

### Hest

The barn is a memory of a childhood spent in the countryside, full of adventures and exploring the surrounding nature. Here you can relax naturally and spend time actively outdoors, catching your breath from everyday life. A barn-type house can stand anywhere, not only by the water, in the mountains, in the forest, but even in heavily urbanized areas. Let yourself slow down and feel the rural atmosphere.

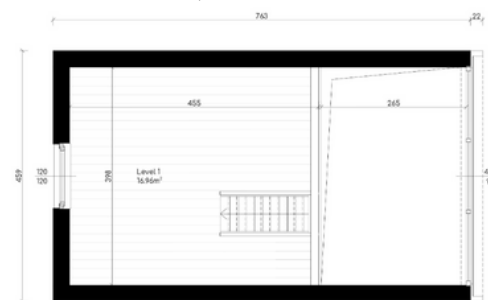
BUILDING AREA	35,00 m <sup>2</sup>
NET AREA	44,29 m <sup>2</sup>
HEIGHT	6,41 m
ANGLE OF THE ROOF	45°

## Allow yourself to rest, like never before.

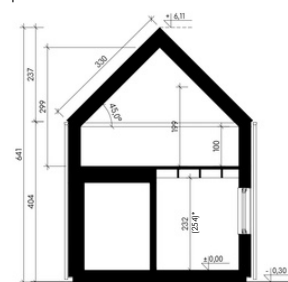
An extremely spacious house, with its simplicity resembling a classic barn. Thanks to the glass gable wall and the open form of the interior, both the ground floor and the attic remain filled with daylight. The building has a very functional layout of the rooms. When designing this, we planned a large living space during the day for its residents with an open kitchen, bathroom and bedroom, as well as a spacious mezzanine. Additionally, we have created a practical entrance area with a large wardrobe accessible from the corridor. The illuminated and spacious living room can be additionally enlarged with a terrace, which, thanks to large sliding windows, can be combined with the interior, so that it constitutes an extension of the relaxation area.



Ground floor plan



Mezzanine floor plan



Section

\* height of the room between the structural beams



## Technology description

We produce prefabricated houses using the frame-truss technology. We use closed panel prefabrication, which allows us to perfect every detail of our houses and significantly speed up the building assembly process. In designing our buildings, we collaborate with the best German structural engineers, who ensure that our houses have maximum rigidity while utilizing the latest technological solutions. This allows our structures to meet the standards across the entire European Union.

## Structural wall

The technology we use to build walls creates a diffusion-open partition and provides excellent thermal comfort throughout the year.

Heat transfer coefficient  $U=0.20 \text{ W/m}^2\text{K}$ .

- Finish - 22mm thick larch siding [D/C]
- Wind insulation - Highly vapor-permeable membrane with a weight of  $82\text{g/m}^2$  [B/D/C]
- Substructure - Impregnated battens  $25 \times 50\text{mm}$  [B/D/C]
- Structure - Spruce wood C24  $45 \times 120 \text{ mm}$  [B/D/C]
- Thermal insulation in structure - Mineral wool  $12\text{cm}$   $\lambda=0.035 \text{ W/mK}$  [B/D/C]
- Cover - 12mm thick OSB [B/D/C]
- Vapor barrier - Foil, weight:  $130 \text{ g/m}^2$  [B/D/C]
- Installation grate - Spruce wood C24  $45 \times 45$  with electrical installation [D/C]
- Thermal insulation in grate - Mineral wool  $5\text{cm}$   $\lambda=0.033 \text{ W/mK}$  [D/C]
- Wall finishing - (material depending on the configuration) [C]

## Partition wall

- Finish - depending on the configuration [C]
- Structure - Spruce wood C24  $45 \times 90 \text{ mm}$  [B/D/C]
- Cover - 12mm thick OSB [B/D/C]
- Finish - depending on the configuration [C]

