

FAVETON®

TERRACOTA

F A C A D E V E N T I L A T E D S Y S T E M



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WORKING PROCESS

ARCHITECT/ DEVELOPER

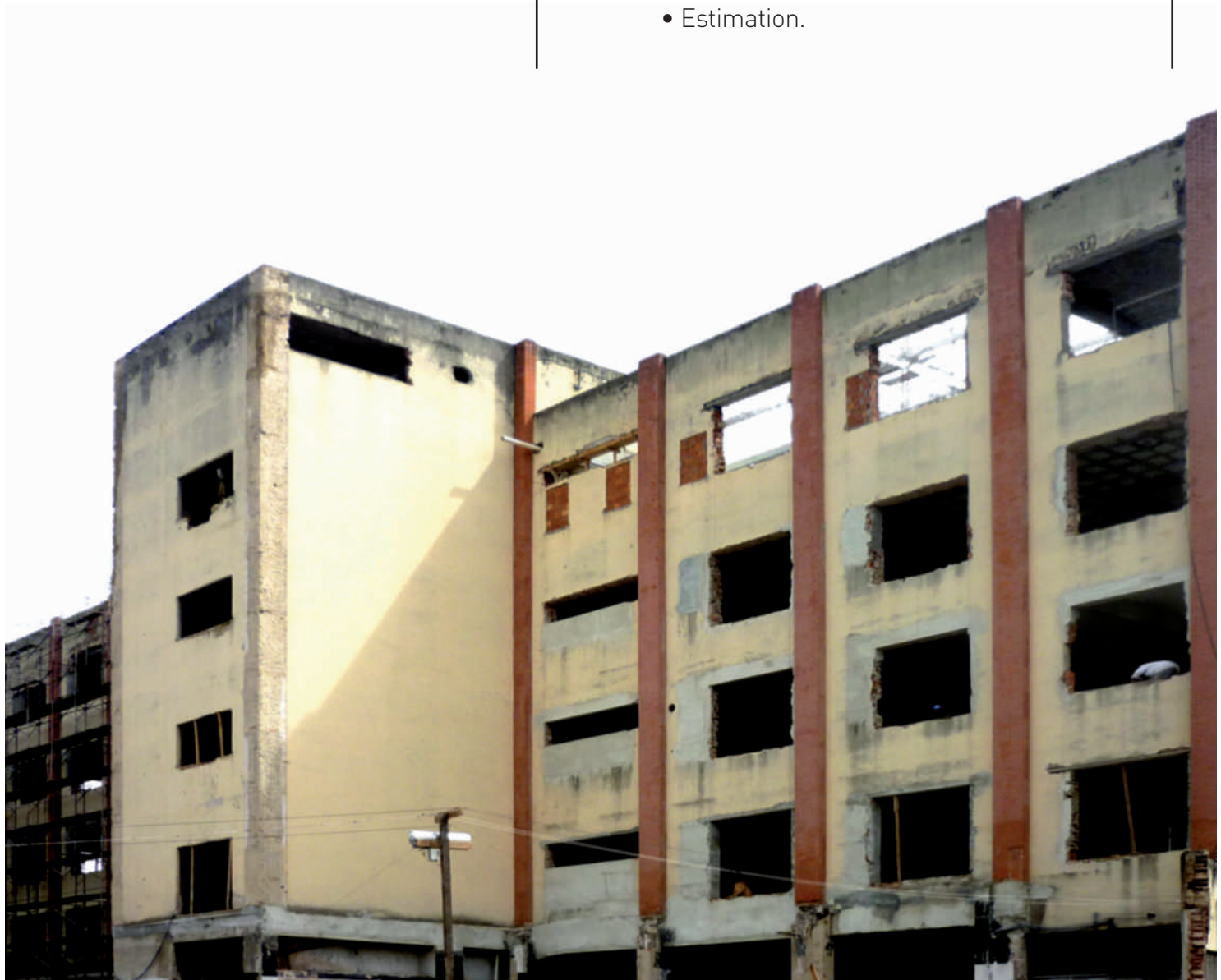
BASIC EVALUATION

- Evaluation of the representative area.
- Initial estimation/budget.

EVALUATION OF THE PROJECT

PRELIMINARY DESIGN

- Calculation of the resistance according to regulations.
- Evaluation of Exploded drawing.
- Encounter solutions.
- Technical specifications.
- Structure design .
- Estimation.



OUR OBJECTIVE IS TO TRANSMIT THE IMPORTANCE OF FAÇADE RESTORATION.

APPROVAL OF THE PROJECT

APPLYING FOR SUBSIDY

Field engineering.

- Façade reassessment.
- Reassessment of the preliminary design.
- Possible deviations.
- Deviation solutions and final examination.

Execution project.

- Execution project, installation plans.
- Approval of agreement, purchase order.

CARRYING OUT OF THE PROJECT



FAVETON SOLUTIONS

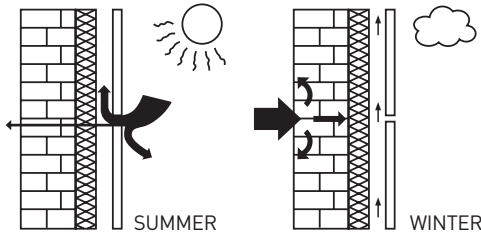


THERMAL COMFORT

Thermal insulation is a determining factor when carrying out the restoration of a façade. It is bounded to the building's saving of energy during the period of use (building's lifespan in terms of heating and refrigeration).

INCREASING OF FAÇADE'S THERMAL INERTIA

The insulation position modifies the glass panes' thermal inertia. The increasing of the thermal inertia is always positive since heating and refrigeration use is reduced. In addition to this, a greater thermal inertia increases the houses' comfort avoiding abrupt variations in temperature.



This graphic shows the chimney effect.
 Summer: Building's radiant energy is reduced.
 Winter: The heat spreading effect is reduced.

CHIMNEY EFFECT

Natural convection known generically as "chimney effect" is the effect in which the ventilation of the wall cavity (gap between the ceramic and the insulation material) that provide thermal and technical benefits:

1. In warm season, the temperature gradient creates an air current that evacuates the wall cavity's heat so there is a considerable reduction of the refurbishment cost.
2. In cold season, the temperature gradient is low so the ventilation is lower. The wall cavity protects the insulation material boosting heating savings.

According to the CTE (TBC, Technical Building Code) in the corresponding section to the limitation of demand of energy. The buildings will have a casing that limits the necessary demand of energy to reach thermal wellbeing. All of that is based on the climate, the location and the season.



ACOUSTIC REDUCTION

Ventilated façades tend to boost reflection of external sound since these are composed of face layers (intermediate gaps made of air and insulation material that determine acoustic absorption).

It's very important the influence of variables such as reflection, absorption and acoustic transmission of the materials that are being used as well as dimensions, thickness, arranging and response of the building's structure.

Elements such as window openings, pillars, forge edges have a determining influence in the acoustic final results. However, the façade may have contribution in the sense that in addition to the rest of the elements there's a significant improvement of the final result.

Acoustic estimation for composed façades (two or more skins):

These façades are made up of two or more basic skins, formed by rough stone and homogeneous materials. Insulation is determined on trial. We can use otherwise this formulation:

$$R = 36,5 \log m - 41,5 \text{ in dBa [2]}$$

Where: m is the total mass per unit of area of the element. Expressed in kg/m².

R refers to acoustic insulation, expressed in dBA.

This equation will only be object of use when the following limitations are fulfilled:

- The distance between skins must be superior to 150kg/m².
- The lightest mass of the skin must be higher than 150kg/m².
- If an expansion joint occurs between two skins, the lightest skin's mass must be higher than 200 kg/m². If the limit value is maintained in 150kg/m², slabs should be provided. This slabs would have a higher than 3 dBA airborne acoustic noise insulation to those demanded to building features in general.



HUMIDITY: Condensing and Rain.

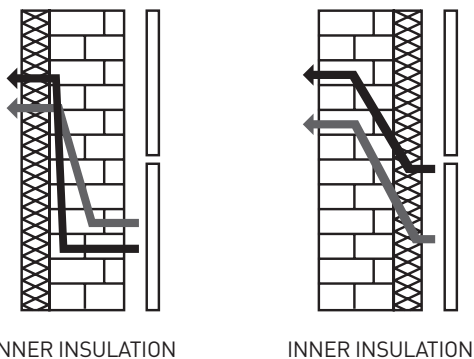
PROTECTION AGAINST RAINWATER

The simple act of placing a cavity wall among the outer facing and the façade's inner layers reassures a better water tightness against rainwater so in case of filtration it never penetrates the outer part of the insulation material and is conducted to the exterior.

SUPPRESSION OF CONDENSING

The ventilated cavity wall and the situation of the thermal insulation material ease extinction of both, superficial and interstitial condensing.

The existence of a ventilated façade and external insulation causes the dew point to form in the outer part of the façade and not in the inner part, and thus, preventing humidity in the inner parts.



INNER INSULATION INNER INSULATION
Black arrow: SATURATION PRESSURE
Grey arrow: REL PRESSURE

CTE we can notice:

B3 facing, C3 involves C1 glass plane for any degree of impermeability.

- C1 At least a medium thickness main skin.
- Half ceramic base that can be drilled or solid if there is not an external facing or it is discontinuous with mechanically attached insulation.
- 12 cm. ceramic blocks made of concrete or natural stone blocks.



MATERIALS: Certificates and Guarantees

All materials used in the installation of FAVETON ventilated façades have all the pertinent quality certificates and comply with all the technical specifications required by current regulations.

FAVETON SYSTEMS have been subject of several tests:

- Reaction to fire.
- Resistance to rainwater penetration.
- Resistance to wind force and suction.
- Resistance to vertical weight support.
- Resistance to impact of hard and soft elements.

In addition to regulated tests of the whole system, ceramic and substructure elements have been separately typified:

- Ceramic is subject of several regulated tests under the regulation ISO-10545: dimensional tolerance, stress, water absorption, freezing, hardness, thermal shock, thermal expansion, and chemical composition and humidity expansion.
- The elements that conform the substructure are typify individually (in terms of dimensional tolerance, chemical composition, resistance to efforts...)
- Now, FAVETON Systems have the following seal of quality from different countries:
 - ISO 9001-2000
 - DAU (Spain)
 - BRE (United Kingdom)
 - AVIS TECHNIQUE (France)
 - GOST (Russia)

FAVETON SOLUTIONS



ECOLOGY AND SUSTAINABILITY

Sustainable ecology thinks about the environmental impact from all the processes involved around a house:

From building materials to building techniques, situation of the house and its impact on the environment, energy consumption and the recycling of materials. Therefore, FAVETON ventilated façades are a referent in Sustainable Architecture: reduces the housing energy impact, improves the runtime carrying out of the work and contribute to a reduction in the costs. FAVETON is a sustainable and respectful construction solution for the environment.

ECONOMY: The high durability of our ventilated façades, low costs of maintenance and easy cleaning guarantee a high amortization.

ENVIRONMENT: FAVETON façades are characterised by their easy system of dismantle and so, they produce a lesser amount of waste than traditional systems. In addition to this, building's energy consumption is reduced because this is an external insulation system. The heating of the surface, along with the "Chimney effect", provokes a variation on the density of the air layer from the intermediate gap or "cavity wall", and thus, producing itself an ascendant movement. Façade's thermal insulation adapts depending on the climatology and succeeds in creating a homogenous and healthy environment in the whole building. It prevents, at the same time, the apparition of several problems such as humidity (like in traditional constructions) by means of spreading of vapour in the cavity wall preventing condensing and corrosion process.

SOCIAL: Ventilated façades adapt to all kind of facings and do not interfere with the architects' creative possibilities. It is an innovative system that far exceeds the requirements asked by the regulation of sustainable building. Ventilated façades boost both thermal and acoustic insulation of the building and allow the laying of corporate designs over the façade without the need to modify the structure.



CERAMIC: Aesthetic and properties

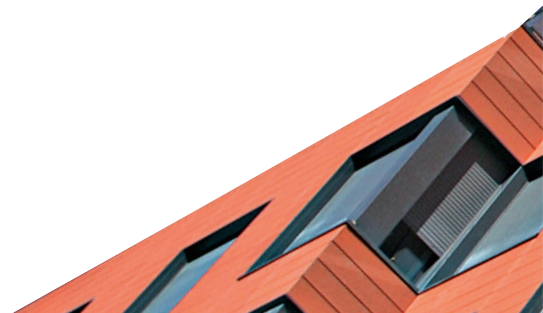
FAVETON ceramic tiles are made of extruded ceramic filler, included inside wide range of pieces, formats and colours. It provides an original look and maintains at the same time the inner being and nature of ceramic products since it they are 100% natural.

These ceramic pieces provide the façade with a series of properties such as:

- Low water absorption.
- Minimum dimensional tolerance.
- High mechanical resistance from the tiles.
- Insensitivity to changes.
- Optimum resistance to coldness. Not freezing.
- Height regulation with the tile in order to adapt to between no standard slabs.
- Combination of different colour.
- Allows the combination of traditional and modern building systems.
- Allows combination with other materials.
- Rejuvenates the whole building's appearance.

Antigraffiti: Standard colours are treated with SICOTECH treatment (antigraffiti).

Special colours: FAVETON produces specially made new colours for projects under request. You can make a previous consultation in order to assure your request since this has an effect in the price.



Q NO MAINTENANCE COSTS

One of the advantages of FAVETON ventilated façade system is the fast and simple assembly and the dismantle process of the pieces.

Depending on the location of the building, dirt could appear in the façade because of the environmental pollution primarily provoked because of the exhaust gas. Nevertheless, since FAVETON ceramics have low absorption (lower than 1%), pollution does not penetrate the tile and it does only settle in the surface. Normally, rainwater is enough for cleaning the surface and, in exceptional cases, just high-pressure water is enough and no solvent is required.

The frequency for this kind of cleaning depends on the level of dirtiness: 5 to 10 years in medium pollution zones and 2 years for highly polluted zones.

[← MINIMAL RESISTANCE WALLS

It is important in every façade reformation process to know the resistance of the wall of support. In order to achieve this it is recommended the realization of tests in order to check if it can support the original façade and what kind of fastening is more recommended.

The idea of using this system over a metallic structure provides additional benefits to the whole construction such as: compensation with problems derived from verticality and the support of building materials' reaction to expansion and contraction since it does not suffer the variations of outer temperature (causing most of the structural movements of the building).



FAVETON SOLUTIONS

SLAB HEIGHTS

In traditional systems, there were different heights among floors in restoration works. This led to suppose a problem when using technical materials in standard format.

FAVETON recommends 3 different solutions.

- Combining different formats: FAVETON tiles are presented on different kinds of heights whose combination would lead to the desired height.
- Longitudinal section: FAVETON tiles can be slit in longitudinal sections in order to meet the demands of the height between floors.
- Perimeter toppings made with other kind of materials: FAVETON combines perfectly with other materials and so, perimeter toppings made of different materials could be used (profiles or sheet metal parts...) that absorb deviations between floors.
- Special format: If the size of work required it, a specific format would be considered in order to adjust to the needs of the building.

WATER SUPPLY, ELECTRICITY AND GAS INSTALLATION

When starting a restoration process with FAVETON you can contribute with a new aesthetic for the façade and the possibility of keeping drainpipes and wiring hidden in the inner cavity.

However, an evaluation of each case is recommended since there is a range of variables like the width of the ventilated cavity and the installation's typology.

In the case of gas installation, it's important to keep them in the outer part of the façade since constant maintaining of the installation is essential.





FAVETON TECHNICAL SERVICE

Apart from our façade innovative solutions, FAVETON offers you national and international technical advice services with an impeccable service quality.

We have the best professionals, excellent resources and the best management system to carry out any kind of work, either comprehensive, restoration or remodelling, and so guaranteeing the most advanced quality standards.

- Spacing suggestions
- Bearing resistance trial in restoration façades
- Assembly drawings
- Structural calculations
- Individual solutions
- Introduction of other materials



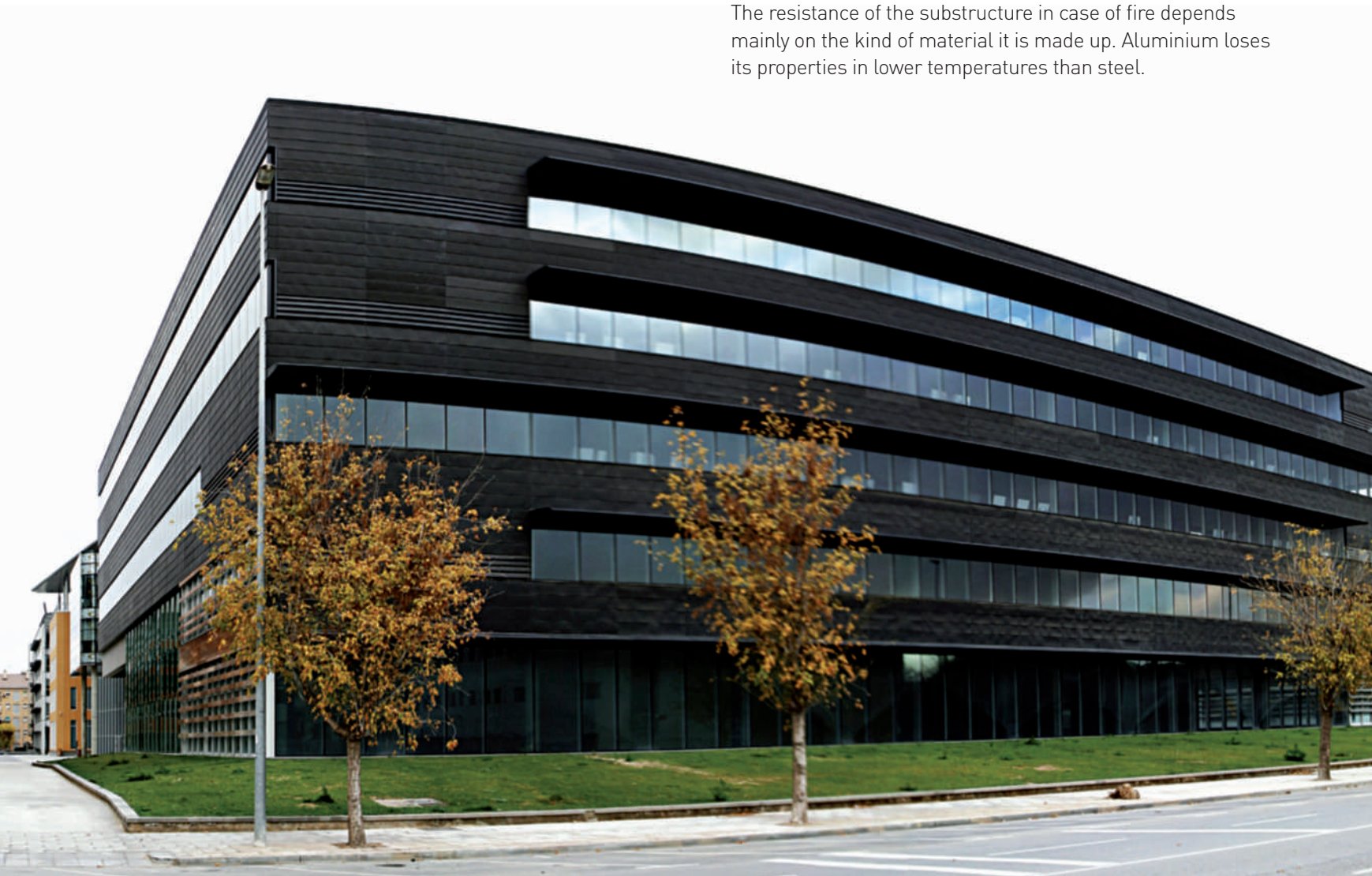
FIRE SAFETY

All ventilated façade systems meet with the demands found in point 1.4 from the DB-S12 from CTE since the behaviour in regards of fire safety is considered B-s1 do degree. In other words, it is not combustible and does not produce smoke or water drops.

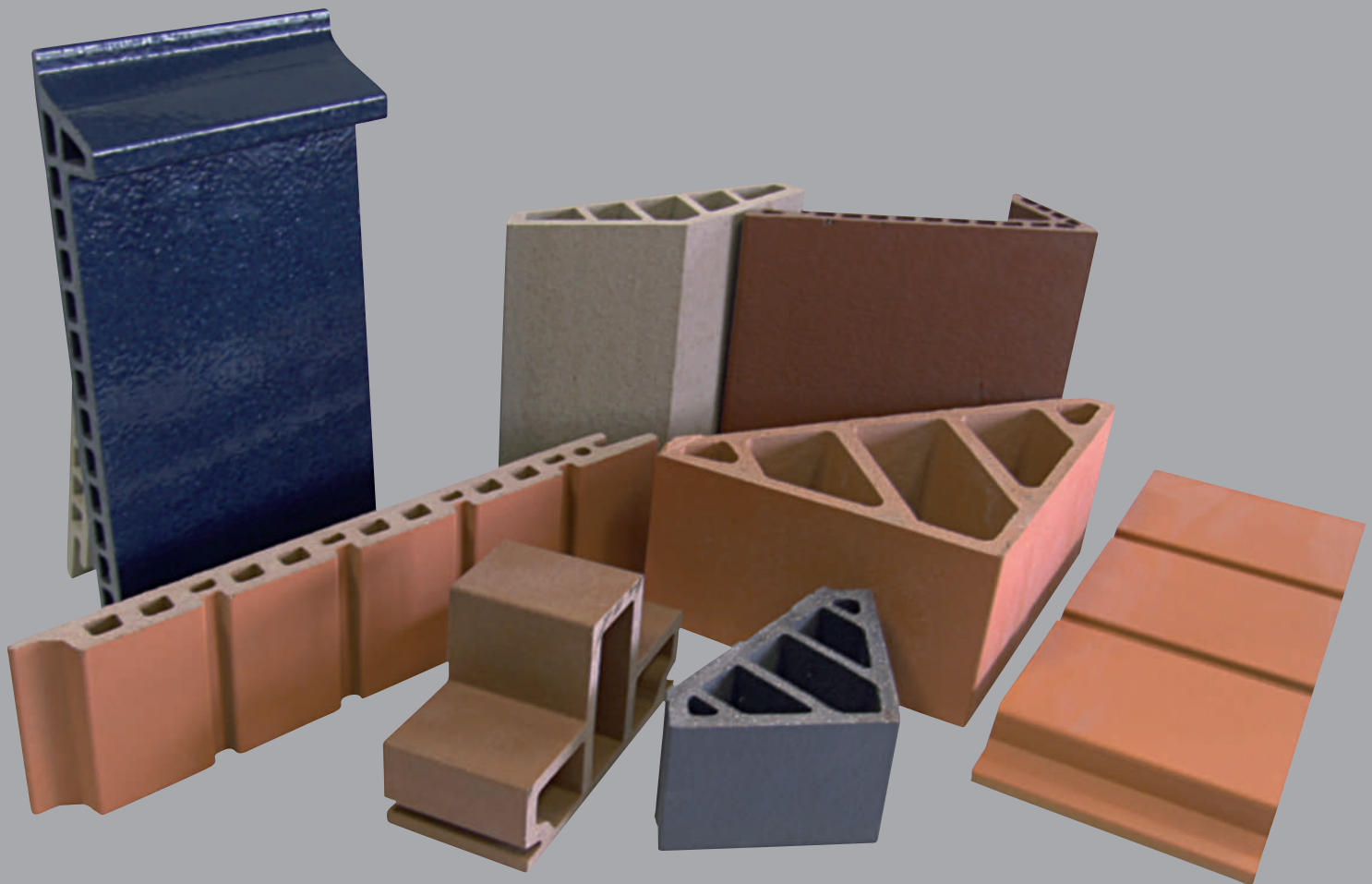
Reaction to fire classification of FAVETON ceramic and metallic components (found in clips, profiles and corbels) is categorized as A1 Class. This classification was carried out under the programme " Building materials test of reaction to fire. Conditioning procedure and general rules with regard to substrate selection".

In ventilated façade systems, fire safety is directly related to the slitting of the cavity of the window lintel. Fire coming from the interior of the home can spread because of the ascending convection from the cavity wall. For that reason, it is recommended to close the cavity lintel.

The resistance of the substructure in case of fire depends mainly on the kind of material it is made up. Aluminium loses its properties in lower temperatures than steel.



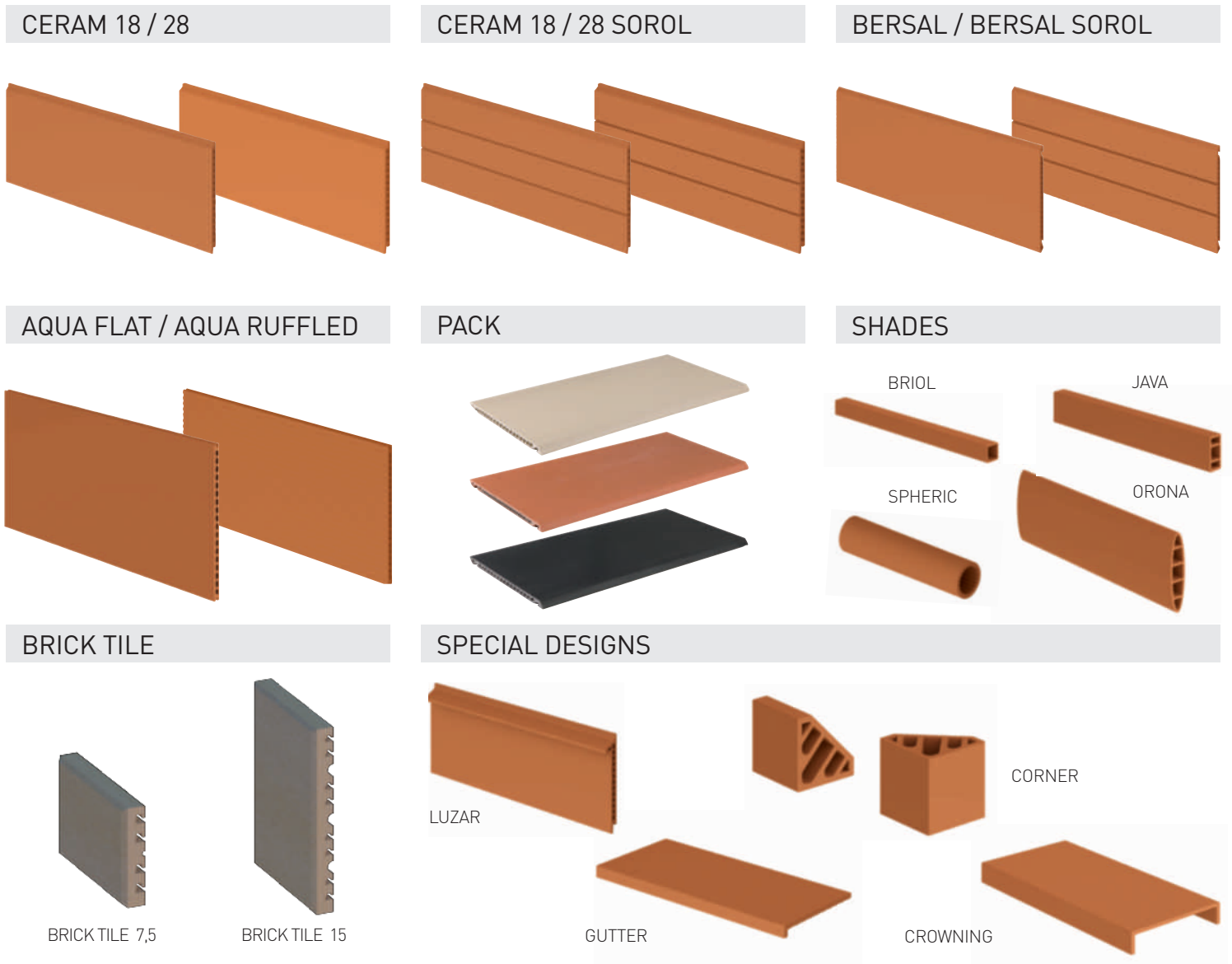
CERAMICS AND COLOURS



FAVETON system ceramic pieces are extruded ceramic paste tiles, characterized by a wide range of formats, colours and finishes that provide the building with a modern and innovative appearance and at the same time, preserve the traditional appearance of ceramic products.

