced by area - the possibility of thermal bridges
- Ordering boards EKOPANELY to-ceiling without the required expansion gap at the top of 10 to 15 mm - complex structure, likelihood of cracking due to mechanical stress Ecopanely
- Use fasteners screws without the required finishes - and the possibility of corrosion disintegration of structures
- Ecopanely nailed nails or bonding individual Ecopanely nails - generally does not hold nails in Ecopanely
- Hanging items on walls EKOPANELY with screws and dowels - dowels in Ecopanely not hold, it is necessary to use Only screw.
- Use of uncertified or manufacturer untested materials such as adhesives, plaster mixtures fasteners etc., may be damaged structures buildings popping finishes, etc.
- Ecopanely drilling screws - no pre-drilling!



External wall – EKO 2

Foundation walls and outer side

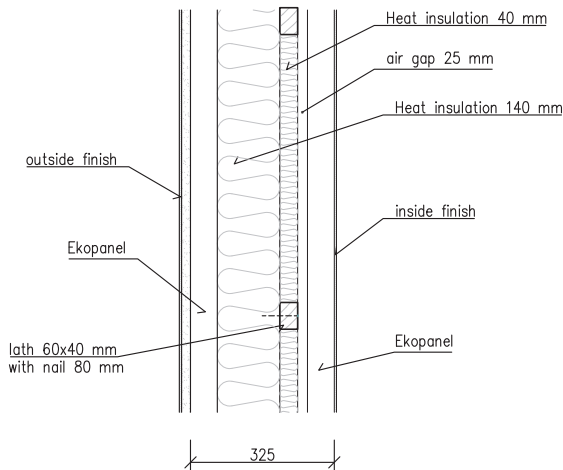
Supporting wooden structure, respectively. its lower purlins are anchored to the foundation construction, if the project or the static opinion stated otherwise use 1500 mm chemical anchor. Wooden construction with always fitted on soil moisture. On the lower part of the purlins and the base boards are glued bitumen strip with aluminum sheet (overlapping joints between the base plate and wooden structures). On this belt the outside of the bottom mounted aluminum incorporation profile width of 83 mm (with aluminum nails) with a plastic prism 60 × 40 mm, which is anchored screws EP 6 × 120 mm (pre-drilled) and 600 mm. This foundation must always be the flatness.

It is now ready for installation of base eco-panels of external Plasten. Before installing panels on the rod from recycled plastic applied to low-expansion assembly foam. Fixing EKOPANELY to the construction of the performs screws EP 5 × 100 mm with a washer which are screwed at 500 mm. to finished area of eco-panels using screws EP 5 × 70 mm (15 pieces / plate) mounted boards Hofatex UD tl. 22mm. The boards are equipped with track hole thus joining simple. Hofatex will be thrown into the foundation aluminum bar. Used screws must be provided with adequate galvanic coating, but we recommend stainless steel screws. Hofatex UD 22 mm is mounted horizontally, pen is always upward.

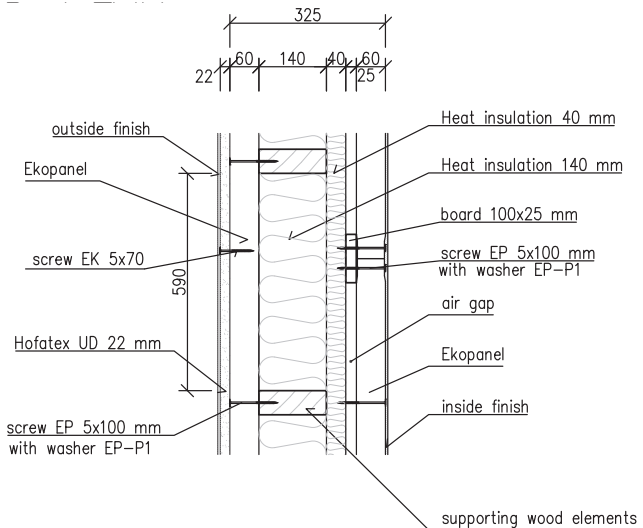
Zateplení stěny vnější strana

Among the wooden bearing wall elements are placed at least 140 mm thermal insulation (according to thickness of the structure) and space insulation completely fills. Then the timber design creates a grid of battens 60 × 40 mm, to be planted horizontally in axes 500 or 600 mm, depending on the size thermal insulation, which is then the grate inserts. Battens will be anchored to support systems Wood nails dl. 100 mm and 250 mm. After the insulation space between the grate and pipe fabrication water distribution, sewerage or heating the rack mounted boards 100 × 25 mm, which Fixing will always be below the planned joints of the boards Ekopanel. Boards

