MATERIAL
QUALITY
MEMORY

- material quality memory -

INDEX

EASY HAUS INCLUYE EN SUS PRECIOS:

CONSTRUCTION INCLUDES THE FOLLOWING PRICES

Construción completa de la vivienda

Proyectos
- Basic and execution projects

3D Visualization
- Renders
- 360º Visualization
- Virtual Video

Technical Fees
- Arquitect
- Surveyor
- Engineer

Quality Control
- Execution
- Texting

Studies
- Geotechnical
- Topographical
- Safety and health

Construction Insurance

Project delivery to the

town hall

Waste Management

Foundations
- Caviti type

Internal plot connections
- Water
- Electricity
- Sanitation
- Telecommunications

Transportation
- Peninsula

Home equipment
- Kitchen up to €10,000
- Bathroom furniture
- Sanitary ware, taps, and screens
- Built-in wardrobes (without drawers)

Installations
- Electricity and LED lighting
- Climate control with aerothermal and underfloor heating/cooling (other systems available)
- Ventilation with heat recovery

Management
- Submit projects to the town hall
- Waste management

Opcional

Earth moving
- For plots with slopes
- Unfavorable geotechnical conditions (rock, aquifers...)

External plot connections
- Water
- Electricity
- Sanitation
- Telecommunications

Home equipment
- Cocina valor superior a 10.000€
- Appliances
- Wardrobe drawers and accessories

Installations
- Climate control with different systems
- Home automation

Other expenses
- Construction and first occupancy licenses
- Construction fees
- Notarial and new construction registration fees

High Energy Eficiency

To achieve high energy efficiency and passive house values, we conduct a thorough study of the home's energy performance, reducing heating and cooling consumption and providing high thermal and acoustic comfort and high indoor air quality. To meet these goals, we apply the following principles:

1. **BIOCLIMATIC PLANNING AND DESIGN**
2. **HIGH THERMAL INSULATION**
3. **HIGH-PERFORMANCE EXTERIOR CARPENTRY**
4. **ELIMINATION OF THERMAL BRIDGES**
5. **MECHANICAL VENTILATION WITH HEAT RECOVERY**
6. **AIRTIGHTNESS**

BIOCLIMATIC PLANNING AND DESIGN

- First, to conduct the bioclimatic study, we observe the conditions of the plot and the climate to maximize the energy use of the location, its solar radiation, and natural light, aiming to achieve a design that consumes less energy for lighting and heating/cooling.

HIGH THERMAL INSULATION

- To optimize the heating and cooling needs, considering the climate and the conditions of the building's location, the insulation thicknesses will be determined. This thermal insulation must be continuously placed throughout the thermal envelope to avoid thermal bridges.

HIGH-PERFORMANCE EXTERIOR CARPENTRY

- The weakest points in the thermal envelope are the carpentries. Therefore, their dimensions and location in the building should be optimized, and high-quality doors and windows should be installed, with their installation carefully controlled

ELIMINATION OF THERMAL BRIDGE

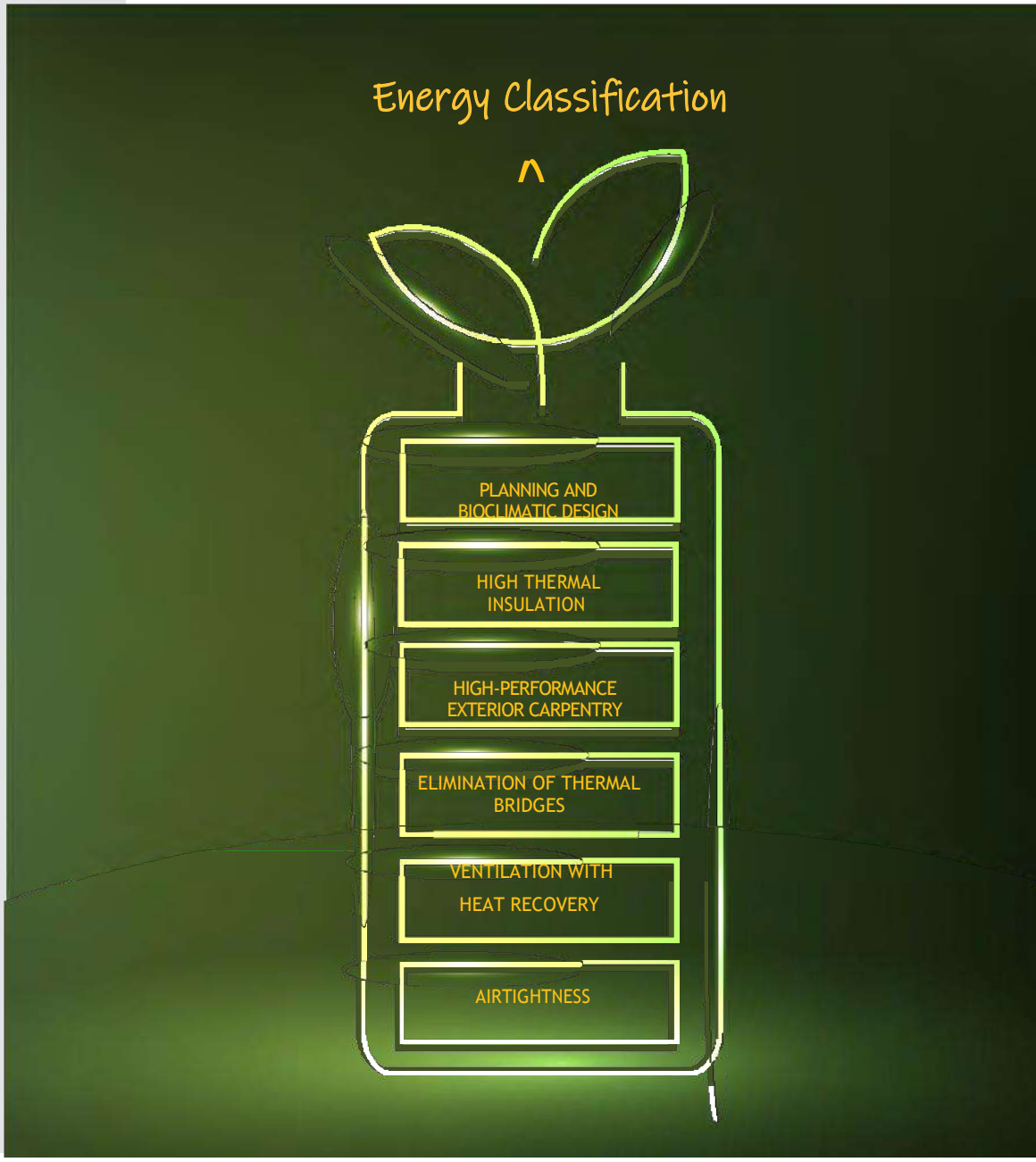
- In a passive building, the elimination of all thermal bridges is studied. "Thermal bridges are areas of the building's thermal envelope where a variation in construction uniformity is evident, either due to a change in the thickness of the enclosure or the materials used, the complete or partial penetration of construction elements with different conductivity, the difference between the external and internal areas of the element, etc., which result in a reduction of thermal resistance compared to the rest of the enclosure." By eliminating thermal bridges, pathologies due to condensation are avoided, and the adequate interior temperature is maintained without significant losses.

MECHANICAL VENTILATION WITH HEAT RECOVERY

- We install a dual-flow mechanical ventilation system with heat recovery. This system provides great thermal comfort, high indoor air quality, and significant energy savings.

AIR TIGHTNESS

- To conduct the bioclimatic study, we observe the conditions of the plot and the climate to maximize the energy use of the location, its solar radiation, and natural light, aiming to achieve a design that consumes less energy for lighting and heating/cooling.



Preliminary project
Volume and layout of the house
Basic project
Necessary definition to obtain a permit
Execution project
Constructive definition to make the construction feasible

02

Technical Services

Recomended

Preliminary Project

Set of graphic documentation that broadly defines the volume and layout of a house on its plot. Thanks to technology, we can offer our clients immersive experiences.We present the ideas of architecture, interior design, landscaping, and lighting in 3D, which allows us to make decisions before execution, avoiding possible errors.

Proyecto básico

The general aspects of the proposed construction and its features are presented so that it can be assessed by the local council where the construction will take place.

Indispensable

Execution Project

It contains all the necessary information for the project manager to implement what is outlined in the basic project and to put it into practice in reality.