The utilisation of this material contributes to the improvement of the façade's technical characteristics. This kind of porcelain-ceramic material increases its mechanical resistance making FAVETON one of the most suitable materials for ventilated façades.

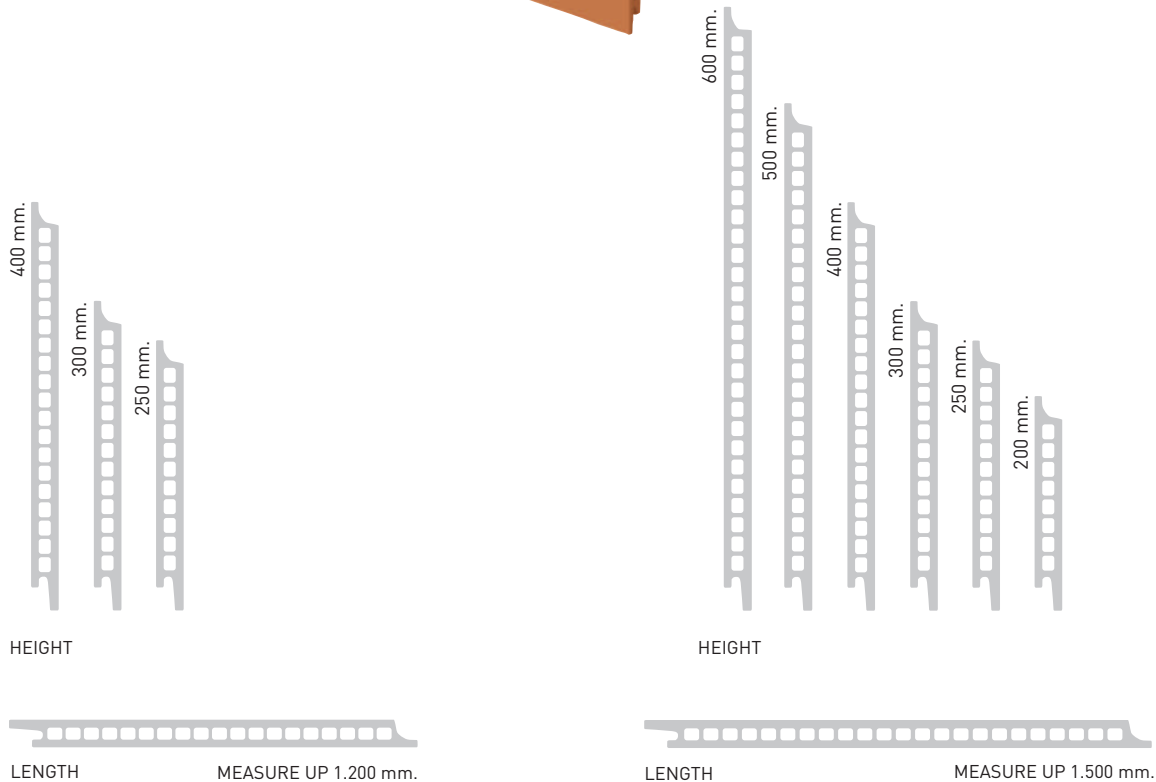
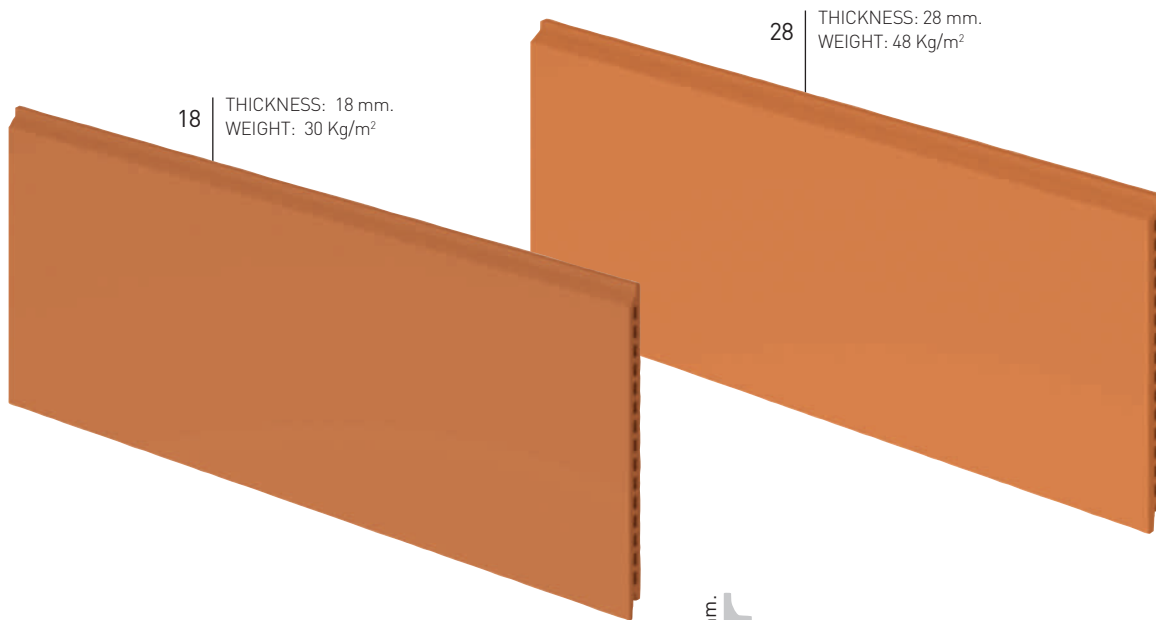
COMBINATION OF DIFFERENT SYSTEM PIECES:



PROPERTIES	REGULATIONS	FAVETON VALUE
Tolerance.	ISO 10545-2	<ul style="list-style-type: none"> - Length (Extrusion direction) +/- 1 mm* - Height +/- 2 mm* - Thickness +/- 10% * - Straightness (Extrusion direction) +/- 0,3% of length - Rectangulativity +/- 1% of height - Surface flatness of diagonal or height +/- 0,5%
Water absorption.	ISO 10545-3	3-6% depending on the colour
Flexion resistance.	ISO 10545-4	14-18 N/mm ² depending on the colour
Lineal thermal directionl.	ISO 10545-8	Expansion coefficient $5,7 \times 10^{-6}$ (K ⁻¹). Test ITC.
Thermal shock resistance.	ISO 10545-9	Testing at 145° unalterable
Humidity expansion.	ISO 10545-10	Medium value 0,1 mm/m, maximum value 0,1 mm/m Test ITC
Freezing resistance.	ISO 10545-12	Unalterable according to test (100 cycles+5Ca-5°C)
Chemical resistance.	ISO 10545-13	Only applicable to corrosive conditions. Minimum G and B CLASS
Stain resistance.	ISO 10545-14	Minimum 3 CLASS (Enamelled)
Colour differences..	ISO 10545-16	ΔE 2.

CERAM 18 / 28

Extruded ceramic tile of 18 and 28mm thickness, available in big formats and 5 heights. Because of their dovetailed shape, they prevent the water entrance in the cavities, improving the technical features of the building.



The measurements are actual measurements from the tiles. For the layering of the façade with this kind of tiles, it is recommended to consider the measurements between axles. 10 mm. have to be considered for horizontal joints and from 3 to 10 mm for vertical joints, depending on the system that has been chosen. In other words, with a piece of 290x990 mm. measurements for the axles will be of 300x1000 mm.

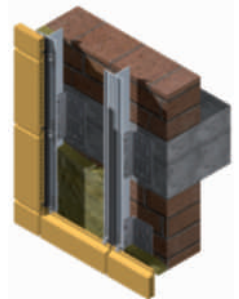




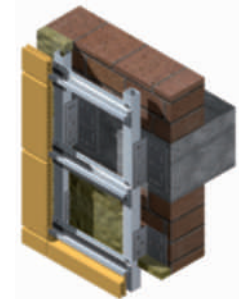
ASSEMBLY SYSTEMS

VENTILATED FAÇADE

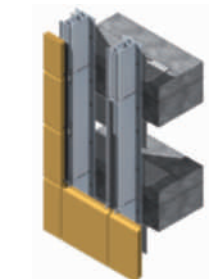
SAH



SAC



SAF

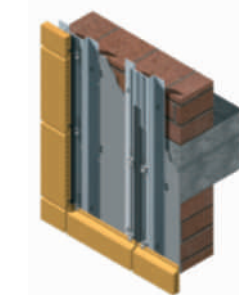


SAV



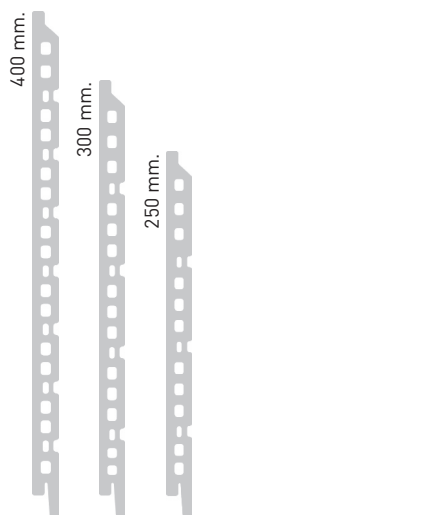
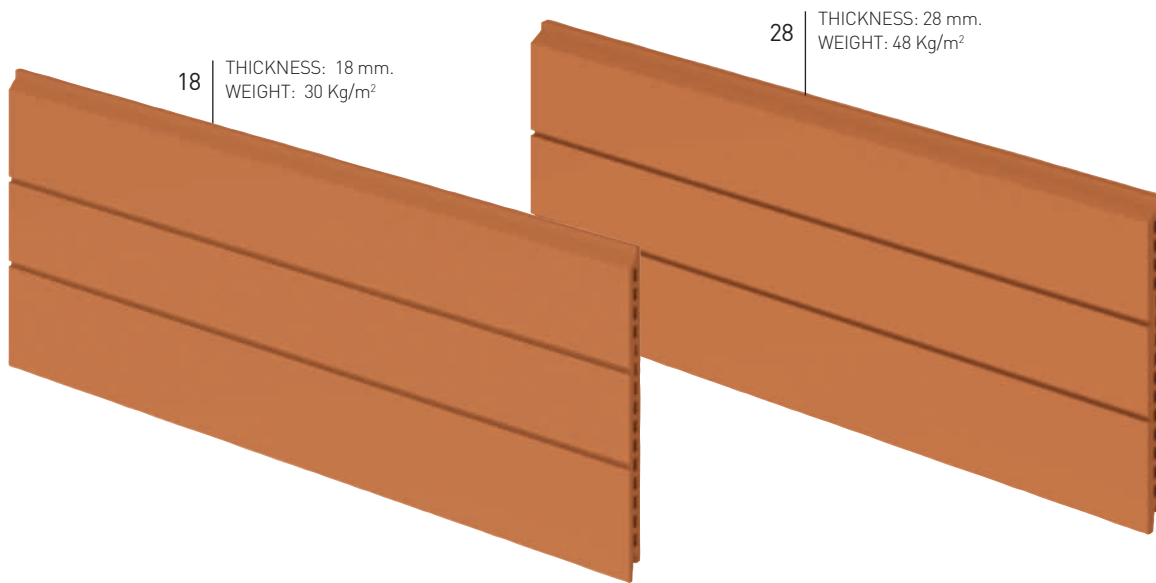
FURRED

SAR



CERAM 18 / 28 SOROL

Extruded ceramic tile of 18 and 28mm thickness slotted (depending on the height of the tile, you can chose the number of slots up to 8) dovetailed in horizontal and possible to place both in horizontal and vertical axles. They are available in big formats and 5 heights. Because of their dovetailed shape, they prevent the water entrance in the cavities, improving the technical features of the building.

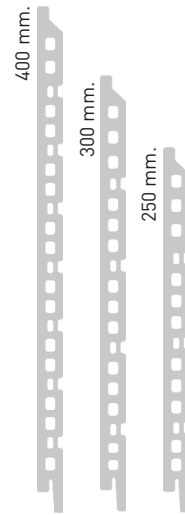


HEIGHT



LENGTH

MEASURE UP 1.200 mm.



HEIGHT



LENGTH

MEASURE UP 1.500 mm.

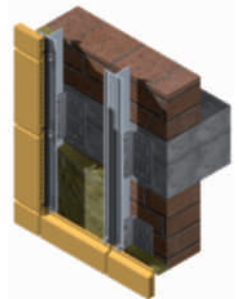
The measurements are actual measurements from the tiles. For the layering of the façade with this kind of tiles, it is recommended to consider the measurements between axles. 10 mm. have to be considered for horizontal joints and from 3 to 10 mm for vertical joints, depending on the system that has been chosen. In other words, with a piece of 290x990 mm. measurements for the axles will be of 300x1000 mm.



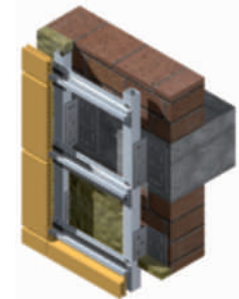
ASSEMBLY SYSTEMS

VENTILATED FAÇADE

SAH



SAC



SAF

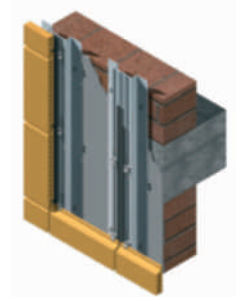


SAV



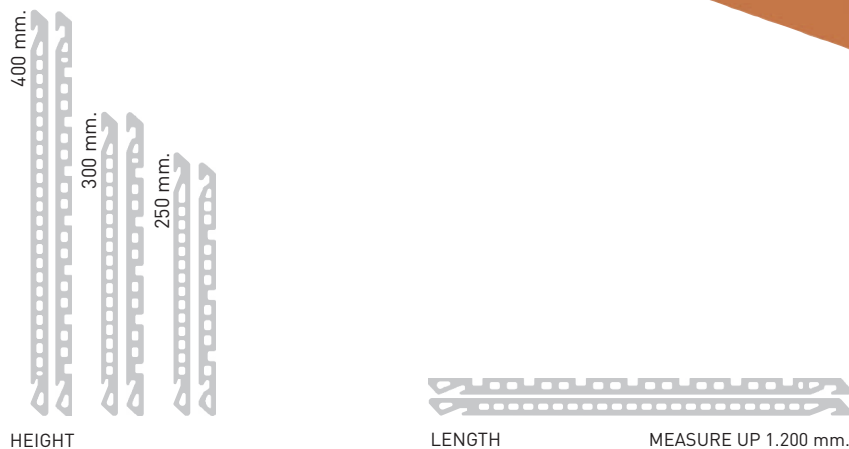
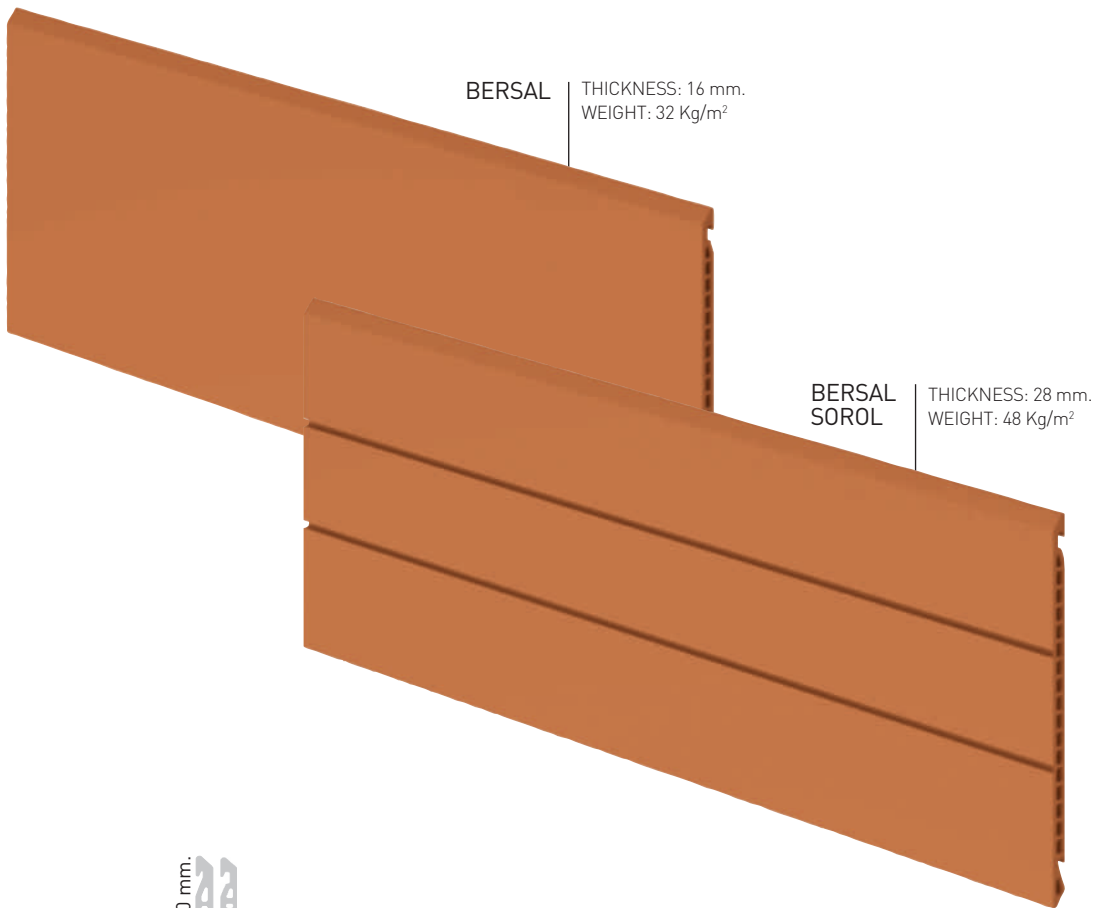
FURRED

SAR



BERSAL / BERSAL SOROL

16 mm. tiles, up to 1200 mm length. This tile combines design and lightweight so the use of the ceramic is optimized and economic for different types of façade. Specially recommended for restoration of façades. There is an option of slotted pieces in horizontal direction and dovetailed joints.

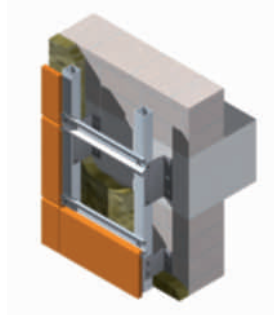


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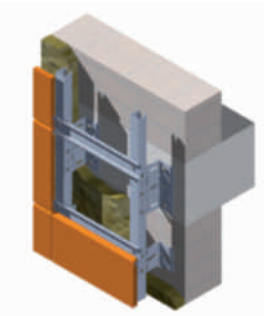


ASSEMBLY SYSTEMS

VENTILATED FAÇADE

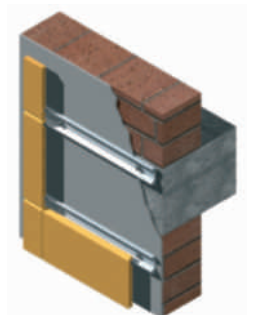


SAC Simple Aluminium

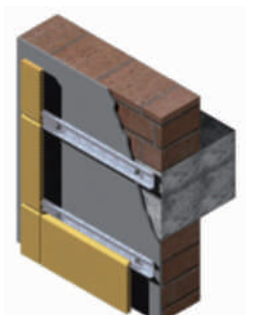


SAC Simple Galvanized

FURRED



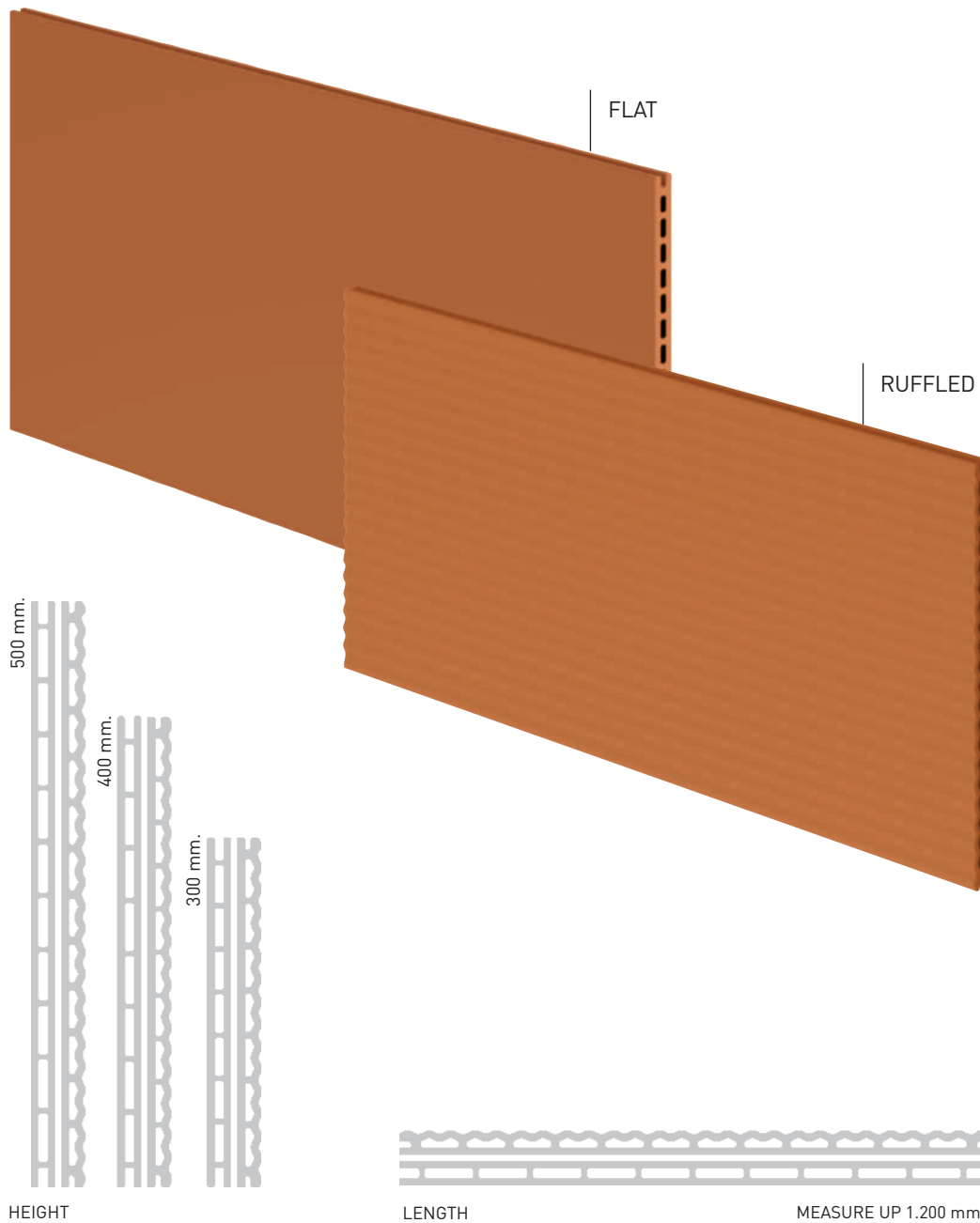
Aluminium



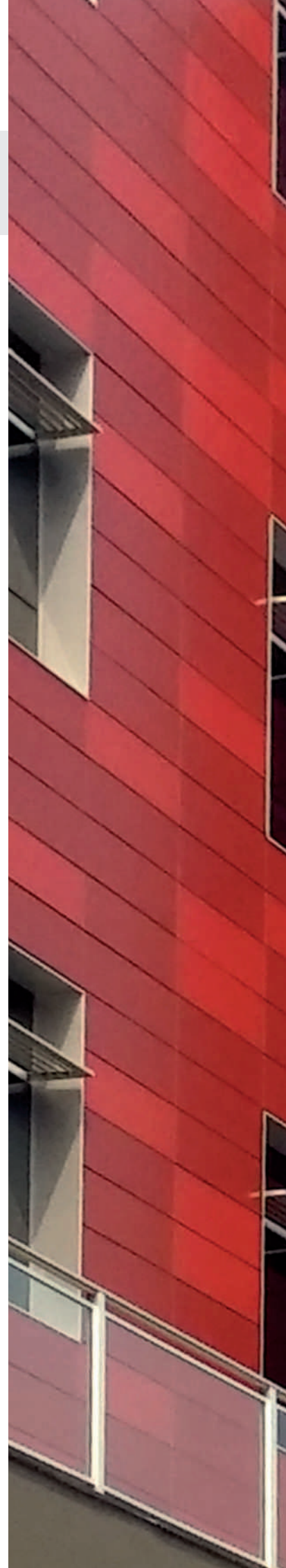
Galvanized

AQUA FLAT / AQUA RUFFLED

FAVETON AQUA are designed either to be laid in horizontal or, if preferred, vertical position. This flexibility for installation, together with this outer ruffled texture, created an overall volume and a play of light and shadows that provide the façade with new features and so; conventional flat façade's appearance disappears. It is available in flat and ruffled formats.

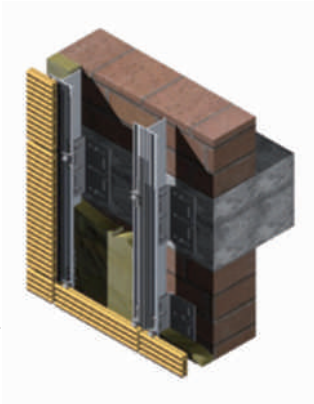


The measurements are actual measurements from the tiles. For the layering of the façade with this kind of tiles, it is recommended to consider the measurements between axles. 10 mm. have to be considered for horizontal joints and from 3 to 10 mm for vertical joints, depending on the system that has been chosen. In other words, with a piece of 290x990 mm. measurements for the axles will be of 300x1000 mm.