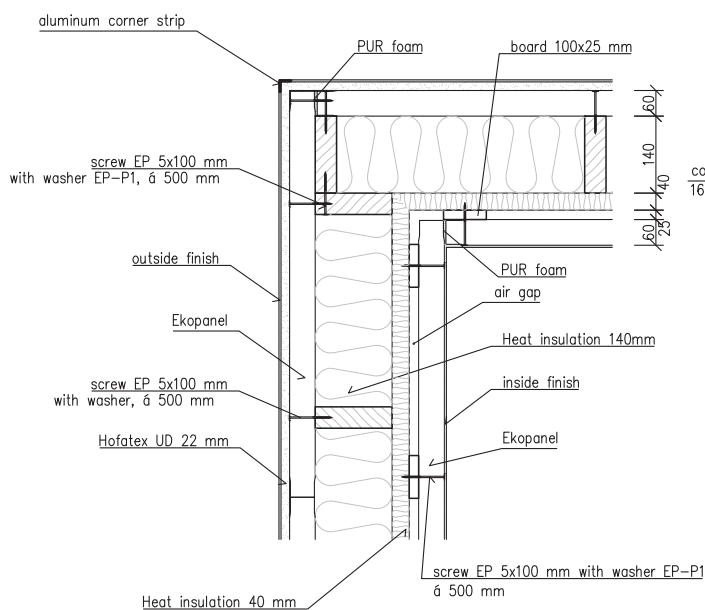
ŘEZ OBVODOVOU STĚNOU EKO 2



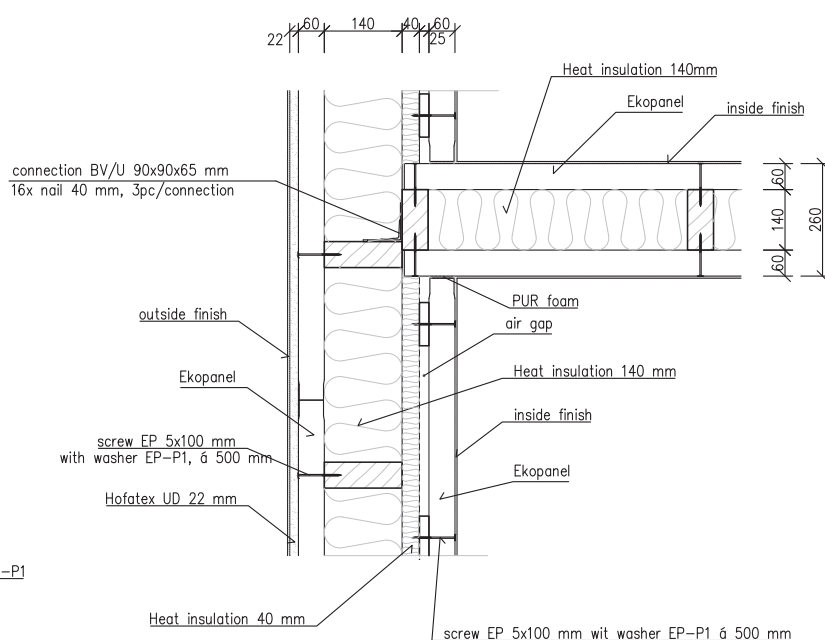
PŮDORYS OBVODOVÉ STĚNY EKO 2



DETAIL ROHU OBVODOVÉ STĚNY EKO 2



DETAIL PŘIHOJENÍ NOSNÉ STĚNY

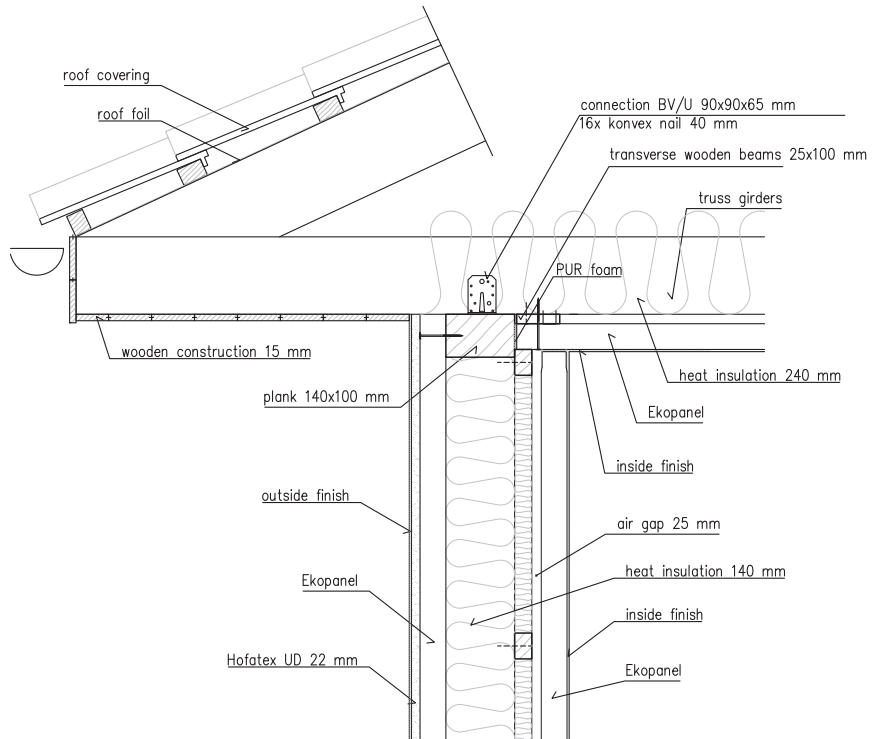


will be anchored nails or staple always and 250 mm in battens. on the boards The board is fitted Ekopanel, anchoring with screws EP 5 × 100 mm across the board in battens 60 × 40 mm.

Into the resulting cavity 25 mm between the insulation the grid are usually inserted Ekopanely cabling or pipes smaller diameters.

Any gaps between Ekopanely, leaks etc., foams mounting foam. yet when Installation of EKOPANELY should incur the least vertical joints, plates be duly arrive together. At the height of the mounted Ekopanel about 10–15 mm lower than the clearance walls, and it is necessary to fill in the area mounting foam or sealant (tow, hemp, etc.).

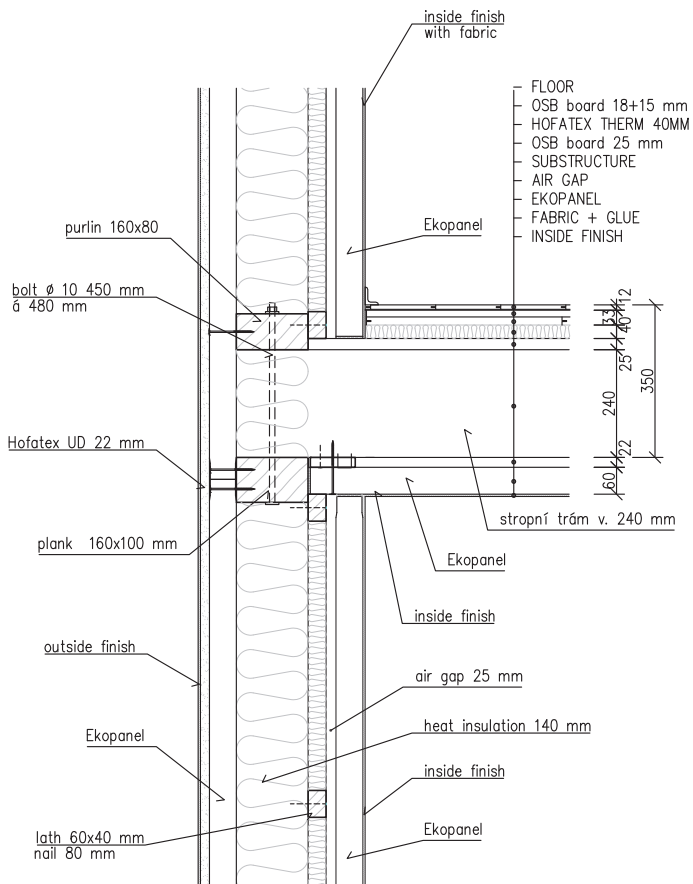
DETAIL ULOŽENÍ VAZNÍKU



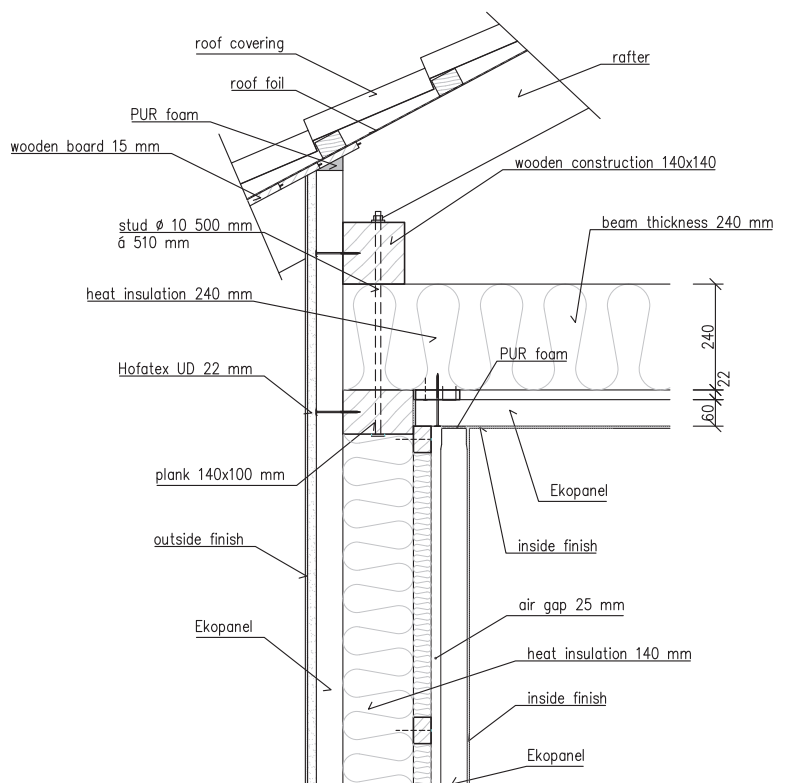
Holes and lining

The holes, which may be in circumferential create walls should always be based from the project or static calculation and depends mainly on statics supporting timber. When planting timber supporting elements to keep in mind that it is necessary to fit the timber elements to the sides and the height of the hole to light hole dimension in wooden was greater on each side about 70–75 mm, than the designer desired dimension of the window or door. required dimension is obtained by inserting plates Ekopanel, of which form a complete lining. Area between EKOPANELY and the nearest