Architecture

BASIC PROJECT

Includes:

- Descriptive and construction report of the general characteristics of the project for which a permit is requested.
- Compliance with the CTE DB SI, that is, information on fire safety.
- Scaled and dimensioned plans of the floor, elevations, and sections of the building for which the construction permit is requested.
- ▫Summary of the overall budget estimation, detailed by chapters for greater clarity.

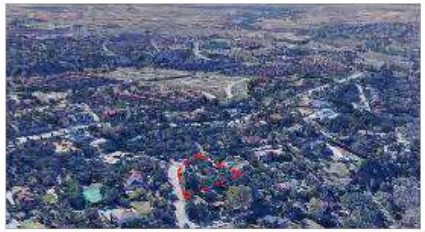
PROJECT EXECUTION

Includes:

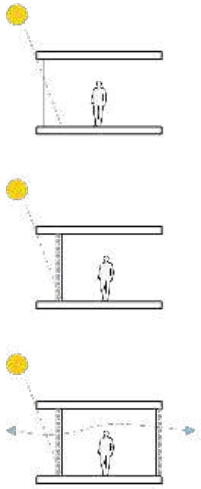
- Expanded descriptive and construction report.
- Foundation and structure plans.
- Construction details.
- Diagram and sizing of the installations.
- General and specific technical specifications.

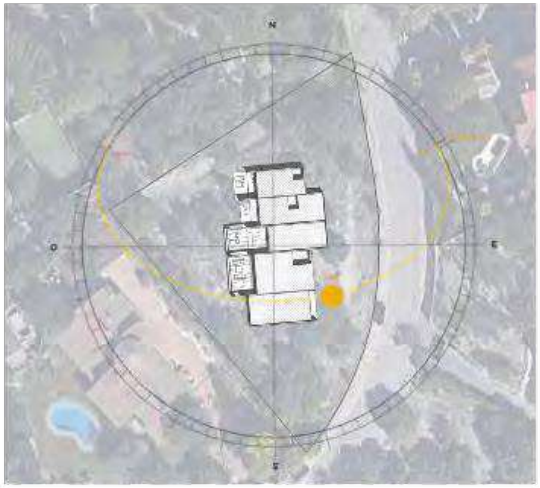
PRELIMINARY PROJECT

- [x] SOLAR STUDY
- [x] SITE REGULATIONS
- [x] “BRIEFING”
- [x] DESIGN IDEA
- [x] DISTRIBUTIN
- [x] ROPOSAL
- [x] BIM
- [x] MODELING
- [x] 360 ° VIEWS
- [x]

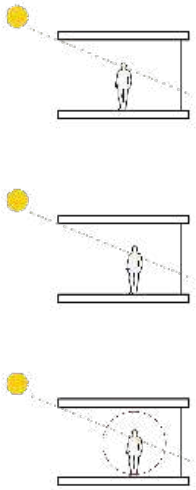


Summer solstice





Winter solstice



FREE 3D VISUALIZATION

SOUTHWEST

Main elevation - Left profile

Garages integrated into the house structure

NORTHWEST

Left profile - Rear elevation

Terraces with views

SOUTHEAST

Main elevation - Right profile

Cantilevers to break the stark volumetry of the structure.

NORTHEAST

Right profile - Rear elevation

Large windows to integrate with nature.

Geotechnical
Survey
Analysis

Topographic
Contour Lines of the Land
Plot Delimination
Tree Cover

03

Land Studies:

Imprescindible y obligatorio

GEOTECHNICAL

According to current legislation, whenever a single-family house is to be built or installed, a geotechnical report is mandatory. For EASY HAUS, this report is essential to determine the type of foundation required. If you do not have one, you can hire a specialized company on your own or simply leave it in our hands.
A geotechnical study always has three clear parts:

- The in-situ campaign, where soil samples are taken, inspected, and tested.
- The laboratory campaign, where the extracted samples are processed to obtain the necessary information.
- A qualified technician, generally a geologist, must draft a report that gathers all the collected information, provides a diagnosis of the soil behavior, and supplies the basic geotechnical data needed.

TOPOGRAPHIC

It is not legally mandatory to conduct a topographic survey to build a house, and for that reason, many people try to skip it. However, at Easy Haus, we recommend conducting this study for the following reasons:

- **To know the actual surface area of your plot. Since the maximum buildable area of a house depends on the size of the plot, this information is extremely important.**
- **To avoid issues with your future neighbors. It accurately marks the boundaries, both with neighbors and the street. This also helps us better define the setbacks required by regulations, and therefore, the position of the house on the plot, allowing for better control of the necessary earthworks.**

The topographic study involves accurately measuring a plot, obtaining its actual surface area, defining its exact location, and marking the position of many other elements such as trees, rocks, poles, and connections. All of this is represented in a plan (both 2D and 3D) along with the coordinate data collected from the site.

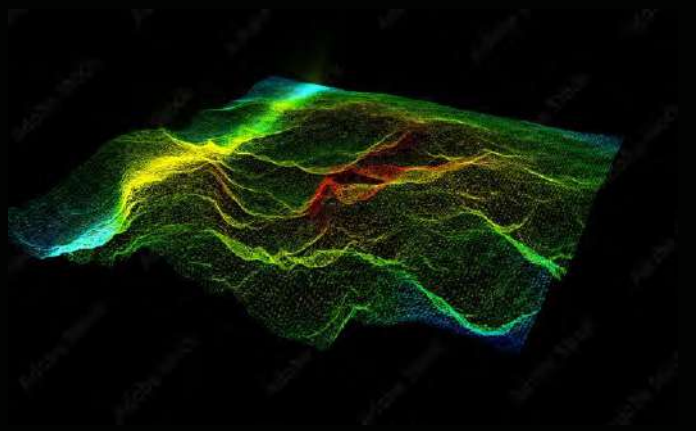
Possibility of contracting these services with us or at the client's expense.

GEOTECHNICAL

Results

Report

Based on the data obtained from all of the above, the report author must present them in order, indicating the most relevant parameters, and most importantly, diagnosing the soil behavior under the loads it will bear and specifying the most suitable type of foundation. They should indicate the maximum allowable stresses for dimensioning the foundation, if shallow foundations are used. If another system, such as a mat foundation or piles, needs to be used, the report author must specify the type to be employed and provide all the necessary calculation parameters for designing the foundation with the specified type. The accuracy of the foundation design heavily depends on the diligence of the report author.

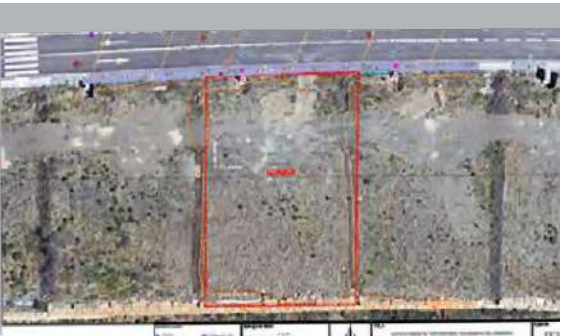


TOPOGRAPHIC

Results

Report

Once all the measurements are taken, the surveyor conducts the topographic survey, which is the representation in a plan (both 2D and 3D) of all the data obtained from the plot. Finally, all the coordinate data collected from the site, along with the resulting plans, make up the topographic report.



Clearing and land staking Area occupied by the house Excavation and blinding concrete Area occupied by the house.

04

Earthworks

Indispensable

- [x] CLEARING
- [x] REPLANTEO
- [x] EXCAVATION
- [x] BLINDING CONCRETE

The excavation and earthworks item is one of the first tasks we need to carry out when building, but to budget for it, we must have the geotechnical report, topographic survey (for relatively flat and defined plots... sometimes it's not necessary), and the site plan of the house on the land, including its height relative to the street.

EASY HAUS includes in the budgets the excavation work, clearing, and land preparation in the area where the house will be located, based on a relatively flat plot, with a favorable geotechnical report referencing a depth of 0.5 meters to reach solid ground and for a type of foundation known as "caviti." This item may be updated following the geotechnical study and/or project requirements for other types of foundations as necessary.

IMPORTANT: Included are earthworks on a relatively flat plot with a favorable geotechnical report. Excavation work, land clearing, and site preparation in the area where the house will be located are based on a reference depth of 0.5 meters to reach solid ground. This item may be updated following the geotechnical study and/or project requirements.

Possibility of contracting this item with us or at the client's expense.