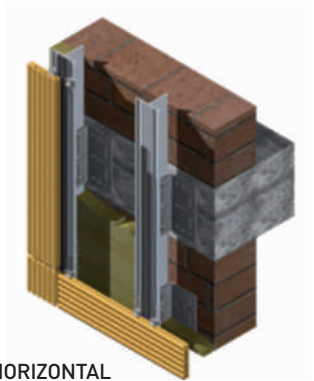


ASSEMBLY SYSTEMS

VENTILATED FAÇADE



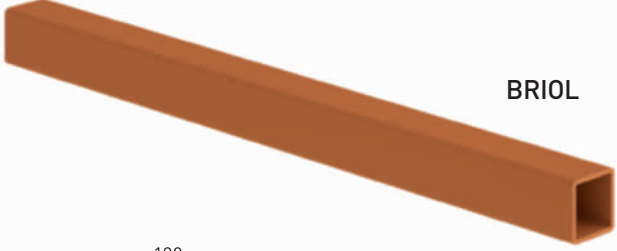
SAH
HORIZONTAL



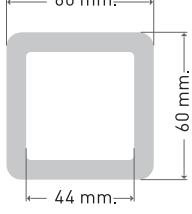
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VERTICAL - HORIZONTAL

BUILDING SHADES

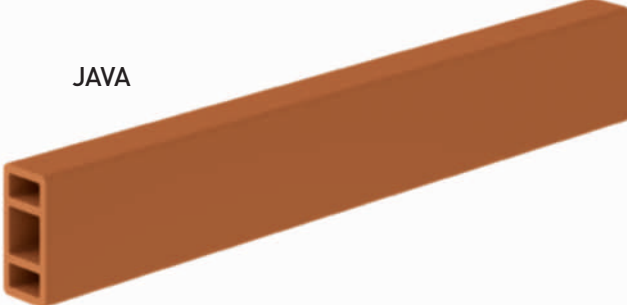
FAVETON provides with a great variety of ceramic building shades in different shapes, up to 6 types (Briol, Java, Orona, Spheric).



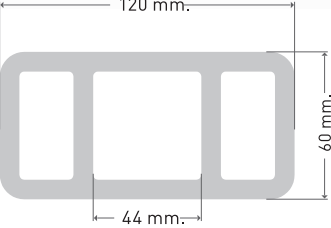
BRIOL



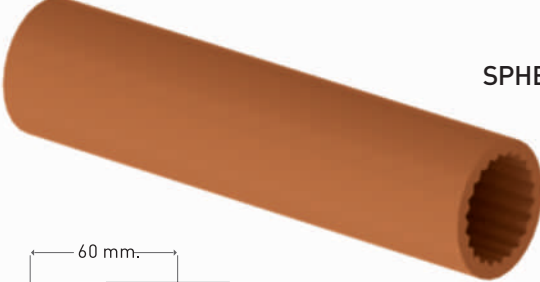
X	Y
50 mm.	50 mm.
60 mm.	60 mm.



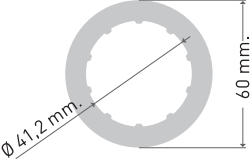
JAVA




X	Y
60 mm.	120 mm.
50 mm.	130 mm.
60 mm.	150 mm.

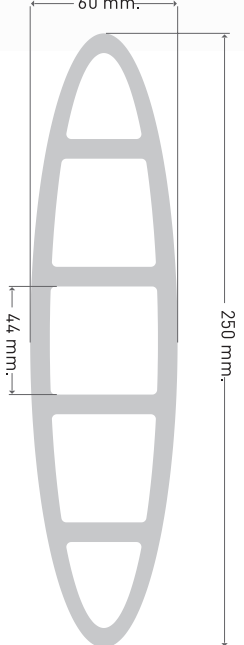


SPHERIC





ORONA



X	Y
240 mm.	60 mm.
360 mm.	80 mm.

Maximum length: 1500 mm. Thickness depends on each kind of building shade.

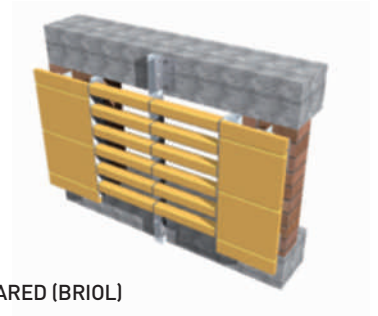
EXAMPLES OF LATTICES:

BRIOL BAGUETTE 5,5 KG /ml
 JAVA BAGUETTE 10KG/ml
 ORONA BAGUETTE 14 KG/ml

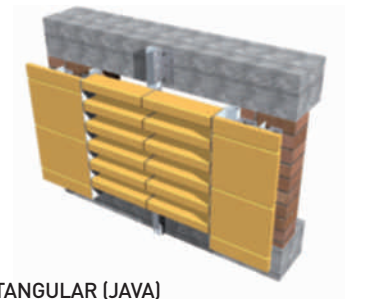


ASSEMBLY SYSTEMS

VENTILATED FAÇADE



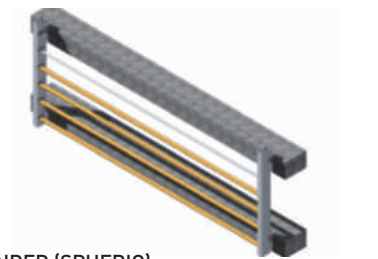
SQUARED (BRIOL)



RECTANGULAR (JAVA)



ELLIPTIC (ORONA)



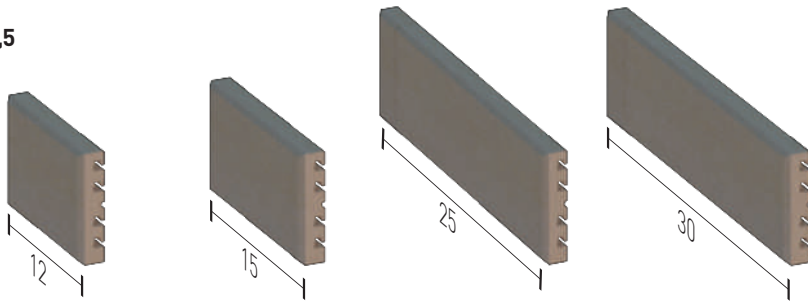
ROUNDED (SPHERIC)

There is not just one fixing system for ceramic building shades; on the contrary, it can vary depending on the work's needs.

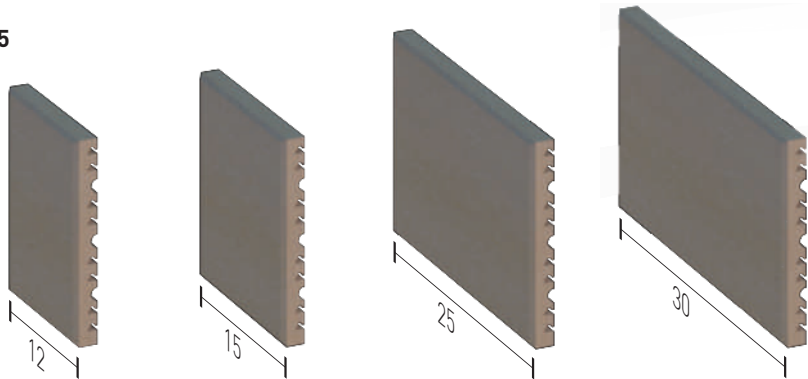
BRICK TILE

Without leaving our roots behind and because we do not forget where we belong to, a land that has been historically influenced by Mudejar art and a rich ceramic tradition, we could not either forget about culture and aesthetics found on these brick façade. FAVETON launches onto the market a new system of ventilated façades using brick tiles.

BRICK TILE 7,5



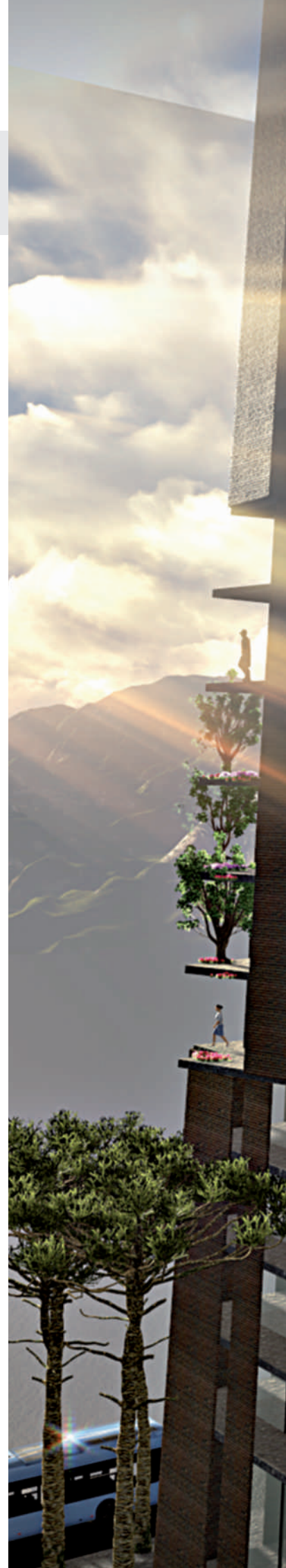
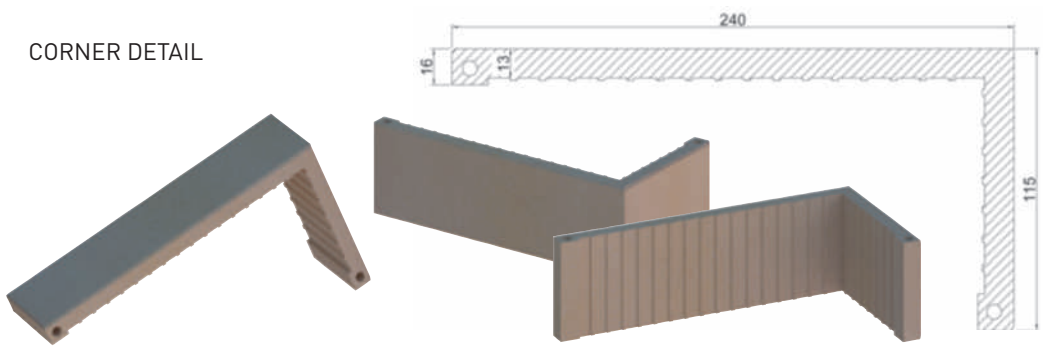
BRICK TILE 15

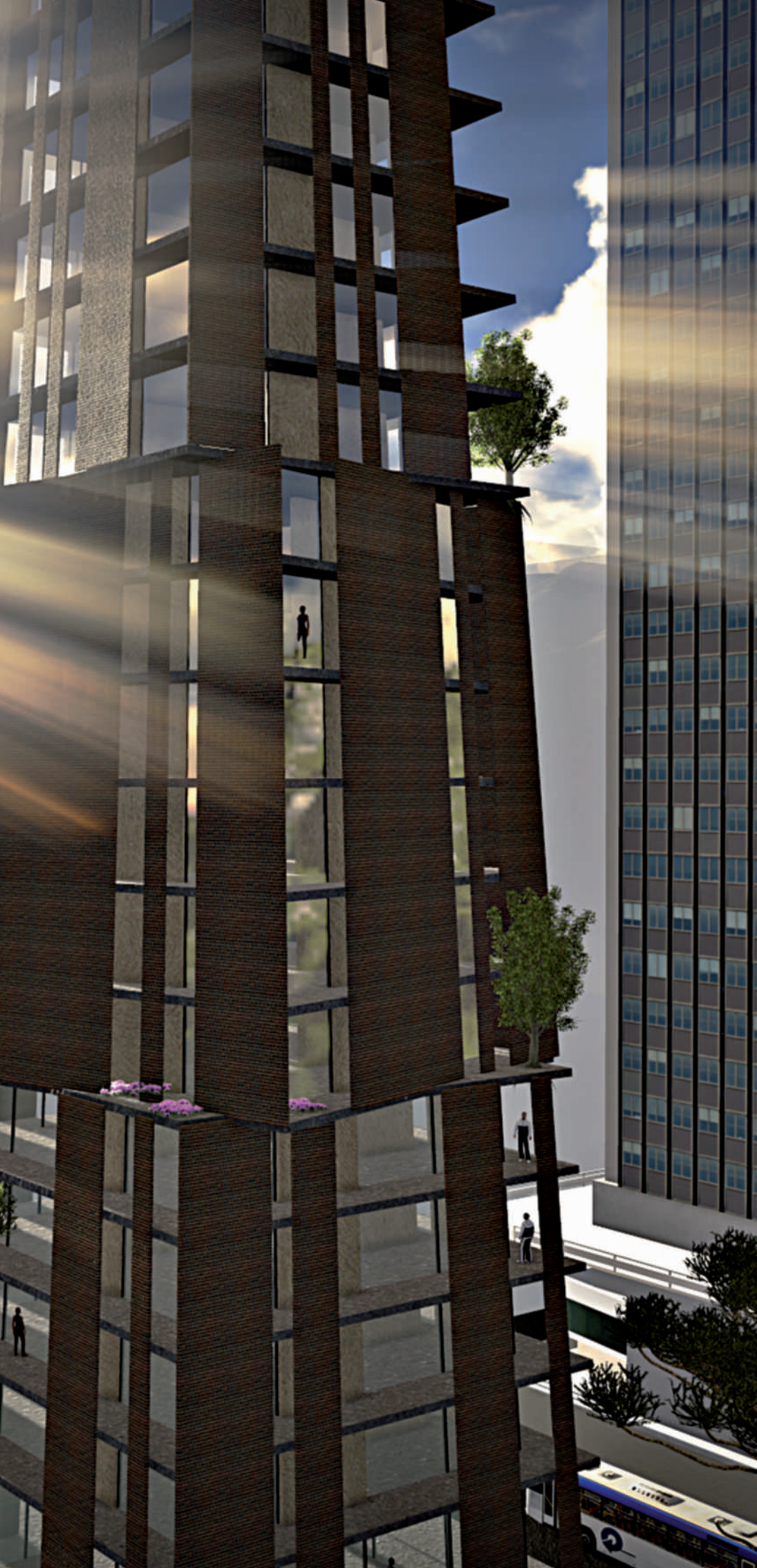


FAVETON OFFERS DIFFERENT MEASUREMENTS MADE TO ORDER.

SECTION	MEASUREMENTS			WEIGHT/m ²	UNIT / m ²	UNIT/PACK	PACK / m ²	PALLET / m ²
	L	W	T					
	30	7,5	1,6	28	40	28	0,7	32
	25	7,5	1,6	28	47	34	0,7	32
	15	7,5	1,6	28	78	56	0,7	32
	12	7,5	1,6	28	90	68	0,7	32
	30	15	1,6	28	20	14	0,7	32
	25	15	1,6	28	24	17	0,7	32
	15	15	1,6	28	42	28	0,7	32
	12	15	1,6	28	48	34	0,7	32

CORNER DETAIL

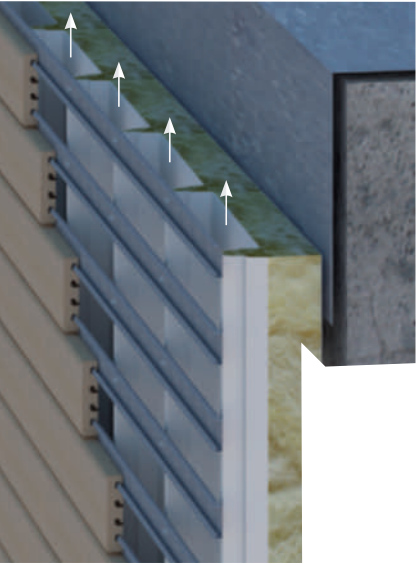




ASSEMBLY SYSTEMS

Ceramic tile's unique design and profiles allow the production of different joints and lying out of the façade. Joints can be left opened for ventilation purposes or sealed with filler made for these purposes.

VENTILATED FAÇADE



MECHANICAL ATTACHMENT



GLUING SYSTEM

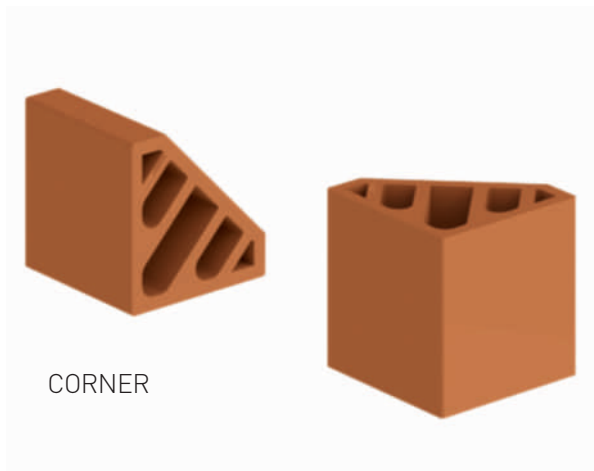


SPECIAL DESIGNS

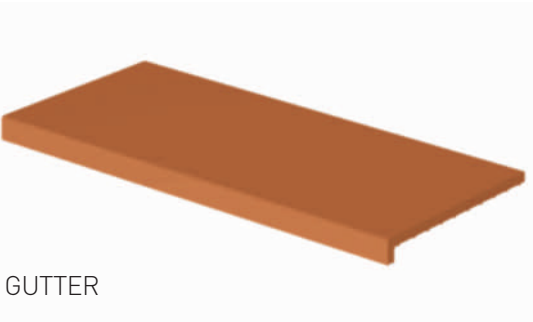
With the extrusion of ceramic pieces we can get unique tile designs. FAVETON has a wide range of special designs that cover all the basic needs for project lying out and design. We have several moulds and special pieces. FAVETON R&D department works in several innovative projects working on prototypes and new moulds.



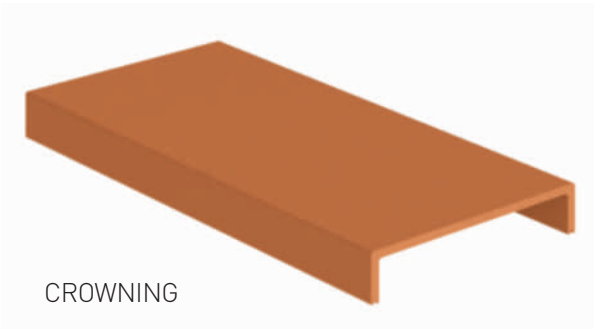
LUZAR



CORNER



GUTTER



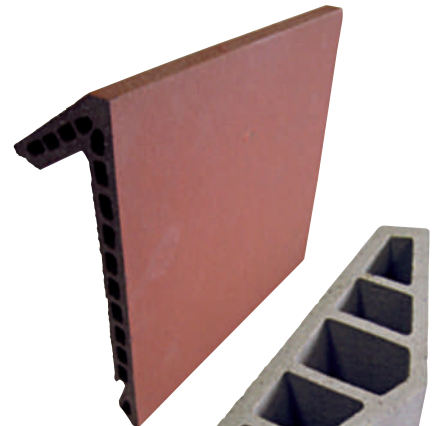
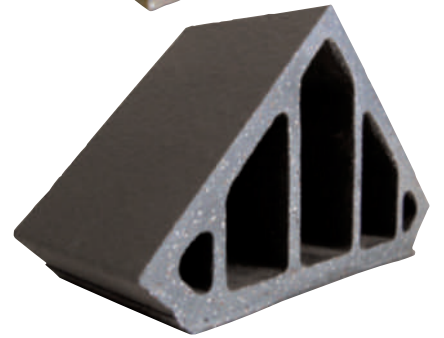
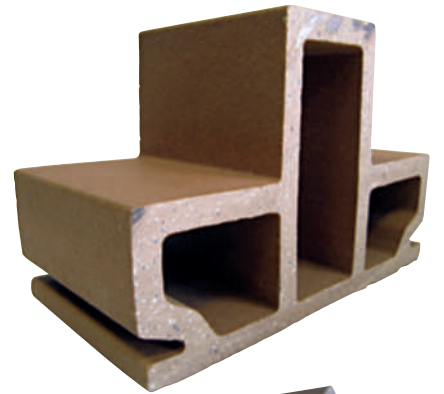
CROWNING

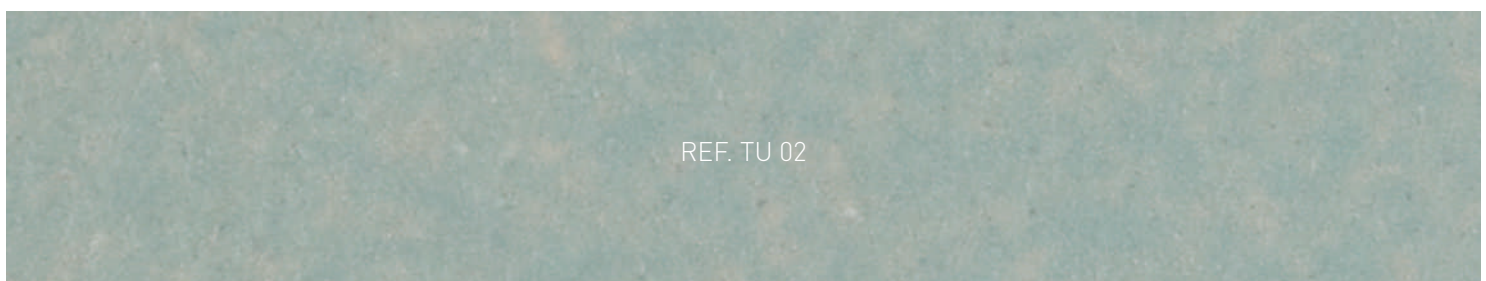
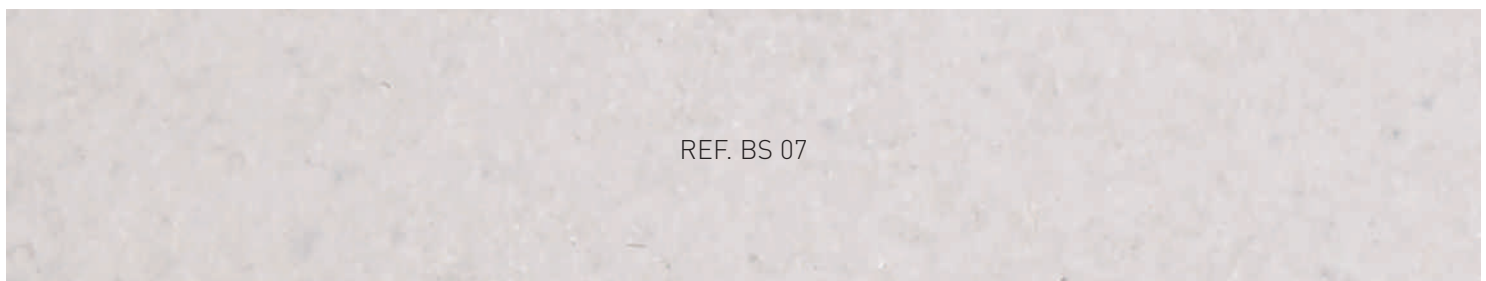
WEIGHT OF SOME SPECIAL PIECES

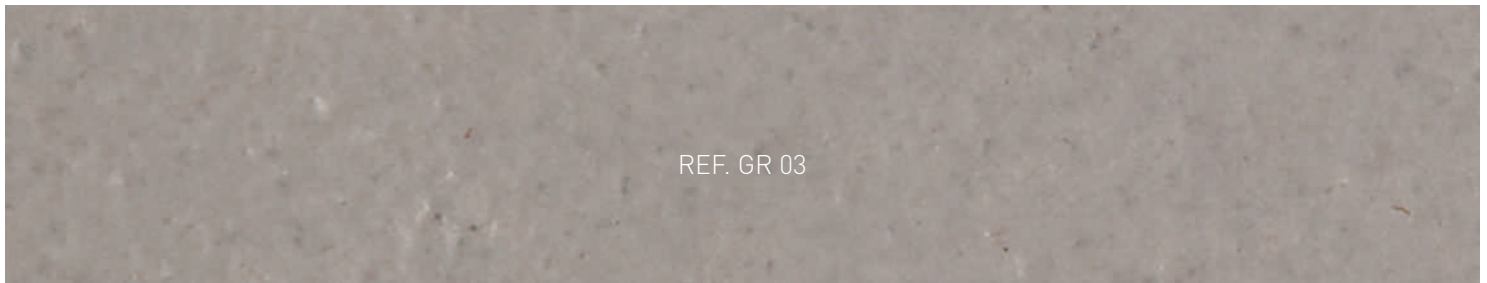
- LUZAR. 50 KG/m²
- STEP. 29 KG/m²
- CROWNING. 11,2 KG/m²
- CORNER. 8,1 KG/ml



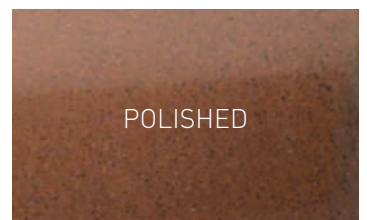
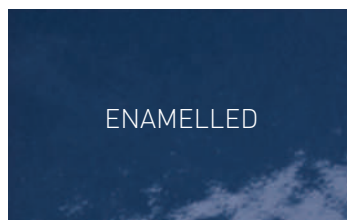
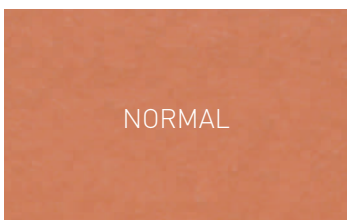
SPECIAL DESIGN SAMPLES

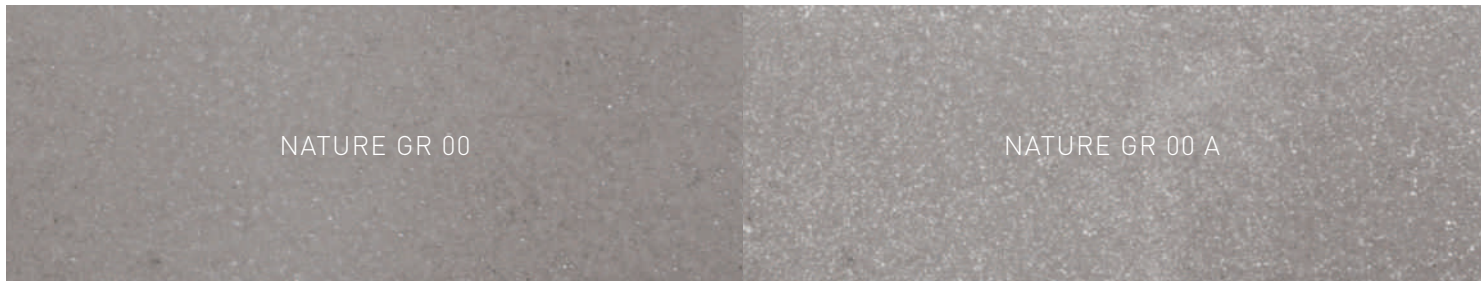






FINISHING TOUCH







METALLIC COLOURS



SPECIAL COLOURS

JUST THINK OF A COLOUR...FAVETON MAKES IT POSSIBLE.