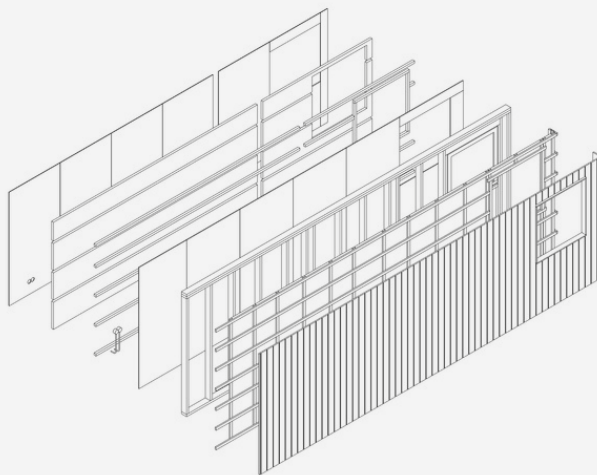
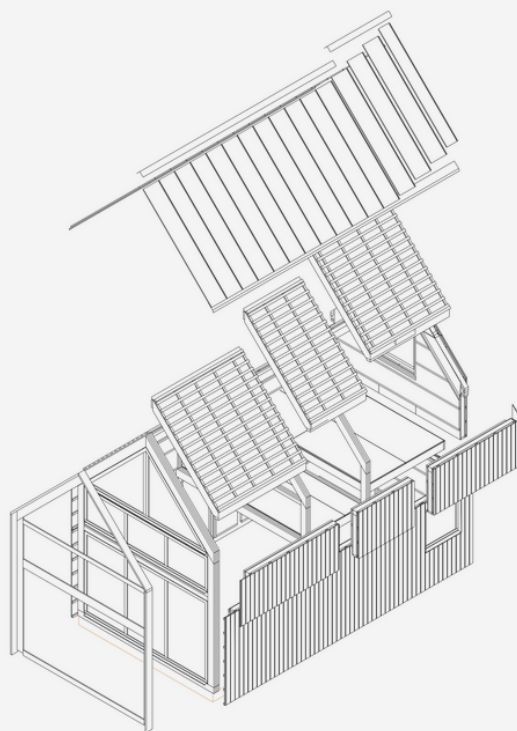
## Floor (mezzanine)

- Finish - depending on the configuration [C]
- Base - 20mm cork mat (only when finished with floorboards) [C]
- Cover - 22mm thick OSB [B/D/C]
- Underside of the mezzanine - depending on the configuration [B/D/C]
- Structure - Wooden beam  $220\text{mm}$  thick [B/D/C]

## Dry screed (optional)

Additional dry floor package technology. Can be included when selecting a developer package. Required when selecting a comprehensive package.

- Finish - depending on the configuration [C]
- Vapor barrier - Foil; weight:  $77 \text{ g/m}^2$ ; active (if heating foil)
- Heating - Infrared heating foil (optional)
- Base - 20mm cork mat (in case of floorboard finish)
- Leveling layer -  $2 \times 1 \text{ cm}$  plasterboard,  $1\text{cm}$  thick mineral wool  $\lambda=0.033 \text{ W/mK}$
- Insulation - EPS  $80 \text{ kPa}$  floor polystyrene  $\lambda=0.040 \text{ W/mK}$ ,  $140\text{mm}$  thick.



## Concrete floor (optional)

An additional package for a wet technology floor, which is an alternative to a dry screed. Only available when choosing a comprehensive package.

- Finishing - depending on the configuration [C]
- Heating - Infrared heating foil (optional)
- Screed - Lean concrete with a thickness of 70 mm
- Separating layer - Polyethylene (PE) foil
- Insulation - EPS 100 kPa 120 mm  $\lambda=0.040$  W/mK
- Waterproofing - Polyethylene (PE) foil

## Zero ceiling (optional)

- Cover - OSB with a thickness of 22 mm
- Vapor barrier - Foil; weight: 130 g/m
- Structure - Spruce wood C24 45x120 mm
- Thermal insulation - Mineral wool 12 cm  $\lambda=0.036$  W/mK
- Waterproofing - Open-diffusion bituminous plate

## Roof

It has a wooden structure with a suspended ceiling, a heat transfer coefficient of  $U=0.15$  W/m<sup>2</sup>K. Include steel guttering and copings.

