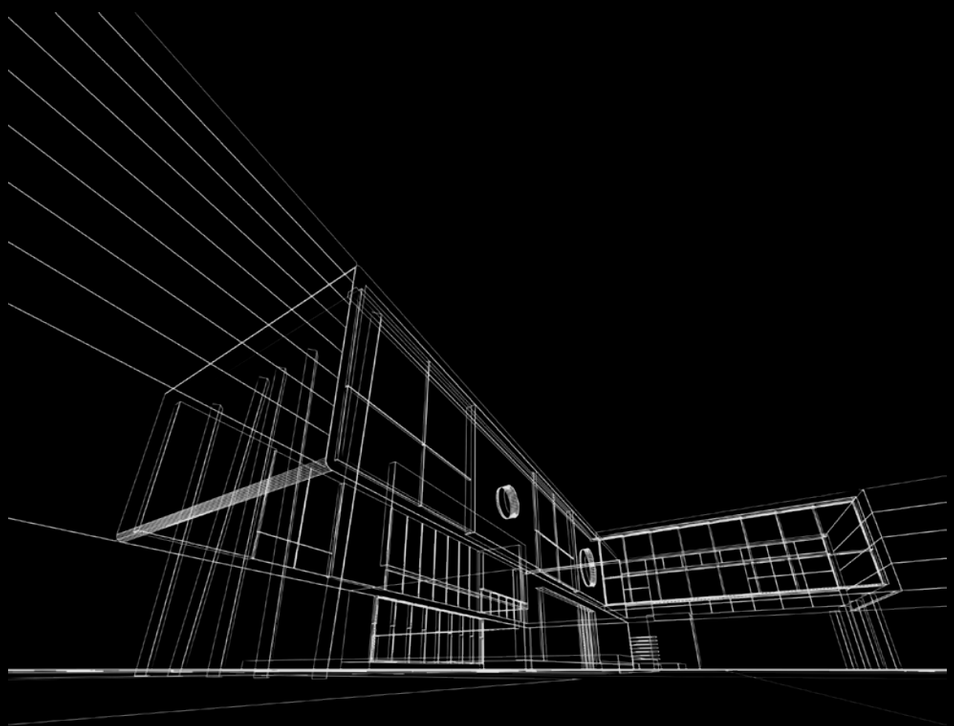
FACADES SYSTEMS, VARIOUS APPLICATIONS

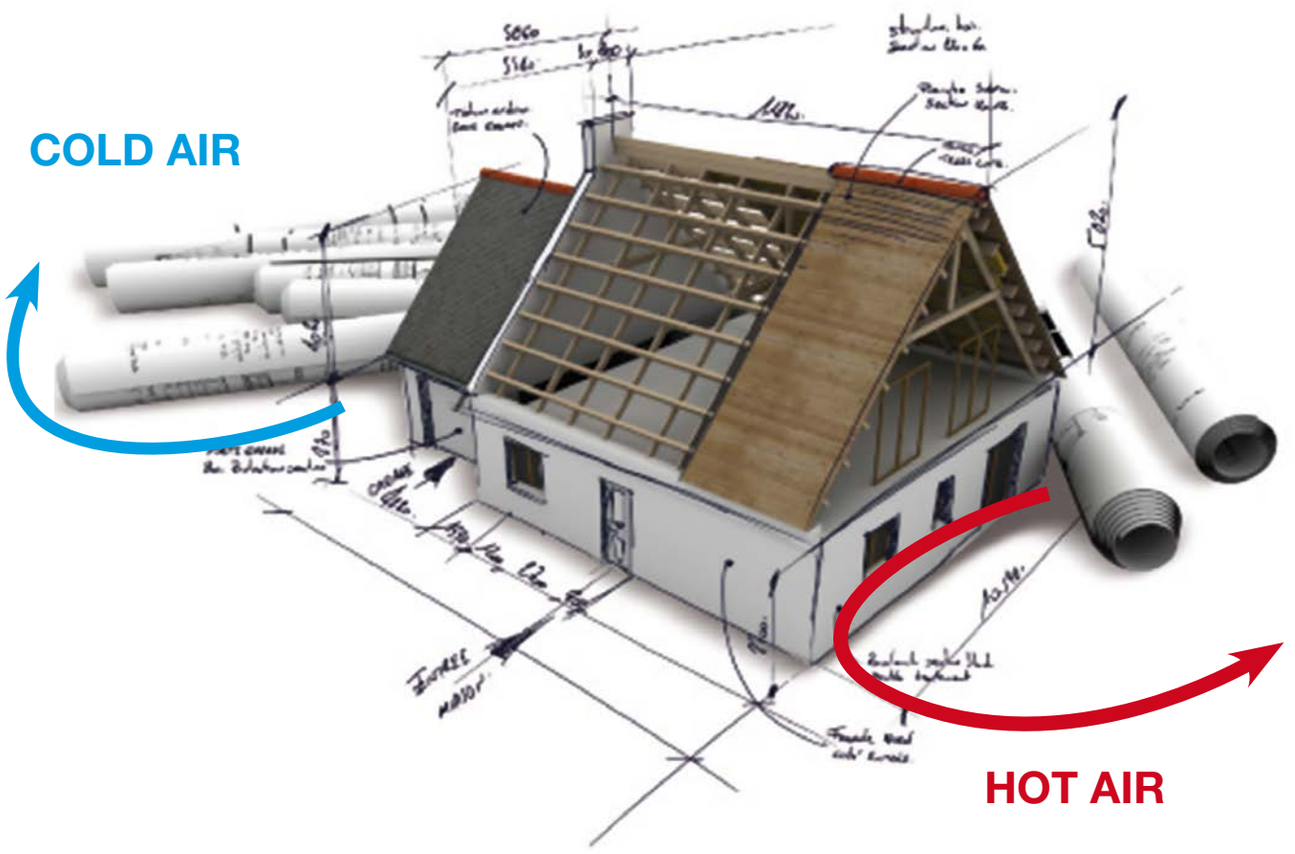


AEON
STONE + TILE INC

MARBLE
GRANITE
LIMESTONE
STONE
PORCELAIN
QUARTZ
MOSAICS

FACADES SYSTEMS, VARIOUS APPLICATIONS

6MM PORCELAIN SLAB FOR CLADDING
Largest size available is 120” x 60”



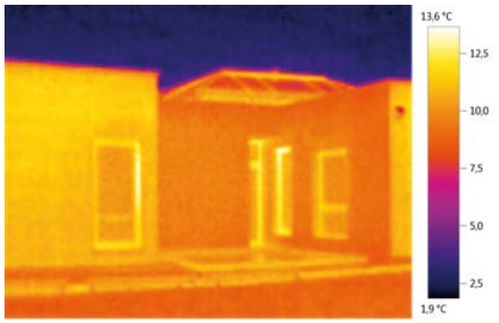
ARCHITECTURAL ENVELOPES

Envelope refers to building elements which both connect and separate the “inside” and “outside” of a residential building. It establishes a relationship between the building and its environment, an authentic architectural and construction filter, in turn creating relations between the people who live in a building and the surrounding environment.

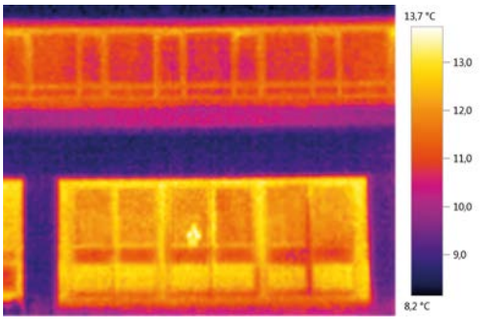
Architectural envelopes have always represented a privileged yet highly complex field of innovation. The continuous research into special, advanced forms and technologies, the increasingly pressing need for customisation and the fact of acting as the building’s calling card in its environmental and social context, have always made this an extraordinarily important part of a building, and with it the materials and construction systems used to create it.

The current function of building envelopes as filters also supports the dynamic control of energy exchanges that constantly take place between the inside and outside, making the envelope a dynamic interface that interacts continuously with the external environmental and climatic factors, an authentic skin, which together with its construction systems is responsible for optimising the internal comfort of the building and maximising its performance requirements. In this scenario, therefore, the efficiency of a building envelope lies in its ability to react flexibly to the continuously varying environmental conditions, minimising heat dispersion in winter and excessive heat gain in summer.
Currently this aspect is of particular relevance, given the growing focus on energy saving and residential comfort, issues which are increasingly attracting the attention of architects and designers, investors and builders, as well as customers and end users. The technological and architectural solutions demanded today by the market therefore strive not only for architectural quality, but also energy efficiency, with the possibility to blend quality and functionality in a single building envelope that controls both the energy behaviour of the building and its appearance.

A building envelope, as a construction element, is composed of vertical elements (walls and windows) and horizontal elements (floors and roofs): the set of these components creates the perimeter of the living space. In this technical catalogue, we deal in particular with façade covering systems used to create building envelopes using Aeon slabs.

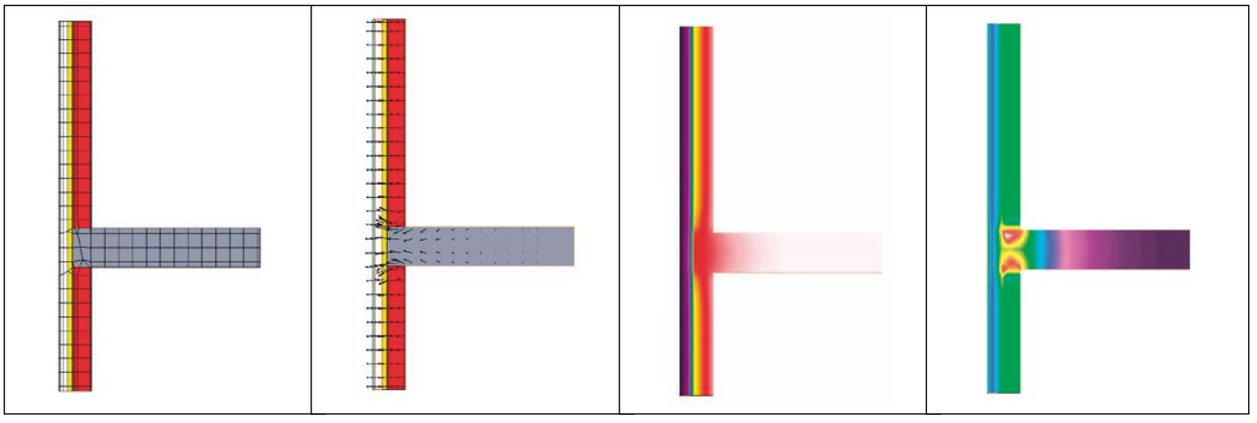


Thermography of a well-insulated building with no thermal bridges.



Thermography of an uninsulated building, highlighting the thermal bridges between the opaque envelope and the windows.