This range is just a little selection. FAVETON produces special colours for projects made to order. Special colours require a minimum level of production and an additional charge will be added.





NATURE NA 01



NATURE NA 01 A



NATURE NA 01 TE 02



NATURE NA 01 TE 02 A



NATURE NA 01 B



NATURE NA 01 B A



NATURE R 50



NATURE R 50 A



NATURE MA 04



NATURE MA 04 A



NATURE R 5005



NATURE R 5005 A



NATURE R 21



NATURE R 21 A



NATURE R 5005 TE 02



NATURE R 5005 TE 02 A



NATURE RO 04



NATURE RO 04 A



NATURE RO 04 MA 09



NATURE RO 04 MA 09 A



NATURE MA 09



NATURE MA 09 A



NATURE R 21 MA 09



NATURE R 21 MA 09 A



NATURE GR 00



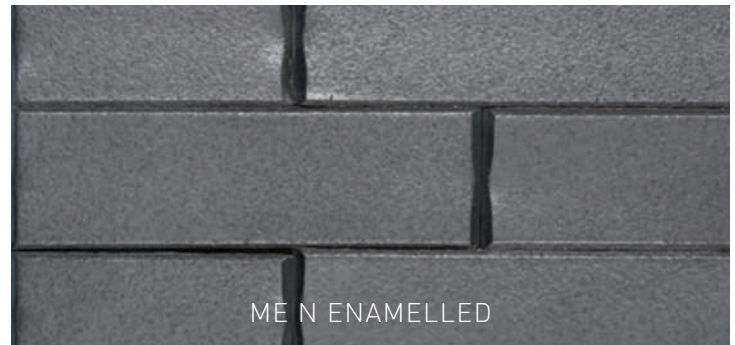
NATURE GR 00 A



NATURE GR 05



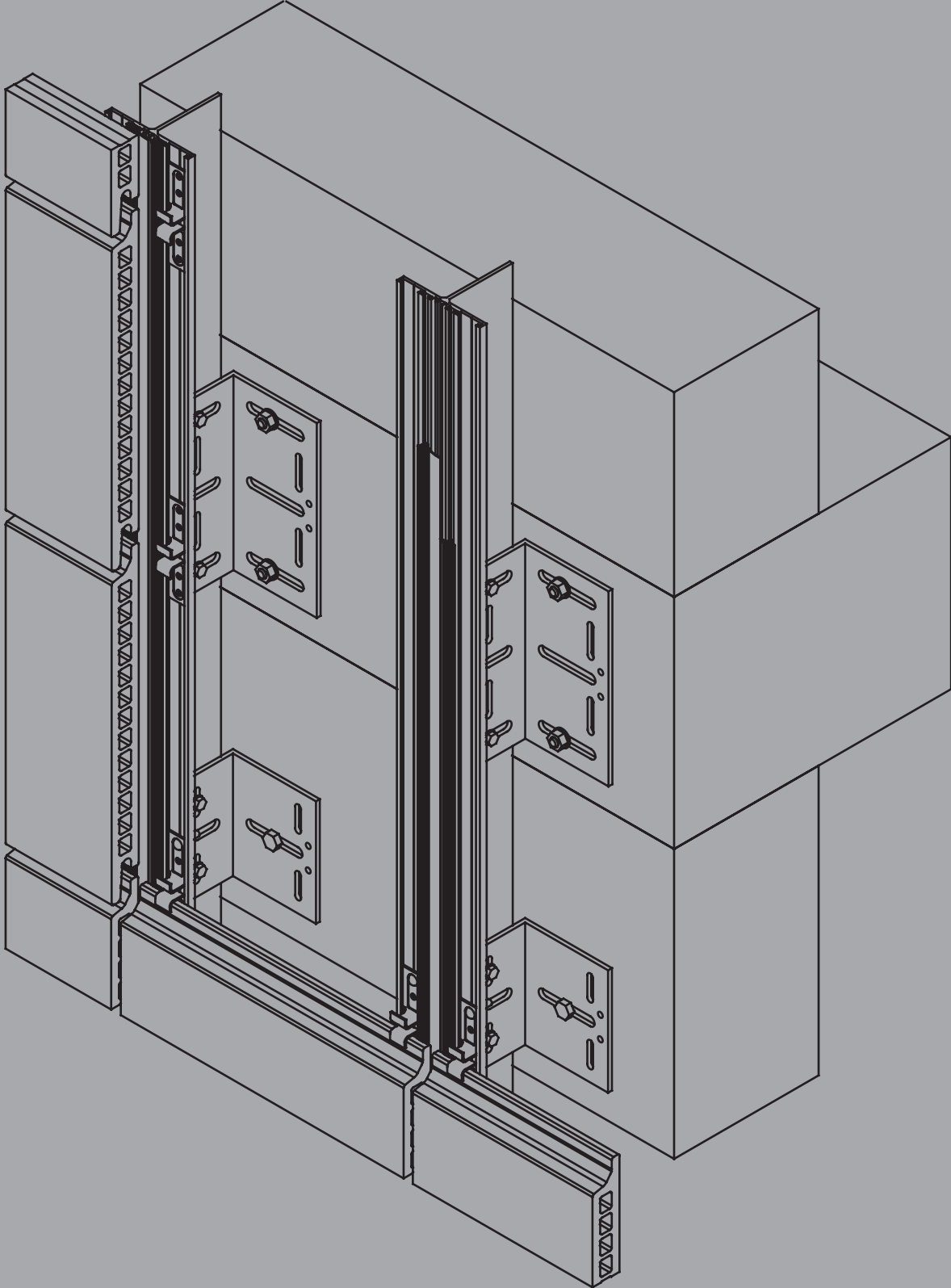
NATURE GR 05 A



FAVETON PREPARES ANY COLOUR YOU MAY WANT BY REQUEST AS LONG AS THERE IS A MINIMUM VOLUME OF PRODUCTION. IT WILL TAKE AN ADDITIONAL CHARGE FOR SPECIFICALLY MADE COLOURS.



CERAM

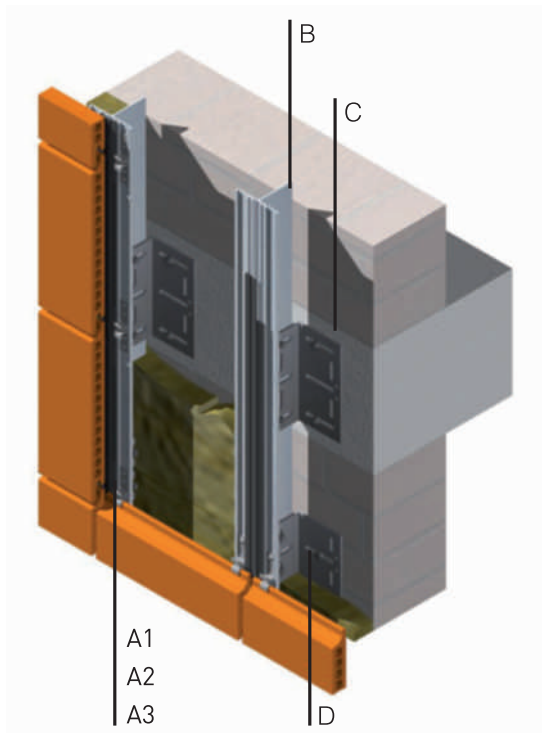


CERAM - SAH

HORIZONTAL ANCHORAGE SYSTEM

Horizontal Anchorage System (SAH) consists on an aluminium substructure made of vertical profile connections T type, fixed to the wall by L profiles called "corbels". Two types available: Sustenance corbel (fixed point): They support the façade's weight and they are usually forged. Retention corbel (movable point): They hold up wind force.

Each T profile has 4 channels: Two external channels where the ceramic tiles' attachment clips are placed and two inner channels where the EPDM rubber is used. Its function is to settle the system against vibrations and avoid the entrance of water inside the vertical joints. This is also achieved inside the horizontal joints because of the dovetailed shape of the tiles so the system can be practically considered waterproof.



TILE ASSEMBLY



EPDM PROFILE



SUSTAINANCE CORBEL



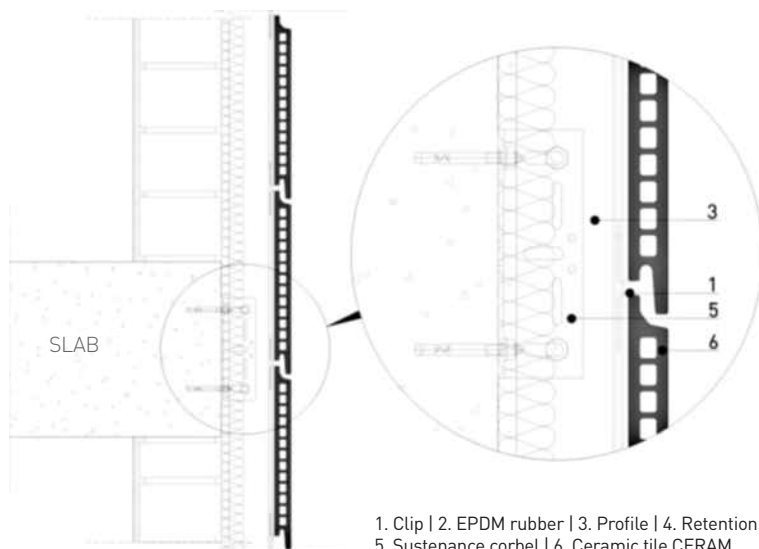
RETENTION CORBEL



Ventilation cavities: Minimum: 115 mm. | Standard cavity: 120 mm. | Maximum: 165 mm.
Ventilation joints between tiles: 10 mm. in horizontal and vertical direction.

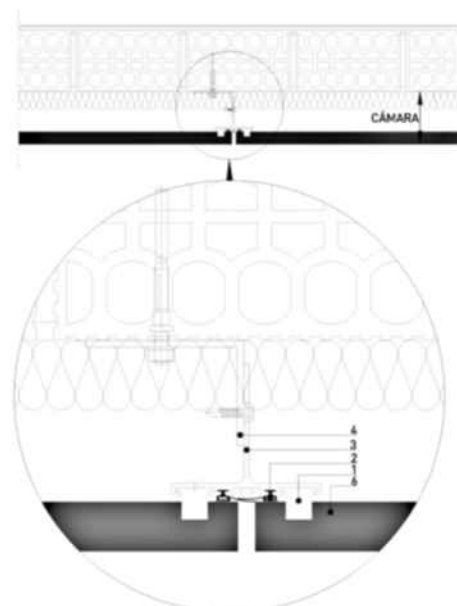
WATERPROOF SYSTEM AGAINST RAINWATER

VERTICAL SECTION



1. Clip | 2. EPDM rubber | 3. Profile | 4. Retention corbel
5. Sustenance corbel | 6. Ceramic tile CERAM

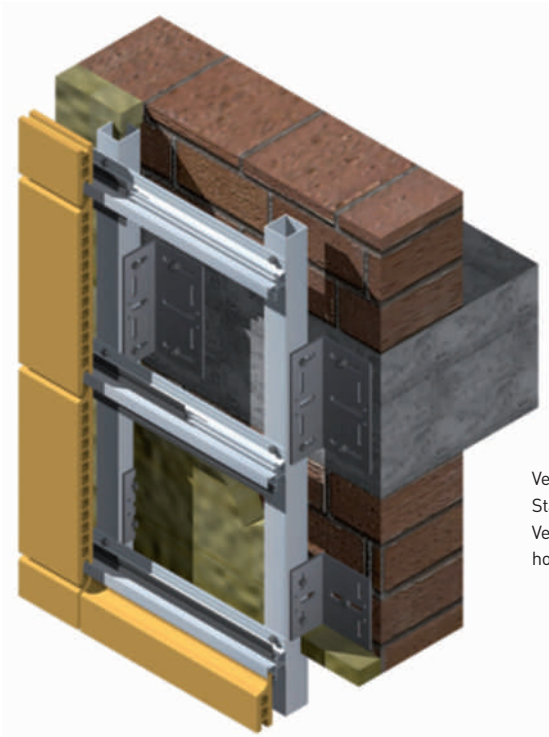
HORIZONTAL SECTION



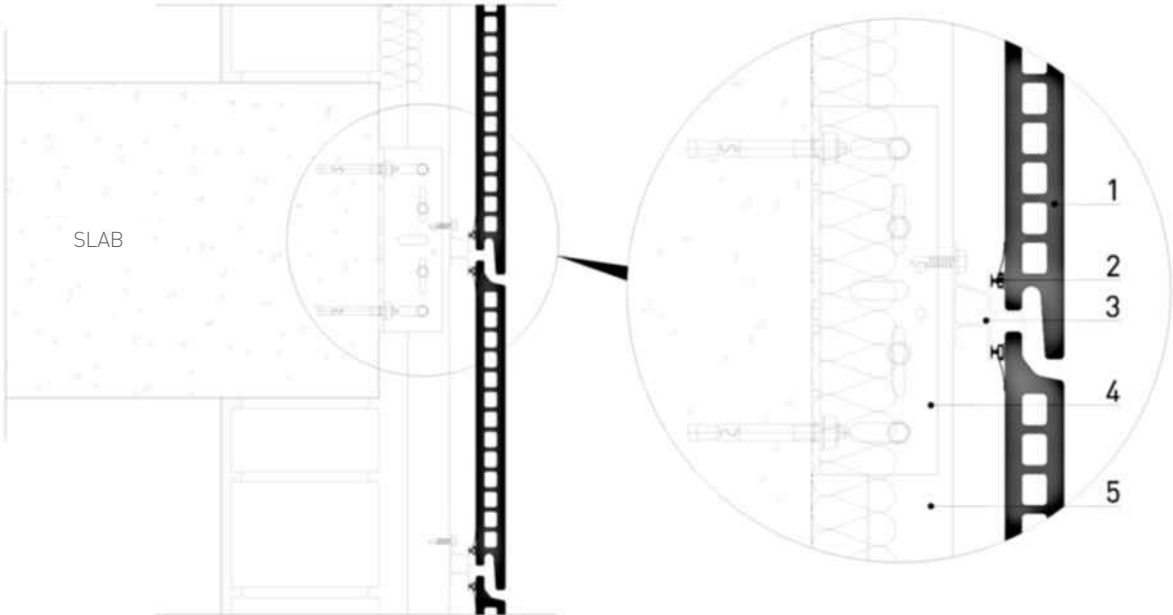
CERAM - SAC

COMBINED ANCHORAGE SYSTEM

Combined Anchorage system (S.A.C) consists on a main substructure attached to the wall by means of sustenance ad retention corbels. They are made of aluminium horizontal profiles 40x40x2 to which a secondary substructure made of horizontal profiles are attached. These horizontal profiles have fasteners that gather the CERAM tiles up and the EPDM rubber profile. This prevents the rattling sound.



Ventilation cavities: Minimum: 115 mm.
Standard cavity: 120 mm. Maximum: 150 mm.
Ventilation joints between tiles: 10 mm. in horizontal and 4 mm. in vertical direction.

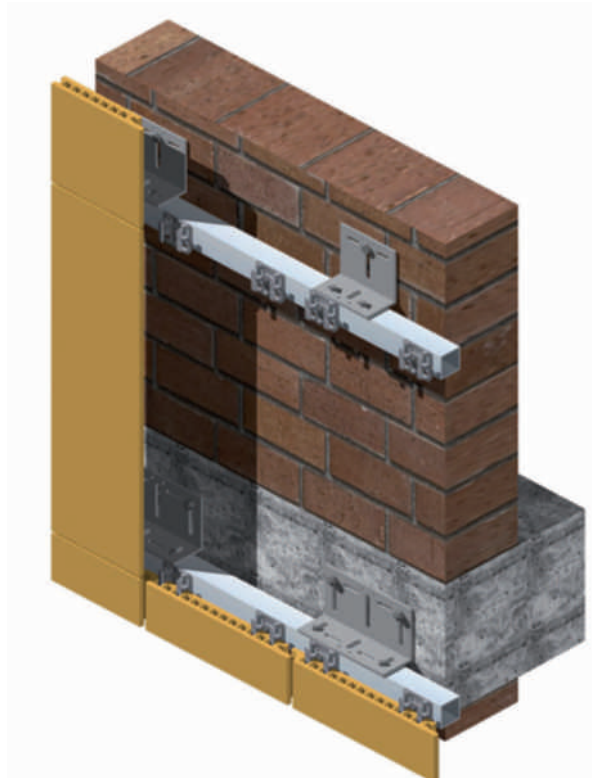


1. CERAM ceramic tile | 2. EPDM rubber | 3. Horizontal profile | 4. Sustenance corbel | 5. Tubular profile

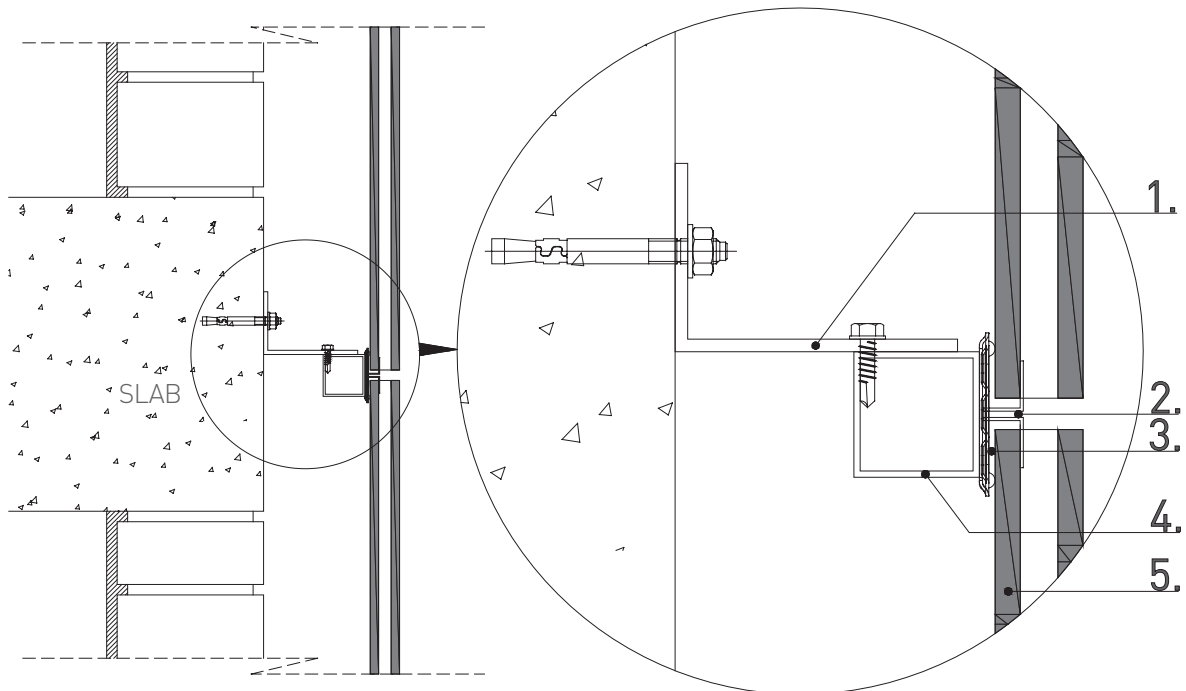
CERAM - SAV

VERTICAL ANCHORAGE SYSTEM

Vertical Anchorage system (SAV) provides the façade with a new aesthetic since the tiles are placed in vertical direction, attached to the sockets with clips and these, to tubular horizontal pieces.



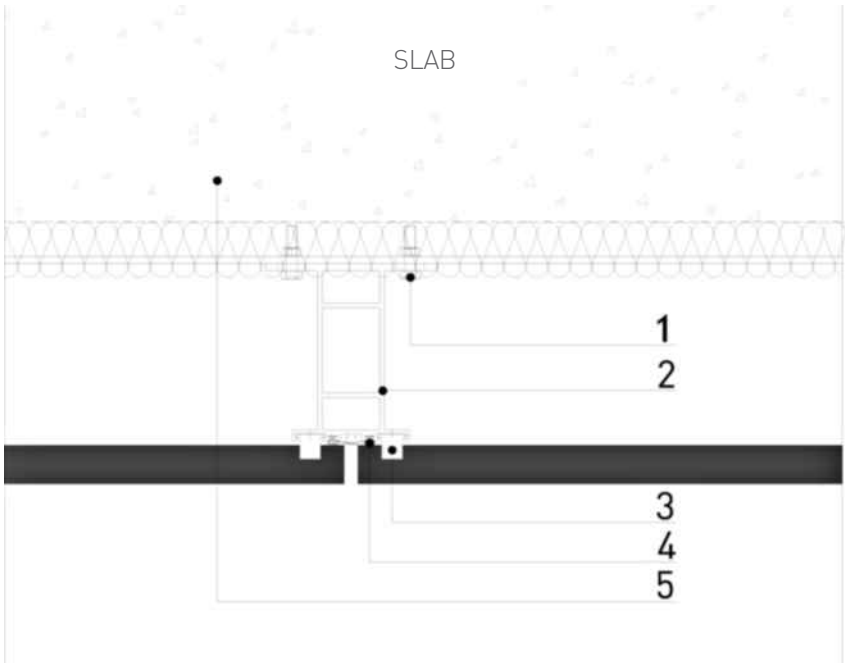
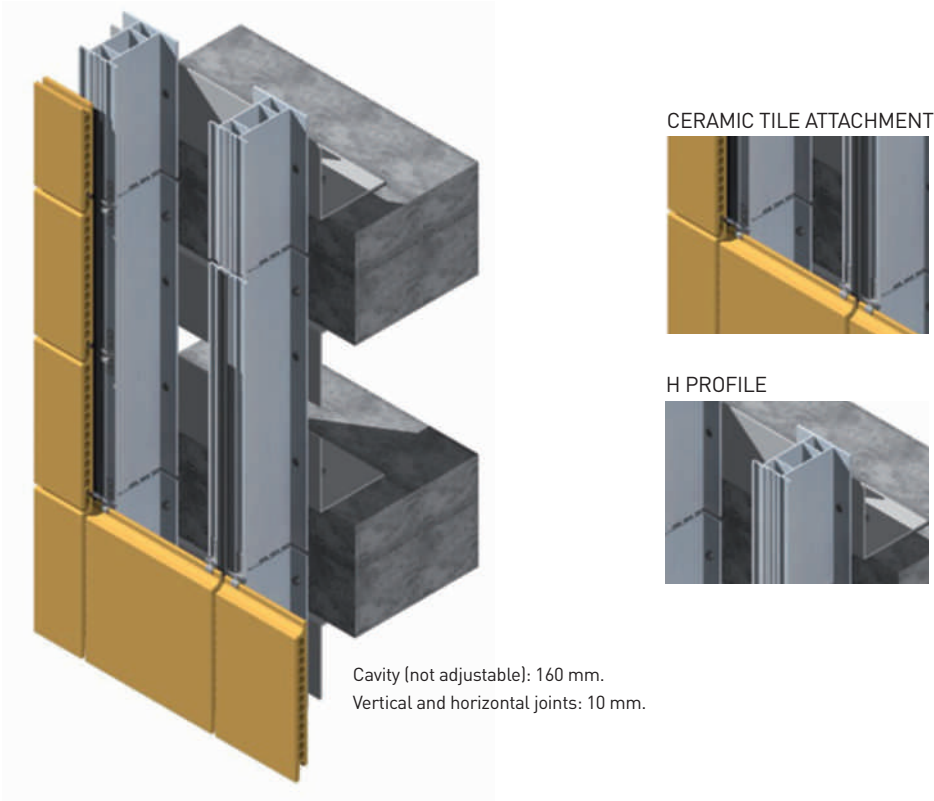
Ventilation cavities: Minimum: 115 mm.
Standard cavity: 130 mm.
Maximum: 150 mm.



CERAM - SAF

FORGE TO FORGE ANCHORAGE SYSTEM

Forge to forge Anchorage system (SAF) consists on a vertical profiles H type with high inertia 124x128x3 mm. attached to the wall by means of sustenance corbels (fixed point), they support the façade's weight and they hold up wind force. It isn't necessary an external enclosure since the façade is only anchored to the buildings' forges.

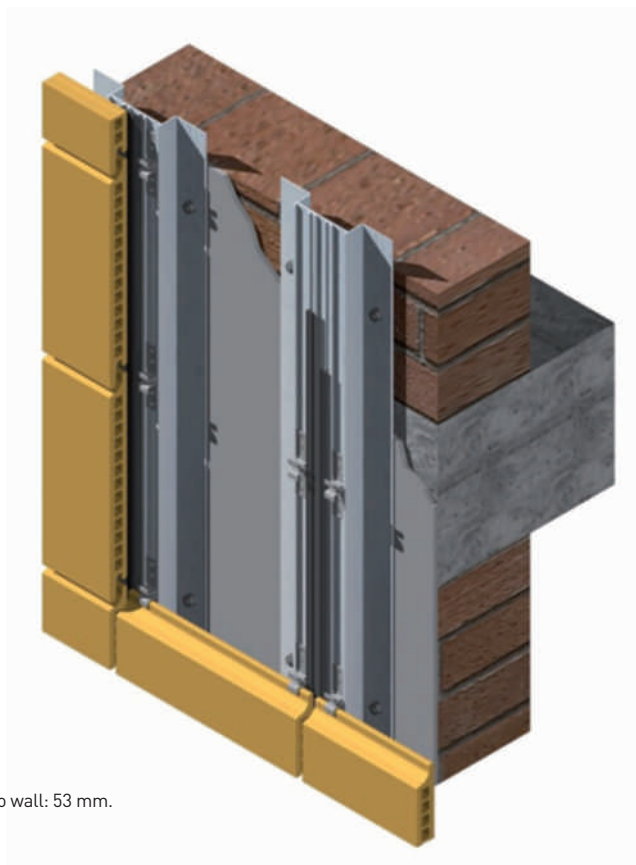


1. Peg | 2. H Profile | 3. Clip | 4. EPDM rubber | 5. Wall support

CERAM - SAR

FURRED ANCHORAGE SYSTEM

This is NOT a ventilated façade system. It does not have a cavity wall and does not allow ceramic covering so it is recommended when a ceramic tile façade appearance is not required. This system does NOT dropping or any adjustments so it is necessary a thin rodded intervention on the wall.