- Roofing - Profiled metal sheet in a color depending on the configuration [D/C]
- Batten - 40x60 mm spruce wood impregnated [B/D/C]
- Counter-batten - 25x50 mm spruce wood impregnated [B/D/C]
- Preliminary cover - Highly vapor-permeable membrane with a weight of 233 g/m<sup>2</sup> [B/D/C]
- Structure - C24 45x195 mm spruce wood [B/D/C]
- Thermal insulation in the structure - Mineral wool 20 cm  $\lambda=0.035$  W/mK [B/D/C]
- Vapor barrier - Foil; weight: 77 g/m<sup>2</sup>; active [B/D/C]
- Installation grate - Spruce wood C24 45x45 with electrical installation [C]
- Thermal insulation in grate - Mineral wool 5cm  $\lambda=0.033$  W/mK [C]
- Finishing - depending on the configuration [C]
- Guttering, copings - Complete set of steel guttering in the roof color [D/C]

## Carpentry elements

- Interior doors - Pine doors with an adjustable frame, seamless and unpainted [C]
- Stairs - Milling wooden stairs, lacquered [C]
- Balustrade - Wooden balustrade, lacquered [C]
- Finishing moldings - Quarter-round corner finishing molding, wooden corner [C]

## Internal installations

- Ventilation - PVC ventilation ducts with chimneys, sewage outlet, and mechanical ventilation fan [D/C]
- Sewage - A system of polypropylene (PP) pipes and fittings with ventilation, a complete set from the connection (connection in scope) [C]
- Water - A system of press-fit polybutylene pipes, including, among others, distributors, connectors, pipes, and connections, from the cold water valve to the risers [C]
- Electrical - Flush-mounted installation, including distribution boards, plug sockets, switches [C], and cables in conduits [D/C]

## External doors

- Solid pine doors with a transparent glass panel [B/D/C]
- Thermal transmittance coefficient  $U_w=0.99$  W/m<sup>2</sup>K

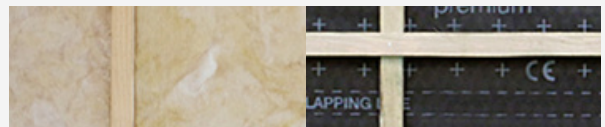
## Construction Materials

### C24 Wood



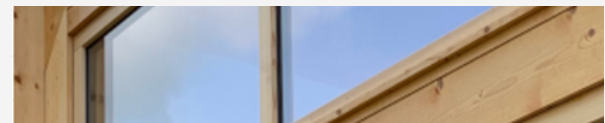
Our construction is made of certified C24 wood, which is joined in the production hall into full walls and trusses using modern carpentry connections such as pressed spiked plates. All of this allows us to achieve such an impressive ratio of glazing in the gable wall, which would not be possible with traditional construction assembly on the construction site.

### Insulation



Our homes meet the requirements for thermal transmittance of partitions set for year-round buildings in 2023. All partitions are breathable and open for diffusion. We use high-quality mineral wool for insulation, which is protected by a top-class 3-layer highly permeable membrane weighing 233g/m<sup>2</sup>, resistant to UV radiation for up to 6 months.

### Wooden Window Joinery



Our buildings exclusively feature wooden window joinery. It stands out for its durability and stiffness of the structure with large glazing and greater resistance to weather conditions compared to PVC windows. Wood is a natural material with good thermal insulation, which also provides greater air infiltration. It is estimated that properly maintained wooden windows can last up to 50 years. Large glazing in combination with wooden profiles and sliding windows will impress any Hyta user.

### Larch Cladding



We use only larch wood cladding in our buildings. This is a wood with very small annual increments, making it exceptionally durable and weather-resistant. Hyta cladding boards are specially produced for us. Prefabrication of the cladding allows for hidden installation of the boards. Cladding profiles are cut from the highest quality wood, then machine-painted in one of Hyta's unique and exclusive colors in the production hall using Italian oil and wax-based impregnation. All of this makes the Hyta cladding exceptional.