THERMAL ANALYSIS



Finite element Mesh | Thermal flux vectors | Temperature distribution | Thermal flux magnitude

TYPES OF WALL APPLICATION FOR MAXI SLABS

A series of application systems are available for assembling Maxi slabs on walls. These can be divided into two families:

WET ENVELOPES:

a. Safety Clip system

Dry application of Maxi slabs directly onto the existing wall by gluing, a layer of suitable glue is spread over 100% of the laying surface, chosen according to:

- Laying base, support on which the slab is applied, with suitably resistant features.
- Adhesion and tearing strength
- Material size
- Façade composition
- Climatic and environmental conditions

b. Thermal cladding system

Maxi slabs are laid on a thermal cladding system to ensure appropriate thermal comfort inside the building, through the application of a specific system requiring a mechanically resistant support made of a series of layers applied to the brickwork:

- Plaster
- Insulating layer
- Reinforced plaster
- Technical ceramic slab

DRY ENVELOPES:

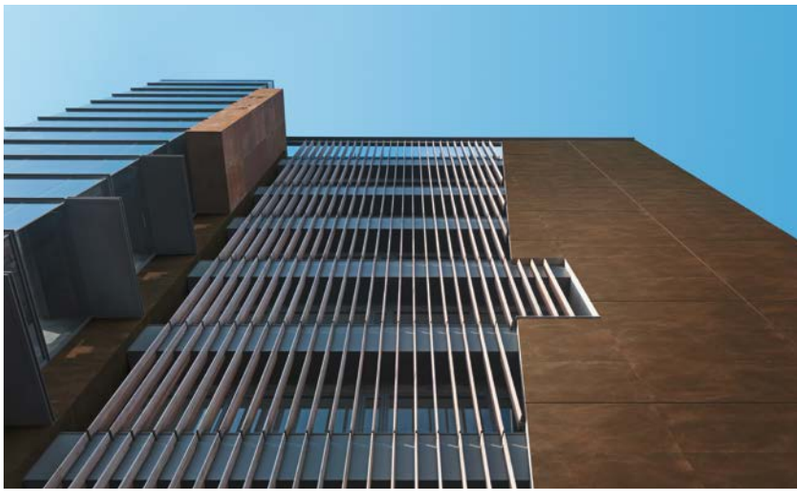
c. Micro system

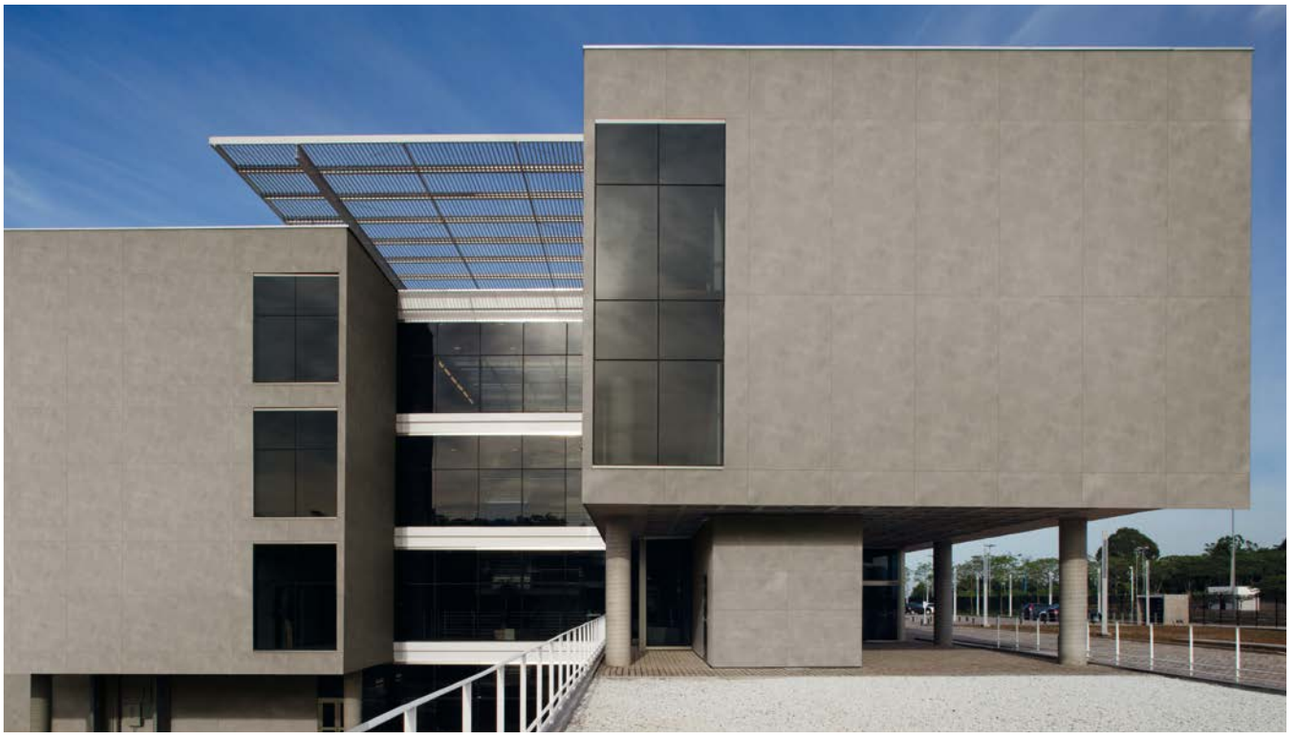
The Micro system uses an adhesive to apply the technical ceramic slabs to the building façade. It comprises a permanent, highly elastic adhesive and a double-sided adhesive assembly tape; the base support is firstly treated and then the slab is fixed to the façade with this invisible system. The system includes a metal under-frame fitted to the wall or on top of the thermal cladding, which ensures the ventilation behind the panels.

d. Ventilated façade

The ventilated façade system involves the assembly of the covering elements (Maxi slabs) onto aluminium load-bearing elements using factory-mounted structural joints.
Two sub-families of this system have been developed. While they share the frame-slab assembly using structural joints, they have different types of structures to anchor the Maxi slabs to the wall:

- **Maxi Frame:** which uses a load-bearing perimeter frame hung on modular brackets anchored to the wall.
- **Maxi Light:** a system of vertical shaped profiles fixed to a traditional grid of uprights and cross-beams fixed to the wall.



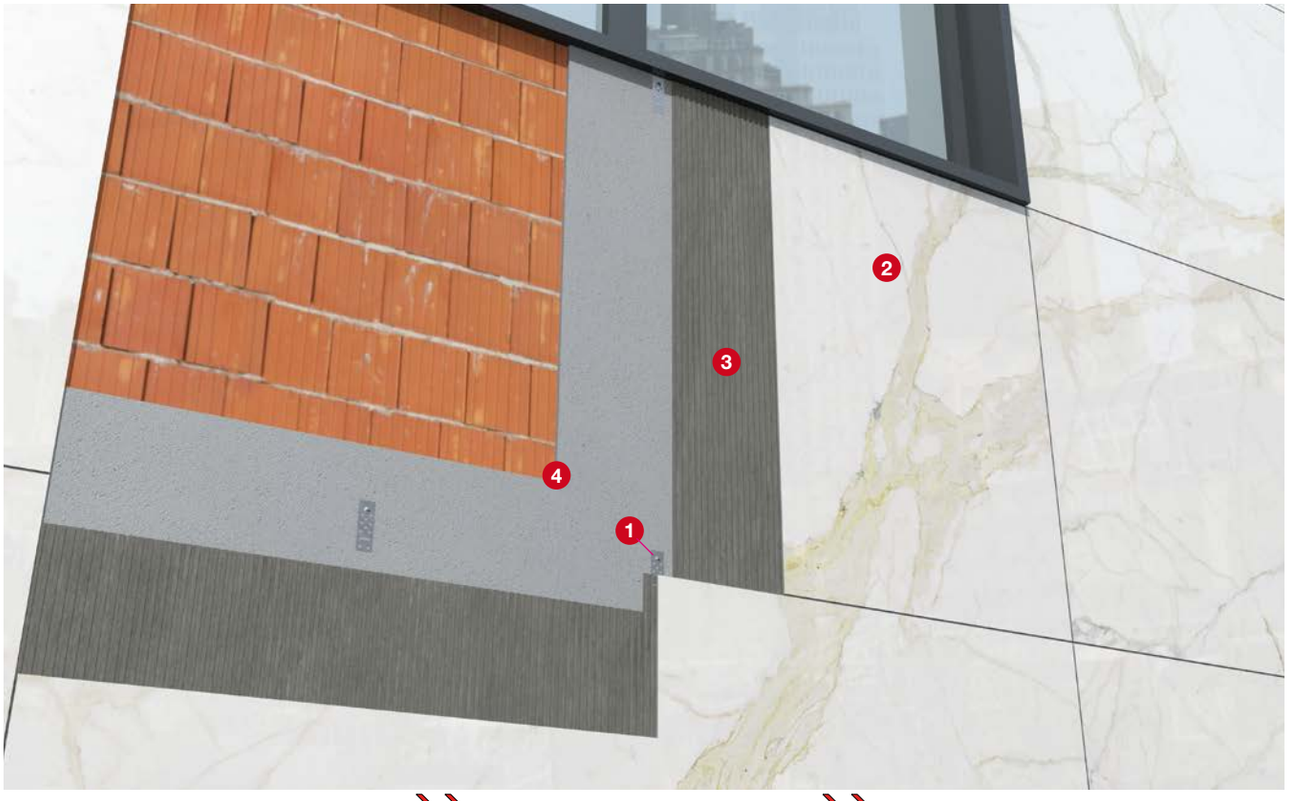


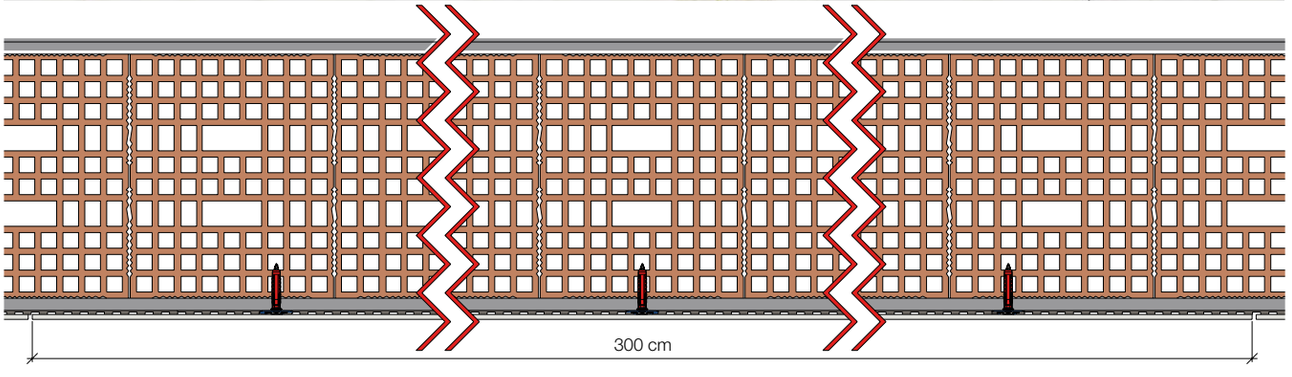
SAFETY CLIP SYSTEM

Conventional glue-mounting system with concealed hooks

PATENTED SYSTEM / WET ENVELOPES

A glue, chosen specifically to suit the laying surface, the material size, the façade composition and the climatic and environmental conditions, is spread on the laying surface to support the large-sized, thin porcelains stoneware slabs.
The glue, applied using a toothed spatula with a thickness of 5 to 10 mm, requires a flat, smooth surface, as it has a limited capacity to compensate any unevenness in the underlying surface. Depending on the specific project, suitable structural joints and expansion joints are included in the design.
To increase the safety of the system and for applications on heights above 2.4 metres, a stainless steel safety hook is fitted to the back of the slab (using a mechanical incision), which is in turn hooked mechanically onto the building, flush to the wall.
To ensure maximum quality and resistance, the slab processing is performed exclusively at the factory.