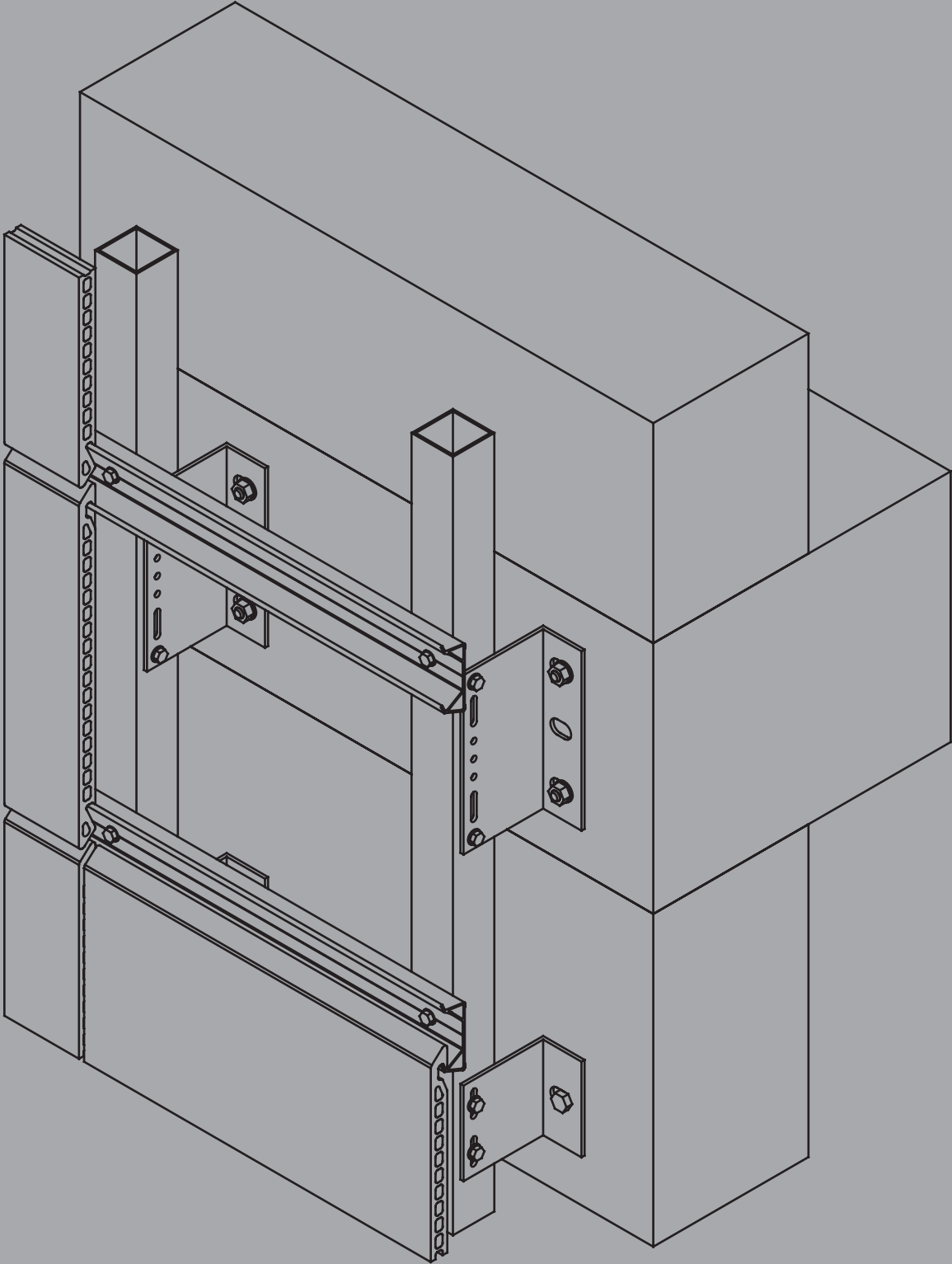


Relation of material to wall: 53 mm.





BERSAL

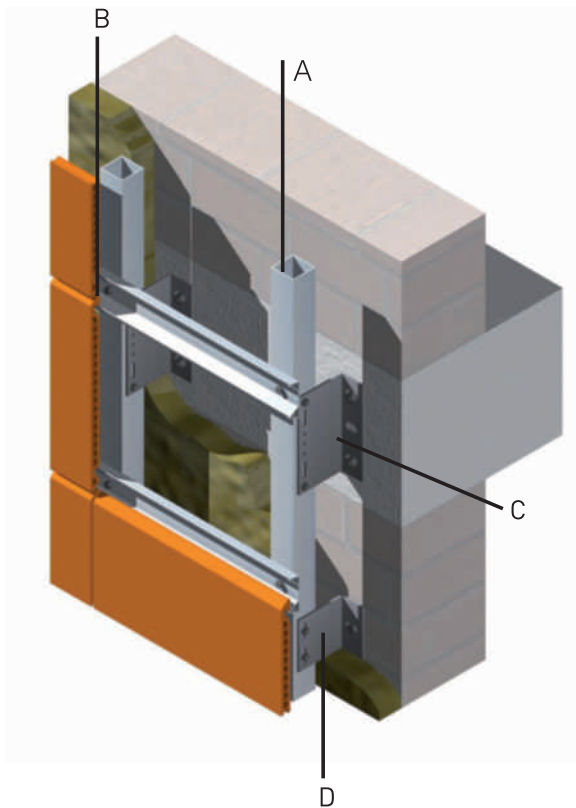


BERSAL - SS

ALUMINIUM SIMPLE SYSTEM

Aluminium Simple System consists on an aluminium substructure attached to the wall by corbels and made of vertical tubular pieces of 40x40x2 mm. to which a secondary substructure made of horizontal profiles is attached. Bersal pieces are attached to this substructure.

In order to avoid any kind of vibration or rattling sound and the ceramic tiles to be reassured, the tile and the horizontal profile help each other by means of filler cordons.



TUBULAR PROFILE 40x40x2



SUSTENANCE CORBEL



CERAMIC TILES HANGING FROM THE HORIZONTAL PROFILE

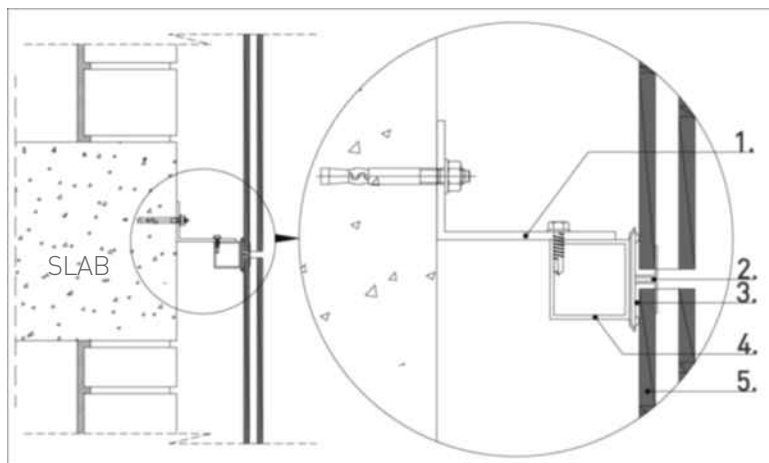


RETENTION CORBEL

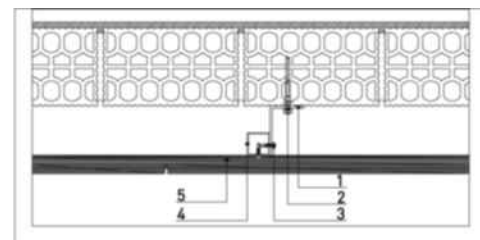


Ventilation cavities: Minimum: 93 mm. | Standard cavity: 120 mm. | Max: 140 mm.
Ventilation joints between tiles: 10 mm. in horizontal and 3 mm. in vertical direction.

VERTICAL SECTION



HORIZONTAL SECTION



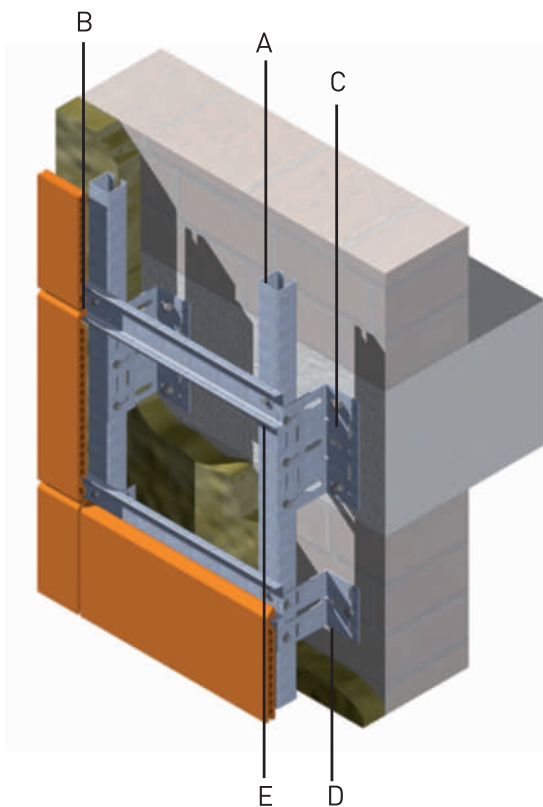
1. Retention Corbel | 2. Chemical peg | 3. Self-drilling
4. Tubular profile 40x40x2 mm. aluminium | 5. BERSAL aluminium Horizontal profile | 6. Sustenance corbel
7. BERSAL ceramic tile

BERSAL - SSG

GALVANIZED SIMPLE SYSTEM

Galvanized Simple System is a kind of substructure, very similar to the Aluminium system except the use of a galvanized substructure with some differences as in the C vertical profiles of 37x37x12 mm. and the horizontal profiles with galvanized system too. When using this kind of material, the system is remarkably cheaper and a great technical and aesthetic finish.

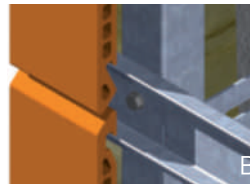
Bersal pieces, as the aluminium ones, are attached to the horizontal profiles and fixed with filler cordons with prevent rattling and vibration.



GALVANIZED VERTICAL PROFILE
C 37x37x 1,5 mm.



CERAMIC TILES HANGING
FROM THE HORIZONTAL PROFILE



GALVANIZED RETENTION
CORBEL



GALVANIZED HORIZONTAL
PROFILE

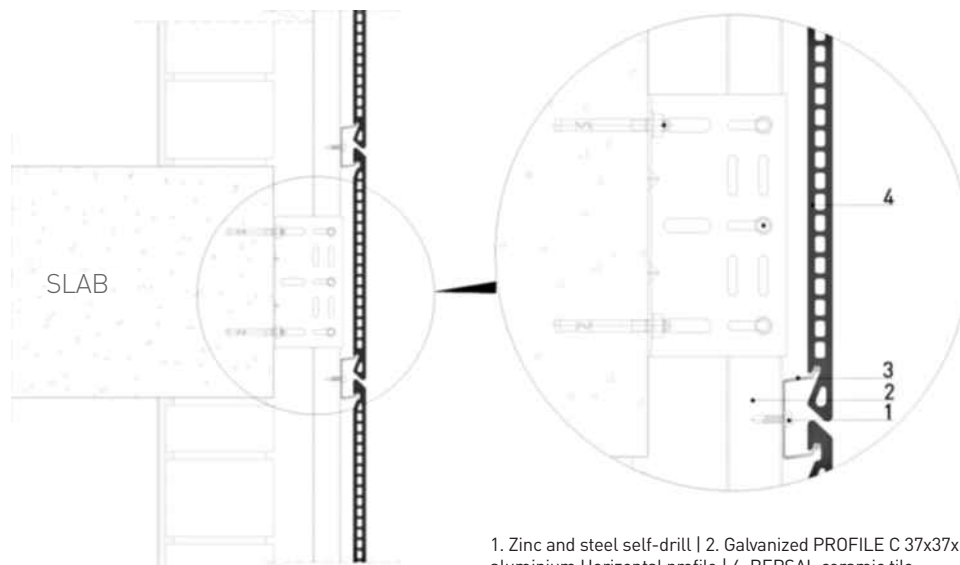


GALVANIZED SUSTENANCE
CORBEL



Ventilation cavities: Minimum: 93 mm. | Standard cavity: 120/130 mm. | Maximum: 140 mm.
Ventilation joints between tiles: 10 mm. in horizontal and 3 mm. in vertical direction.

VERTICAL SECTION



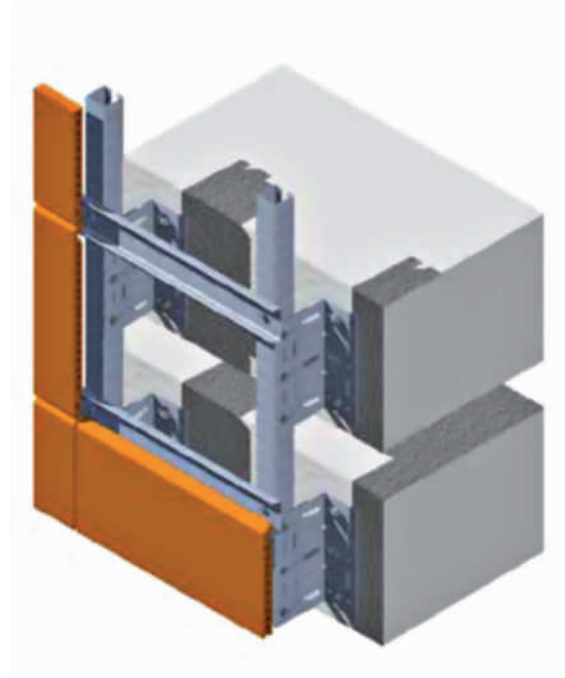
1. Zinc and steel self-drill | 2. Galvanized PROFILE C 37x37x 1,5 mm. | 3. BERSAL aluminium Horizontal profile | 4. BERSAL ceramic tile

BERSAL - SAF

FORGE TO FORGE SYSTEM

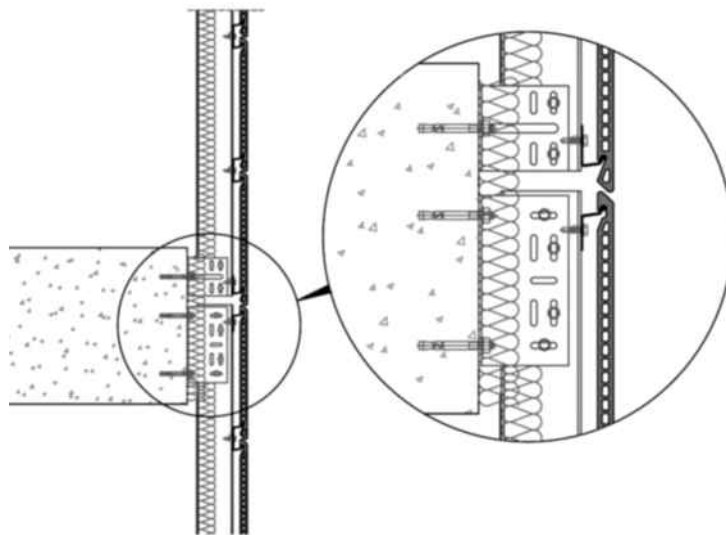
This system allows the use of the Galvanized Bersal System by just using fasteners and forges. The main difference dwells in the use of vertical tubular pieces and that have more inertia in order to support the weight of the façade and the necessity of bending the corbels when fixing the forge.

This system provides a faster performance and a cleaner placement than with the use of more conventional enclosure elements.

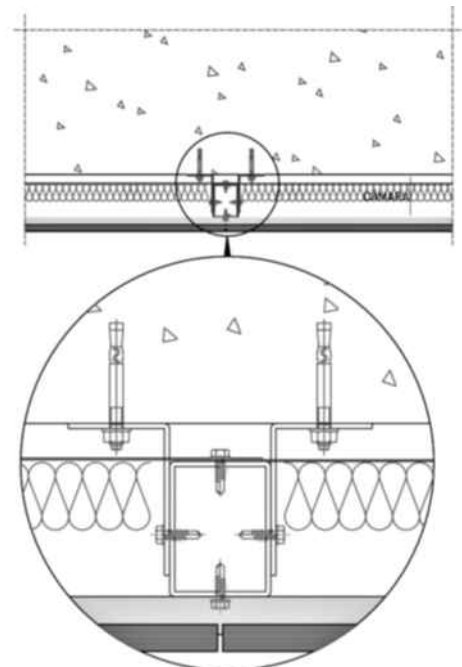


Ventilation cavities: Minimum: 93 mm. | Standard cavity: 120 mm. | Maximum: 140 mm.
Ventilation joints between tiles: 10 mm. in horizontal and 3 mm. in vertical direction.

VERTICAL SECTION



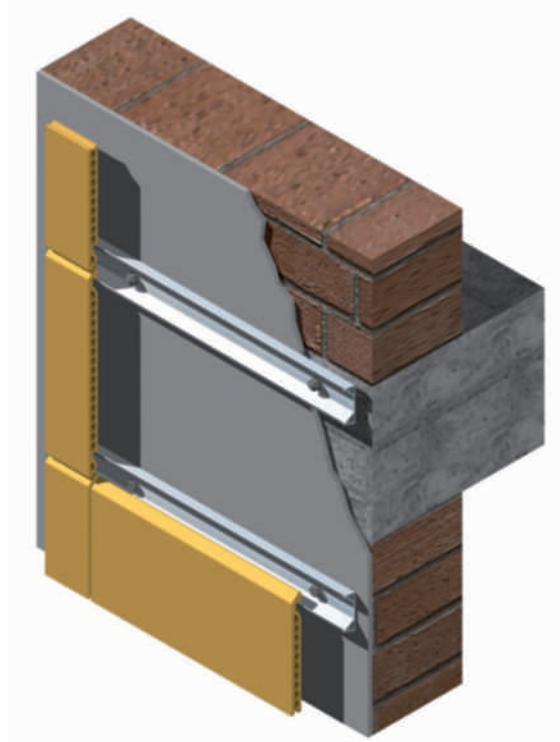
HORIZONTAL SECTION



BERSAL - SAR

PURLIN SYSTEM

Purlin system. It is a no adjustment system. The installation of this system is recommended in perfectly plumbed constructions and with a proper façade alignment. It can be used with an aluminium substructure or in a galvanized system.



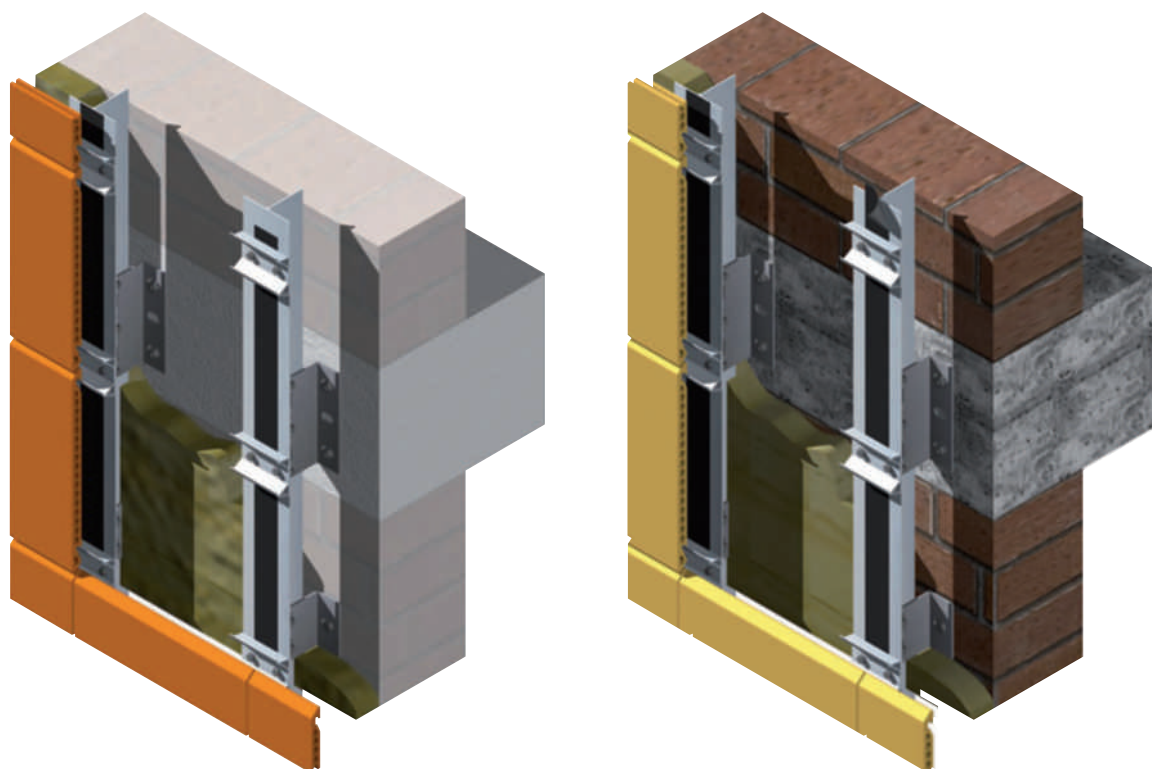
Ventilation cavities: Standard cavity: 33 mm. | Ventilation joints between tiles: 10 mm. in horizontal and 3 mm. in vertical direction.



BERSAL

RENOVA SYSTEM

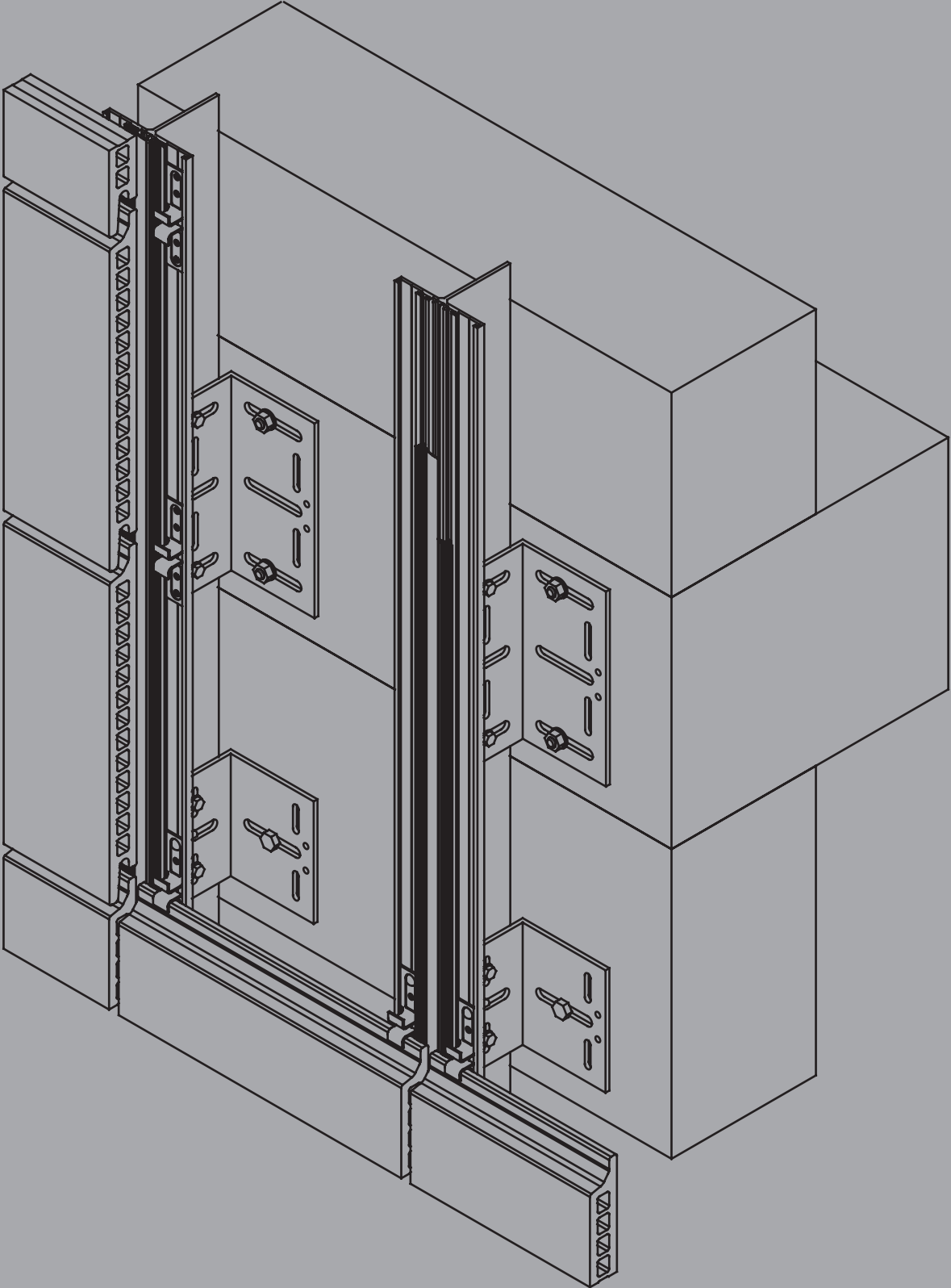
This system has been specially designed for the restoration of façades. It is made of an aluminium substructure, and T-shaped profiles. Little sections of horizontal profiles are attached to the T-shaped profiles where the FAVETON BERSAL tiles are put up.



It is recommended for this system the use of small dimension pieces.
Maximum length: 800 mm. Ventilation cavities: Minimum: 93 mm. | Standard cavity: 120 / 130 mm.
Maximum: 160 mm. Ventilation joints between tiles: 10 mm. in horizontal and 3 mm. in vertical direction.



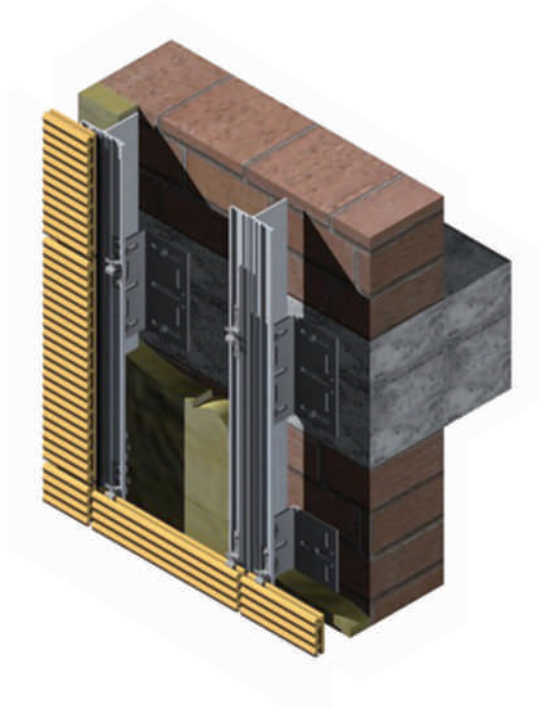
AQUA



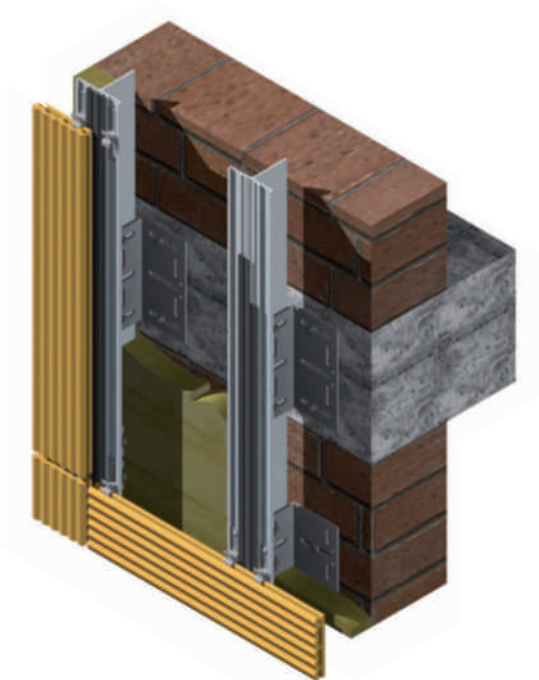
AQUA SAH

All FAVETON AQUA tiles are 20-mm. thicknesses.
Available in different shades of green blue and the whole FAVETON range of colours.