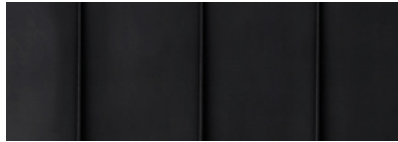
## Finishing materials

When choosing materials for our homes, we only collaborate with brands that guarantee the highest global quality, which sets us apart from the competition. The finishing options we offer are chosen in such a way as to maintain the design coherence of our homes while satisfying various aesthetic preferences.

### Roofing - standing seam panels



Dark brown



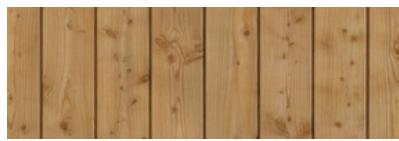
Black



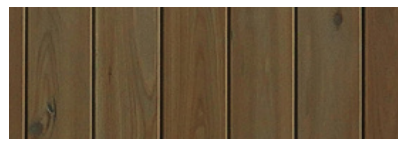
Gray

Standing seam roof panels in a satin finish, available in the color chosen by the customer. This type of roofing provides a longitudinal, aesthetically pleasing finish with concealed mounting. The package also includes a set of ready-made sheet metal flashings.

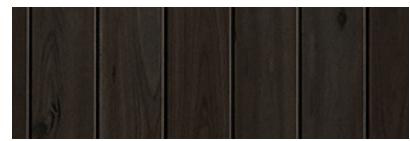
### Facade - larch boards



Natural



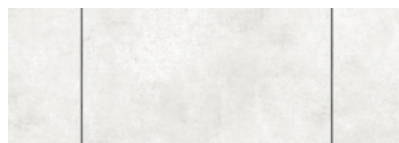
Dark brown



Black

The facade is made of larch boards with tongue-and-groove jointing in a vertical layout. The boards are painted with a renowned impregnating agent based on oil and wax. These are proprietary colors obtained by special order. The package includes masking and window sill strips in spruce color and external steel window sills.

### Walls and ceiling



Light-colored wall panel

Large-format panels in a light color, made of cement, mineral raw materials, and natural fibers, subjected to high-pressure treatment. The panels are ecological, breathable, resistant to stains, fungi, and pests. They will give the interior a modern, premium character. The bathroom finished with a raw GK panel allows for laying tiles on your own, in a configuration when the Bathroom package has not been chosen.



Spruce paneling

Modern spruce paneling with a minimal bevel, joined using a tongue and groove system. An ideal option for those who value a natural interior character. The paneling has the smallest possible bevelled edge, creating a visually flat surface on the wall, as opposed to standard paneling profiles with edges resembling quarter-rounds.



Spruce Layered Panel

A modern, minimalist, layered panel made of dried spruce wood. The large format panels are created from smooth slats without any bevels at the joints. It's a perfect option for those who appreciate wooden interiors, but in a modern form. The unvarnished panels allow the walls to breathe. The bathroom finished with a raw GK panel allows for laying tiles on your own, in a configuration when the Bathroom package has not been chosen.



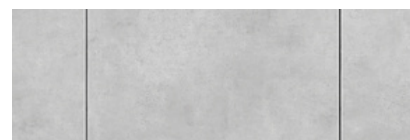
Raw gypsum board

An additional package complementing the developer's standard with gypsum board panels attached to the installation frame. Thanks to this, the building will have walls closed on two sides. It is a raw wall that requires plastering and finishing. This package is intended for people who plan to finish the interior of the building on their own. Full wall finishing by Hyta is available in the internal package.



Finished gypsum board

A finish with gypsum plasterboard panels for fans of minimalist interiors and smooth walls without visible joints on the panels. This package includes a complete drywall finishing system, including the installation of reinforcing material at the joints, puttying, priming, and painting in white. In the bathroom, the walls are prepared for tile installation without puttying or painting.