DETAIL PŘIPOJENÍ STROPNICE

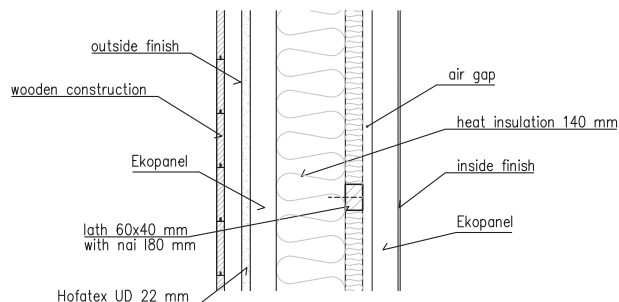


DETAIL ULOŽENÍ POZEDNICE

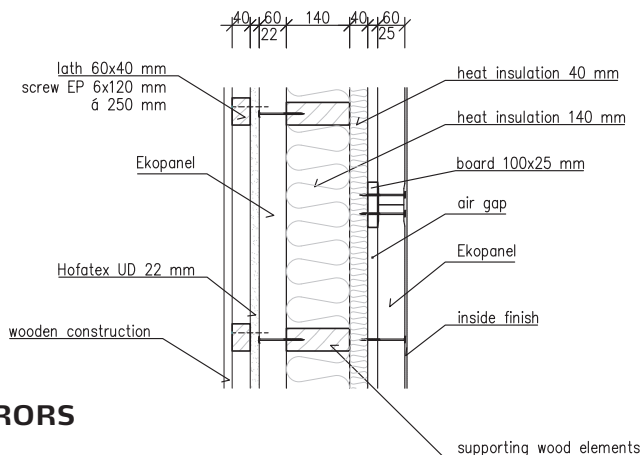


DETAIL ODVĚTRANÉ FASÁDY

ŘEZ STĚNOU



PŮDORYS



wood element is then loses it structural foam. Joining EKOPANELY forming a lining and vertical EKOPANELY is either the pin together with 3 pieces at one meter, or screws 5 × 100 mm and 0.5 m Page EKO-PANELY lining, which is not affected by cutting will fitted to the outer side wall! After installation of windows and doors lining encrusts still Hofatex plates that seal caused the gap between design and window jambs. Openings, eg boxes, wiring EKOPANELY to drill special Holesaws diameter of 68 mm or are cut electric saw.

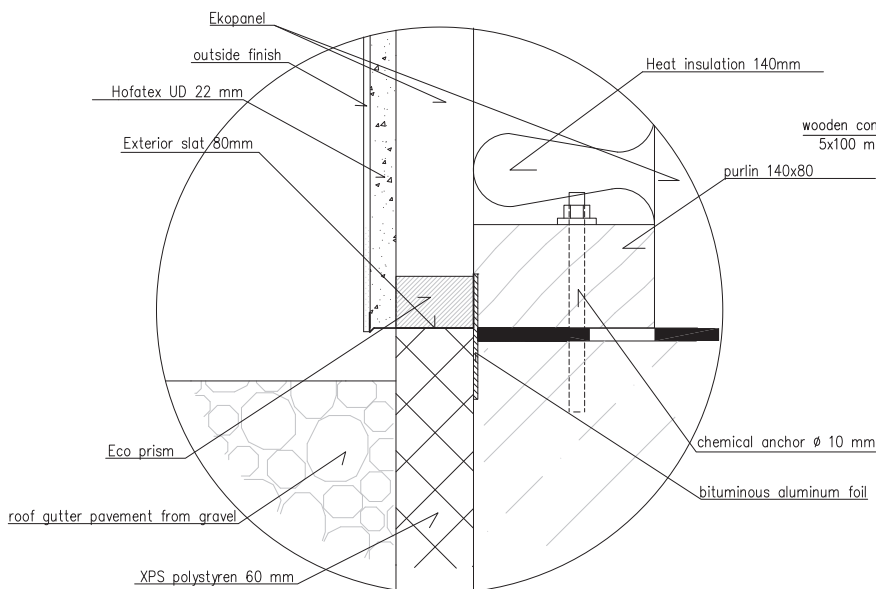
COMMON ERRORS

- Simple rung meets normative values for sound insulation, and therefore its use is limited to partitions eg sloping loft, light curtains, under the stairs, etc.
- Wide gap between each fitted Ekopanely filled with structural foam - deterioration of fire resistance walls
- Omission applications foams when trimming Ecopanely individual plates together to enforced by area - the possibility of thermal bridges
- Ordering boards EKOPANELY to-ceiling without the required expansion gap at the top of 10 to 15 mm - complex structure, likelihood of cracking due to mechanical stress Ecopanely
- Use fasteners screws without the required finishes - and the possibility of corrosion disintegration of structures
- Ecopanely nailed nails or bonding individual Ecopanely nails - generally does not hold nails in Ecopanely
- Hanging items on walls EKOPANELY with screws and dowels - dowels in Ecopanely not hold, it is necessary to use Only screw.
- Use of uncertified or manufacturer untested materials such as adhesives, plaster mixtures fasteners etc., may be damaged structures buildings popping finishes, etc.
- Ecopanely drilling screws - no pre-drilling!

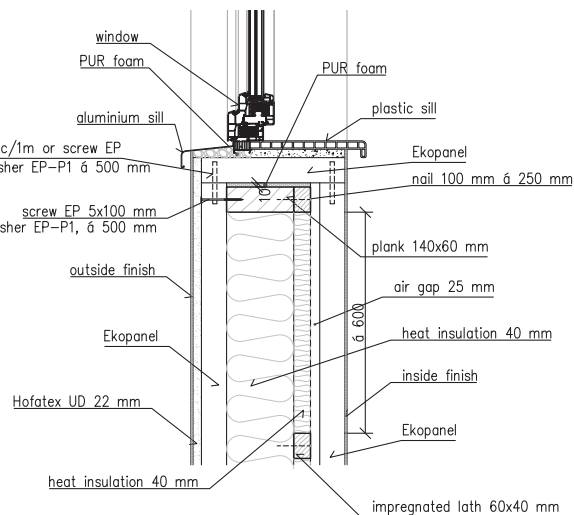
Finishes

Ecopanely can be applied to various surface adjustments. A more detailed description can be found in a separate chapter FINISHES

DETAIL ZALOŽENÍ STAVBY NA DESCE



DETAIL PARAPETU





External wall – EKO 3

Foundation walls and outer side

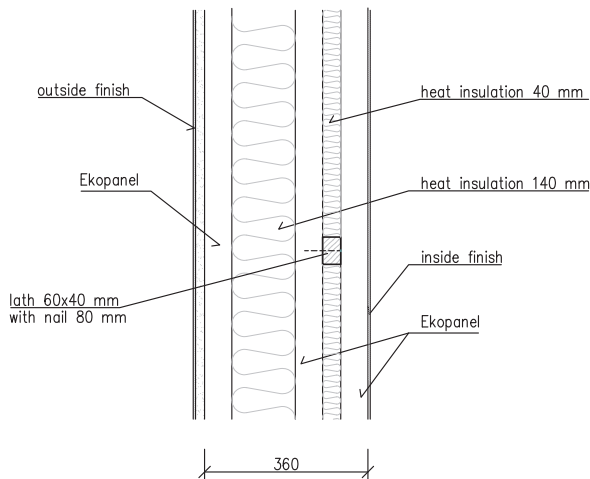
Supporting wooden structure, respectively. its lower purlins are anchored to the foundation construction, if the project or the static opinion stated otherwise, anchored by and 1500 mm chemical anchor. wooden construction is always fitted to isolate anti- ground moisture. On the lower part of the purlins and the base boards are glued bitumen strip with aluminum sheet (overlapping joints between the base plate and wooden structures). at this Tape from the outside bottom mounted aluminum foundation profile width 83 mm with plastic prism 60 x 40 mm, which is anchored screws EP 6 x 120 mm (pre-drilled) and 600 mm. this The foundation must always be the flatness.

It is now ready for installation of base ecopanel of external Plasten. Before installing panels on the rod from recycled plastic applied to low-expansion assembly foam. Fixing EKOPANELY to the construction of the performs screws EP 5 x 100 mm with a washer which are screwed at 500 mm. to finished area of eco-panels using screws EP 5 x 70 mm (15 pieces / plate) mounted boards Hofatex UD tl. 22mm. The boards are equipped with trach hole, thus joining simple. Hofatex Boards will be thrown into the foundation aluminum bar. Used screws must be provided with adequate galvanic coating, but we recommend stainless steel screws.