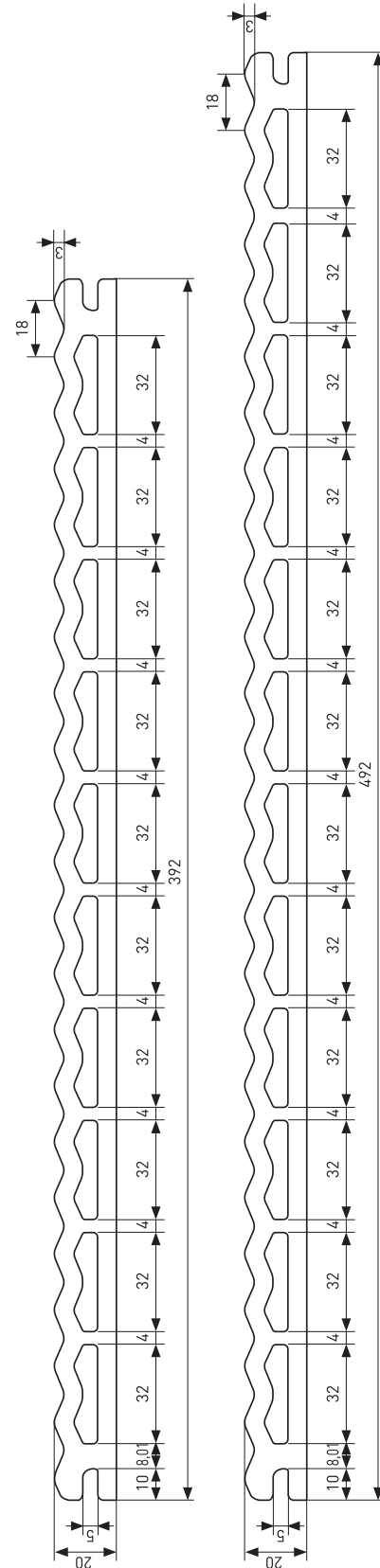
HORIZONTAL ANCHORAGE SYSTEM




SAH
HORIZONTAL



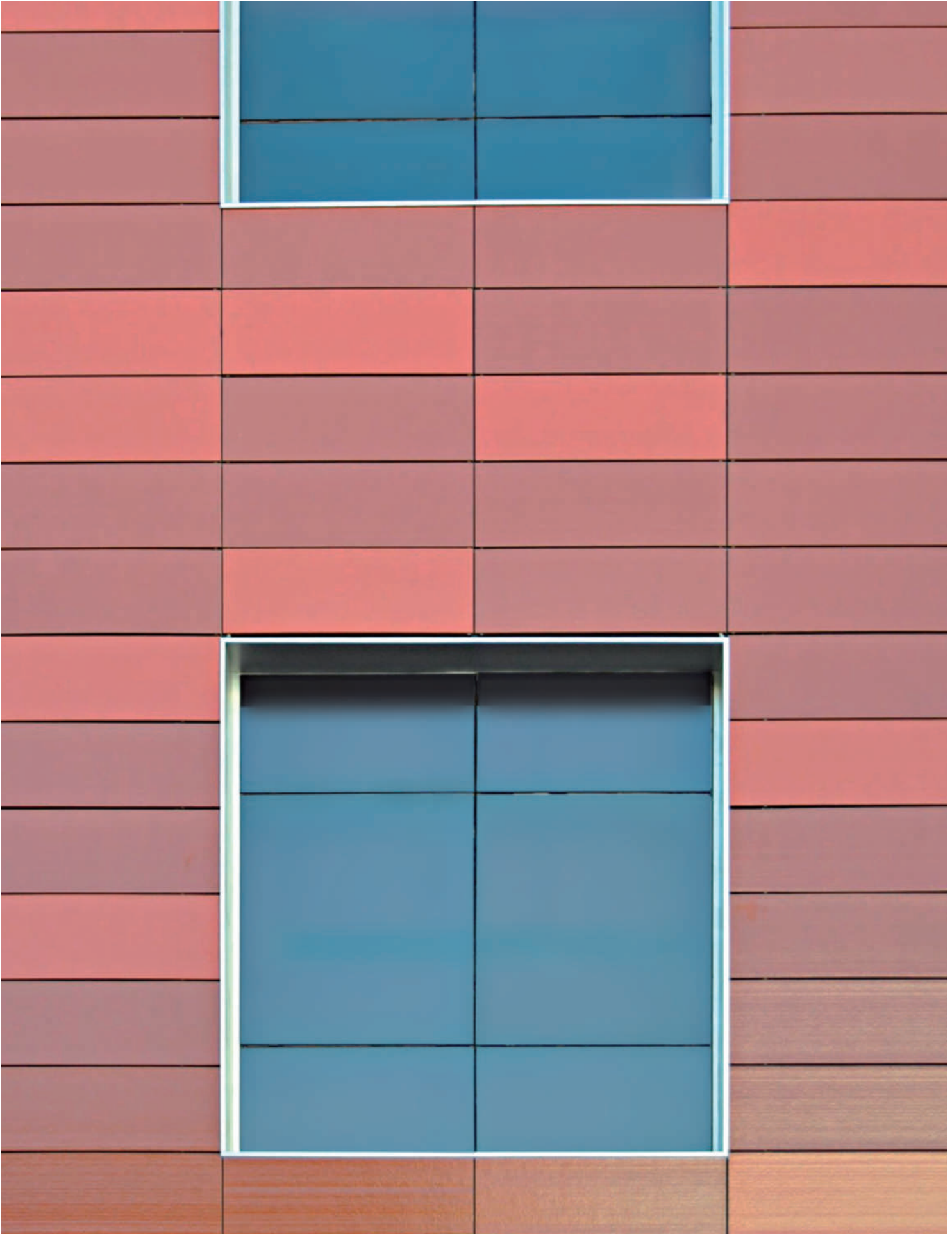
SAH
VERTICAL - HORIZONTAL





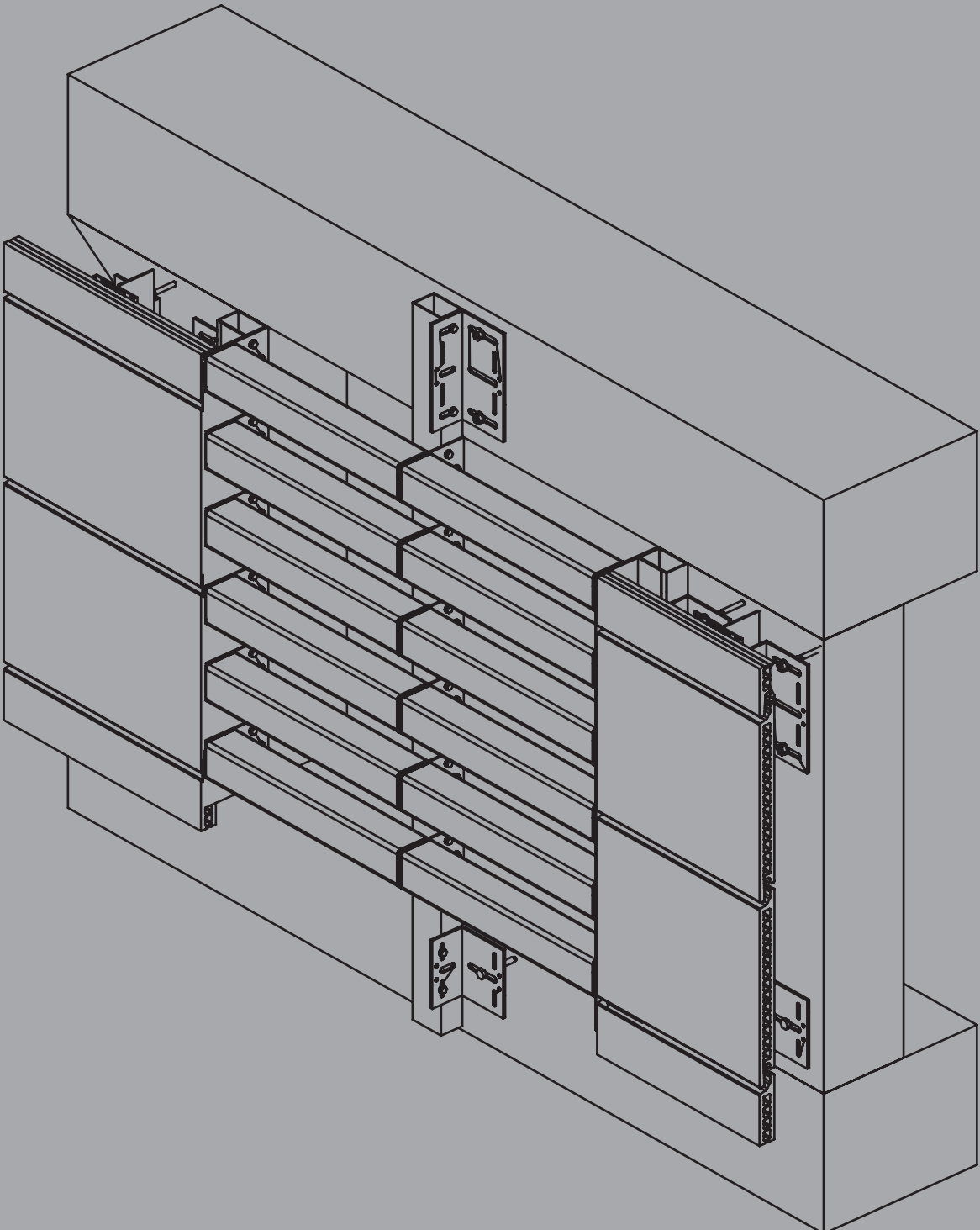
FAVETON AQUA was designed to be laid-out in horizontal and vertical position. The installation as well as its ruffled surface provide interesting visual effects since light effects change depending on the placement of the pieces. These new tiles are compatible with FAVETON SAH installation system so the experience acquired with this system can be applicable in the new one.

The waves from the ceramic tiles as well as the position and orientation of them, provide the façade with volume and texture. When the sun reflects onto the façade, it expresses new hints of originality.





SHADES



SHADES

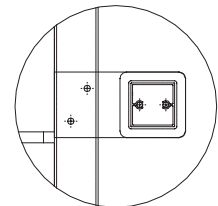
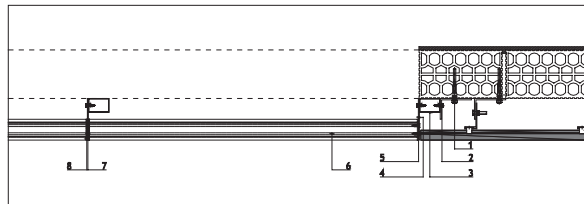
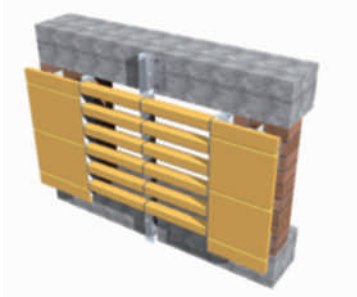
LOUVER SYSTEMS

Ceramic louvers are recommended for their use on façades since they allow a clever use of light: they permit a lesser use of artificial light because the lattice system allows a higher level of illumination even if light is filtered and blurred in all directions.

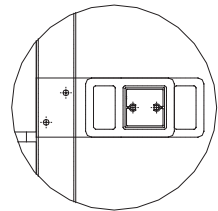
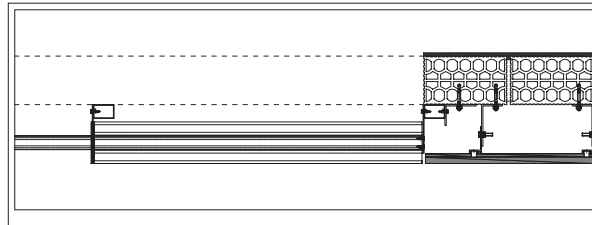
There is not just one assembly system for ceramic louvers; on the contrary, they vary depending on the necessities of the design.

For more detailed information, feel free to contact with our technical department.

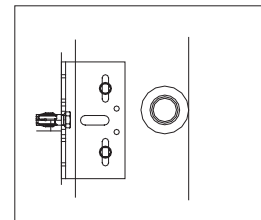
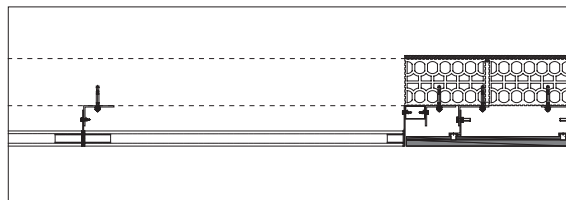
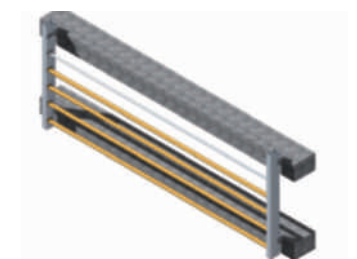
SQUARED (BRIOL)



RECTANGULAR (JAVA)



ROUNDED (SPHERIC)

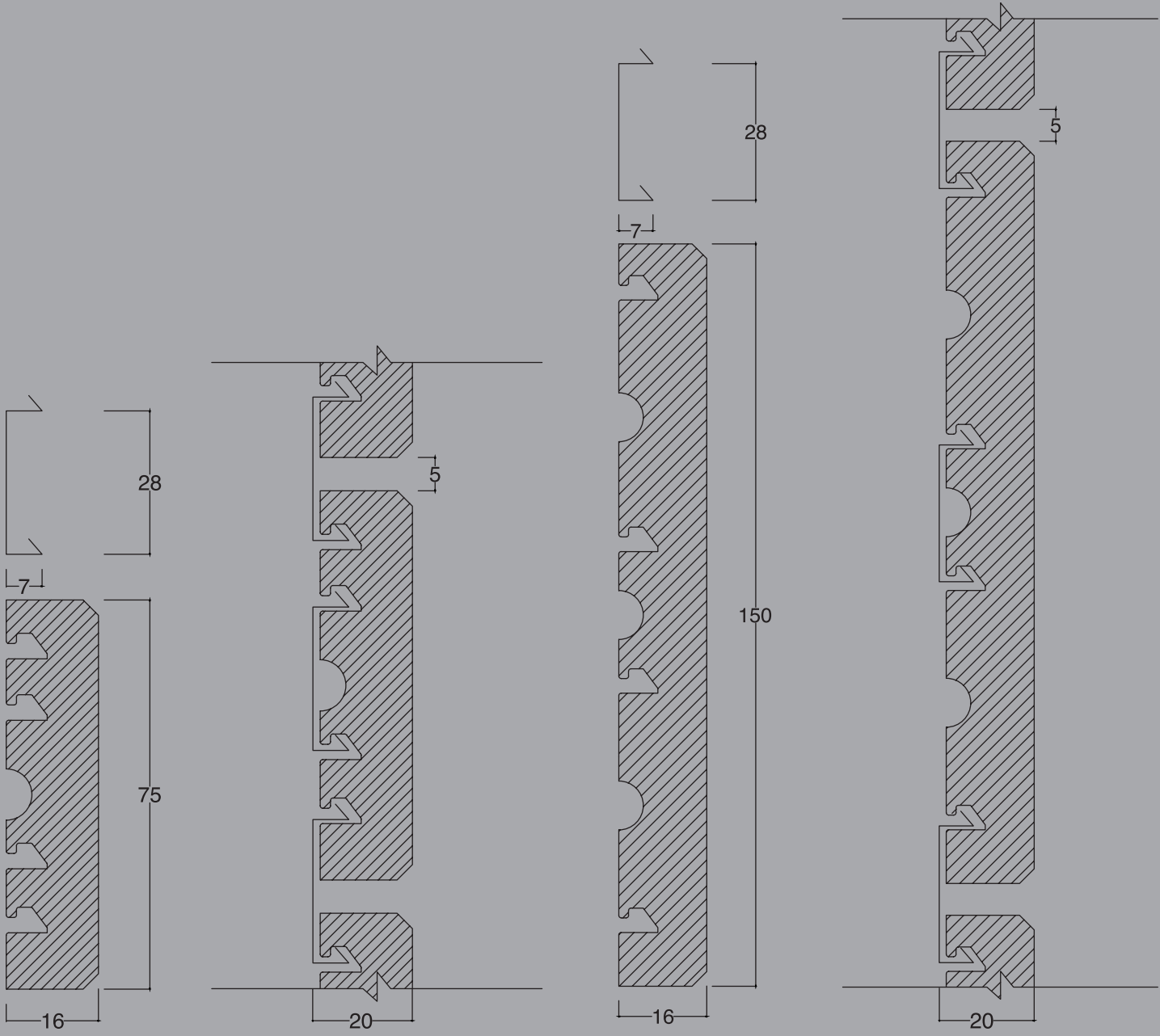


ELLIPTIC (ORONA)





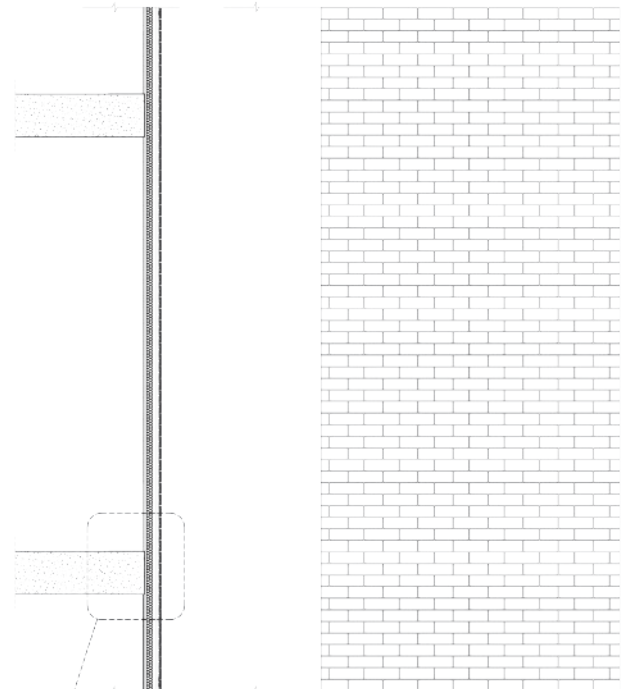
BRICK TILE



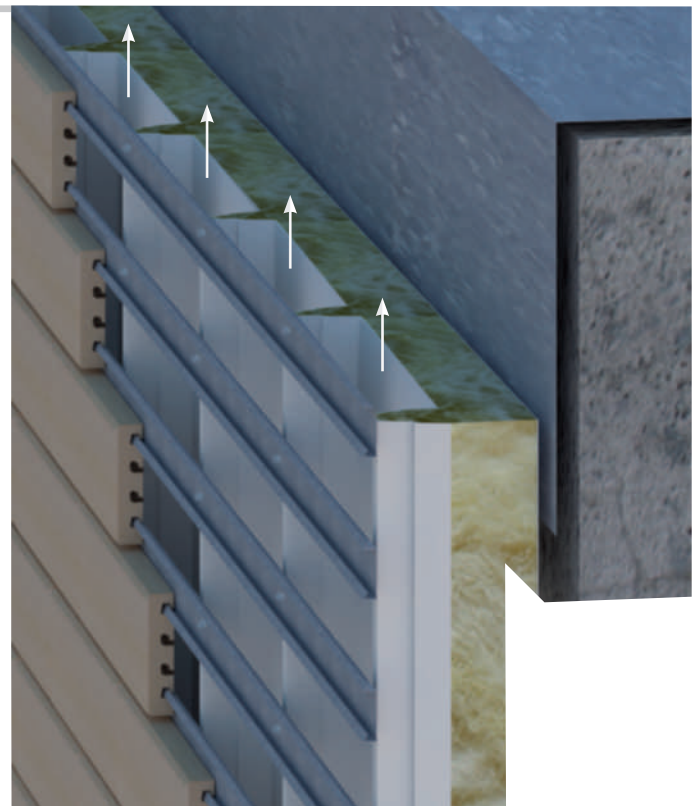
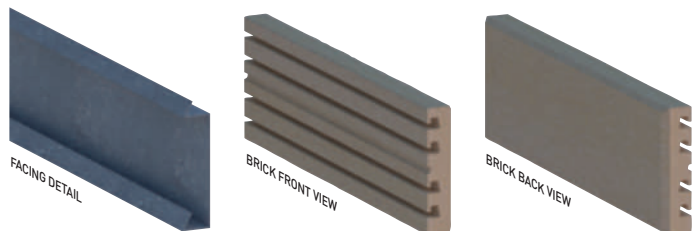
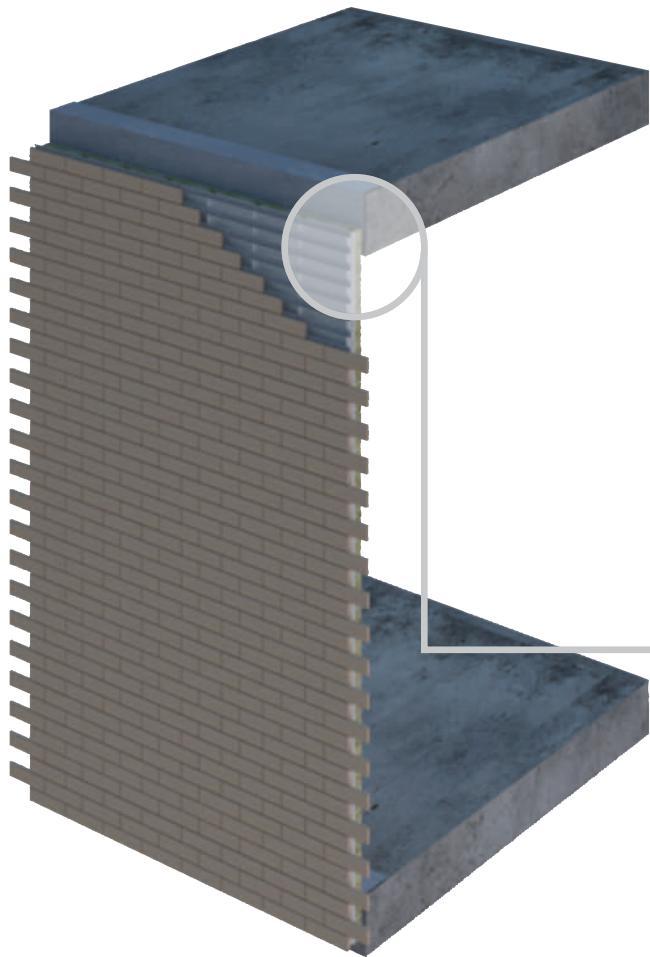
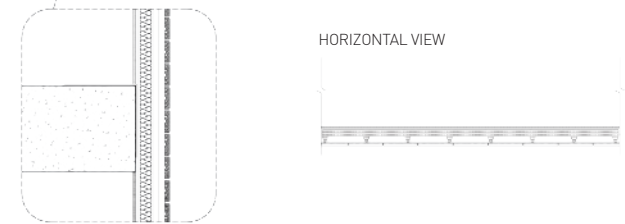
VENTILATION SYSTEM

A ribbed panel composes these ventilation systems or sandwich panel that function as main and blocking sheet. Purlins are attached to this sheet and support the FAVETON ceramic tile. The distance between the panel's ribbed sections allows vertical ventilation of the façade.