EARTHWORKS

Earthworks are a set of actions carried out to prepare the land before starting the foundation of any construction project. This includes several stages such as staking out, clearing and brushing, excavations and earth removal, leveling, or cuttings..

Lighting
Electrical service connection

Water
Sewage and stormwater connection

05

Electrical and water connections

indispensable

Electrical Connection on the Plot
Electrical connections are included up to a distance of 10 meters measured from the nearest part of the house towards the connection point.

Potable Water Connection on the Plot
The potable water pipeline is included up to a distance of 10 meters measured from the nearest part of the house towards the connection point.

Sewage Connection on the Plot
The sewage pipeline is included up to a distance of 10 meters measured from the nearest part of the house towards the connection point.

Foundation
In situ. Caviti type

Sanitation
Collection of gray and black water

06

Foundation and Sanitation

Indispensable and mandatory

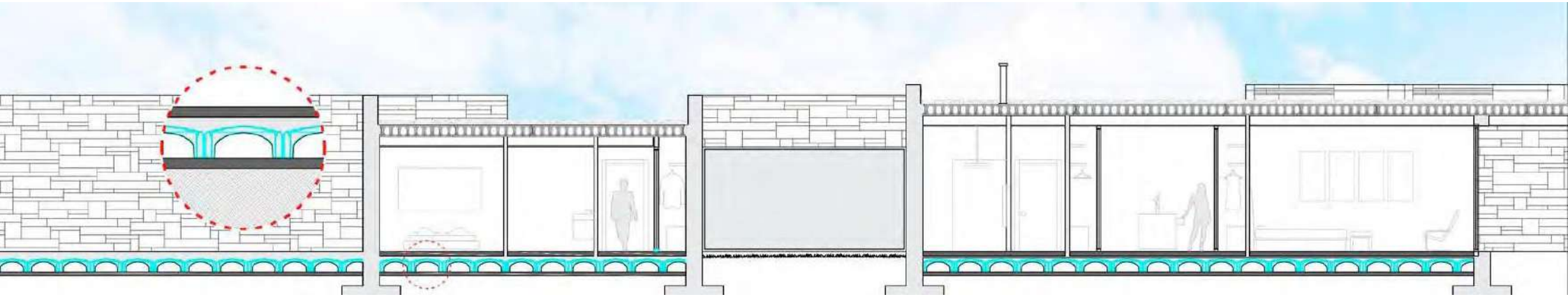
- [x] **Foundation CAVITI type**
- [ ] **Foundation with concrete slab**
- [x] **Bround connection**

Foundation

The first step is to create a perimeter foundation for the house with a continuous footing; this will be the solid base where the reinforced concrete walls will be placed. This is included in the base budget, with a reference depth of 0.5 m. This item will be updated after a geotechnical study.

The foundation of our homes consists of a Caviti-type sanitary slab, which allows us to isolate the house from the ground while fulfilling its structural function. It includes a waterproof membrane and a radon barrier between the foundation and the ground to prevent moisture and this toxic gas from entering the home. This radon barrier is not mandatory throughout the territory.

The foundation is made of reinforced concrete and serves as the base of our houses, so we are required to always include it in the price of our homes and execute it with our certified teams to guarantee 100% of the construction. EASY HAUS ensures that the house is secured to the foundation, ensuring that the structural functioning of the building is completely solid and operates as if it were a single cohesive object.



CAVITI SLAB

The formwork for ventilated slabs, sanitary slabs, and raised floors is made up of plastic pieces shaped like domes, and they are adaptable to all types of geometries, load requirements, and supports.

The construction system of Caviti ventilated slabs, sanitary slabs, and raised floors is formed by the interlocking of plastic dome-shaped pieces, which create support pillars isolated from the ground and provide a free space underneath for ventilation of the sanitary chamber, installation placement, and control of radon gas emissions.

Caviti modules are manufactured in different heights for use based on project needs. These pieces are quickly joined together using connectors, resulting in a lost formwork that, once poured with concrete, has the capacity to support large loads due to the geometry it generates.

SANITATION

A network for collecting black water embedded in the foundation, using PVC pipes of variable diameter connected with joints and elbows leading to a removable inspection chamber outside the foundation.

The black water piping is included up to a distance of 10 meters measured from the nearest part of the house towards the connection point.

Earthworks and trench filling will be valued according to the type of terrain and the distance to the connection point. The connection to the main service line is not included.

The collection of rainwater from roofs will be executed on the exterior of the house, connected to 90mm PVC downspouts for surface drainage in the external development. This drainage can be connected to the black water inspection chamber. If it is mandatory to create a buried separate rainwater network, it will be valued additionally.

For sloped roofs, metal gutters and downspouts in white or brown will be included, directing drainage to the exterior of the house.

Structure
Architectural Concrete

07

Structure

“Spartan”

- [x] **Gray architectural concrete**
- [x] **Painted gray architectural concrete**

Load-bearing architectural reinforced concrete

Description

The structure of our homes is made with load-bearing reinforced concrete walls in natural gray or painted white, featuring optimized dimensions and components that are part of our proprietary construction system called SPARTAN EH.

This structural system provides a high level of finish on the concrete panels, who’s polishing and uniqueness allow them to serve as finished facades, so that the very composition of the home's structural walls functions as both enclosure walls and facade finish.


EASY
HAUS

Roofs
Flat, single-pitched, gable....
Waterproofing
Filter slab

08

Roofs and Waterproofing

Guarantee

- [x] **FLAT ROOF**
- [ ] **SINGLE-PITCHED ROOF**
- [ ] **DUAL-PITCHED ROOF**
- [ ] **HIPPED ROOF**

Our roofs are constructed using hollow core slabs anchored to the load-bearing concrete walls. We conduct a waterproofing test to ensure a home free from moisture problems.

The roof structure consists of hollow core slabs, with a thickness of up to 20 cm, supported by the reinforced concrete walls. Two chimney flues of 1 meter in height are included above the finished roof, topped with a black metal cap.


FLAT ROOF

SINGLE-PITCHED ROOF

Only one roof

DUAL-PITCHED ROOF

Dual roofs

Insulation in wall linings
Insulation in partitions
Insulation in floors
Insulation in roofs

09

Insulation

Energy Efficiency A

Thermal Insulation

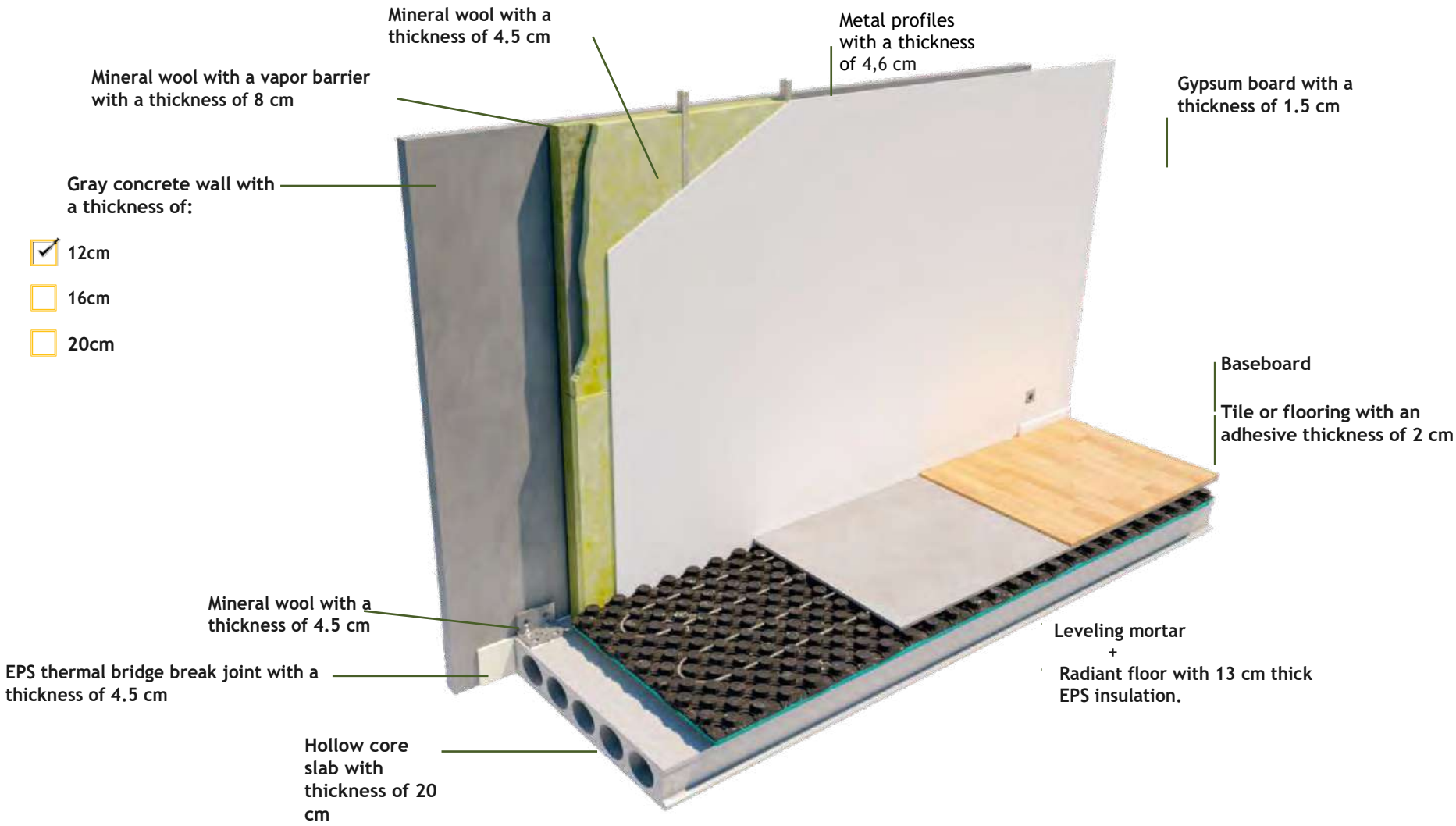
Avoiding thermal bridges... the entire envelope of the house consists of 8 cm of mineral wool with a vapor barrier, plus another layer of rock wool over a thickness of 4.6 cm profile. In total, there is 12.6 cm of thermal insulation.