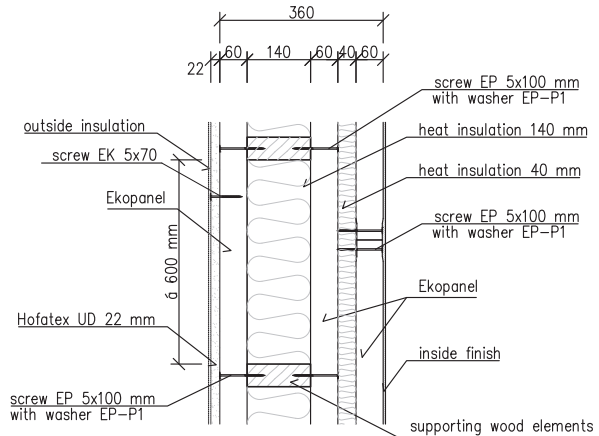
Thermal insulation of walls and inside

Among the wooden bearing wall elements are placed at least 140 mm thermal insulation (according to thickness of the structure) and space insulation completely filled. Then the wooden frame creates a grid of battens 60 x 40 mm, which be planted horizontally in axes 500 or 600 mm depending on the dimensions of the heat insulation, which is then inserted between the grating. Battens will be anchored to the supporting system wooden houses nails dl. 100 mm and 250 mm. After the insulation space between the grate and the fabrication water pipelines, sewerage, heating, for the grate fitted individual Ekopanel plate, anchored to the battens using screws EP 5 x 100 mm with washer EP-P1. Where need to hide any wall ducts, and ifrequirement in order to

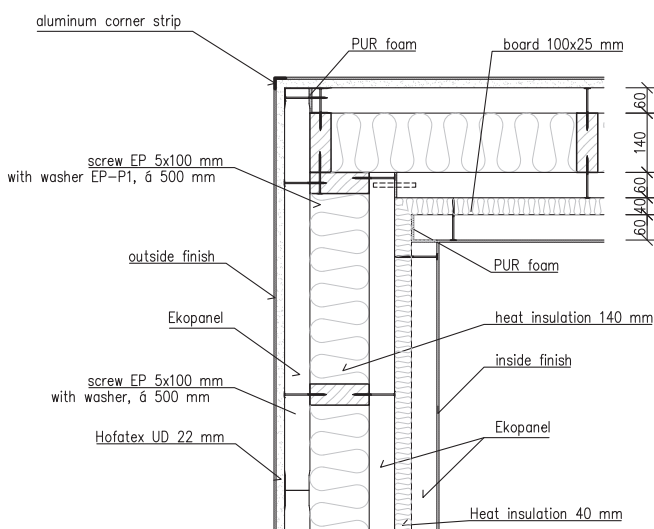
ŘEZ OBVODOVOU STĚNOU EKO 3



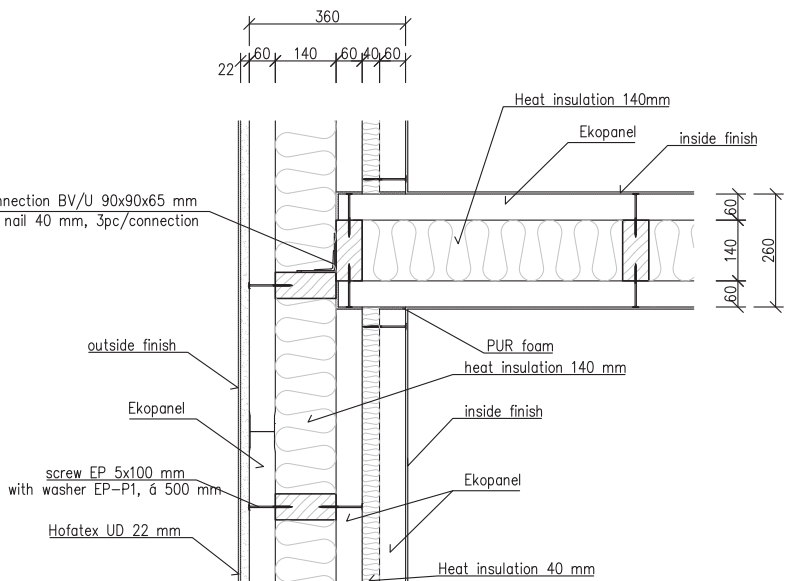
PŮDORYS OBVODOVÉ STĚNY EKO 3



DETAIL ROHU OBVODOVÉ STĚNY EKO 3



DETAIL PŘIHOJENÍ NOSNÉ STĚNY



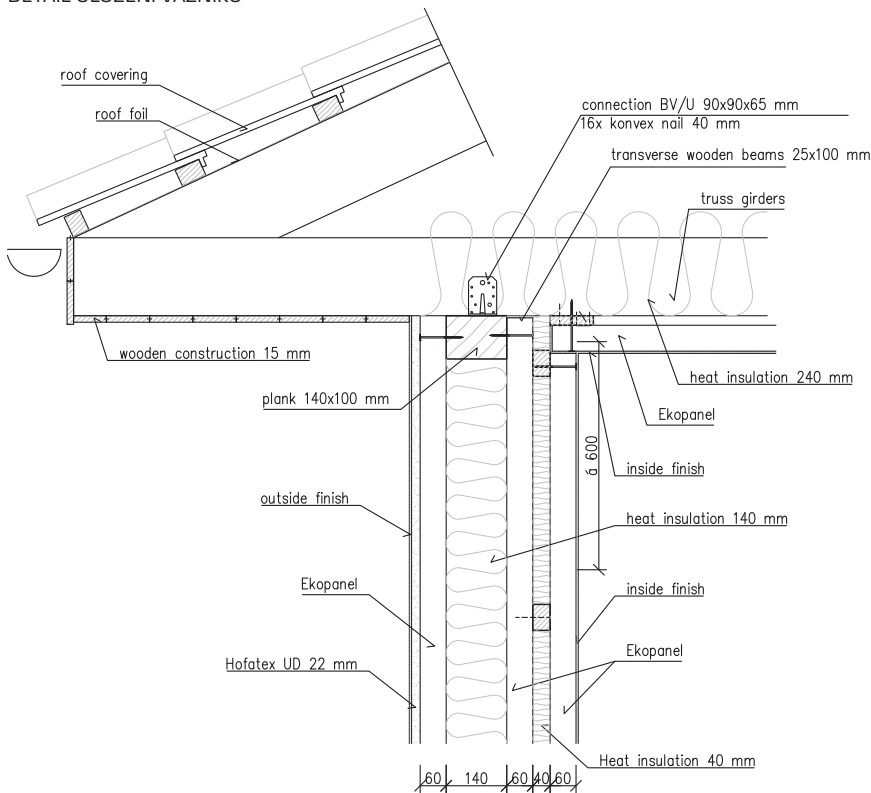
hide the EKOPANELY and not in a grid of battens, the need for cutting grooves and wiring are installed. Then fitted second Ekopanely inner layer to be anchored Screws EP 5 × 100 mm and 250 mm. The second series Ekopanely Boards will be fitted so that gap between Ekopanely primarily folded and not continuous.

Any gaps between Ekopanely, leaks etc., foams mounting foam. yet when Installation of EKOPANELY should incur the least vertical joints, plates be duly arrive together. At the height of the mounted Ecopanel about 10–15 mm lower than the clearance walls, and it is necessary to fill in the area mounting foam or sealant