Gray-colored wall panel

Large-format panels in a gray color, made of cement, mineral raw materials, and natural fibers, subjected to high-pressure treatment. The panels are ecological, breathable, resistant to stains, fungi, and pests. They will give the interior a modern, premium character. The bathroom finished with a raw GK panel allows for laying tiles on your own, in a configuration when the Bathroom package has not been chosen.

## Floor



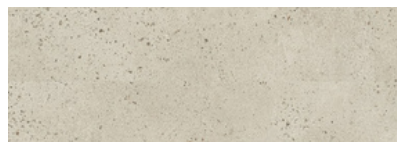
Three-layer Board - Oak

A three-layer wooden flooring made of natural oak boards, finished with a semi-matte lacquer. High-quality three-layer panels connected by a tongue-and-groove system that ensures the highest quality and durability. The smaller size of the boards gives the character of oak parquet. No finishing is included for the bathroom. This option is part of the internal finishing package.



Three-layer Board - Ash

Light three-layered floor with natural ash wood planks finished with a matte lacquer. High-quality three-layer panels connected by a tongue-and-groove system that ensures the highest quality and durability. The large size of the planks emphasizes the character of a natural wooden floor. There is no finish in the bathroom. This option is included in the interior finishing package.

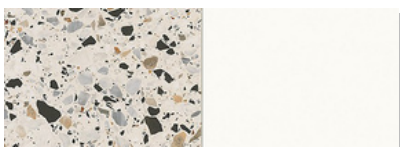


Flooring panels

Concrete-colored flooring panels made of cement, mineral raw materials, and natural fibers, subjected to high-pressure treatment. Ecological panels resistant to stains, fungi, and pests. They are also scratch-resistant, making them ideal for heavily used buildings. This option is included in the internal finishing package.

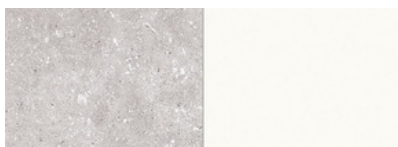
## Bathroom

A fully finished bathroom according to one of three color schemes designed by our architects. The package includes ceramic tiles on the walls and floor, a standing toilet bowl, light oak-colored furniture, a hanging cabinet with a mirror, chrome faucets, a shower with a drain hidden in the floor and glass doors. The package also includes electric underfloor heating, a towel warmer, a water heater, and electrical fittings.



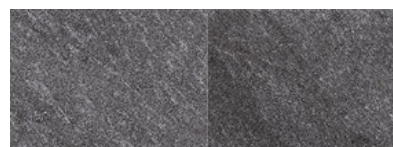
Latriko ceramic tiles

Subdued composition of floor tiles in a trendy terrazzo pattern with a stone texture in a 60x60 format, along with light wall tiles in a 30x60 format. An ideal solution for those who prefer more distinctive patterns. Furniture in light oak color. Radiator and electrical accessories in white color.



Light-colored ceramic tiles

Subdued composition of grey stone-textured floor tiles in a 60x60 format and light wall tiles in a 30x60 format. An ideal solution for minimalist and classic combinations enthusiasts. Furniture in light oak color. Radiator and electrical accessories in white color.



Dark ceramic tiles

A composed set of dark grey stone-textured floor tiles in a 60x60 format, along with dark grey ceramic wall tiles in a 30x60 format. A perfect solution for those who prefer dark and elegant interiors. Furniture in light oak color. Radiator and electrical accessories in gray color..

## Windows



Laminated double-glazed windows  
 $U_w=1,23 \text{ W/m}^2\text{K}$

This package includes modern, wooden window joinery made of solid wood, which provides unparalleled quality and aesthetics compared to plastic windows. The double-glazed, insulating glass windows are suitable for use in a recreational building during cold days. The windows provide high durability, stiffness of the construction, and greater resistance to weather conditions compared to PVC.



Laminated triple-glazed windows  
 $U_w=0,85 \text{ W/m}^2\text{K}$

This variant of joinery meets current thermal standards for single-family residential buildings in accordance with WT2021. The modern, wooden window joinery made of solid wood provides unmatched quality and aesthetics compared to plastic windows. The windows provide high durability, structural rigidity and greater resistance to weather conditions.