FRONTAL ELEVATION

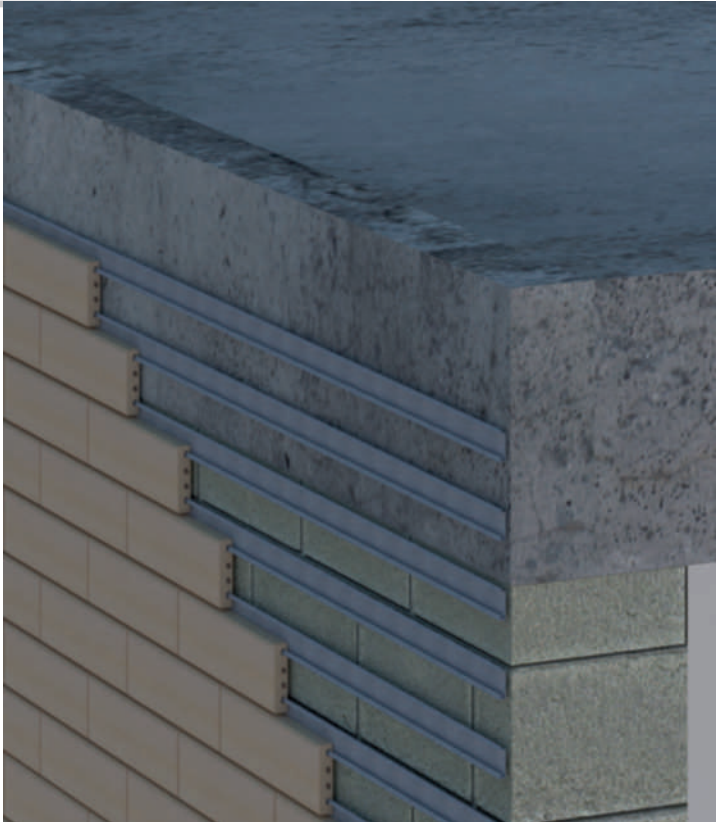
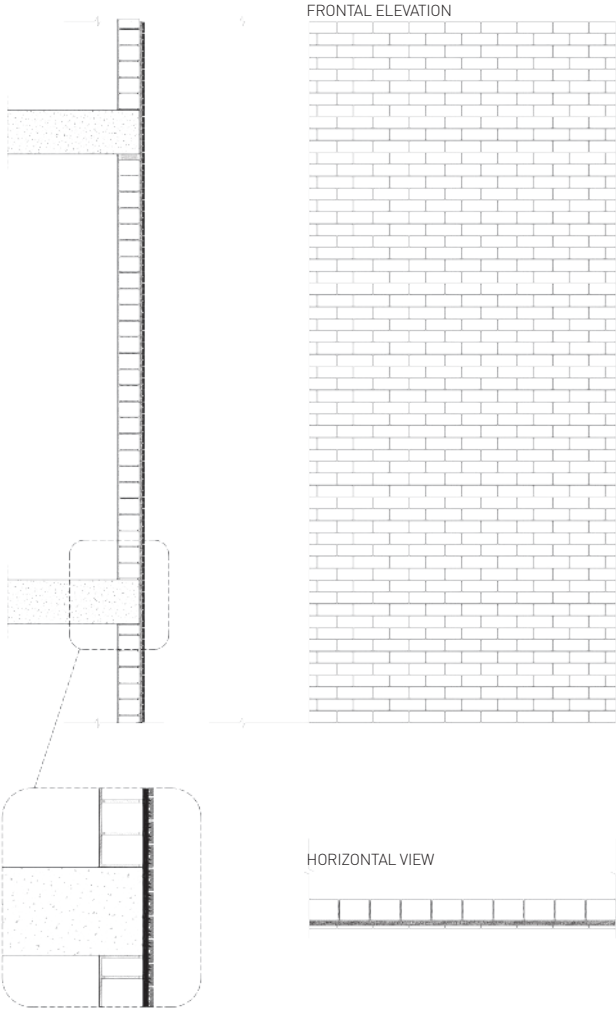
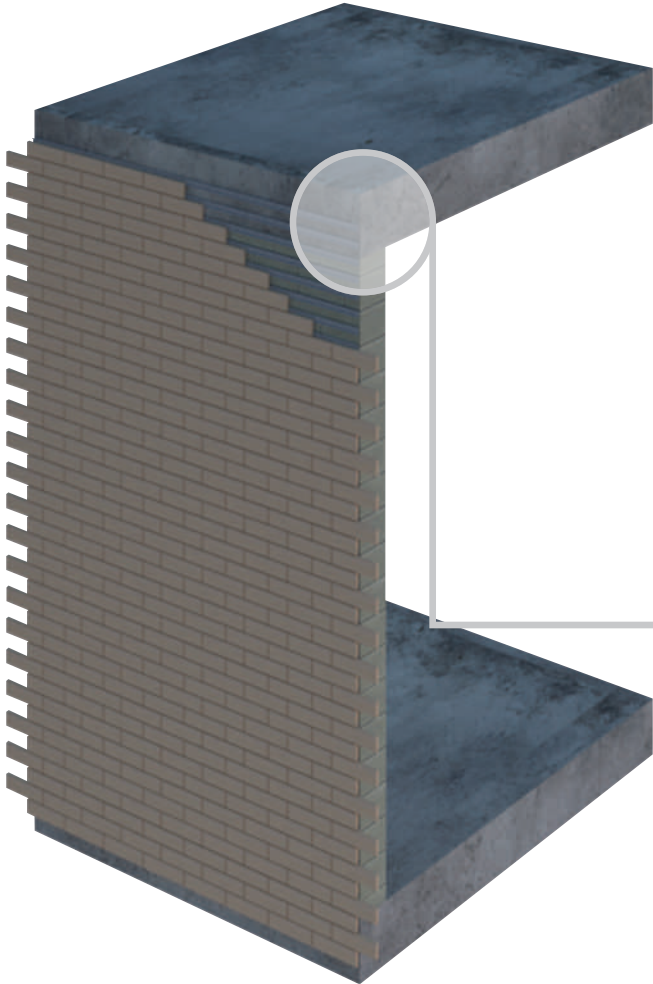


HORIZONTAL VIEW



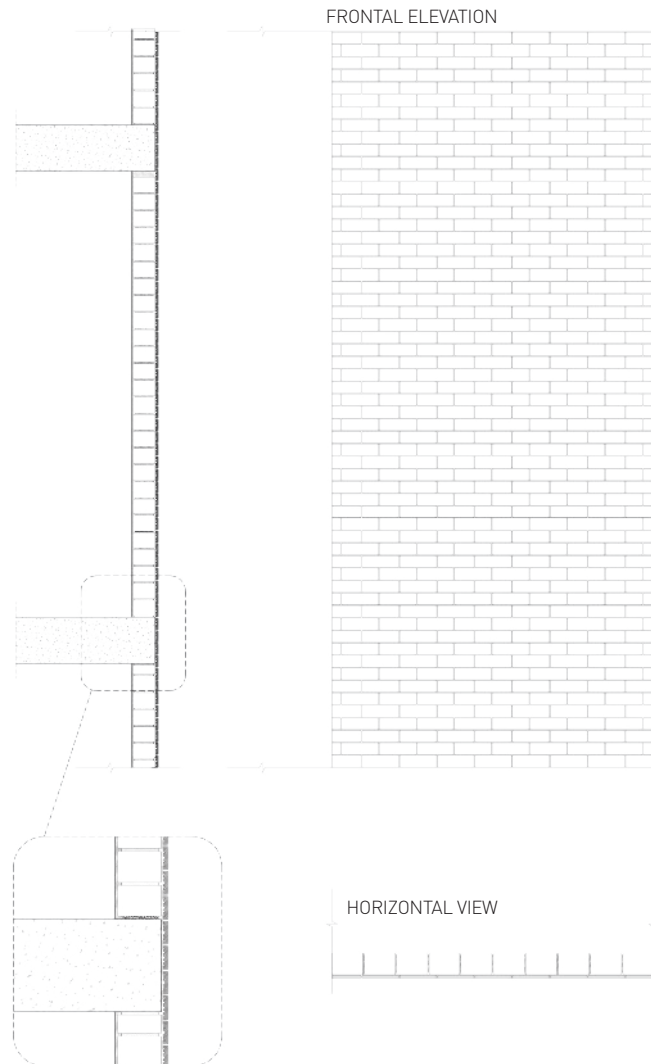
MECHANICAL ATTACHMENT

Purlins compose this system. These purlins are directly attached to the surface and insulation wall over which FAVETON face tile is set.



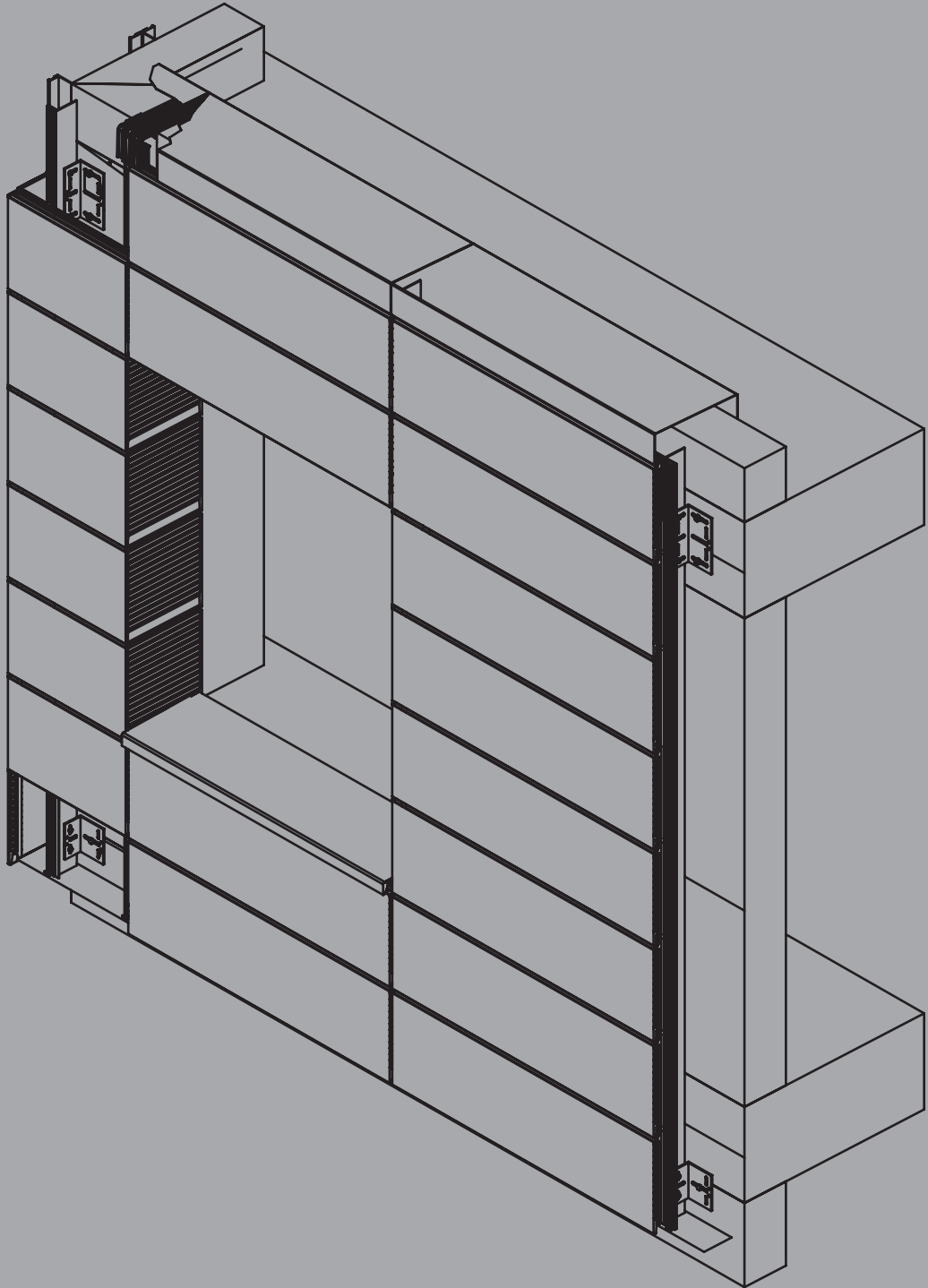
GLUING SYSTEM

This is a traditional gluing system. We take into account the kind of glue, ensuring it is valid either for ceramic products and the surface over which we are applying it.

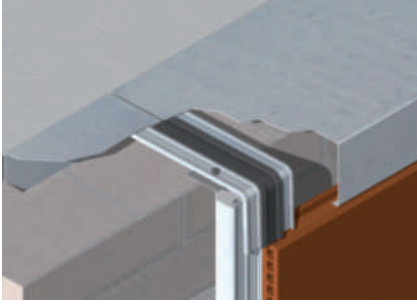




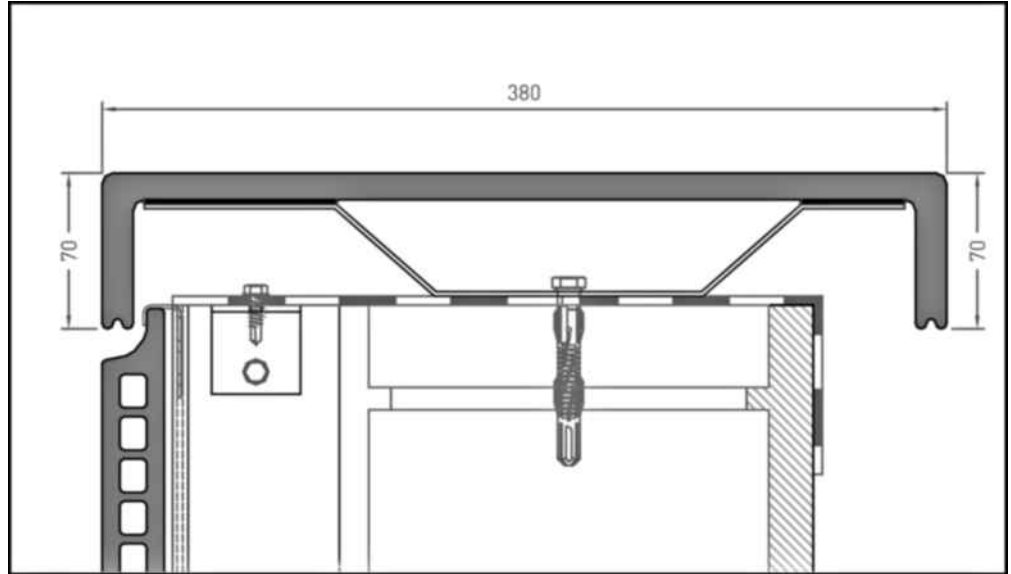
SOLUTIONS AND ENCOUNTERS



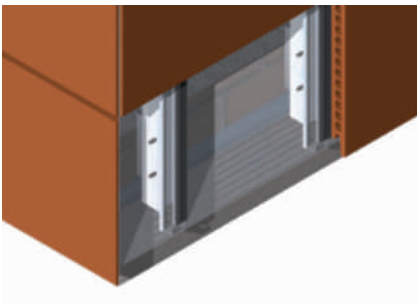
CROWNING Ceramic



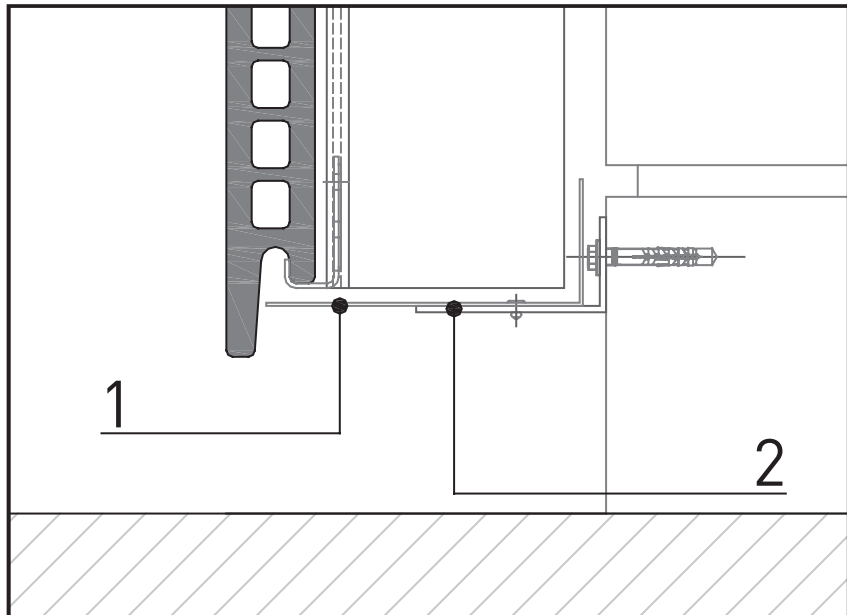
The closure of these kinds of façades on the top part is important. The main function of this finish is to avoid the entrance of water into the cavity wall and letting free circulation of air and comply with conventional ventilated façade systems. Available: Different colour FAVETON ceramic and metallic tiles.



STARTER



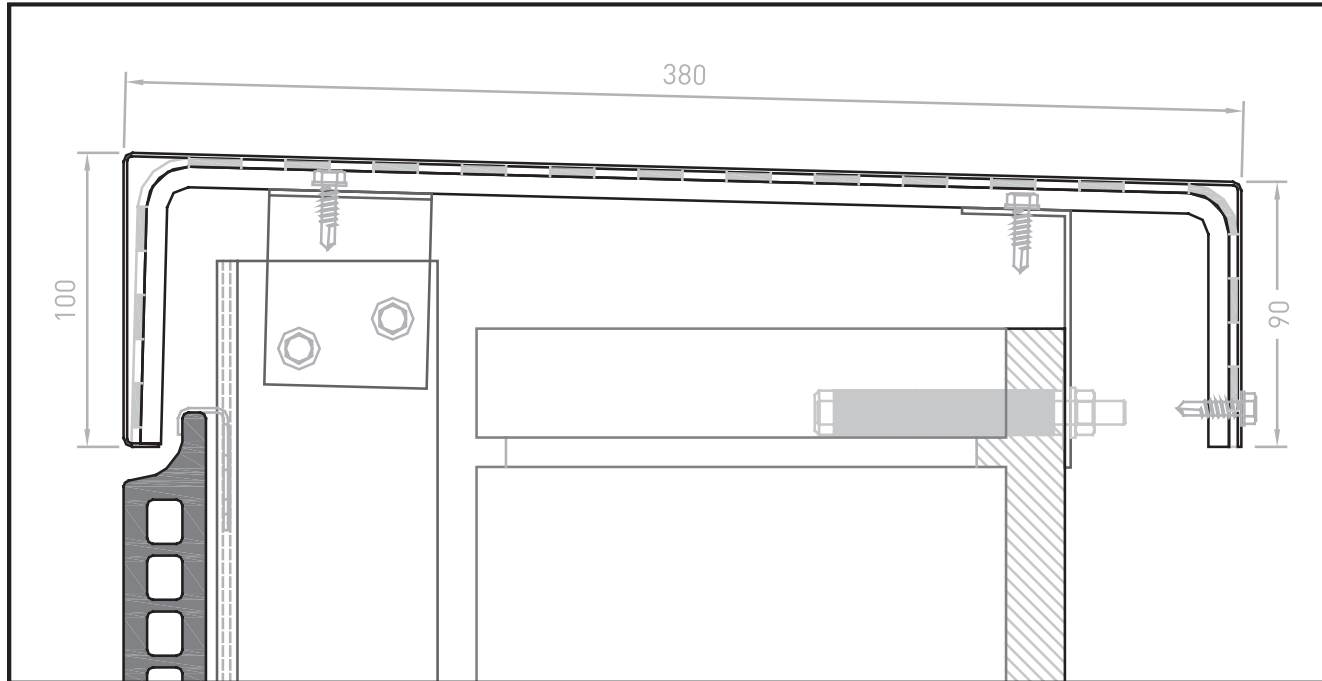
Perforated aluminium sheet. It allows air flowing and prevents the entrance of insects and little size animals into the cavity.



1. Microperforated sheet | 2. L of aluminium

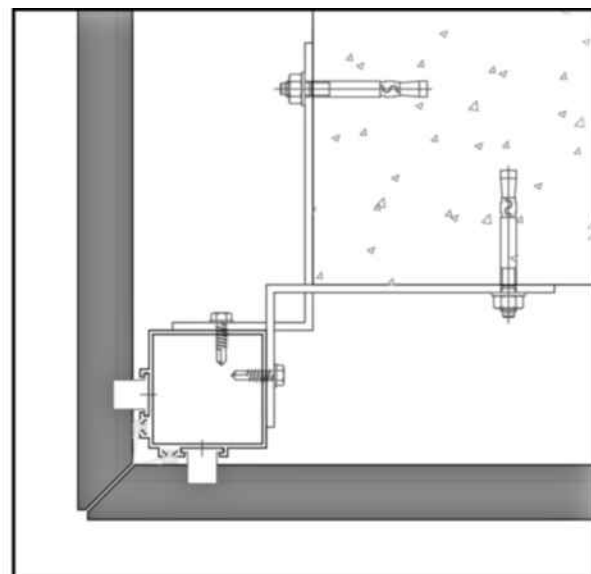
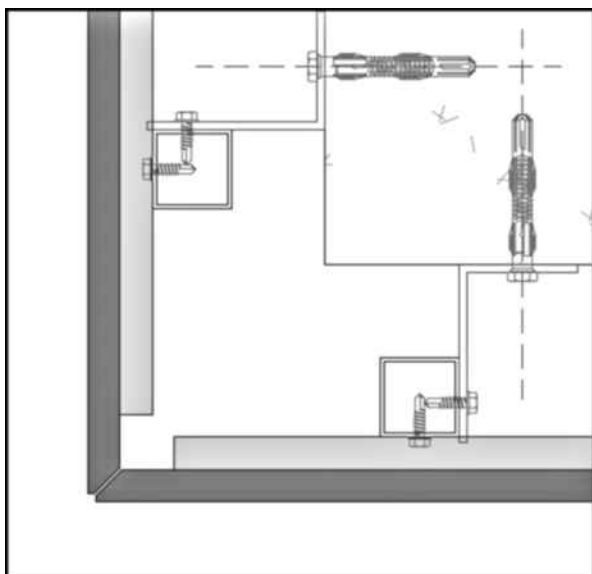


CROWNING Metallic



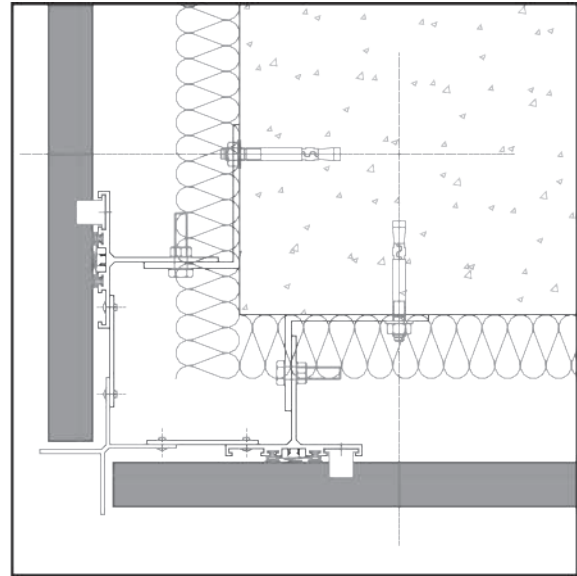
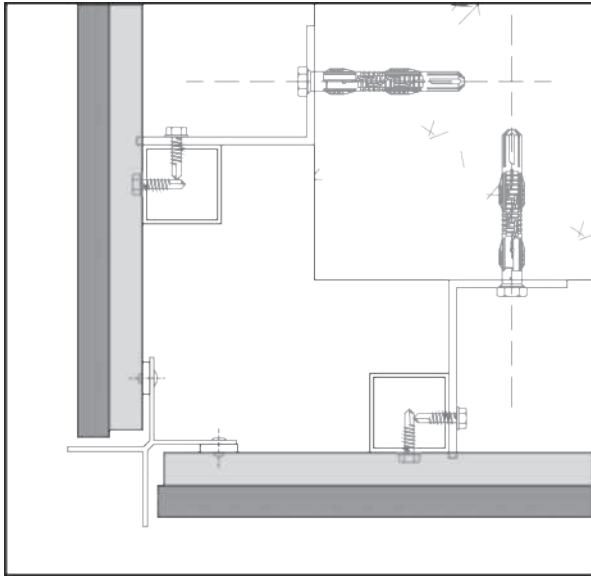
CORNER Mitre joint

Different solutions for this kind of façade corners are provided.
The most commonly used are mitre joints corners and metallic corners in cross profile.