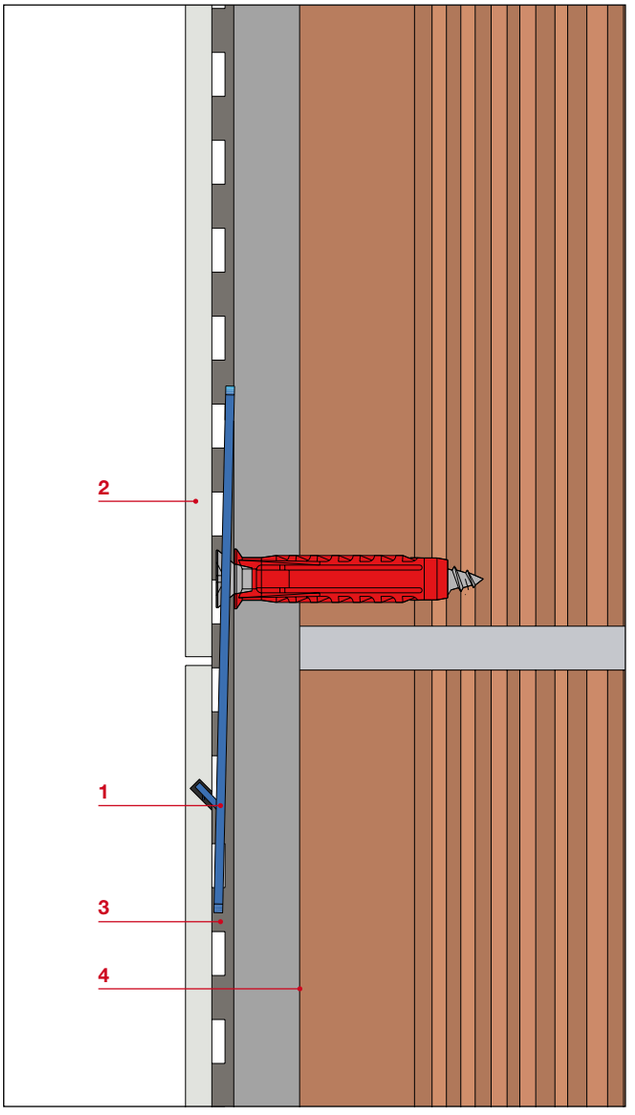
horizontal detail

1. **SAFETY CLIP**
   (Concealed safety hook)

2. **AEON SLABS**

3. **GLUE**

4. **LOAD-BEARING WALL AND PLASTER**



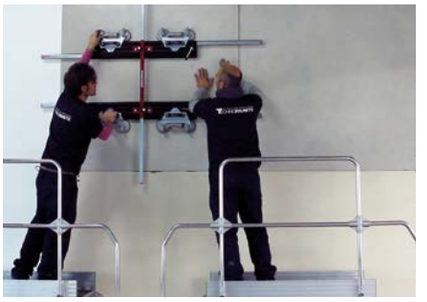
vertical detail

SAFETY CLIP USE

PATENTED SYSTEM



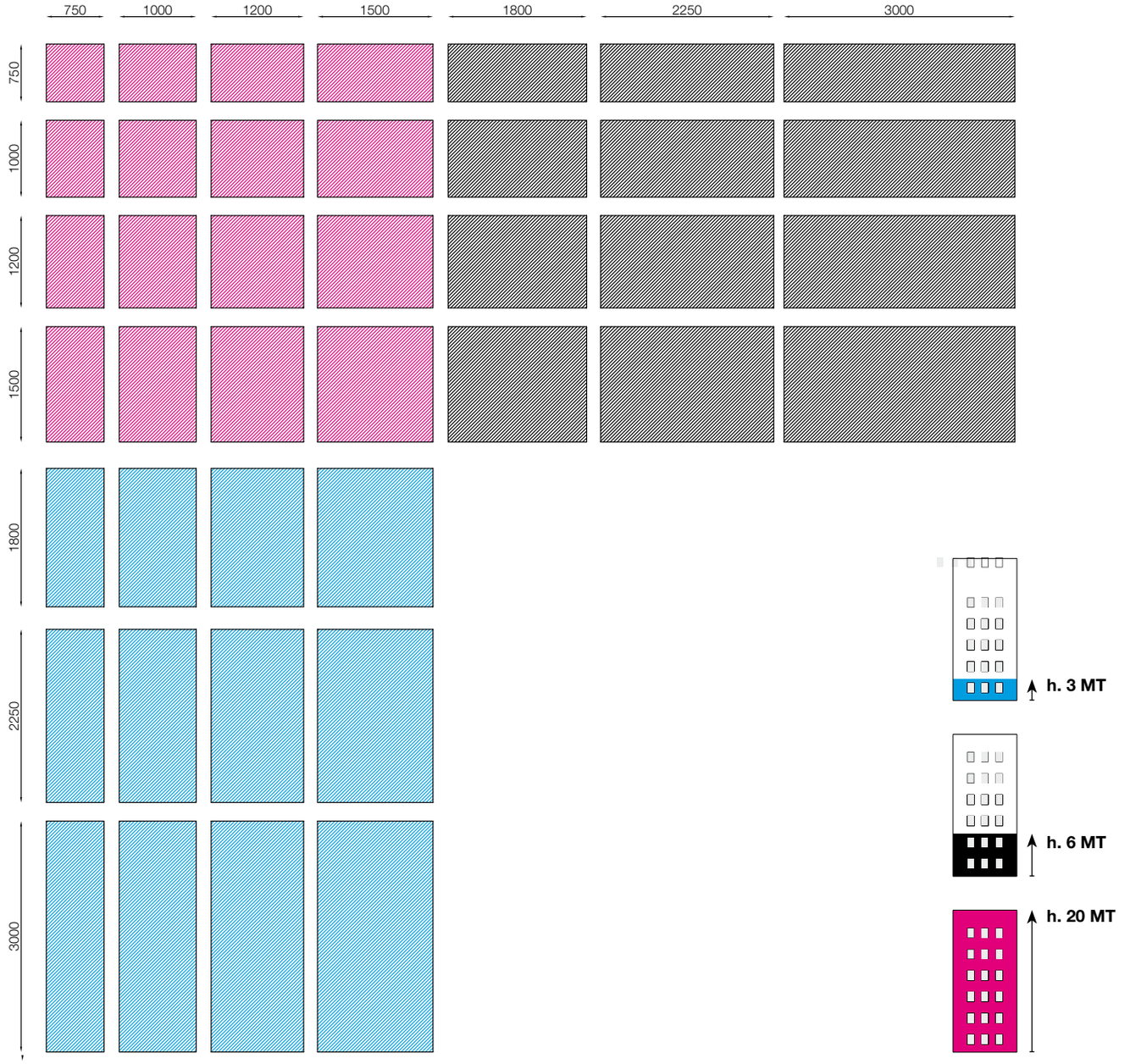


Conventional gluing technologies can be used with any size of slab, but for applications above 2.4 metres it is advisable to use safety retainers.
The application of the technical ceramic slabs directly onto the brickwork makes the system suited for envelopes that do not require high-energy performance, or where the walls are already suitably insulated.
The diagram below describes the size ranges and some key indications for gluing Aeon slabs on outer walls depending on their position on the façade.

SAFETY CLIP COVERING SIZE RANGE AND USE

PATENTED SYSTEM



NOTE: The size range is purely indicative, as external coverings can be produced using slabs of all sizes (up to 300x150 cm).

The key refers to the height above ground of the building

THERMAL CLADDING SYSTEM

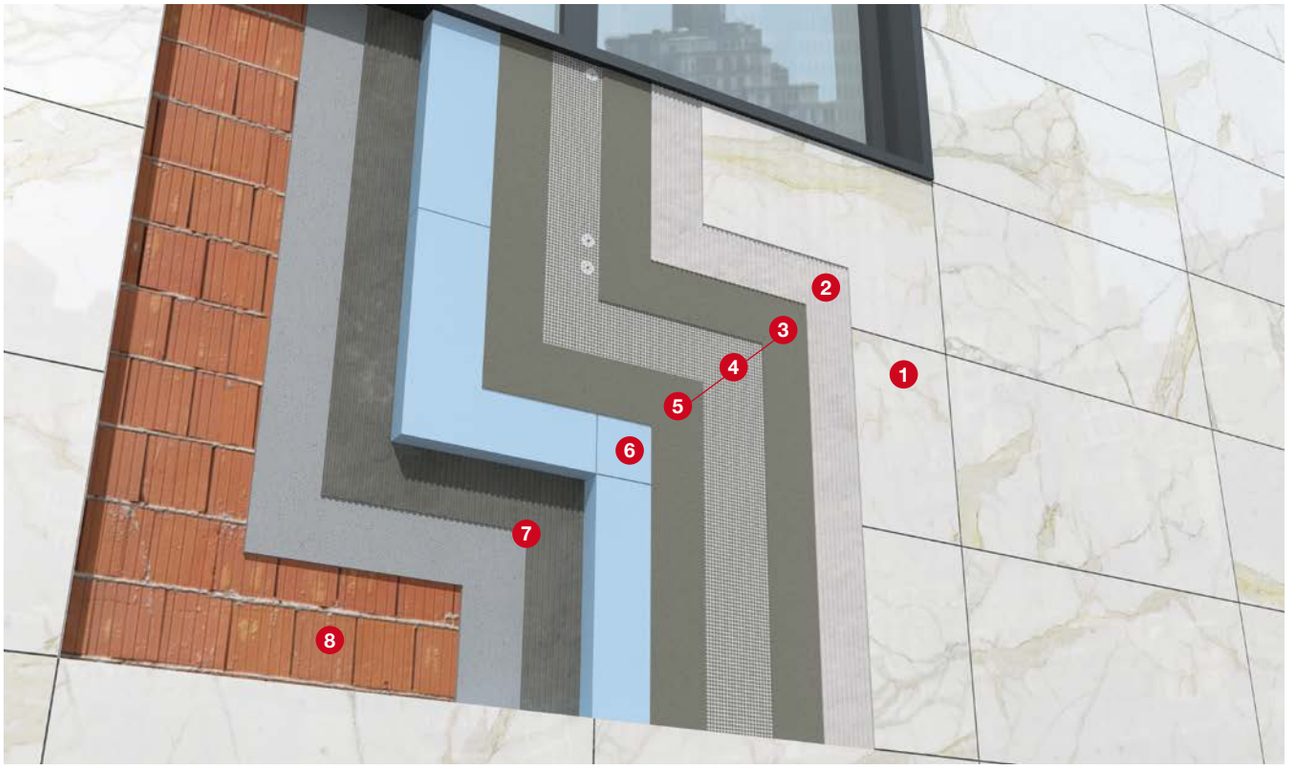
WET ENVELOPES

In the past few years, thermal cladding has become increasingly widespread in Europe due to the growing statutory and technical requirements to ensure heat comfort in both new builds and renovations. The insulation of any building envelope is the first step to ensuring the reduction in energy flows and consumption in any building, and translates into improved comfort for users and financial savings due to lower energy consumption to heat and cool the inside.

The thermal cladding system using Maxi slabs changes the outer layer of conventional cladding systems which have mineral finishes, but adds greater value with the finishing layer in thin technical ceramic slabs.
The thermal cladding system involves the laying of a 6 mm thick technical ceramic slab on top of a heat insulating layer (the thickness of which is decided according to design calculations).

The proposed system requires a mechanically resistant support, designed using a covering and laying system on EPS or XPS (respectively, expanded polystyrene or extruded polystyrene) insulating panels with high mechanical resistance (to traction and compression) and low elastic modulus, able to support the weight and stress generated by the coverings and by thermal expansion.

The insulating layer must have a rough surface in order to allow the covering to grip, with square profiles and no ledges, of a thickness established in the design calculations. For covering slabs, pale colours with a reflective index of greater than 20% should be chosen.
Having said this, it should be underlined that the achievement of expected results in terms of heat insulation and durability of the outer covers is closely related to the careful and correct design of the construction details of the system, in all points which could create a thermal bridge, as well as the correct installation of the system.



1. **AEON SLAB**

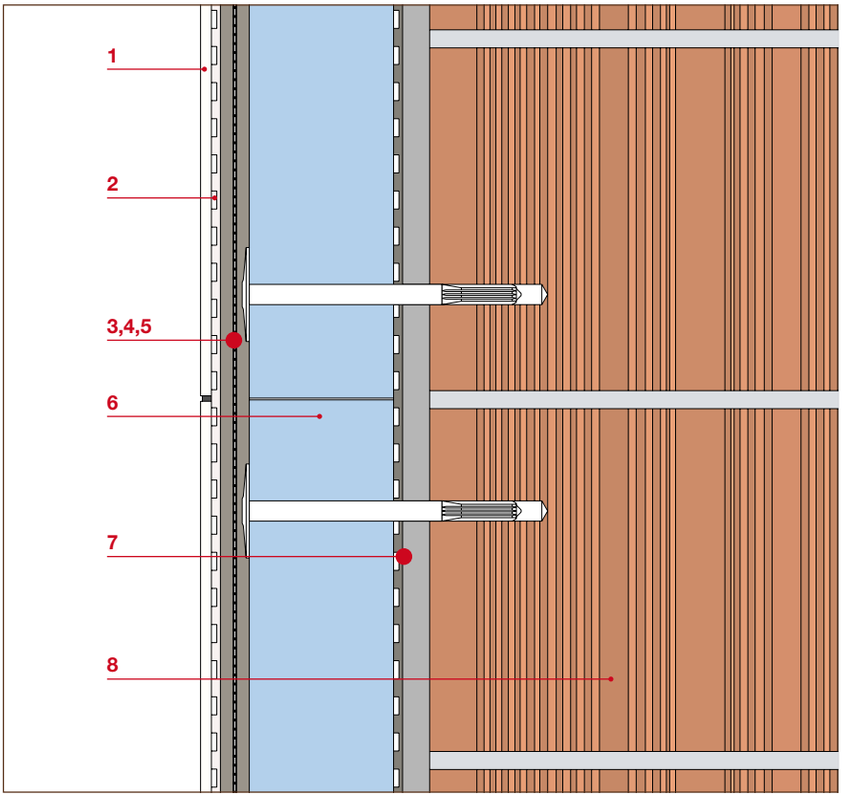
2. **GLUE**

3. **REINFORCED PLASTER**
4.
5.