In ceilings, there is 18 cm of insulation made up of 80 + 40 mm corresponding to the interior envelope of the house, and 6 cm of EPS on the exterior.

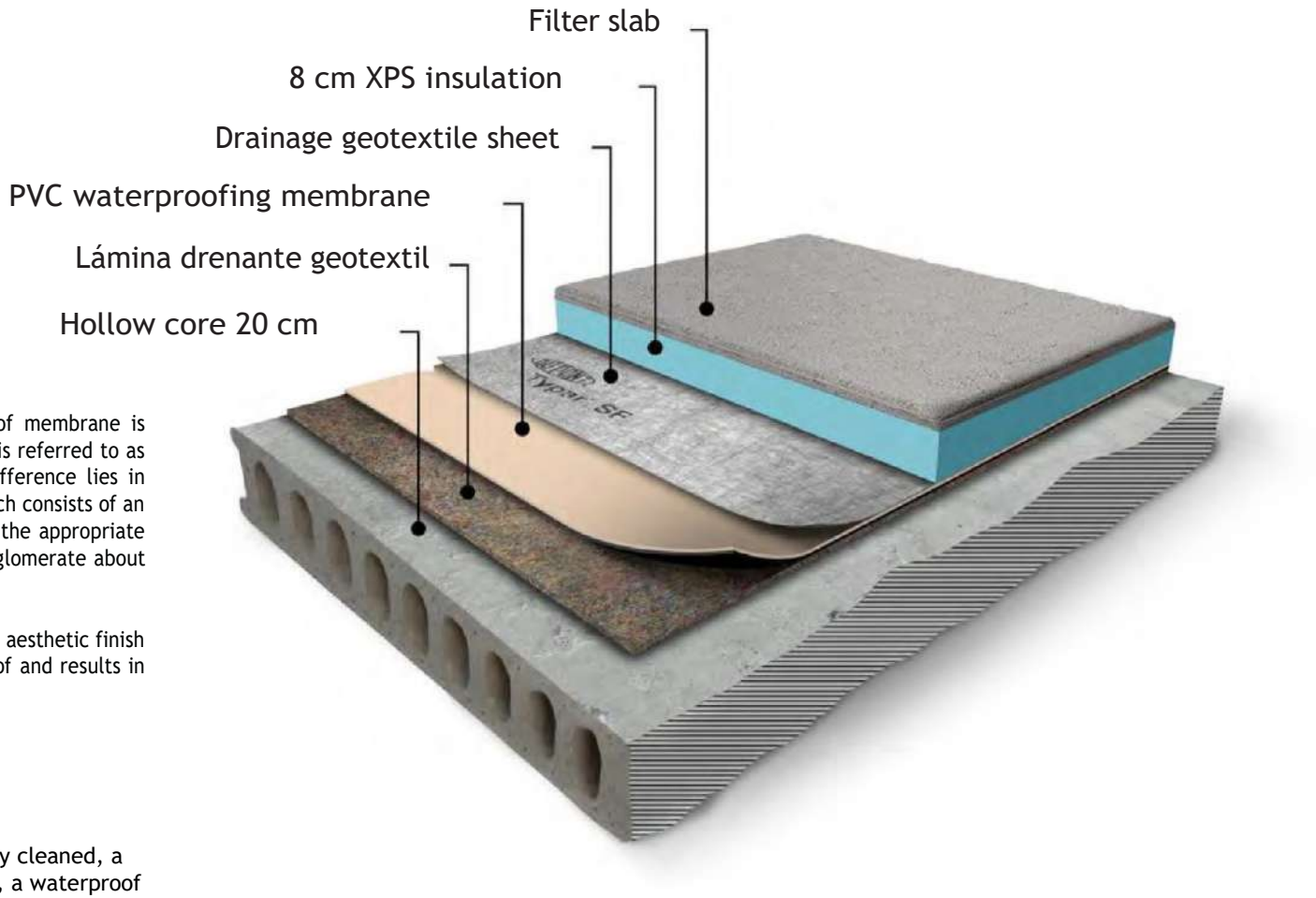
For floors, thermal insulation of 40 mm thickness is included, made from extruded polystyrene panels.

The interior partitioning consists of a substructure of 4.6 cm, with mineral wool in a channel thickness, and a 1.5 cm board on each side, optimizing the usable area of the house.

The false ceilings are installed 40 cm from the lower face of the slab in bathrooms, kitchens, and hallways (2.30 m of free interior height), and 20 cm in the rest of the interior rooms (2.50 m of free interior height), and will be made of 1.3 cm plasterboard.



INSULATION FOR EXTERIOR WALLS AND FLOOR



The inverted roof is called so because the waterproof membrane is placed beneath the thermal insulation. In this case, it is referred to as Inverted LF in reference to its surface finish. The difference lies in placing a filter slab on top of the waterproof layer, which consists of an insulating core made of extruded polystyrene (XPS) at the appropriate thickness, and on top of this, a layer of aggregate conglomerate about 3.5 cm thick, all in a single body.

This way, an inverted roof is achieved with an excellent aesthetic finish that also provides great comfort for walking on the roof and results in significant time savings during installation.

Composition:

On the upper face of the slab, after being carefully cleaned, a geotextile of 300 g/m² is laid down. Subsequently, a waterproof membrane with a thickness of 1.2 mm, 1.5 mm, or 1.8 mm is installed. After that, a protective geotextile of 200 g/m² is placed. Finally, the filter slab composed of insulation and a mix of selected aggregates is installed.

ROOF ISLATION

Exterior Carpentry PVC with 7 air chambers and triple sealing

Glass Low-emissivity double glazing
Low-

10

Exterior carpentry and glass

Of your choice

WINDOWS

- [x] Tilt-and-turn
- [x] Hinged
- [x] Fixed

DOORS

- [x] Lift-and-slide
- [ ] Tilt-and-slide

GLASS

- [ ] Double
- [x] Triple

MAIN DOORS

- [x] Security

The PVC doors and windows represent the highest market innovation in insulation and durability. Their high performance is the result of sophisticated engineering.

We include a PVC profile with 7 air chambers and thermal break, with a construction depth of 70mm, flush with the inner face of the concrete panel and finished on the outside of the facade using a ceramic or marble drip edge in a color of your choice, such as white, anthracite gray, or walnut.

GLASS

Our glazing consists of:

- DOUBLE

- TRIPLE laminated glass with low-emissivity, composed of three glass layers and two air chambers. The low-emissivity layer allows us to achieve high efficiency. The two air chambers enhance the insulating properties and reduce thermal transmittance between the exterior and interior of the window.