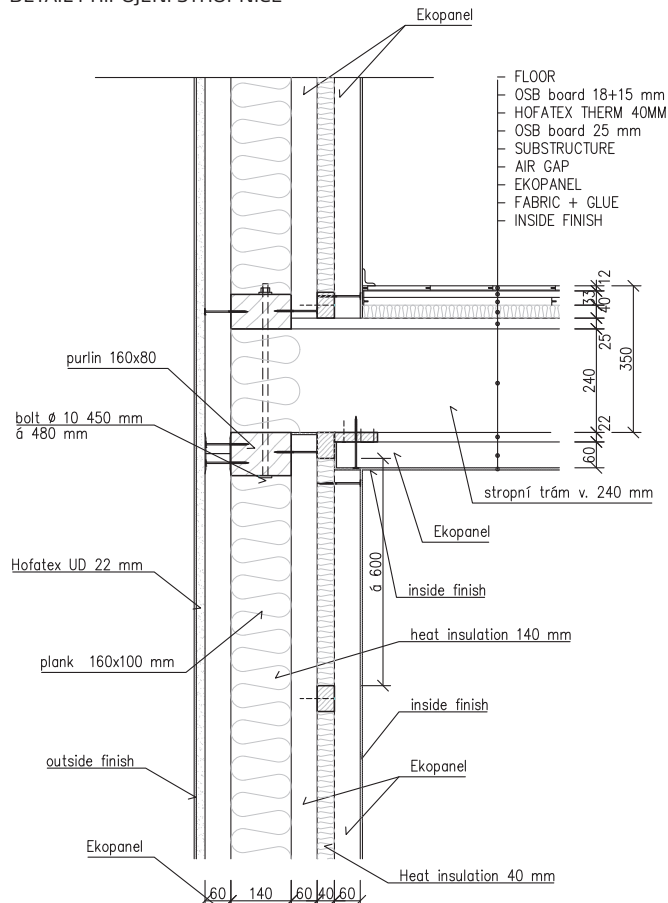
Holes and lining

The holes, which may be in circumferential create walls should always be based from the project or static calculation and depends mainly on statics supporting timber. When planting timber supporting elements to keep in mind that it is necessary to fit the timber elements to the sides and the height of the hole to light hole dimension in wooden was greater on each side about 70-75 mm, than the desired project dimension of the window or door. required dimension then gets inserting plates Ekopanel of which creates a complete lining. The area between EKOPANELY and the nearest wood element is then foams mounting

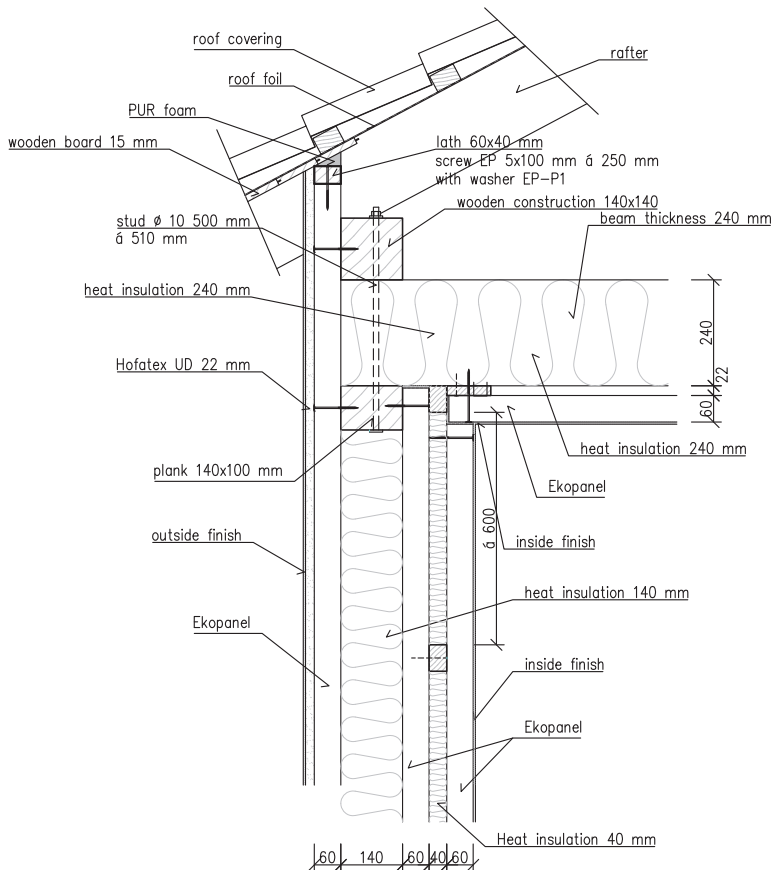
DETAIL ULOŽENÍ VAZNÍKU



DETAIL PŘIPOJENÍ STROPNICE



DETAIL ULOŽENÍ POZEDNICE



foam. joining EKOPANELY forming the jambs and vertical EKOPANELY is either the pin connection 3 pc 1m or screws EP 5 x 100 mm and 0.5 m Page EKOPANELY lining, which is not affected cutting, Boards will be mounted on the outer side wall!

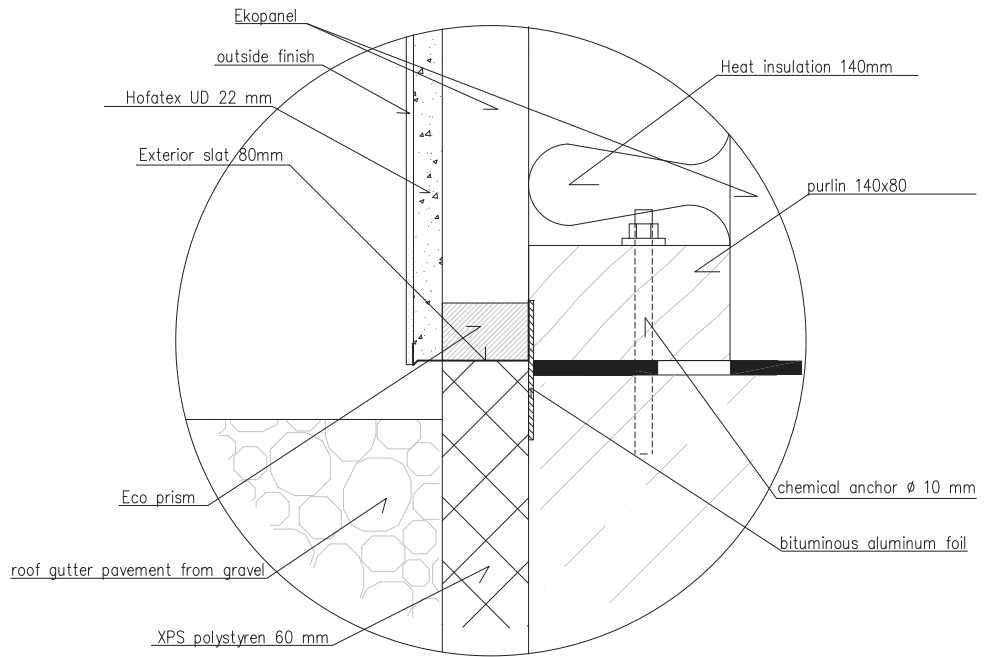
After installation of windows and doors lining encrusts still Hofatex plates that seal caused the gap between design and window jambs.

Openings, eg for electrical boxes, EKO-PANELY to drill special Holesaws diameter of 68 mm or are cut electric saw.

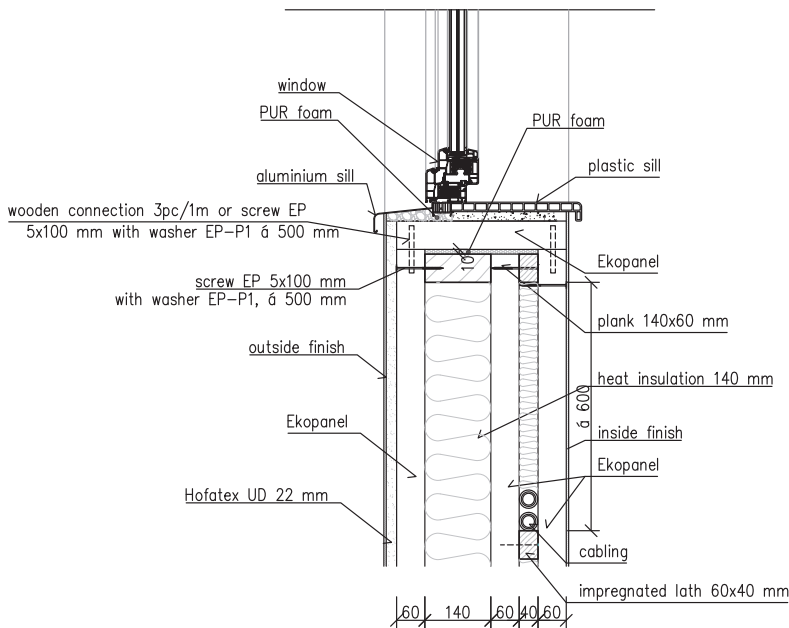
Finishes

Ecopanel can be applied to various surface adjustments. A more detailed description can be found in a separate chapter FINISHES

DETAIL ZALOŽENÍ STAVBY NA DESCE



DETAIL PARAPETU



COMMON ERRORS

- Simple rung meets normative values for sound insulation, and therefore its use is limited to partitions eg sloping loft, light curtains, under the stairs, etc.
- Wide gap between each fitted Ekopanel filled with structural foam - deterioration of fire resistance walls
- Omission applications foams when trimming Ecopanel individual plates together to enforced by area - the possibility of thermal bridges
- Ordering boards EKOPANELY to-ceiling without the required expansion gap at the top of 10 to 15 mm - complex structure, likelihood of cracking due to mechanical stress Ecopanel
- Use fasteners screws without the required finishes - and the possibility of corrosion disintegration of structures
- Ecopanel nailed nails or bonding individual Ecopanel nails - generally does not hold nails in Ecopanel
- Hanging items on walls EKOPANELY with screws and dowels - dowels in Ecopanel not hold, it is necessary to use Only screw.