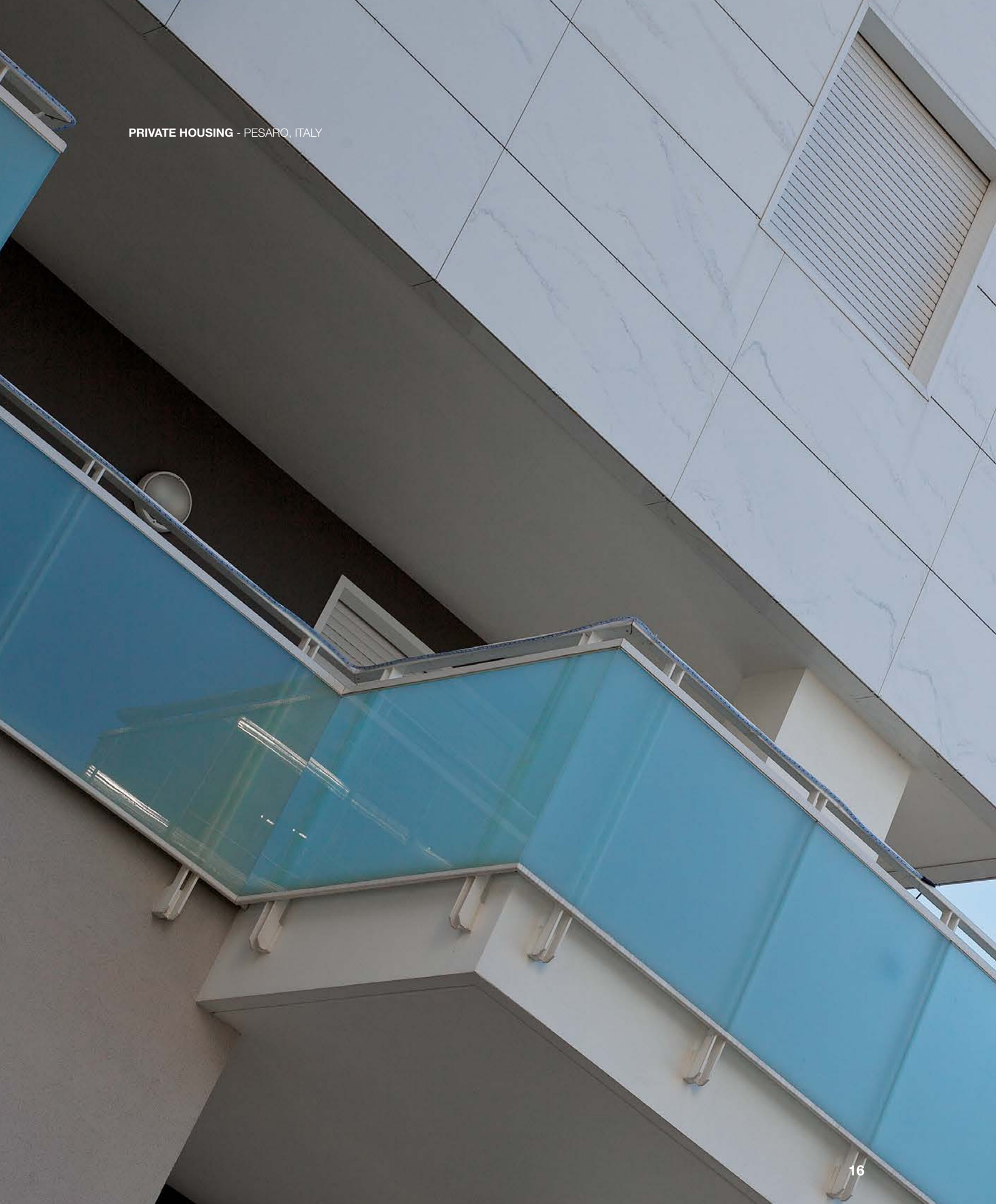
6. **INSULATING LAYER**

7. **PLASTER AND GLUE**

8. **LOAD-BEARING WALL**



vertical detail



PRIVATE HOUSING - PESARO, ITALY

CLADDING SYSTEM LAYING SEQUENCE

WET ENVELOPES






THE FOLLOWING RECOMMENDATIONS HELP TO ENSURE THE CORRECT INSTALLATION OF THE CLADDING SYSTEM:

1. The system should be laid using the double glue spreading method, spreading the glue on both the underlying surface and the back of the slab, to prevent voids between the covering and the support, where rainwater could filter in and (in the event of frost) create stress which could cause the slab to become detached. Moreover, this method ensures that the stress caused by the differential movements between the slabs and the support surface, due for example to variations in temperature, is spread more evenly, thus preventing efflorescence on the façade.
2. The slabs must be laid with wide gaps to suit the slab size and the local climatic conditions.
3. Structural joints must be fitted to suit both slab size and position. Expansion joints must also be inserted along string courses, corners and ridges (and in any case every 9-12 m^2)
4. The covering must be protected against water infiltration and potential damage from freezing-melting by fitting suitable seals or metal flashing on the top and bottom of the whole covering, as well as around doors and windows.

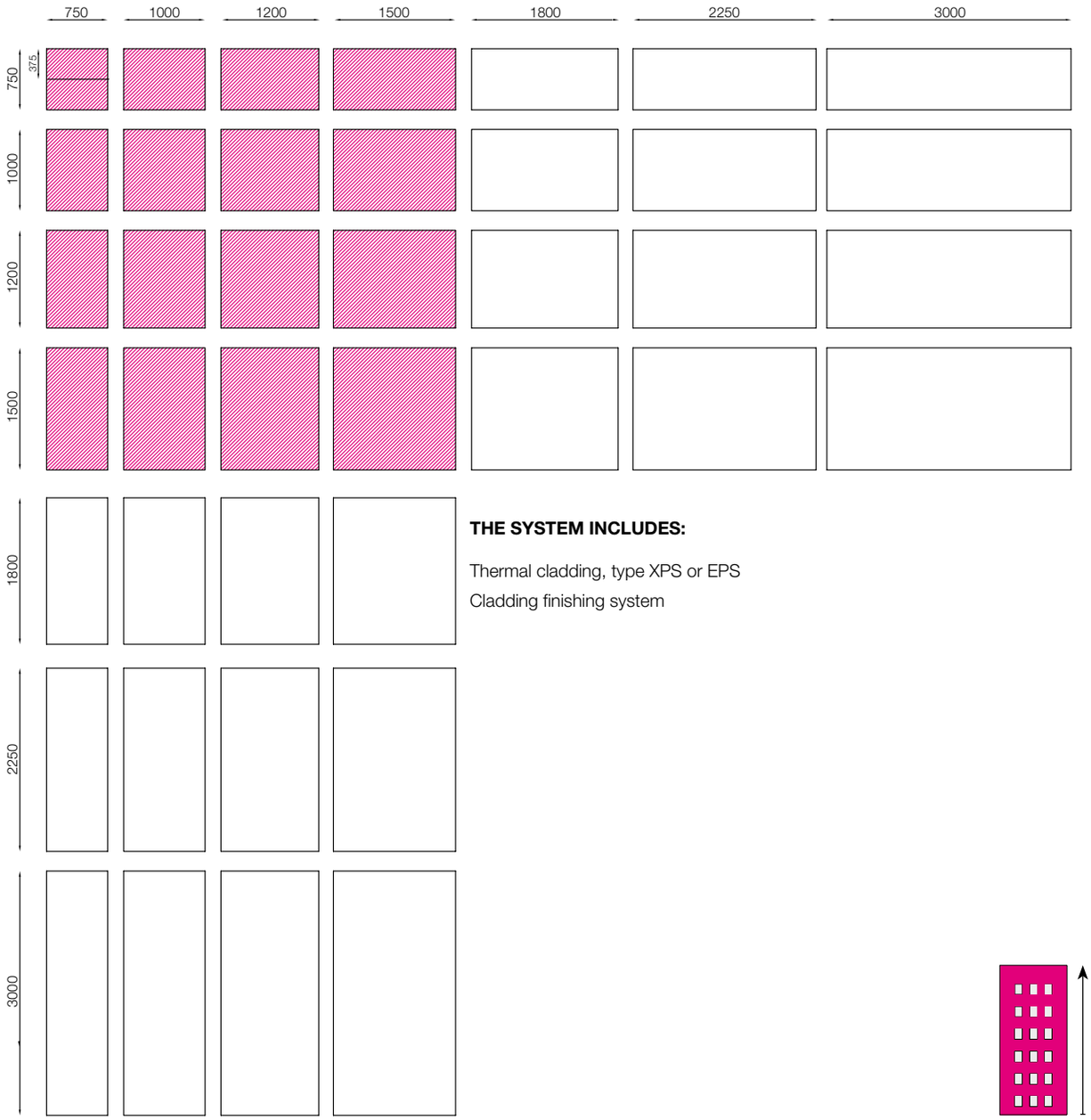
THERMAL CLADDING SYSTEM USE

WET ENVELOPES

The Cladding System is used in all new builds and renovations where the building envelope has to be insulated, and to meet statutory requirements concerning the transmittance of vertical components and energy needs linked to the building.
It should be underlined that in the case of new builds or large-scale renovations, the above-indicated performance requirements are obligatory and that incentives in the form of tax deductions may be available for energy efficiency measures (including thermal cladding systems).
The diagram below describes the size ranges and some key indications for gluing Maxi slabs on outer walls with thermal cladding.
The size range is purely indicative, as external coverings can be produced using Maxi slabs of all sizes (up to 150x150 cm).

COVERING WITH THERMAL CLADDING SIZE RANGE AND USE

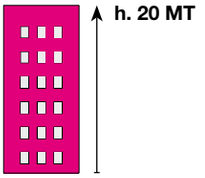
WET ENVELOPES



THE SYSTEM INCLUDES:

Thermal cladding, type XPS or EPS

Cladding finishing system



NOTE: The size range is purely indicative, as external coverings can be produced using slabs of all sizes (up to 150x150 cm).

The key refers to the height above ground of the building.