EXTERIOR CARPENTRY

- 7 internal chambers in the sash and frame
- 70 cm depth
- Straight and rounded profile
- Aluminum shutters and thermal slats in bedrooms

MAIN DOOR

- **PVC door with a 3-point security lock**, in the same color as the exterior carpentry. Available in anthracite, medium walnut, or white for an opening size of 2.20x1m.
- **Stainless steel tubular handle** of 50cm in length, installed vertically.

Interior doors
Different models and tones

Wardrobes
With hinged or sliding doors

11

Interior Carpentry

Customizable

INTERIOR DOORS

- [x] Hinged
- [ ] Sliding

WORDROBES

- [x] Hinged doors
- [ ] Sliding doors
- [x] Interior lining
- [ ] Interior configuration customization

KITCHEN

- [x] Furniture

INTERIOR DOORS

- **Interior hinged doors** measuring 2.03 m in height made of wood in white or medium walnut finish, with a smooth or VT5 finish (five horizontal stripes). Includes a stainless-steel handle and a lock for the bathrooms and the master bedroom.

White

Walnut

KITCHEN

- Includes furniture and appliances from a trusted supplier up to a maximum of 10,000 euros.

WORDROBES

- **Wardrobe front with hinged doors.**
- **Lined or dressed internally.**
- **Configuration included... bar and two shelves.**

"The house should be the shell of life, the machine of happiness."

Le Corbusier.

"Have nothing in your home that you do not know to be useful or believe to be beautiful."
William Morris.

"Everything is design, and the quality of design affects the quality of our lives."
Norman Foster.

"Functionality is better than beauty, because what works well lasts over time."
Charles Eames

“In decoration, always include a controversial piece. It will give your guests something to talk about."
Dorothy Draper

“Design is a plan to organize elements in the best possible way to achieve a specific purpose."
Charles Eames

Flooring

12

Flooring and Cladding

Personalizables

FLOORING

- [x] Living room & bedrooms
- [x] Kitchen
- [x] Bathrooms
- [x] Porches & terraces
- [ ] Stamped concrete

TILING

- [x] Living room & bedrooms
- [x] Kitchen
- [x] Bathroom
- [ ] Facade

PAINTING

- [x] Interior of the house
- [x] Kitchen
- [x] Bathrooms
- [x] Facade

FLOORING

Although we can install any type of flooring..., to assist with the radiant cooling system, we recommend installing porcelain tiles..., wood imitation, concrete, stone... due to their high conductivity coefficient.

- **Porcelain tiles** to choose from the EASY HAUS sample selection with our trusted supplier
- In porches and terraces, flooring in its non-slip and anti-ice version. Baseboards made from the same material.
- Option to hire stamped concrete for the outdoor area.

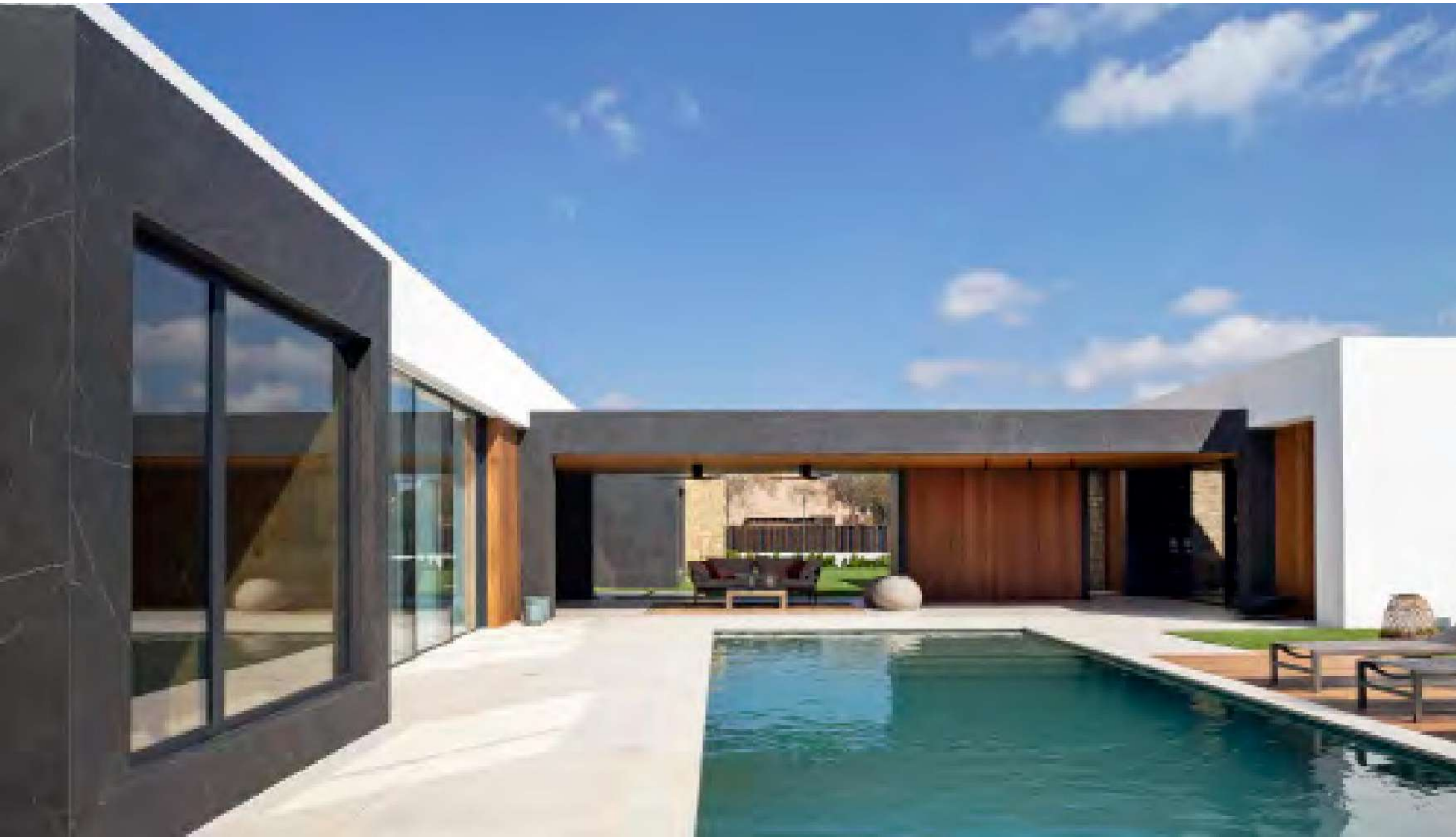
CLADDING

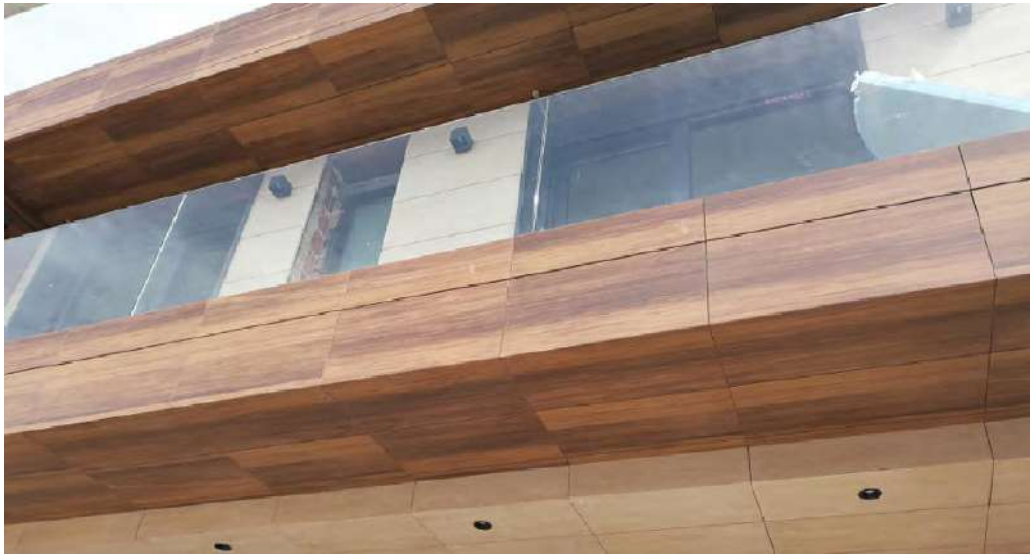
- **Porcelain tiles** to choose from the EASY HAUS sample selection with our trusted supplier
- **Cladding in the kitchen work area.**
- **Cladding in the shower area of the bathroom.**
- **Possibility of extending tiling in other interior areas of the house and even cladding on the facade, with costs assessed as applicable.**
- **Smooth white plastic paint on the walls and ceilings of the house.**
- **Water-repellent paint on the facade.**

EXTERIOR CLADDING OF THE FACADE. OPTIONAL

- Natural Rock
- Porcelain tile
- Synthetic

Optionally, we have many other types of facade cladding available... natural stone, porcelain tiles or extruded tiles; WPC flooring composed of vegetables fibers and polymer, with infinite placement possiblities.