The inner support wall

Foundation walls

Supporting wooden structure, respectively, its lower purlins are anchored to the foundation construction, if the project or the static opinion stated otherwise and 1500 mm chemical anchor. Wooden construction with always fitted on waterproofing.

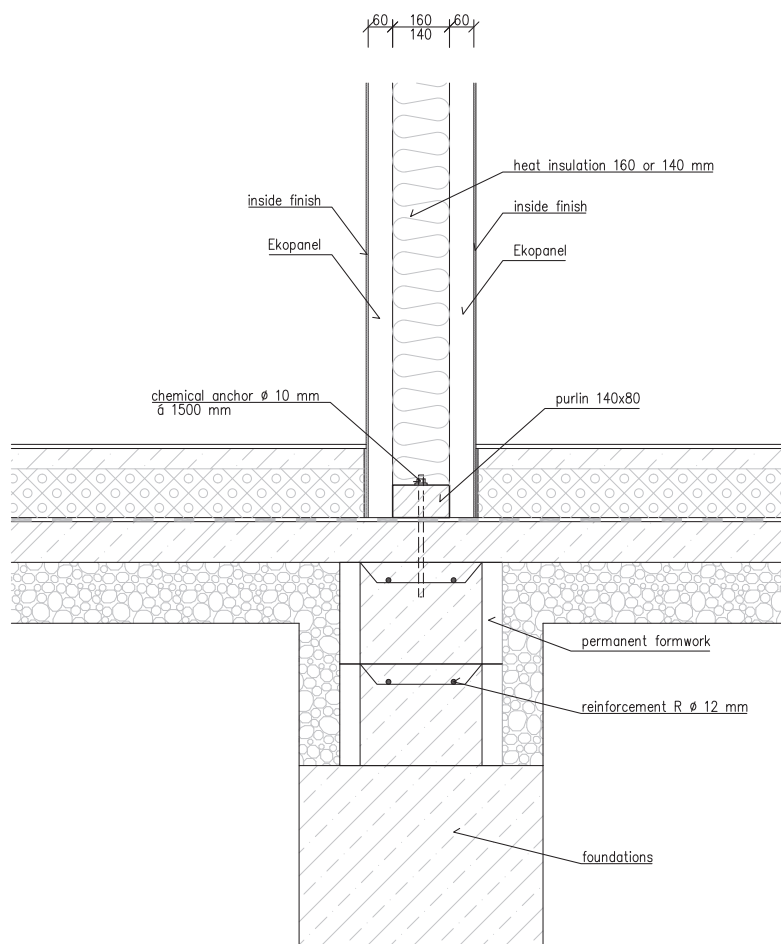
Thermal insulation and wall cladding

Among the wooden bearing wall elements are placed at least 140 mm thermal insulation (according to thickness of the structure) and space insulation completely fills.

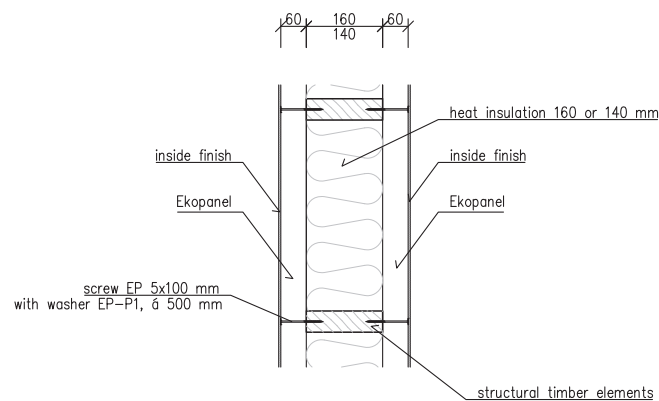
Then the timber construction of settlement from one side of each Ekopanel plates anchored with screws EP 5 × 100 mm with washers and 500 mm. Subsequently, the load-bearing wall made required water, sewer, electronic or other. Then the support wall lined with the other side of a structure so closed. Ekopanely again mounted screws EP 5 × 100 mm with washers and 500 mm.

Any gaps between Ekopanely, leaks etc., foams mounting foam. yet when installation of EKOPANELY should incur the least vertical joints, plates be duly arrive together. At the height of the mounted Ekopanely about 10–15 mm lower than the clearance walls, and it is necessary to fill in the area mounting foam or sealant (tow, hemp, etc.).

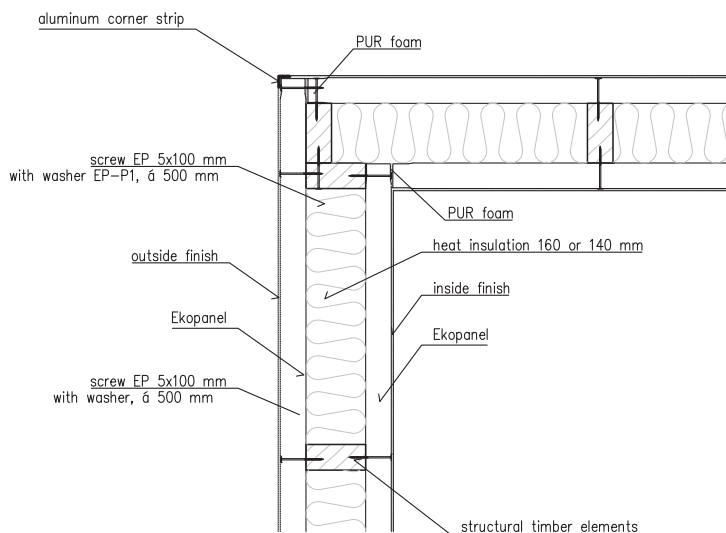
DETAIL ZALOŽENÍ VNITŘNÍ NOSNÉ STĚNY



DETAIL VNITŘNÍ NOSNÉ STĚNY



DETAIL ROHU VNITŘNÍ NOSNÉ STĚNY



Holes and lining

The holes, which may be in circumferential create walls should always be based from the project or static calculation and depends mainly on statics supporting timber. When planting timber structural elements in the case of interior windows, nik and similar areas must be kept in mind it is necessary to fit the timber elements to the sides and the height of the hole so that light dimension hole in wooden was greater for each side of 70–75 mm, than the project required size of the window or door. The

required size is then created inserting plates Ekopanel from which form a complete lining. cut edge EKOPANELY to sealing the adhesive tape and always gives inside. The area between EKOPANELY and the nearest wooden elements loses it after mounting foam. joining EKOPANELY forming the jambs and vertical Ekopanely is either the pin connection 3 pc 1 m or screws EP 5 x 100 mm and 0.5 m

Door openings are made so that it creates Working hole formed wooden carrier Elements larger by 50 mm on each side before the planned size doors. Height of door hole standard door 1970 is 2020 mm. Then fitted Adjustable zárubňový the system.