XPS: Extruded polystyrene
EPS: Sintered expanded polystyrene

MICRO SYSTEM

Adhesive system for rear-ventilated coverings

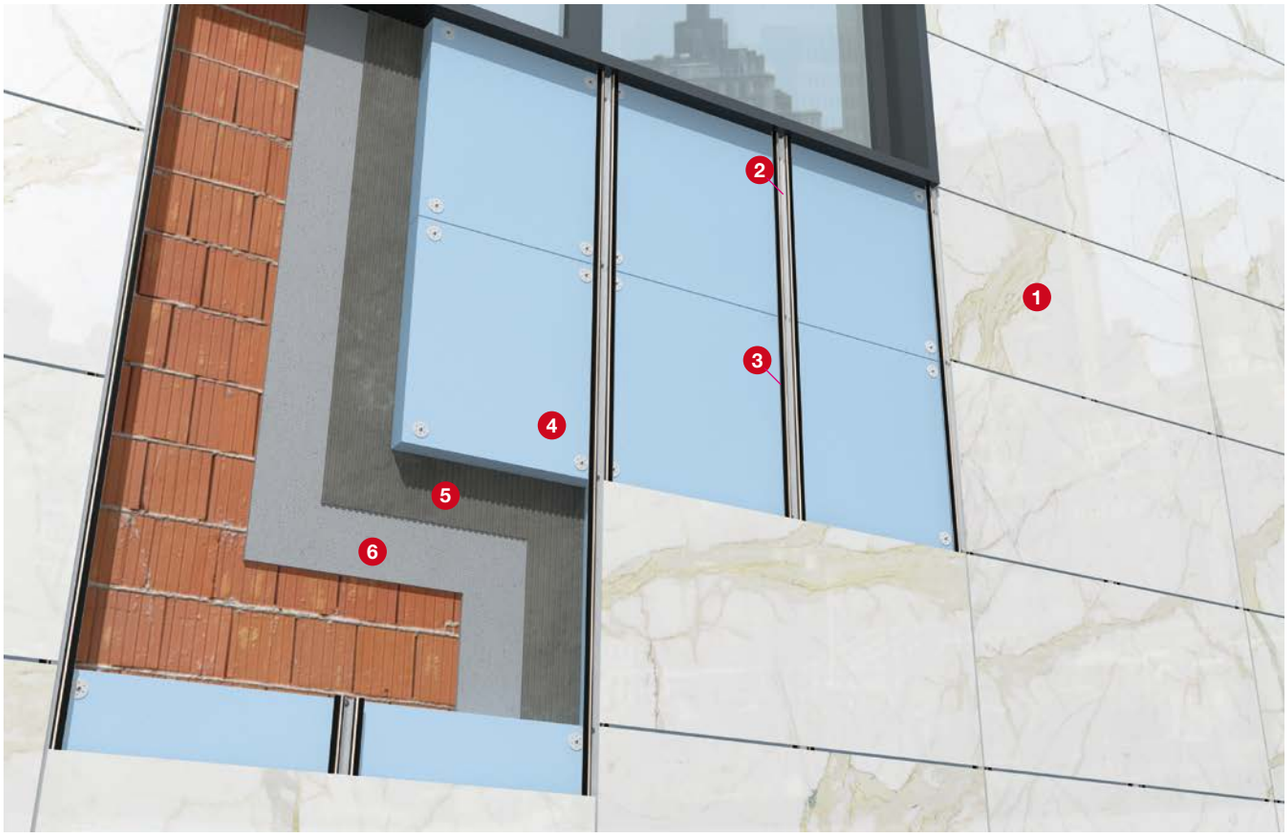
DRY ENVELOPES

The Micro system involves the assembly of thin technical ceramic slabs onto a rear-ventilated covering; it belongs to the family of ventilated façades due to the cavity wall which is created using a metal sub-frame that keeps the technical ceramic covering at a distance from the wall facing.

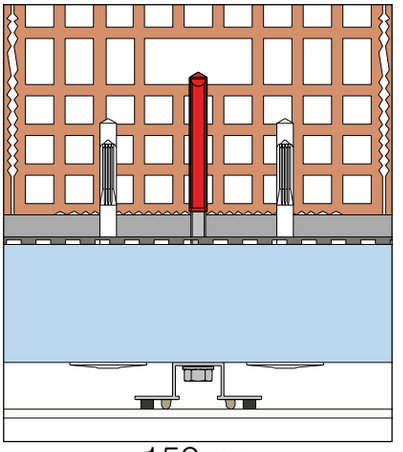
Compared to ventilated façades with mechanical anchoring, however, this system uses a chemical-adhesive metal sub-frame to fix the slabs. The slabs are assembled using a highly elastic permanent adhesive and a double-sided adhesive assembly tape which, together, fix the covering invisibly to the wall.

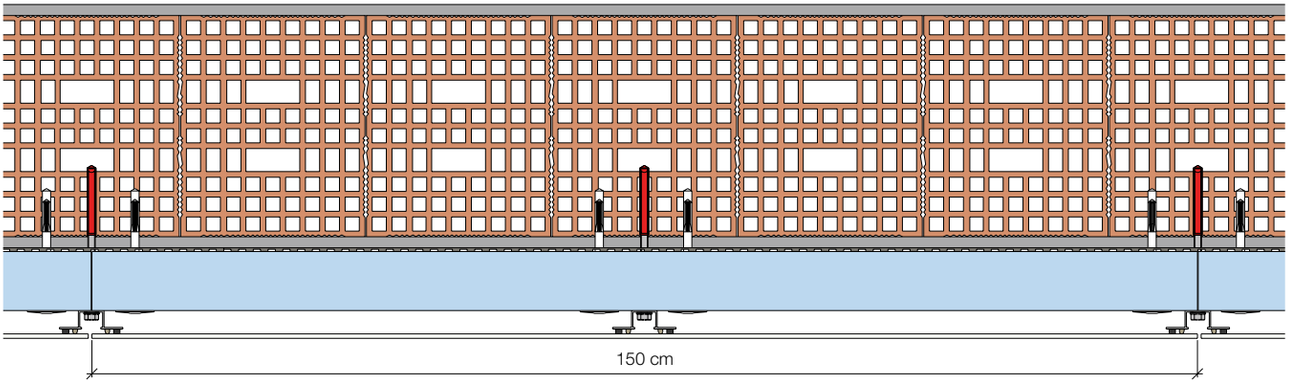
The Micro System is composed of an external cladding made by Aeon slabs, a ventilated cavity, within which a thermal and/or acoustic insulation layer can be placed (in order to improve the facade energy efficiency), a metallic substructure, made by aluminum omega profiles mechanically anchored to the wall, which supports the loads transmitted by the substructure and the forces acting on the cladding panels.

Given the flexibility and special features of this system, it has to be designed specifically on a case-by-case basis.



1. **AEON SLAB**
2. **ALUMINUM FRAME**
3. **DOUBLE SIDED FIXING TAPE AND STRUCTURAL ADHESIVE**
4. **INSULATING LAYER**
5. **PLASTER AND GLUE**
6.
7. **LOAD-BEARING WALL**

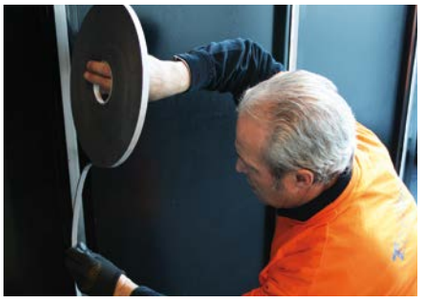


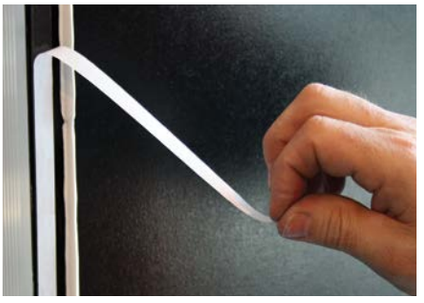


horizontal detail

MICRO SYSTEM LAYING SEQUENCE

DRY ENVELOPES



When laying this system, developed directly on site, the special installation procedure must be followed, complying with the climatic conditions and work site conditions for correct installation, which must be done by suitably trained laying teams. The installation procedure is provided with the laying materials. It is advisable to keep a gluing record and use appropriate instruments to record the climatic and work site conditions.

MICRO SYSTEM USE

DRY ENVELOPES

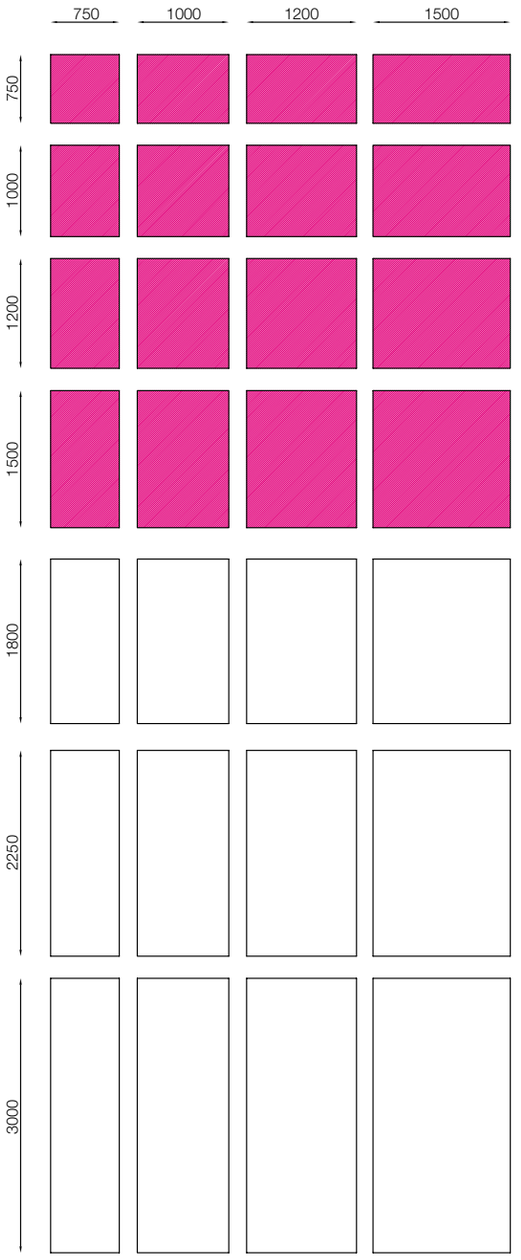
The Micro system can be used in any new build or renovation, up to a maximum height of 20 metres.
The possibility to include an insulating layer in the façade increases the energy performance of the system, so it can also be used in projects that require the heat insulation of the building envelope in order to achieve certain transmittance values of the vertical envelope components and meet the building's energy requirements.

It should be underlined that in the case of new builds or large-scale renovations, the above-indicated performance requirements are obligatory and that incentives in the form of tax deductions may be available for energy efficiency measures.

The diagram below describes the size ranges and some key indications for gluing Maxi slabs on outer walls depending on their position on the façade. The size range is purely indicative, as external coverings can be produced using slabs of all sizes (up to 300x150 cm).

MICRO COVERING SYSTEM SIZE RANGE AND USE

DRY ENVELOPES



THE SYSTEM INCLUDES

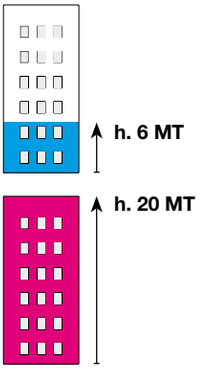
Thermal cladding, type XPS or EPS

Meshing on the rear of the Maxi slabs

Sub-frame

Specific fixing according to the size and type of insulation

Micro system glue



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The key refers to the height above ground of the building.