EXTERIORS.Porches

- Natural Rock
- Porcelyn tiles
- Synthetic

Porches with large windows, maximizing light and warmth from the sun.

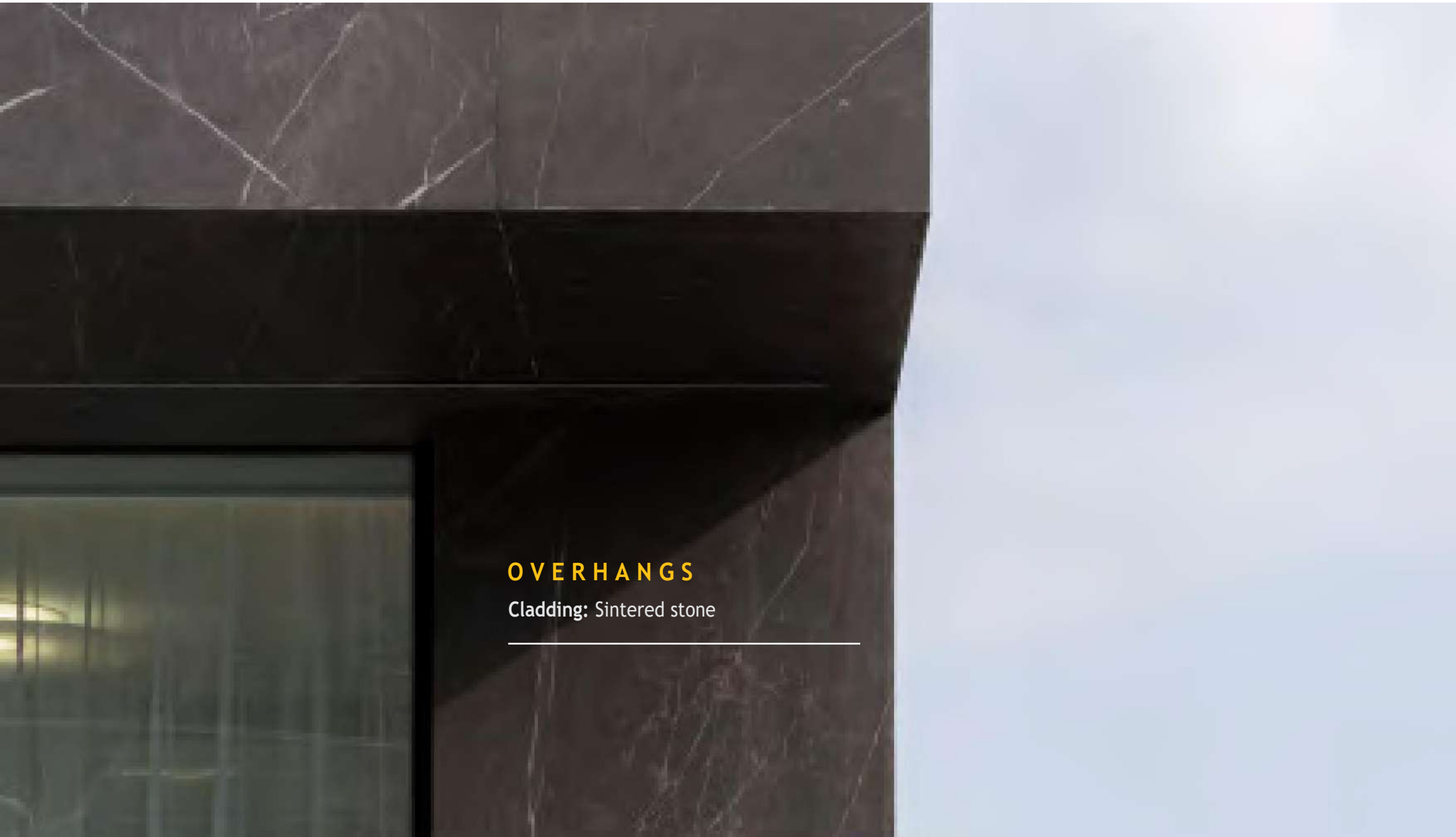
FACADES...

Cladding: Natural stone

Exterior ceilings: decking

The Architectural concrete can be left as it comes from the factory in gray or painted in any color with water-repellent paint.

There are many cladding options in harmony with nature, in raw tones, browns, ...

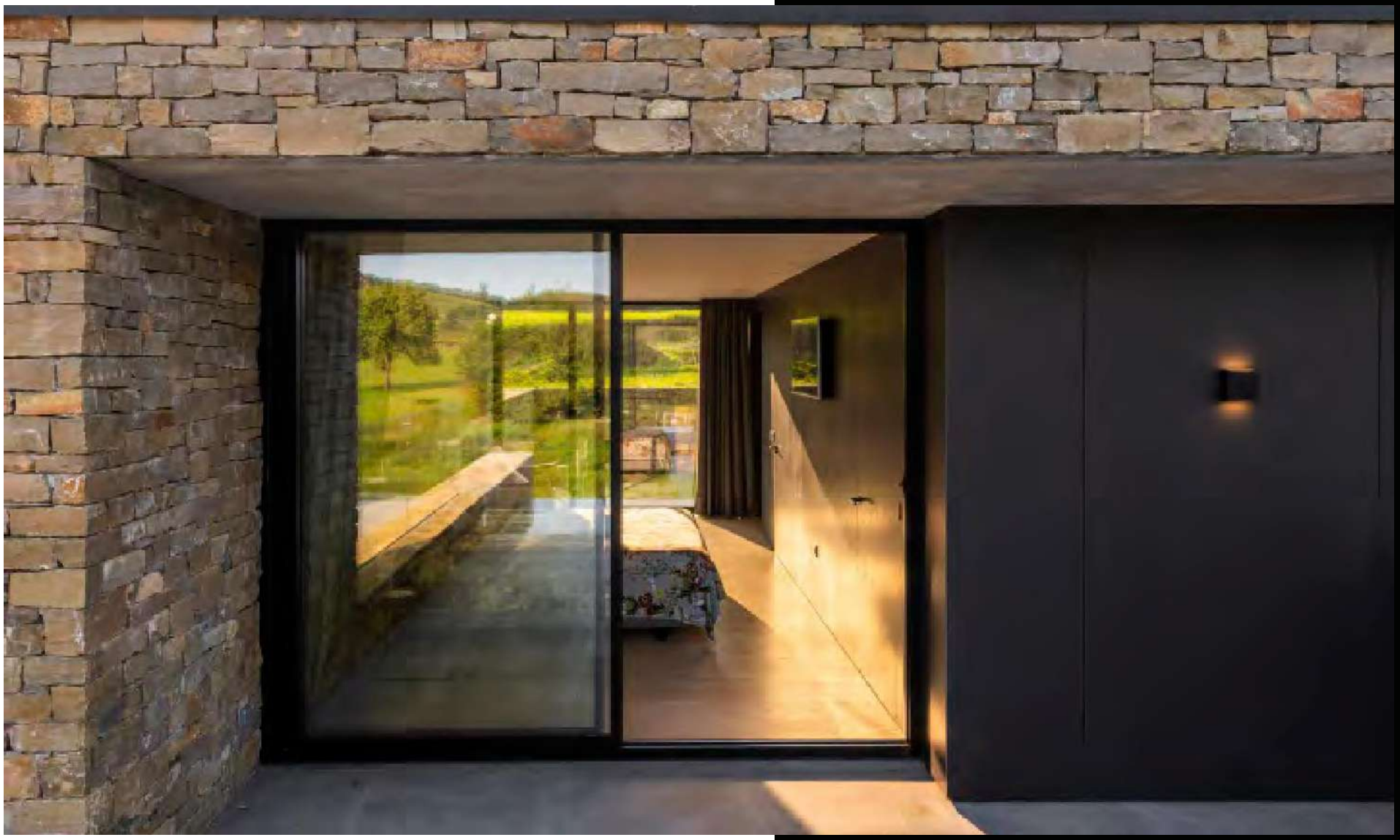


OVERHANGS

Cladding: Sintered stone

PORCHES

Cladding: Natural Rock



FACADES

Cladding: Natural stone

Sanitary fixtures
Faucets
Shower screens
and mirrors
Vanity units

13

Bathroom equipment

Personalizables

BATHROOMS

- [x] Sink
- [x] Shower tray or bathtub
- [ ] Bidet

SINK CABINETS

- [x] Simple
- [x] Double*
- [x] Above ground
- [ ] Suspended

FAUCETS

- [x] Sinks
- [x] Shower tray or bathtub

SHOWER

- [x] FIXED
- [ ] Other config.