The inner support wall

Openings, eg for electrical boxes, eco-panels to drill special Holesaws are cut or straightforward saw. Cutting surface is treated with sticking paper tape SPI00

Anchoring interior bearing walls a peripheral wall

The internal load-bearing walls, resp. their wooden a structure is realized simultaneously the supporting wall construction. In place link perimeter and interior bearing walls would be at each follow-up wooden vertical supporting elements together and it prošroubováním, bolt or nail through joint metal anchor brackets eg BOVA BV/U 90×90×65 mm. The proposal addresses the joint project or static calculation. Unless the project statics or otherwise, the top and bottom purlins associated overlap and nail joint and consecutive planks forming pole design angle BOVA 3 pcs Vertical columns including 14 pieces of nails convex dl. 40 mm.

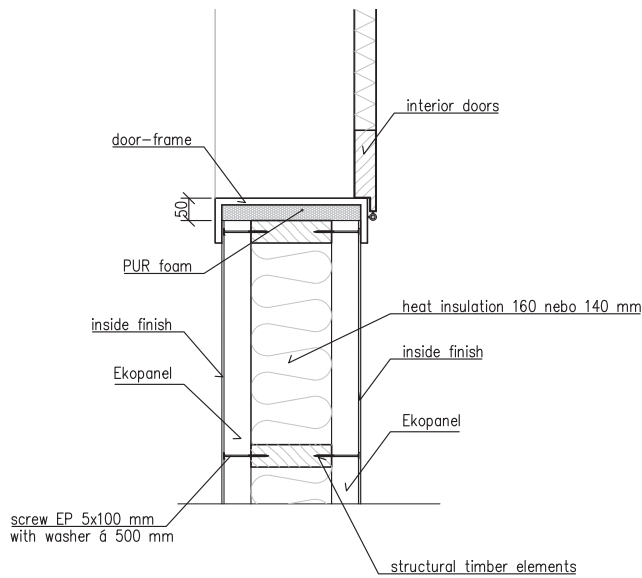
Finishes

Ecopanels can be applied to various surface adjustments. A more detailed description can be found in a separate chapter FINISHES

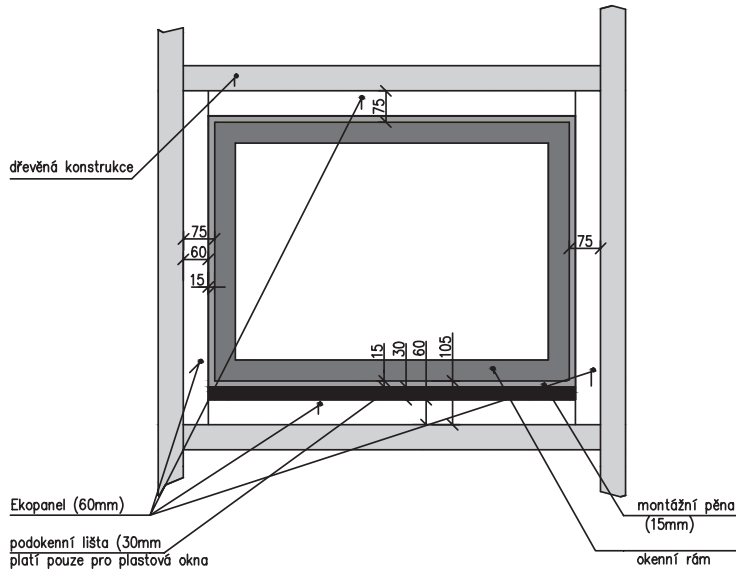
COMMON ERRORS

- Simple rung meets normative values for sound insulation, and therefore its use is limited to partitions eg sloping loft, light curtains, under the stairs, etc.
- Wide gap between each fitted Ekopanely filled with structural foam - deterioration of fire resistance walls
- Omission applications foams when trimming Ecopanely individual plates together to enforced by area - the possibility of thermal bridges
- Ordering boards EKOPANELY to-ceiling without the required expansion gap at the top of 10 to 15 mm - complex structure, likelihood of cracking due to mechanical stress Ecopanely
- Use fasteners screws without the required finishes - and the possibility of corrosion disintegration of structures
- Ecopanely nailed nails or bonding individual Ecopanely nails - generally does not hold nails in Ecopanely
- Hanging items on walls EKOPANELY with screws and dowels - dowels in Ecopanely not hold, it is necessary to use Only screw.

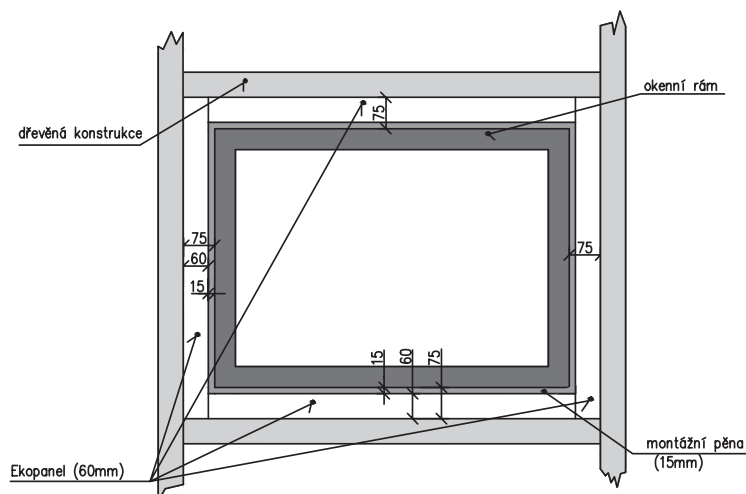
DETAIL OBLOŽKOVÉ ZÁRUBNĚ



DETAIL PŘÍPRAVY STAVEBNÍHO OTVORU PRO PLASTOVÉ OKNO



DETAIL PŘÍPRAVY STAVEBNÍHO OTVORU PRO DŘEVĚNÉ OKNO



Thermal insulation of facades

Thermal insulation and accumulation EKOPANELY capabilities can be used and insulation in existing buildings.

Grate uder eopanel

The existing facade in the lower part of the settlement aluminum foundation lath width 123 mm. subsequently creates a grid of horizontal timber battens 60 × 40 mm at a distance of 600 mm. Battens are anchored dowels natloukacími and 500 mm. Among the slats forming the grating is placed 40 mm thermal insulation

Cladding Ekopanel

At the bottom of facade insulation, respectively. in aluminum lath lath is placed 60 × 40 mm made of recycled plastic, which will be the lower leveled area for sheathing boards Ekopanel. LAT is using EP screws 5 × 80 mm fixed to the timber battens and this and 250 mm. The staff will begin to height assemble the plates Ekopanel. Before installing panels on the rod from recycled plastic applied to low-expansion assembly foam. Fixing EKOPANELY to the base Roasting is performed screws EP 5 × 100 mm, that consolidate and 500 mm.

If it allows the window size or doorway of the need for lining boards Ekopanel.

After installation of the mounting plates Ekopanel foam seal all joints caused.

Desky Hofatex

On the finished surface of EKOPANELY using EP screws 5 × 70 mm fixed Hofatex plate thickness. 22mm. The boards are equipped with perodrážkou, Therefore, mixing a relatively simple. Hofatex will be thrown into the foundation aluminum bar.

The boards also need Hofatex lining around windows and doors. The outer lining is suitable Hofatex UD 22 mm, the inner lining again Hofatex Silent 8 mm.