XPS: Extruded polystyrene
EPS: Sintered expanded polystyrene

VENTILATED FAÇADE

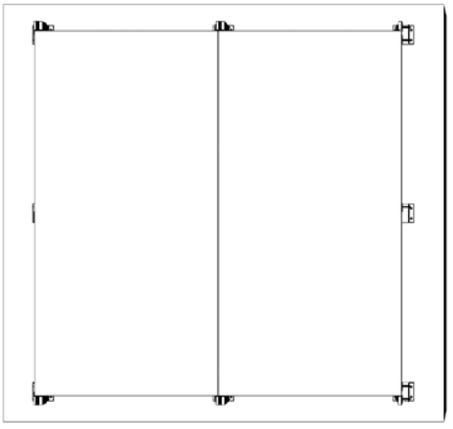
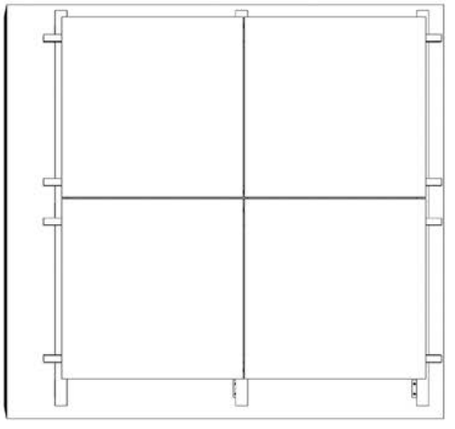
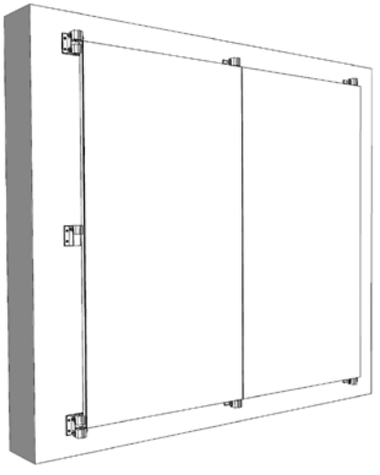
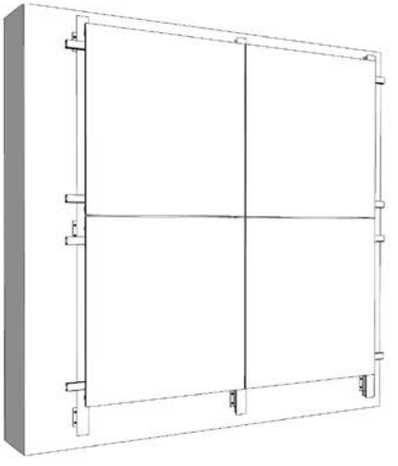
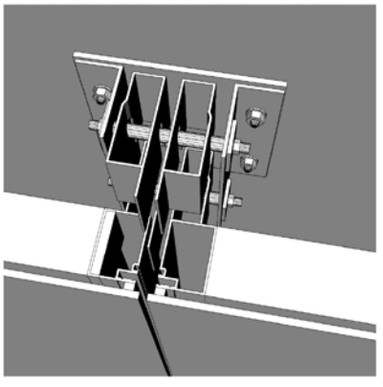
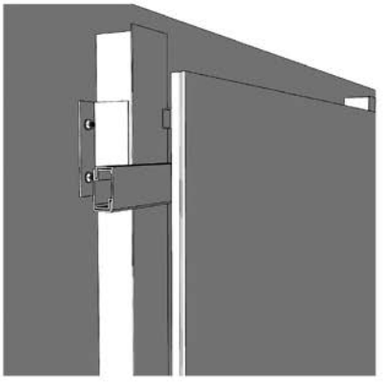
DRY ENVELOPES

Using ventilated façades, the system can be used to cover any kind of building, whether modular - and here the repetition of the modules is its speciality (a winning feature for the use of “full” sizes, e.g. 300x150-120-100 cm), and non-modular systems, requiring multiple elements in different shapes and sizes. Slabs are applied to ventilated façades using an assembly technology comprising the covering slabs and aluminium load-bearing structural joints produced in the factory, based on a strict, meticulous procedure.
The pre-design study, adaptation of the system standards to each building project, and the systematic checking of the materials and structural joint gripping surfaces, all help to fully exploit the complementary properties of Maxi slabs and the aluminium frame, as well as eliminating all site operations apart from simple mechanical anchoring: Aeon slabs for covering systems is therefore ready to be “simply” hooked and tightened to the existing wall on site, with the guarantee of assembly in the controlled atmosphere of the production site.

The system was designed specifically to offer excellent flexibility for designers using two sub-families of systems, which share the frame-slab assembly using a structural joint, but which differ in the type of frame used to anchor Maxi slabs to the wall of the building:

- **AEON FRAME, which uses a load-bearing perimeter frame designed to be hung directly on modular brackets anchored to the wall;**
- **AEON LIGHT, which on the other hand uses vertical shaped profiles fixed to a traditional grid of uprights and cross-beams fixed to the wall.**

VENTILATED FAÇADE

AEON FRAME SYSTEM	AEON LIGHT SYSTEM
	
	
	

VENTILATED FAÇADE USE

DRY ENVELOPES

The dry assembled ventilated façade can be used in both new builds and renovations.
The layered composition allows it to be installed in ventilated cavity walls with an insulating layer, also optimising the energy performance of the envelope and reducing dispersion through the walls, so it can also be used in projects that require the heat insulation of the building envelope in order to achieve certain transmittance values of the vertical envelope components and meet the building's energy requirements.

The choice of the most appropriate of the two systems for the building works in hand depending on several parameters:

- Size of the project
- Modularity of the façade
- Size of the modules
- Repetition of the modules
- Building height
- Size and number of windows
- Presence of protrusions and balconies
- Number of special elements
- Site organisation and logistics

The two systems are in any case able to meet the needs of any building, also maintaining high resistance to wind loads, in line with the values achieved by the best traditional ventilated covering systems using ceramic slabs.
In the Maxi Ventilated systems, the slabs continue to have a merely "supported" function, while the aluminium frame supports the loads, limiting the bending of the elements and transferring the loads to the wall below: the positioning of the aluminium elements and structural joints is designed specifically for each project, in order to dissipate any excessive loads on the slab and guarantee integrity and durability. The choice between the two systems is based on a careful preliminary analysis of the building to measure the above-described parameters, to maximise technical performance and cost-effectiveness, identifying the most suitable and/or most easily applicable system. The preliminary design of the covering must consider that the idea of "stitching a skin onto the building" will generate cuts and (in this case ceramic) waste, and such offcuts must be calculated in the cost of the works.
Identifying the complementarity between the size of the Maxi slabs module and that of the building to be covered consequently optimises the design: in a new build, this can be done at design stage, but when renovating an existing building we have to adapt to the existing sizes and architectural features, which could make the sue of **Maxi Frame** more costly, while advantages lay in the greater flexibility of **Maxi Light**.

Maxi Frame and **Maxi Light** are of course compatible: depending on the building or the design, both systems can be used, differentiating their use in uniform areas: obviously, Frame in areas with constant modules, Light for sub-multiples and special elements. The size of the gaps between the Maxi slabs must be carefully calculated in order to ensure the thermal expansion of the elements and prevent them from creating excessive loads for the ceramic slabs. Heat expansion is a natural phenomenon, typical of any material, and depends on the length of the element considered: the longer the element, the greater the expansion in absolute terms.

Although with different costs, both systems can be fitted with:

- Safety mesh to limit the fall of fragments from crushed slabs following abnormal impacts;
- Continuous, two-sided or specific mechanical retainers;
- Closed gaps between the slabs (Frame) to create a water barrier to limit the amount of water inside the ventilated cavity wall.

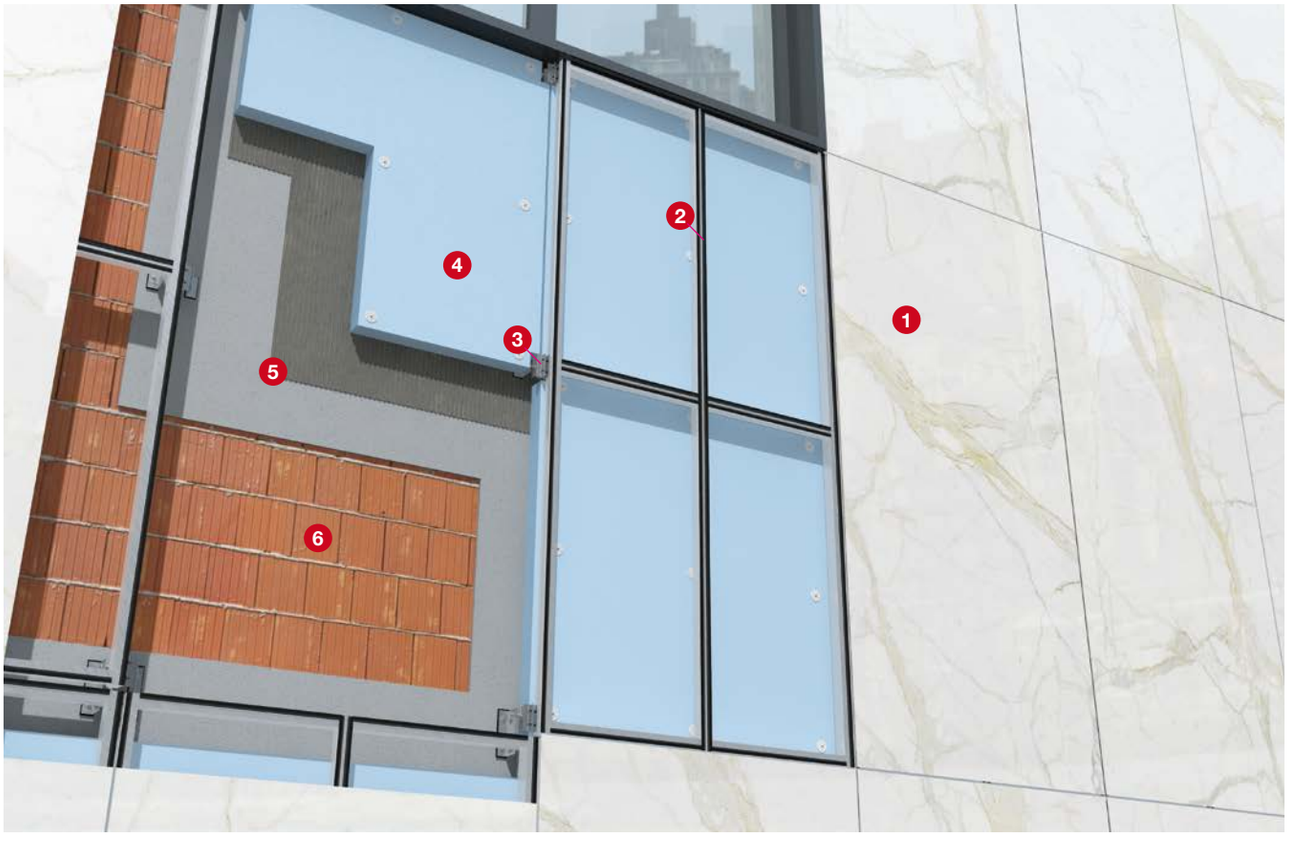
AEON FRAME SYSTEM

Ventilated façades

DRY ENVELOPES

AEON FRAME IS A SYSTEM BASED ON THE FOLLOWING GENERIC LAYERS OF OUTER COVERING:

- Building wall in reinforced concrete or brick;
- Insulation with water-repellent layer;
- Adjustable anchoring brackets fixed to the wall with plugs or Halfen connectors;
- Vertically adjusted hooks;
- Load-bearing perimeter frame for load transfer;
- Structural joint;
- Safety mesh (optional);
- Aeon slab;
- Perimeter seal barrier, where appropriate;
- Mechanical retainer if required (recommended).