MIRRORS

- [x] Backlit

SANITARY

- **Wall-mounted toilet** Model Roca Gap or Meridian, supported on the floor, in white color with a side outlet and a low tank with a soft-close lid. (Bidet optional).
- **Choice between:** Resin shower tray brand OMS model Nature measuring 140 x 90 or Roca Princess bathtub measuring 170 x 70 in white steel with stainless steel handles.

FAUCETS

- **Shower or bathtub** with a thermostatic control, telescopic shower arm, height-adjustable, anti-limescale metal showerhead, and flexible hose.

BATHROOM FURNITURE WITH SINK

In the master bathroom, a vanity of up to 120 cm with up to two sink basins is included.

- In secondary bathrooms, sizes available range from 60 to 100 cm. In half baths, a 60 cm vanity is included.

Choose from our supplier. Visit the showroom.

SHOWER SCREENS AND MIRRORS

Se A fixed safety glass shower screen measuring 1.20 m in width is included, with an anti-limescale treatment.

- A backlit mirror with a maximum width that matches the vanity unit, chosen from our supplier. Visit the showroom.

Electricity and lighting
Climate control
Ventilation
Water

14

Instalations

Con toda la garantía EASY HAUS

Electricity and lighting

- **Complete electrical installation in the kitchen for appliances:** oven, ceramic cooktop, dishwasher, washing machine, and extractor hood.
- **Exterior lighting** with 4 light points on the facade.
- **Control panel and electrical protection** for the home according to regulations.
- **Outlets in each room.**
- **TV and internet points** in the living room and bedrooms.
- **Telephone installation, UHF antenna, FM antenna.**
- **Installation of video intercom.**
- **Electric vehicle charging point.**
- **Junction box in the garden for lighting.**

Climate control with aerothermal energy

- **Climate control system** through the installation of radiant cooling underfloor heating using aerothermal energy. Its power will be calculated based on the square meters of the home and the number of occupants, achieving optimization and greater efficiency.

Controlled mechanical ventilation

Through a heat recovery unit. The system expels stale air and introduces fresh air. The pleasant filtered air provides a comfortable indoor climate while dust and allergens stay outside. Humidity and mold growth are also a thing of the past. It allows for homogeneous air renewal that can be controlled individually and automatically. A ventilation installation achieves greater energy efficiency.

Cold water and DHW (domestic hot water)

- **Plumbing installation** using polyethylene pipes according to regulations.
- **Domestic hot water (DHW).**
- **Water supply and drainage connections** in bathrooms, sink, washing machine, and dishwasher, including an outdoor water supply connection adjacent to the kitchen or bathroom.
- **Safety shut-off valves** in each water area.
- **Pipe length** up to a maximum of 10m from the facade.

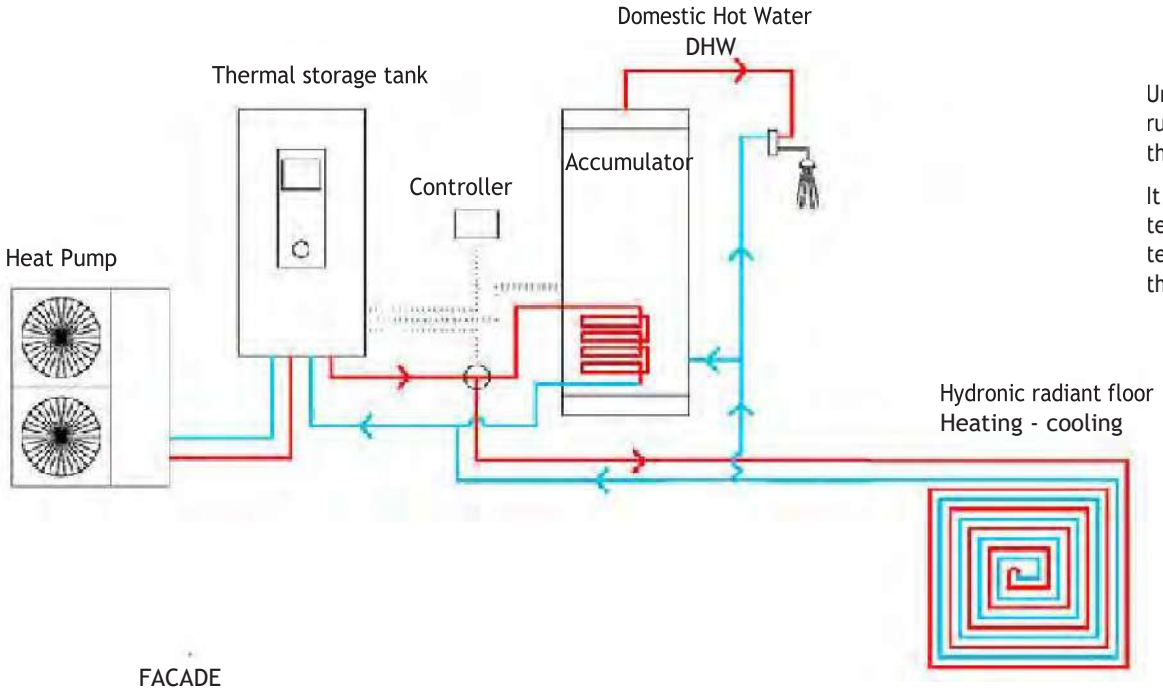
ELECTRICAL INSTALLATION AND LIGHTING

	LED Spotlights	SWITCHES		SOCKETS				
		Simple	Switched	Current	TV	Internet	USB	Water
Kitchen	1 (5m2)	1		1 (3m2)			3	
Living-dining room	1 (5m2)		2	1 (5m2)	1	1	2	
Hallways and corridors	1 (5m2)		2	1 (10m2)				
Main Room	1 (3m2)		3	1 (3m2)	1	1	2	
Other Rooms	1 (3m2)		2	1 (3m2)	1	1	1	
Bathrooms	1 (3m2)	2		1 (3m2)		1		3
Half baths	1 (3m2)	1		1 (3m2)				2
Porches	1 (10m2)	1		1 (10m2)	1			1
Basements and garages	1 (10m2)	1		1 (10m2)				1

Aerothermal energy is a climate control system that allows for the extraction of energy from the air through heat exchange, converting it into heating, cooling, or hot water using a single unit.

It is a super-efficient heat pump that not only generates domestic hot water but also heats or cools the underfloor heating of your home to achieve the perfect temperature at any time of the year.

- **Energy savings, and therefore, economic savings.** A reduction of 70% in energy bills.
- **Production of both cold and heat in the same machine.**
- **No need for smoke evacuation, as it does not require combustion.**



Underfloor heating is based on a circuit of water pipes that runs through the floor of the home and is capable of heating the house at low temperatures between 30° and 40°.

It provides both heating and cooling, ensuring a stable temperature throughout the year, without abrupt temperature changes, and offers a natural thermal/environmental sensation.

AEROTHERMAL WITH UNDERFLOOR RADIANT COOLING

Heat recovery units are an efficient ventilation solution, providing clean comfort air to the interior of buildings while recovering energy from the stale air that we expel to the outside; they are very suitable for ventilating homes.