Ventilated facades

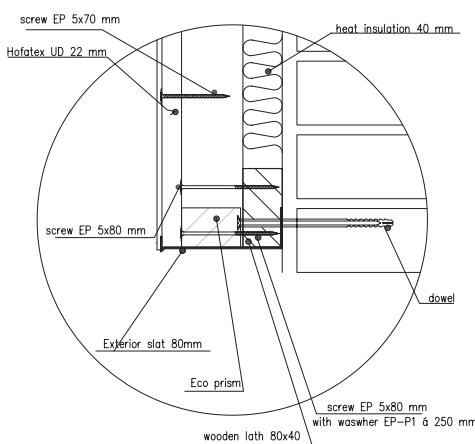
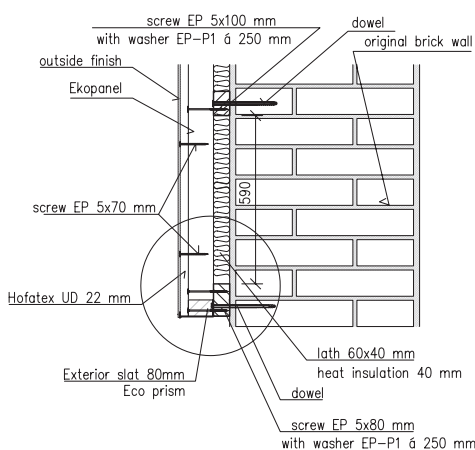
If the intention is to make ventilated facade you will need to install boards Hofatex wooden battens grid of eg 60 × 40 mm (or another profile) and then make the wooden or else facing facade panels, flooring, panels etc

Joining Ekopanel

The elements Ekopanel not necessary mutually connected. The panels will be anchored Only in blinding grid screws EP 5 × 100 mm.

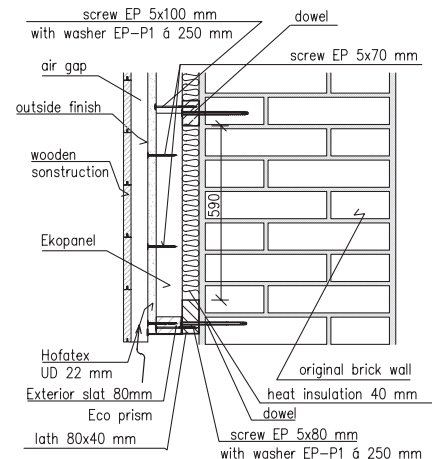
DETAIL ZATEPLENÍ FASÁDY

ŘEZ STĚNOU

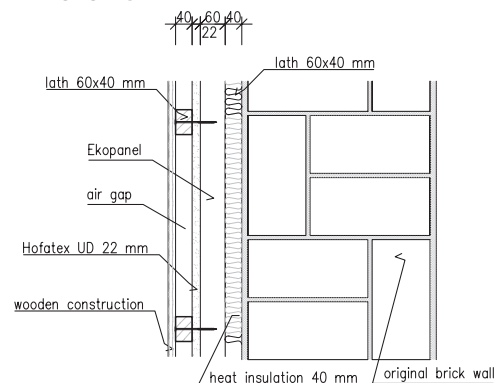


DETAIL ODVĚTRANÉ FASÁDY

ŘEZ STĚNOU



PŮDORYS



Holes

Openings, eg for electrical boxes, EKOPANELY to drill special drill bits are cut or electrical saw. Cutting surface is treated with sticking paper tape SPI00

Tinsmith

It is necessary to make a new sill plates, or sheeting roofs, ledges, new rainwater down or change mooring.

Finishes

Ekopanel can be applied to various surface adjustments. A more detailed description can be found in a separate chapter FINISHES.

COMMON ERRORS

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Finishes

OUTDOOR AREAS - FACADE

Colored plaster

On the finished surface of the plates Hofatex fully applied adhesive trowel, to which is pushed reinforcing fabric (leno). Tracks perlinky in relations translates to 50 mm. Also in the adhesive fitted aluminum strips with gauze around windows, sills, in corners etc. After drying screed is applied also type of aggregate nationwide glue. We recommend use proven adhesive manufacturer.

After drying the second adhesive layer is complete stretch through-colored plaster facades mixture (silica, silicate).

Simultaneously with performing facade must be also performed a complete plating sills, ledges and other facade elements

Ventilated facades

If the intention is to make ventilated facade you will need to install a wooden board Hofatex rack of battens such as 60 x 40 mm (or other profile) and this then make a wooden or other facade cladding panels, flooring, panels etc.

INTERNAL SURFACES

Stucco plaster

On the inner surface of the finished EKOPANELY be fully applied penetration bridge - Sokrat paint mixed in a ratio of 1:3 with water (see manufacturer's instructions). after drying the coating with adhesive bandage tapes drag all connections EKOPANELY and then again with the second nationwide Coating penetration Sokrat mixed in a ratio of 1:5 with water. After drying, a second coat the surfaces fully coated spatula adhesive, into which also pushes fully reinforcing fabric (leno). belts perlinky in relations translates to 50 mm. After drying screed is applied also type of aggregate nationwide glue. We recommend use proven adhesive manufacturer.

After curing, the second layer of adhesive trowel stretches tenkovsrtvá stucco. Surface can be painting interior paint standard or stick wallpaper

Thin clay plaster

On the inner surface of the finished EKOPANELY be fully applied penetration bridge - Coating Sokrat mixed in a ratio of 1:3 with water. After drying of the coating using adhesive bandage tape pulls All joints

Ekopanely then again nationwide need for a second coat of primer Sokrat mixed with water in a ratio of 1:5. After drying, a second coat is fully applied in thin earthen plaster colored version or in a natural finish.

Earthen plaster casting

On the inner surface of the finished EKOPANELY be fully applied penetration bridge - Coating Sokrat mixed in a ratio of 1:3 with water. After drying of the coating using adhesive bandage tape pulls All joints Ekopanely then again nationwide need for a second coat of primer Sokrat mixed 1:5 with water. On the bearing surfaces primed with Fix the reed mat. On the mat then earthen plaster casts, which after drying bear painting interior paint the earthen plaster.

The lining plasterboard

Ready-made inner surface of the EKOPANELY installed as required electric heating foil and a fully fitted plasterboard plate thickness. 12.5 mm WHITE. Gypsum will screw screws into EKOPANELY Drywall 4.2 x 65 mm spacing 250 mm with vertical walls and 170 mm at the ceiling. After installation of plasterboard přetmelí the joints and screw holes, filling Q3, ie. including the use of finish paste. The surfaces are then paint the interior paint on drywall

Gypsum plaster

Ready-made inner surface of the EKOPANELY fully applied penetration bridge - paint Sokrat mixed 1:3 with water. after drying of the coating with adhesive bandage tapes drag all connections EKOPANELY and then again across the board need second coat of primer mixed Sokrat 1:5 with water. After drying the second coating is applied across the board plaster, that paint the interior color

Cotton (textile) plaster

On the inner surface of the finished EKOPANELY be fully applied penetration bridge - Coating Sokrat mixed in a ratio of 1:3 with water. After drying of the coating using adhesive bandage tape pulls All joints Ekopanely then again nationwide need for a second coat of primer.

At the mature surface with a trowel stretching the fabric plaster. It is also possible compound applied with a spray gun.

Facing ceramic tiles

Ready-made inner surface of the EKOPANELY fully applied penetration bridge - paint Sokrat mixed 1:3 with water. after drying of the coating with adhesive bandage Tape all joints drag EKOPANELY and then again across the board need second coat of primer mixed in Sokrat 1:5 with water. After drying the second coating the surfaces fully coated spatula adhesive, into which also pushes fully reinforcing fabric (leno). belts perlinky in relations translates to 50 mm. after drying screed is applied also fully type of aggregate adhesive. We recommend using proven adhesive manufacturer.

At the mature surface will then be integrated in the coating adhesives planted ceramic tiles or stone tiles.

Bathroom

Ready-made inner surface of the EKOPANELY fully fitted and fastened with screws System board Wedi BA 12.5. The anchoring the substrate will be used stainless screws, 40 mm long with a plate Wedi (min. 6 pcs /1 m²). Joints of the boards Wedi be sealed with a special tape Wedi.

After sealing all joints in the screed will be adhesives planted ceramic tiles. when mounting tiles will be used to stop and sealing strips, eg around tubs, showers, etc. Tiles are naturally jointed

COMMON ERRORS

- Bypassing the foundation bar and lower battens recycled plastic, aluminum extrusions with gauze around windows and corners, etc. - Later problems with promrznutím lower of plaster cracking or withdrawals plasters, more labor intensive implementation details facade deterioration aesthetics coating
- Omission of skirting around bathtubs, showers etc. - later ingress of water into the structure and violation records Ekopanel