1. **AEON SLAB**

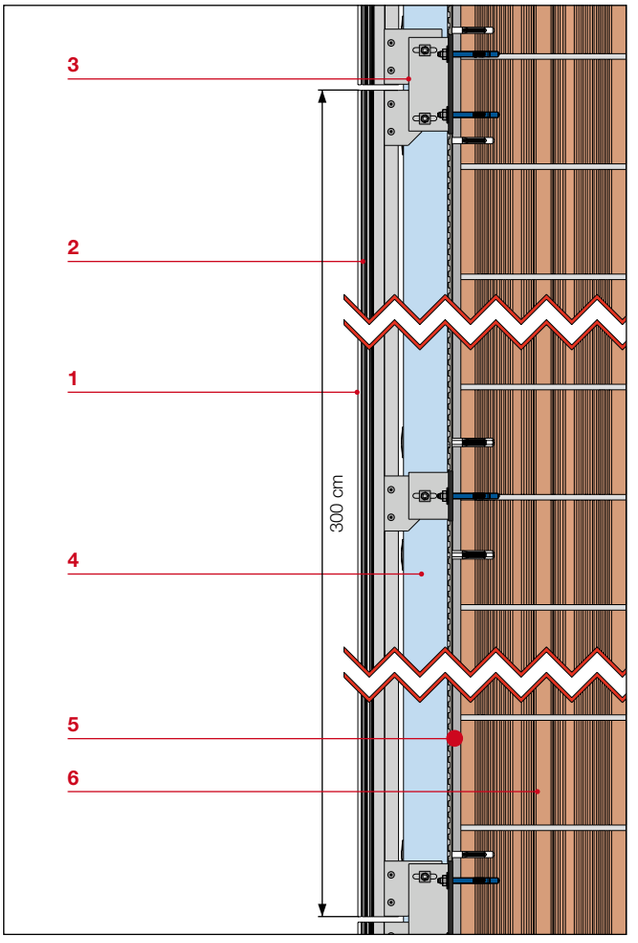
2. **ALUMINUM FRAME**

3. **BRACKETS**

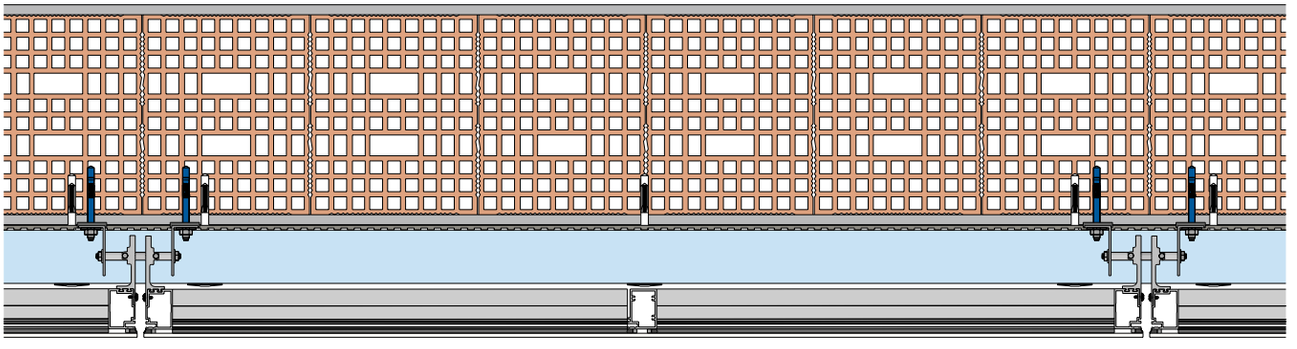
4. **INSULATING LAYER**

5. **PLASTER AND GLUE**

6. **LOAD-BEARING WALL**



vertical detail



horizontal detail

AEON FRAME SYSTEM LAYING SEQUENCE

DRY ENVELOPES






INDICATIVELY, MAXI FRAME IS USED MAINLY FOR LARGE-SIZED PROJECTS, WITH SYSTEMATIC MODULE REPETITION AND IMPORTANT BUILDING HEIGHTS.

A typical installation sequence can be described as follows:

- Fitting the mechanical anchorages to the wall (brackets and plugs or Halfen connectors)
- Sealing and tightening the brackets
- Laying the insulating layer, if required
- Fitting hooks into the cells
- Raising the cells
- Mechanically anchoring the cells to the brackets using the hooks
- Finely adjusting each cell in the two main directions
- Repeating the previous three steps for the next cell
- Closing the ventilation gaps with grilles
- Fitting the terminal elements and window intrados

AEON FRAME SITE LOGISTICS

Maxi Frame site logistics

DRY ENVELOPES

The site logistics include storage for the façade component containers, with suitable surrounding space to allow the moving and extraction of each one, depending on the machinery used for access to the wall to be covered, handling and laying of the façade components; as an example, the following families are indicated:

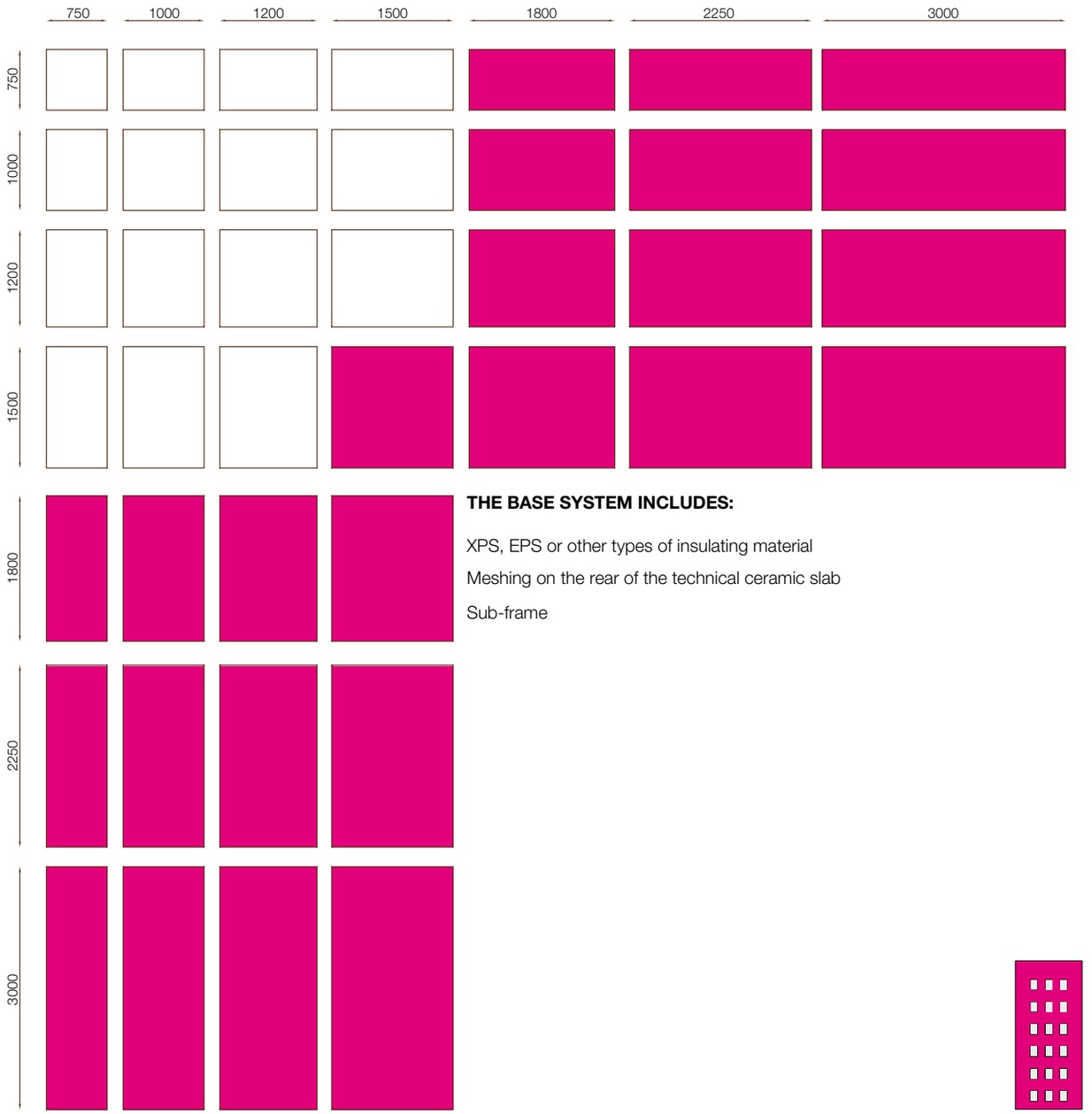
Access for staff working at a height:
- Fixed scaffolding
- Mobile scaffolding
- Pantograph
- Truck with boom and basket

Handling and laying:
- Crane
- Fork lift
- Mobile crane
- Monorail

Cell hooking:
- Suction cups
- Cables and eye bolts

AEON FRAME COVERING SYSTEM SIZE RANGE AND USE

DRY ENVELOPES



THE BASE SYSTEM INCLUDES:

XPS, EPS or other types of insulating material

Meshing on the rear of the technical ceramic slab

Sub-frame

NOTE: The size range is purely indicative, as external coverings can be produced using slabs of all sizes (up to 300x150 cm).

The key refers to the height above ground of the building.

XPS: Extruded polystyrene
EPS: Sintered expanded polystyrene

AEON LIGHT SYSTEM

Facciata ventilata

INVOLUCRO A SECCO - DRY ENVELOPES

AEON LIGHT IS USED FOR BUILDINGS WITH IRREGULAR WINDOWS AND OPENINGS AND A LARGE QUANTITY OF PROTRUSIONS AND BALCONIES.:

Aeon Light is a system based on the following generic layers of outer covering:

- Building wall in reinforced concrete or brick;
- Insulation with water-repellent layer;
- Adjustable anchoring brackets fixed to the wall with plugs or Halfen connectors;
- Vertical uprights;
- Horizontal beams;
- Vertical load transfer profiles anchored to the cross beams;
- Structural joint;
- Safety mesh (optional);
- Maxi slab;

1. **AEON SLAB**

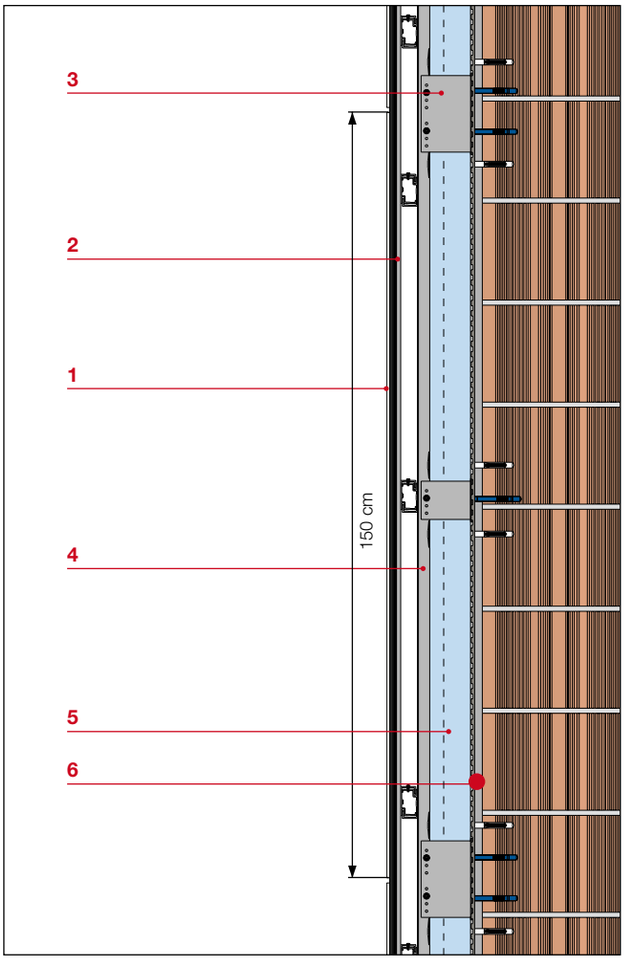
2. **ALUMINUM CROSSPIECE**

3. **ALUMINUM BRACKETS**

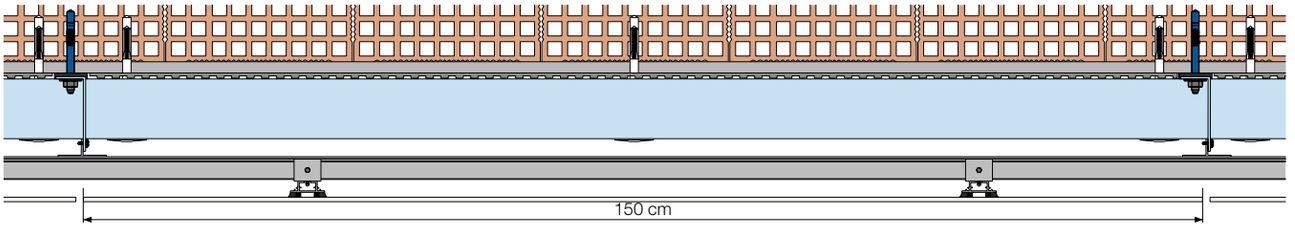
4. **UPRIGHT**

5. **INSULATING LAYER**

6. **PLASTER AND GLUE**



vertical detail



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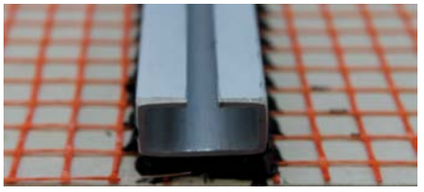
AEON LIGHT SYSTEM LAYING SEQUENCE

DRY ENVELOPES



HAVING ESTABLISHED THE EXECUTIVE DESIGN OF THE FAÇADE, THE MAXI LIGHT SYSTEM, COMPARED TO THE AEON FRAME, REQUIRES THE LAYING OF A GRID ON THE FAÇADE, AND WORK CAN BEGIN ON SITE TO MOUNT THIS WHILE THE ELEMENTS ARE BEING PREPARED AT THE FACTORY.

In most cases, the size of the Maxi Light panels allows the use of conventional scaffolding.