Triple-glazed HST windows  
 $U_w=0,96 \text{ W/m}^2\text{K}$

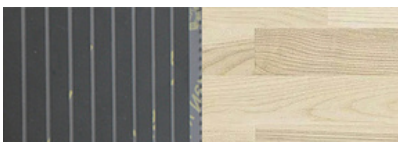
Triple-glazed windows meet the thermal standards for single-family residential buildings according to WT2021. It is a premium system in which the doors gently lift and then slide along a track set in the floor, overlapping the fixed window sash. The threshold is lowered compared to PSK windows. HST doors also allow for the enlargement of the sliding part.

## Add-ons (optional)



4.2KW Photovoltaic system

Photovoltaic system fully integrated with roof panels. Using this solution, we exclude unattractive, heavy photovoltaic panels, along with the visible mounting structure and wiring that we know from standard solutions. The integrated photovoltaic panels blend perfectly into the form of the building. Complete package with optimizer, inverter and cabling.



Underfloor heating

Infrared heating film is a modern and ecological heating method that is allergy-friendly. It provides a natural feeling of warm floors and low operating costs. It is ideal for recreational buildings due to the rapid increase in perceptible temperature. The package includes heating on the first floor and mezzanine, wireless temperature control and a water heater in the kitchen.



Entrance canopy

The 70x120cm canopy over the entrance in a minimalist and modern form that blends in perfectly with Hyta's architecture highlighting the entrance area while maintaining the light character of the building. Belgian tempered and tinted glass provides protection from both sun and rain. The stainless steel brackets and tempered premium glass ensure that the canopy will last for many years.



Solar control glass

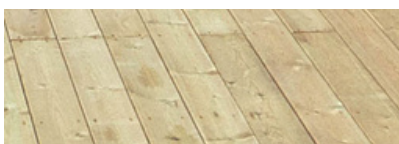
Stopsol reflective glazing provides building users with thermal comfort and a sense of privacy. Thanks to the low permeability of thermal radiation, they reduce the amount of heat entering the building. A wide range of colors allows you to match the color of the glazing to the aesthetics of the building and the preferences of the user. The panes have a delicate Venetian mirror effect. Package used for the most heavily glazed facade of the building.



Concealed window blinds

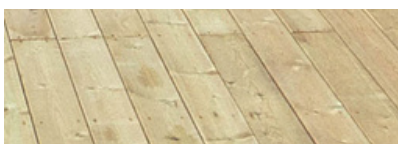
Roller blinds are not only a convenient way to protect against break-ins and excess sun. A roller shutter will also protect you from heat loss in winter, protect you from neighbors' stares, and even increase the life of your windows. The package includes electric control from inside the house. The roller shutter's masking system and its integration into the building have been designed to interfere as little as possible with the aesthetics of the building. The package applies to the first floor windows of the building.

## Terrace (optional)



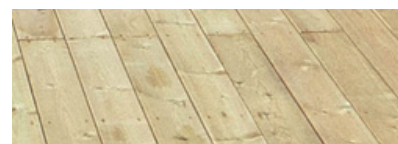
Front terrace

A large terrace for the entire width of the front elevation is functionally an ideal extension of the living room. For the finishing of the terrace we use the highest quality impregnated larch plank. The structure is made of C24 spruce wood. In order to maintain high aesthetics, all joints are made invisibly. Aesthetic edging fully masks its construction. Additional foundations are required for the package.



Entrance platform

The platform in front of the front door is at the same time a step into the building. For the finishing of the terrace we use the highest quality impregnated larch plank. The structure is made of C24 spruce wood. In order to maintain high aesthetics, all joints are made invisibly. Aesthetic edging fully masks its construction. Additional foundations are required for the package.



Side terrace

An additional terrace element connecting the front terrace and the entrance platform to the building. For the finishing of the terrace we use the highest quality impregnated larch plank. The structure is made of C24 spruce wood. In order to maintain high aesthetics, all joints are made invisibly. Aesthetic edging fully masks its construction. Additional foundations are required for the package.