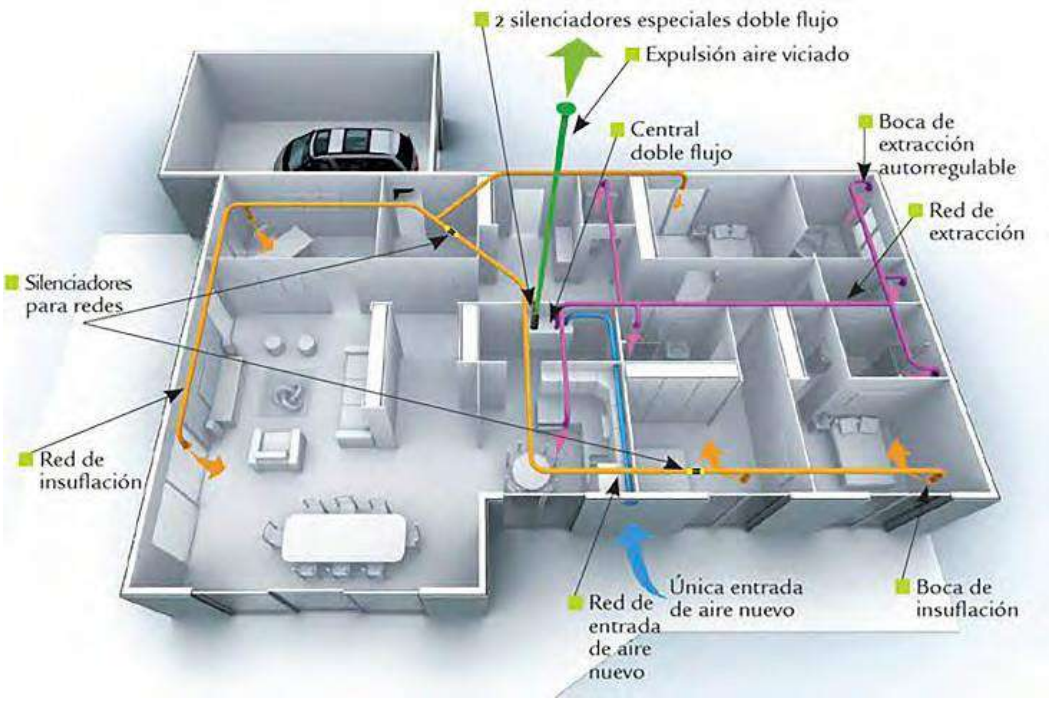
They are ventilation systems that serve a triple function: renewing the indoor air of a space, conditioning it, and saving energy in the process. In this way, a very high percentage of the energy used for conditioning the indoor air is recovered, which would otherwise be wasted.

Heat recovery units work by using an extractor fan, which draws air in from the interior, a supply fan that expels it to the outside, and a heat exchanger. The air extracted from the interior of the space passes through the heat recovery unit and crosses paths without mixing in the exchanger with the air being supplied from the outside. As its name suggests, the heat exchanger facilitates a transfer of heat between the warmer air giving off heat and the cooler air.

In this way, in winter, we take advantage of the heat from the air we extract to warm the air we introduce from the outside into our space, achieving temperatures between 14 and 16ºC. In summer, the process occurs in reverse: we utilize the cooler air from the interior to cool the hot air we draw in from the street.

Thanks to our EASY HAUS construction system, we achieve homes with one of the highest levels of airtightness on the market. This creates the need for a mechanical air renewal system that guarantees the health of the entire family in the interiors of the home.

- **Elimination of humidity, bacteria, and insects**
- **Prevention of illnesses**
- **Breathable air that is purer than outside air without pollution**
- **Fully automatic system, requiring no effort on your part**
- **Silent ventilation**
- **High energy efficiency with nearly zero consumption**

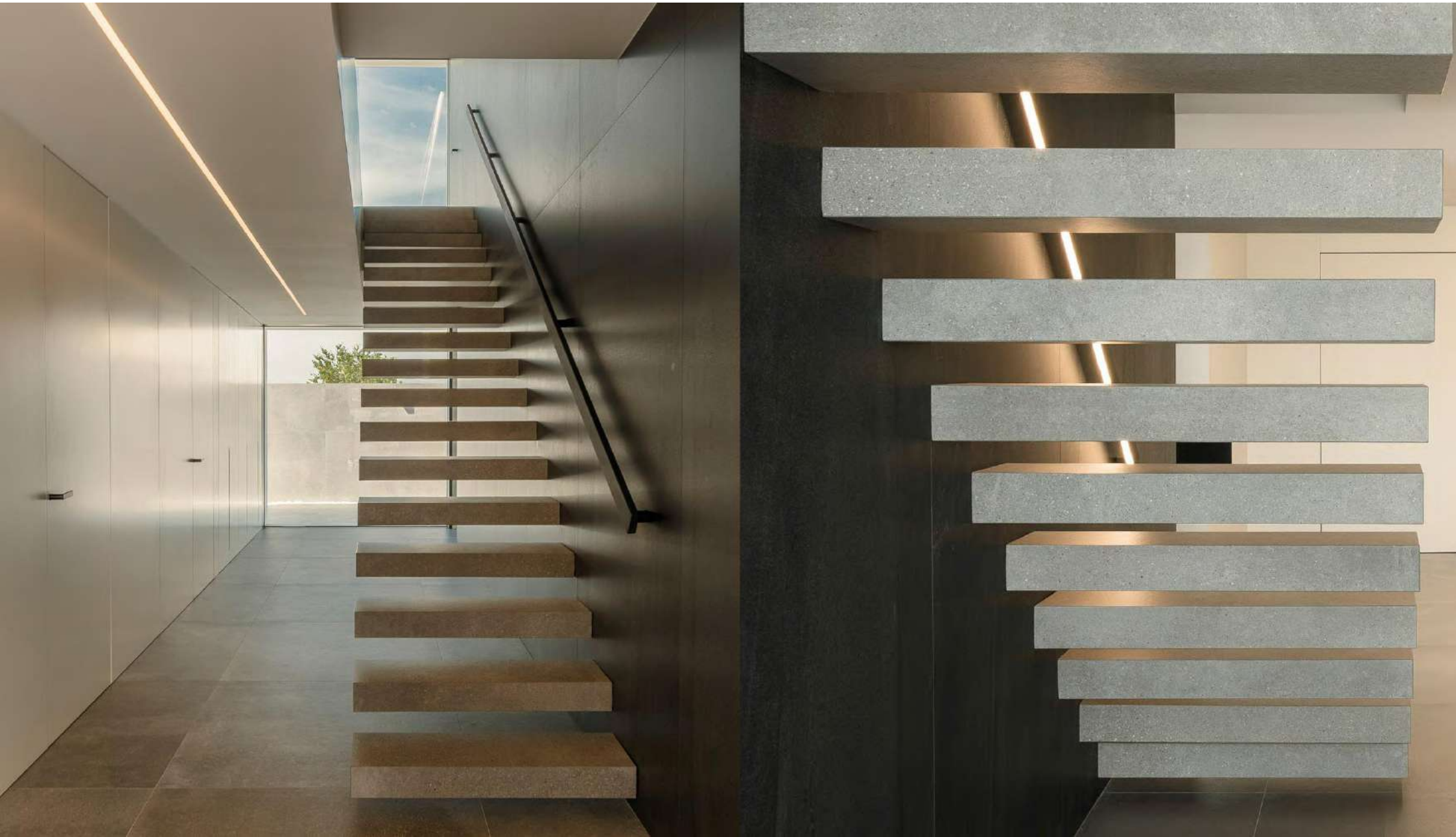


HEAT RECOVERY UNIT

Stairs
Cantilevered concrete steps

Railings
Glass and stainless steel

15



Stairs and Railings

- ☑ Cantilevered concrete steps
- ☑ Glass and stainless-steel railings

En In the event that the house has two or more floors, the interior stairs will be designed according to the following options:

- Cantilevered gray concrete steps with a maximum width of 0.90m for single-flight stairs, with a laminated glass railing (5+5) supported by stainless steel posts anchored to the concrete steps.

- For stairs with two or more flights, a metal structure of 180x100cm with a cantilevered step finished with 4cm of gray concrete. Finished with the same flooring as the house and a metal railing.

- Gray concrete steps with treads in stairs supported between two concrete walls, with a tubular metal handrail anchored to one side of the concrete wall.

- In below-grade garages that are connected to the house, metal stairs (with treads and risers) will be installed with a metal railing to separate the garage area, which must be an independent sector due to fire regulations.

Stairs are included in houses of 150m2 or larger, and if there is a below-grade basement, a second staircase is included for houses larger than 225m2.