A typical installation sequence can be described as follows:

- Fitting of mechanical anchorages on the wall to be covered (generally brackets and plugs)
- Raising the materials
- Sealing and tightening the brackets
- Laying the insulating layer, if required
- Laying the vertical uprights
- Laying the horizontal beams
- Mechanically anchoring the panels to the beams
- Finely adjusting each cell in the two main directions
- Closing the ventilation gaps with grilles
- Fitting the terminal elements and window intrados

AEON LIGHT SITE LOGISTICS

DRY ENVELOPES

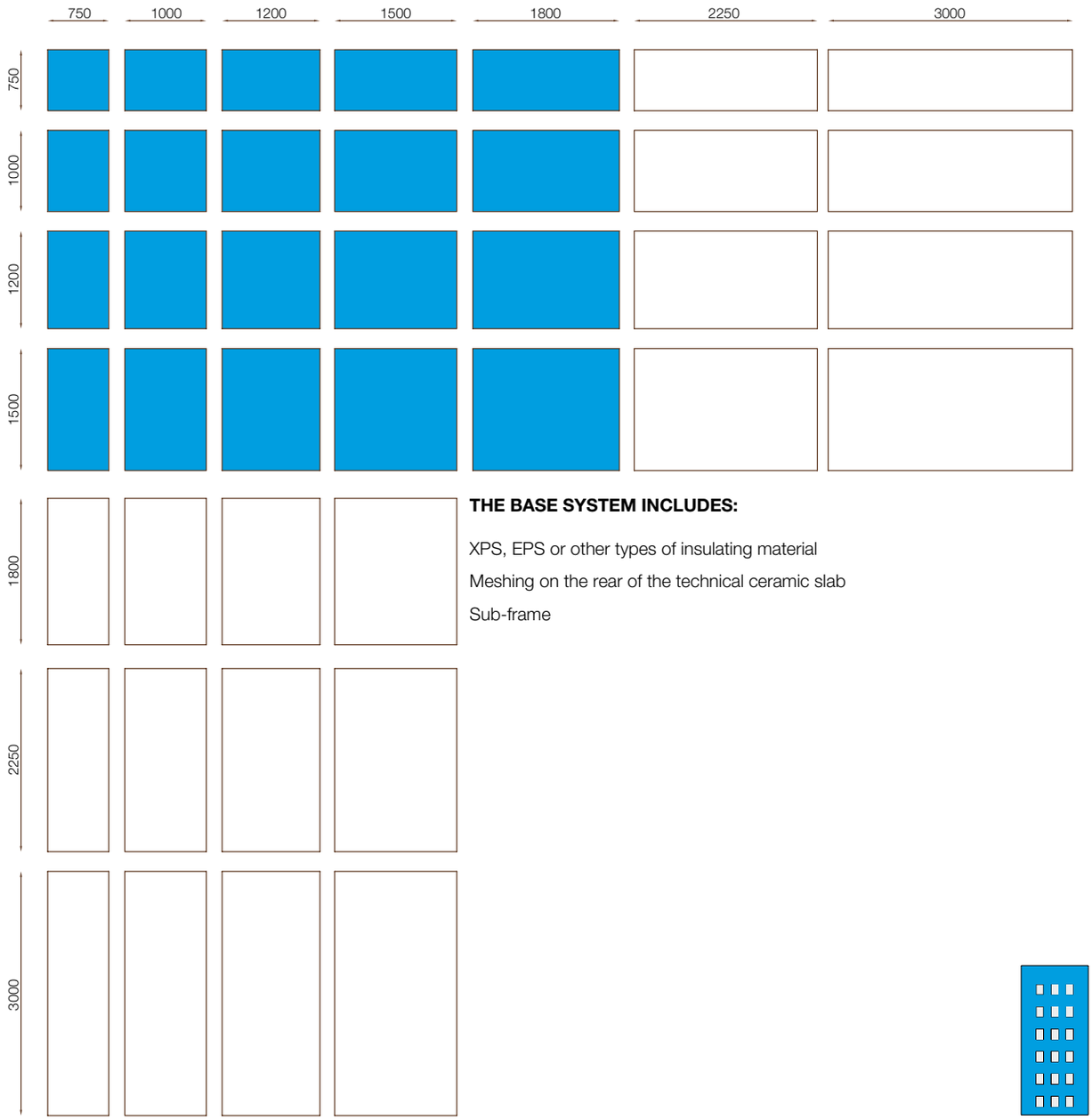
In most cases, the size of the Maxi Light panels allows the use of conventional scaffolding, and site logistics are therefore very similar to those for assembling traditional ceramic ventilated façades; as an example the following families are indicated:

Access for staff working at a height:
- Fixed scaffolding
- Mobile scaffolding

Handling and laying:
- Site crane
- Mobile crane

AEON LIGHT COVERING SYSTEM SIZE RANGE AND USE

DRY ENVELOPES



THE BASE SYSTEM INCLUDES:

XPS, EPS or other types of insulating material

Meshing on the rear of the technical ceramic slab

Sub-frame

NOTE: The size range is purely indicative, as external coverings can be produced using slabs of all sizes (up to 180x150 cm).

The key refers to the height above ground of the building.

XPS: Extruded polystyrene
EPS: Sintered expanded polystyrene

SYNOPTIC TABLE: WHERE AND WHEN TO USE THE CLADDING SYSTEM

System	Height up to 20 MT	Height over 20 MT
Safety Clip system Wet envelopes	✓ VALIDATED	✗ TO BE EVALUATED
Micro system Dry envelopes	✓ VALIDATED	✗ TO BE EVALUATED
Thermal cladding system Wet envelopes	✓ VALIDATED	✗ TO BE EVALUATED
Ventilated façade Dry envelopes	✓ VALIDATED	✓ VALIDATED

1) The energy performance is related to the possible insertion of a thermal insulation layer within the system

	Slab up to 150x150 cm	Slab up to 150x300 cm	Energy performance [1]
	✓ VALIDATED	✓ VALIDATED	✗ TO BE EVALUATED
	✓ VALIDATED	✓ VALIDATED	✓ VALIDATED
	✓ VALIDATED	? TO BE VERIFIED	✓ VALIDATED
	✗ TO BE EVALUATED	✓ VALIDATED	✓ VALIDATED

GLOSSARY

DRY LAYING
Construction methods without the use of glues to assemble the system components.

INSULATION/INSULATING LAYER
Layer of thermal insulation laid against a construction element. It may be made from various types of insulating material, chosen according to the specific project.

ENERGY REQUIREMENT
Amount of primary energy (usually expressed in TEP – tonnes equivalent of petrol) needed to maintain environmental conditions of comfort inside a space. It is affected first and foremost by the composition of the building envelope and its ability to reduce energy expenditure for heating and cooling.

VENTILATED FAÇADE
Multi-layer covering of existing or new buildings, laid dry and comprising a waterproof external finishing layer (ceramic slab, technical ceramics, aluminium, steel or PVC panels, etc.), an intermediate insulating layer, applied directly to the existing wall or a metal frame anchored to the load-bearing structure of the building. A cavity wall is created between the outer covering and the insulating layer, which creates a “chimney effect” to ensure effective natural ventilation, helping to control the energy flow through the wall.

JOINT
Point in the covering where two or more elements are connected together in a fixed or mobile manner. The joint in a ventilated wall covering may be open or closed.

REFLECTIVE INDEX (RI)
Unit of measure of the daytime light reflectance (irradiation – to give an idea, white reflection is 100% and black 0%).

CAVITY WALL
Empty space between two surfaces (e.g. slab and wall).

THERMAL CLADDING
Thermal cladding involves the covering of external walls with insulating panels that protect the underlying layers without removing the existing plaster.

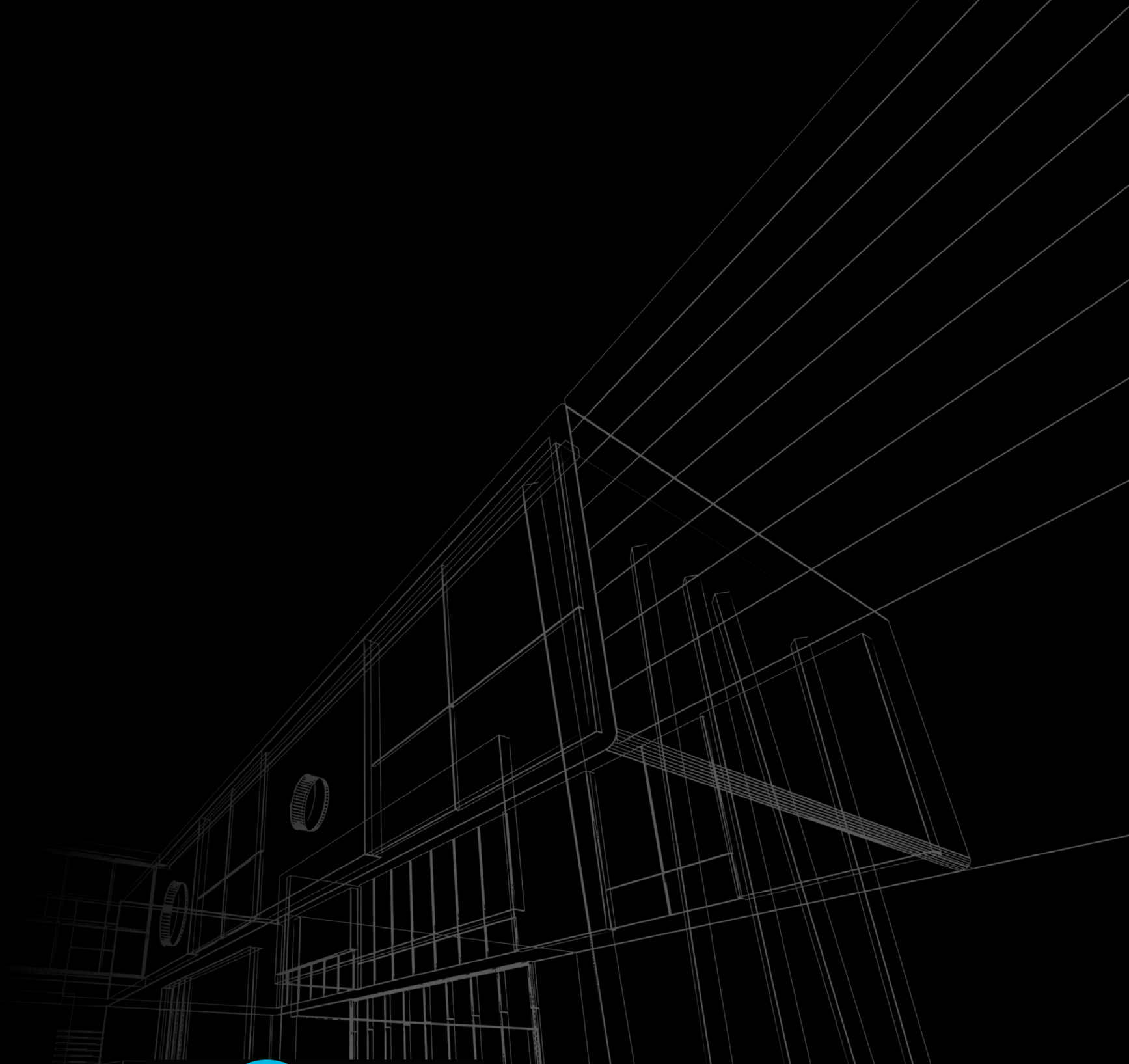
INSULATING LAYER
Material that prevents or reduces the passage of heat (thermal insulation) or sound (acoustic insulation) between one space and another or through a construction element.

EPS INSULATING PANEL
Insulating panel in expanded polystyrene.

XPS INSULATING PANEL
Insulating panel in extruded polystyrene.

THERMAL BRIDGE
Element or connection which, by contact, allows the passage of heat between two components with different temperatures. In covering systems, it is a negative element as it facilitates heat dispersion through any construction elements that are not appropriately insulated, particularly in the winter months.

THERMAL TRANSMITTANCE
Quantity of heat transferred from the inside through a 1 m2 surface area at a constant temperature and with a temperature difference of 1 K.



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