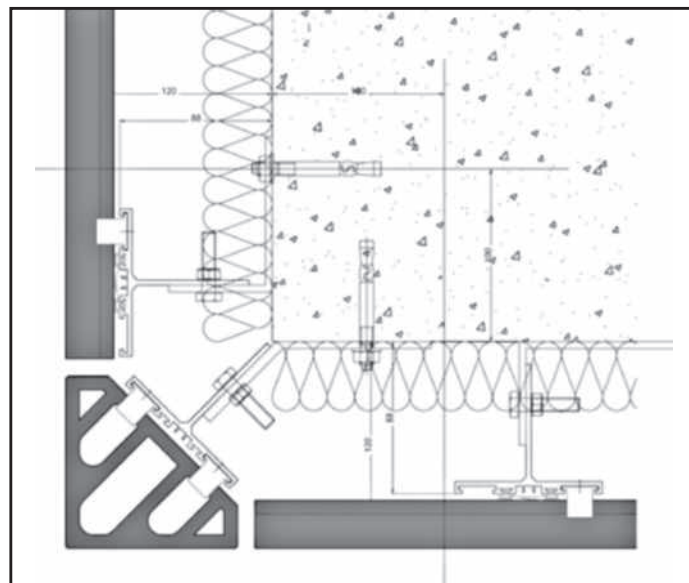


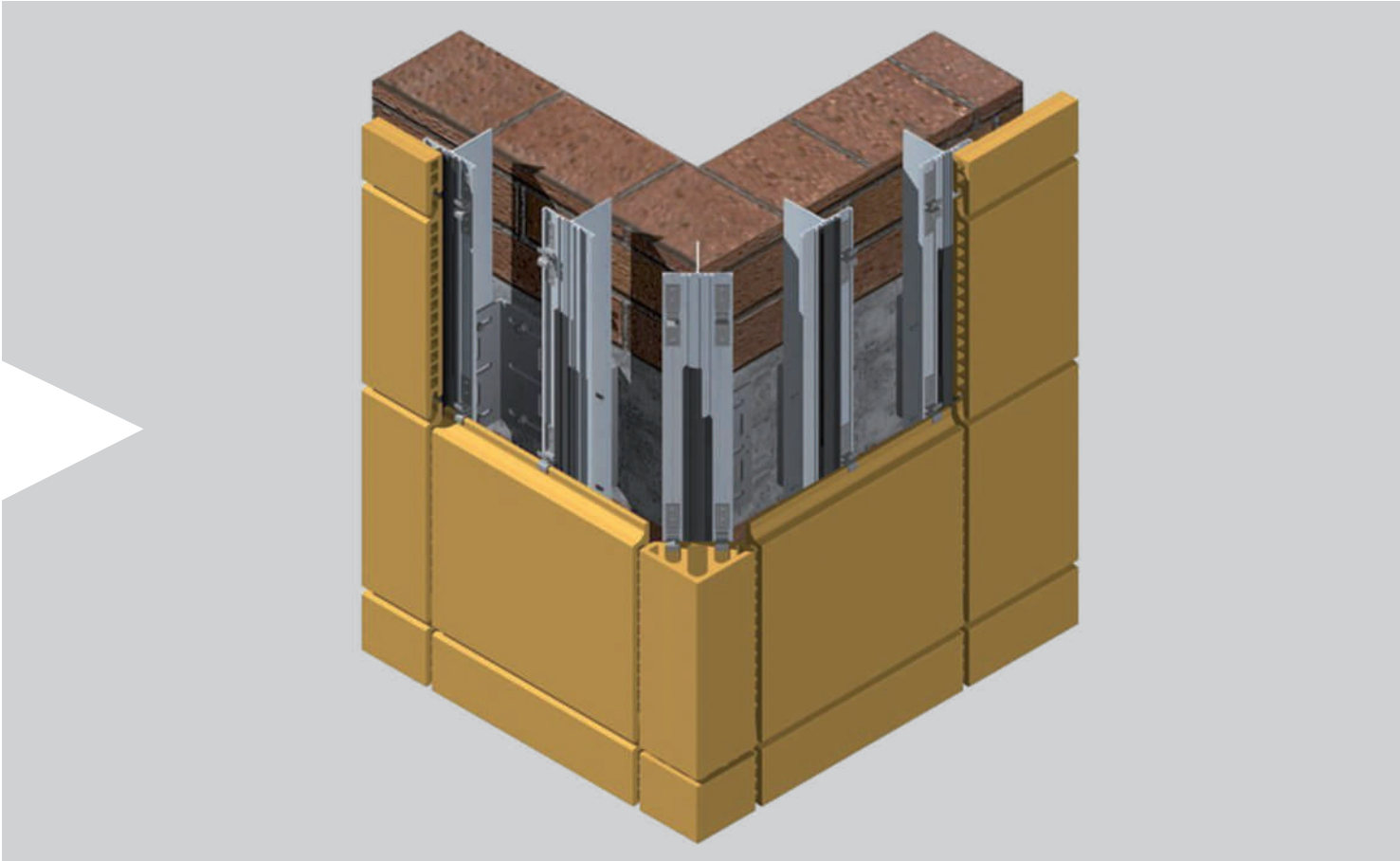


CORNER Cross

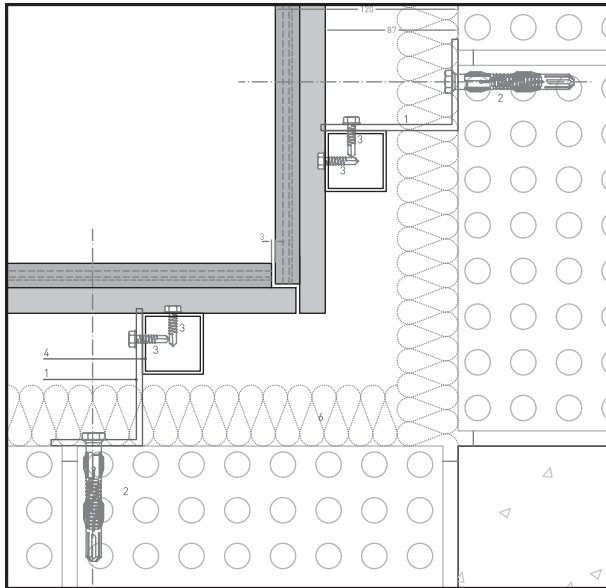


CORNER Special pieces

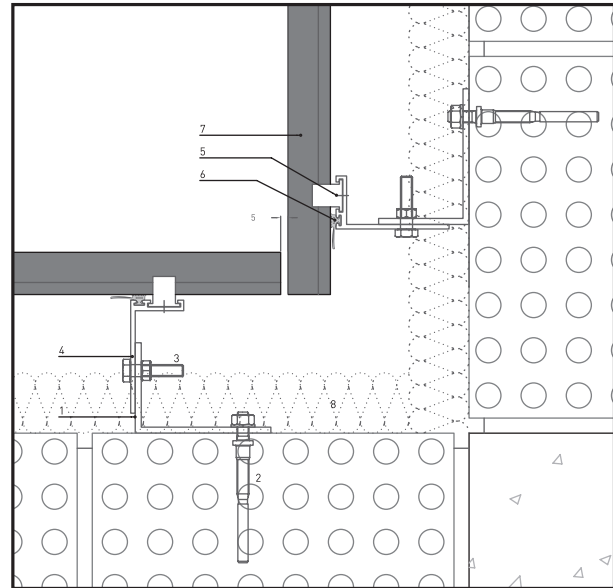




CORNER Interior



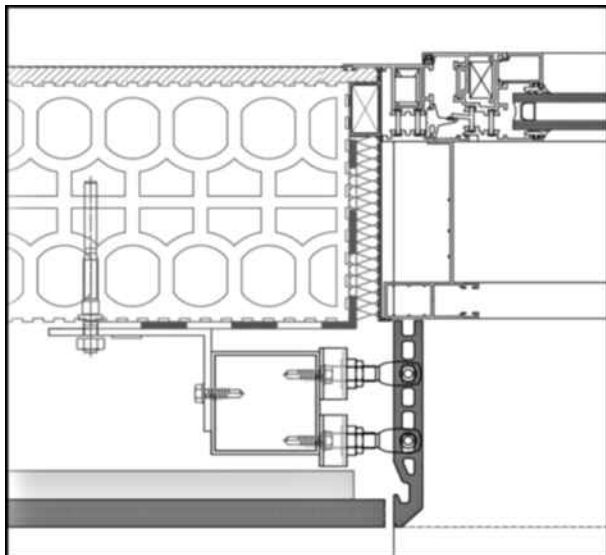
BERSAL



CERAM

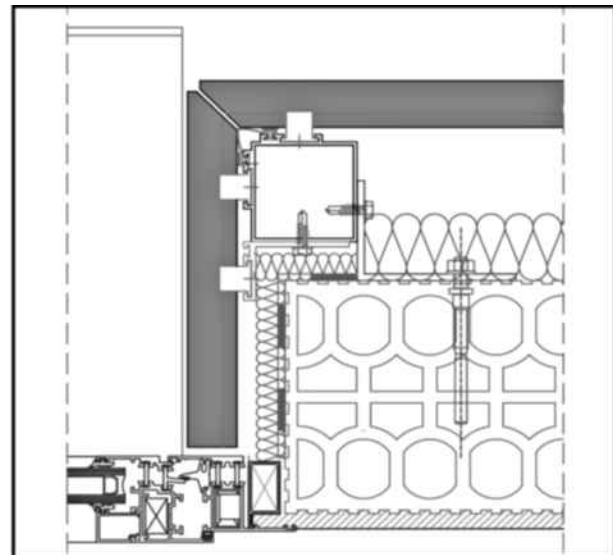
JAMBS Ceramic

FAVETON offers several ceramic solutions for windows. By using the same material in the façade we get a uniform appearance in the building. Depending on the kind of system that is used in the façade enclosure solutions can be used. CERAM or BERSAL.



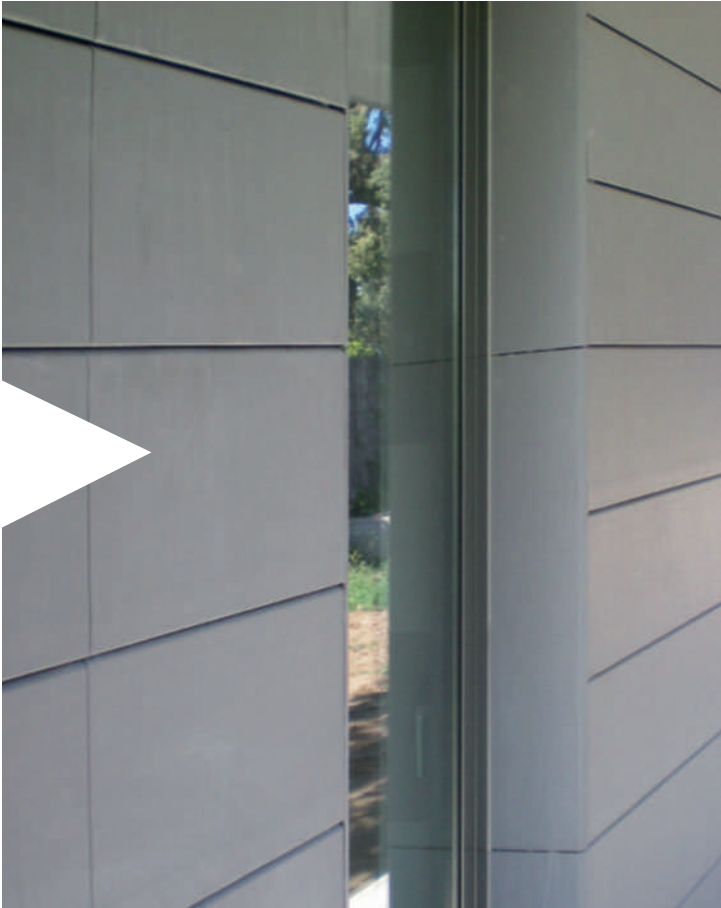
BERSAL

Bersal pieces are placed vertically, breaking the horizontal joint of the façade in the jamb.

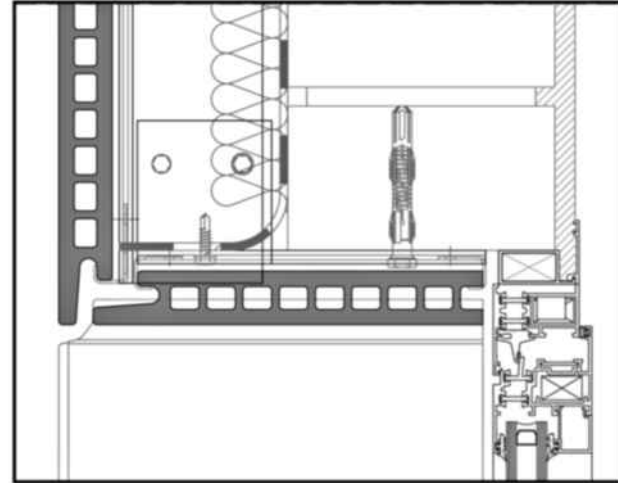
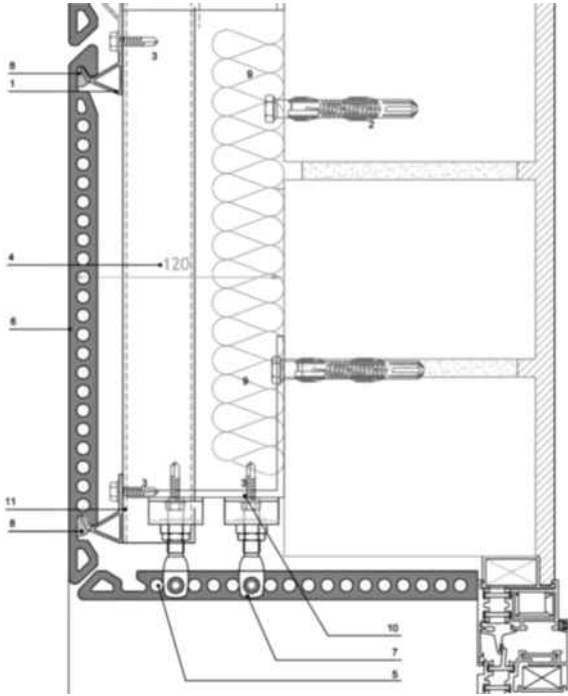


CERAM

Following the horizontal joint of the façade, with the termination of the corner in mitre joints.

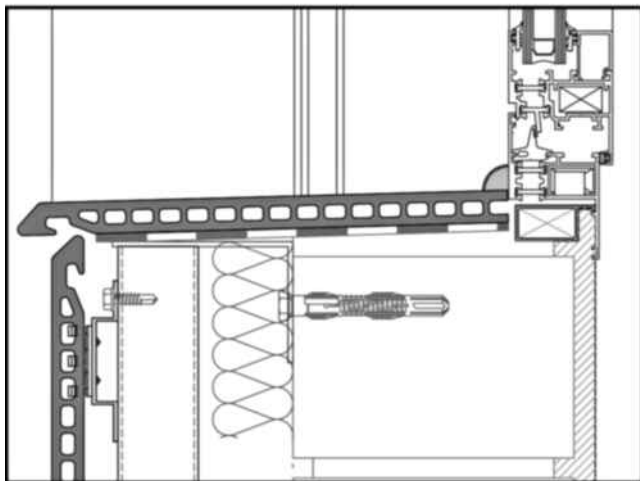


Lintel Ceramic

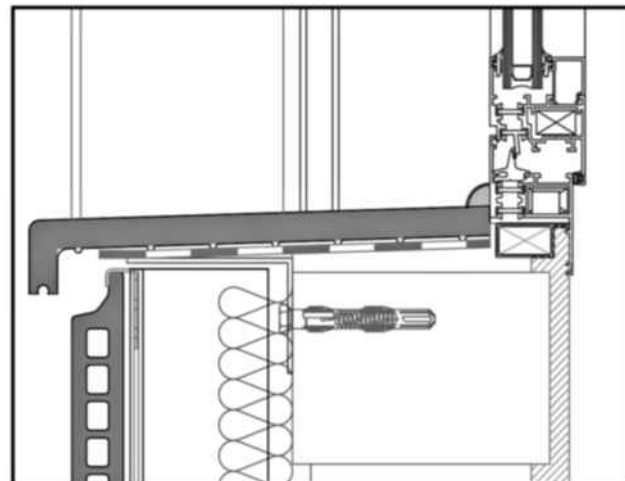


- | | |
|--------------------------------------|-----------------------------------|
| 1. PSS/PSSE | 7. FAVETON BERSAL CERAMIC Lintels |
| 2. CHEMICALS OR NYLON PEG | 8. FIXATION FILLER |
| 3. SELF-DRILL N12 EDGE 5,5 MM. | 9. INSULATING MATERIAL |
| 4. TUBULAR PROFILE 40X60 MM. | 10. TARPULIN |
| 5. TRIDIMENSIONAL PUNTUAL ATTACHMENT | 11. SPECIAL HORIZONTAL PROFILE |
| 6. FAVETON BERSAL CERAMIC TILE | |

GUTTERS Ceramic



BERSAL



CERAM

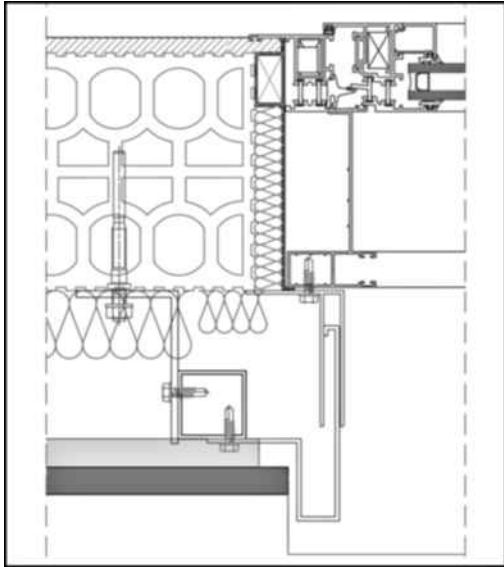
With the correct inclination depending on the needs of the work.



JAMBS Metallic

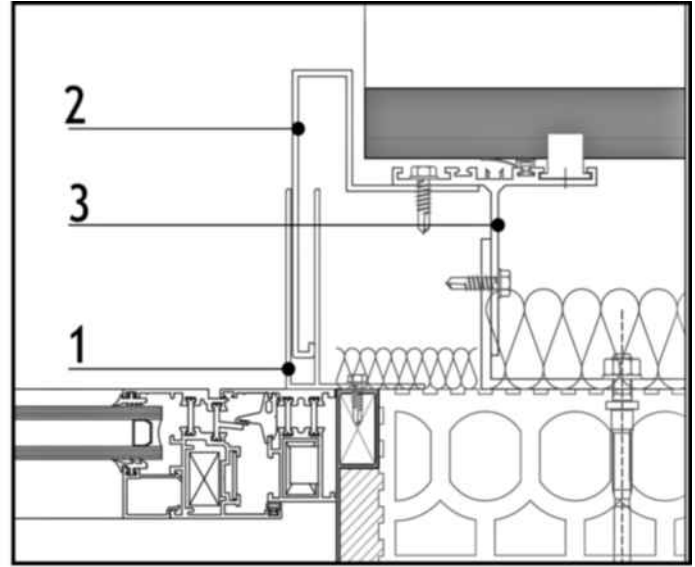
Made up by two profiles, which provide a certain regulation to the work.

¡CAUTION! For this kind of enclosure it is necessary the use of a cavity wall of 130 mm. dimensions.



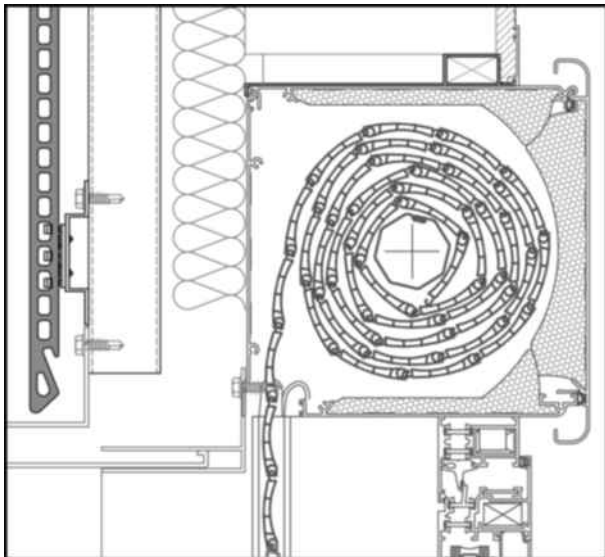
BERSAL

1. Finishing of windows profile F | 2. Finishing of windows profile L



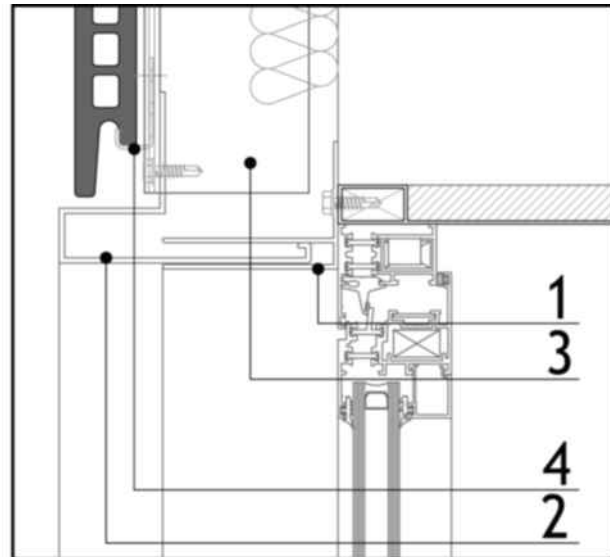
CERAM

LINTEL Metallic



BERSAL

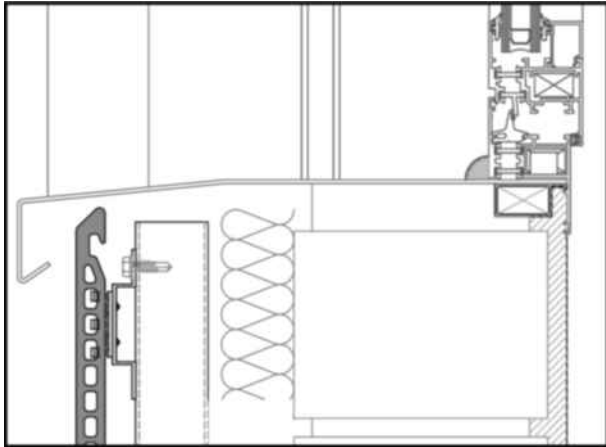
3. Finishing of windows profile F | 4. Finishing of windows profile L



CERAM

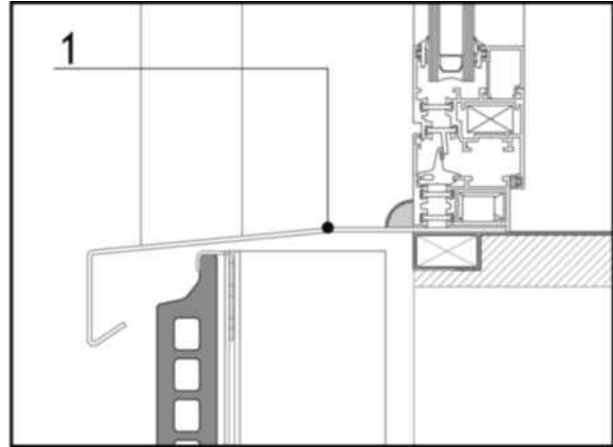


GUTTERS Metallic



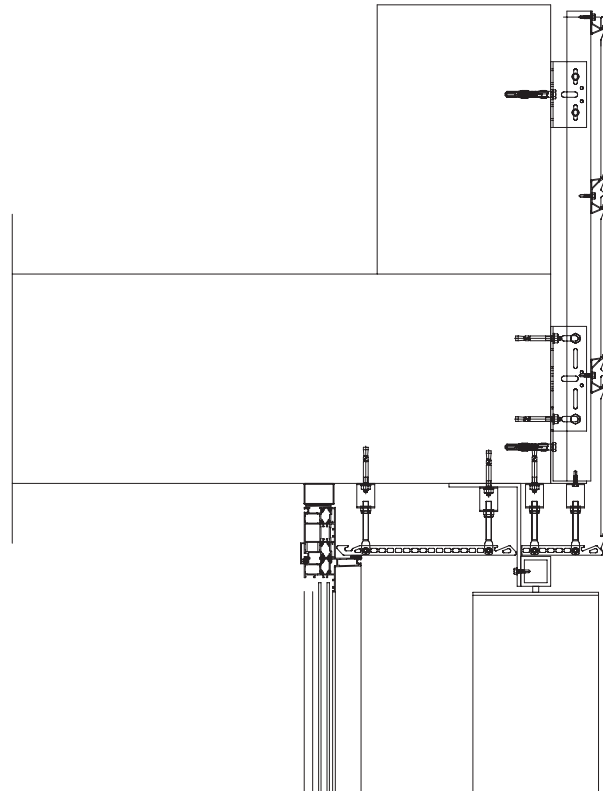
BERSAL

1.Metallic gutter (folded to measure)



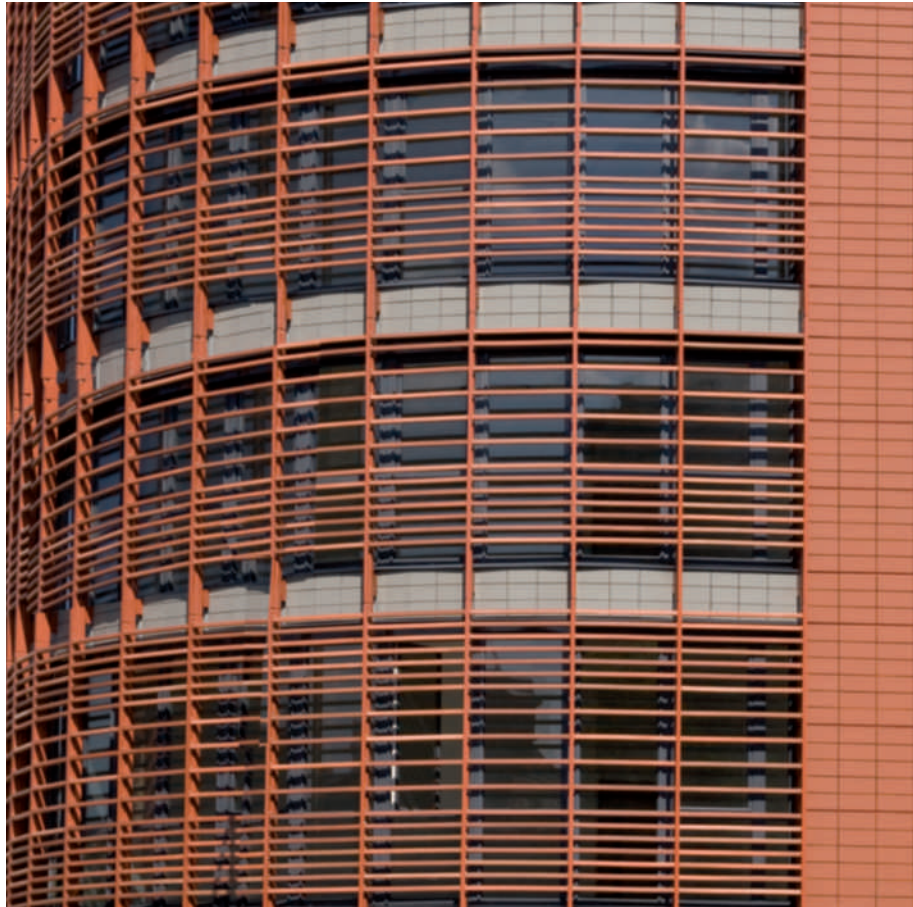
CERAM

FALSE CEILING





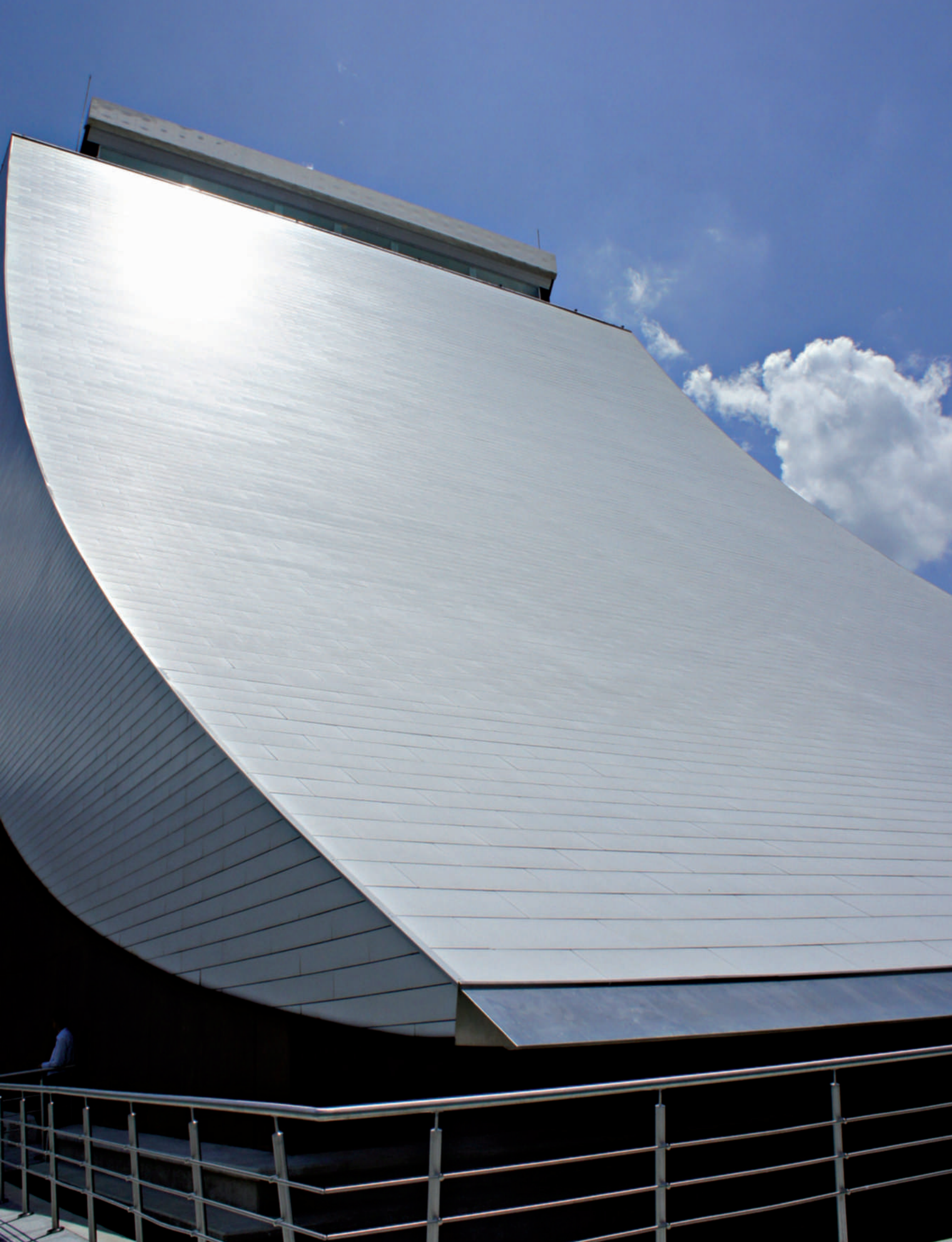










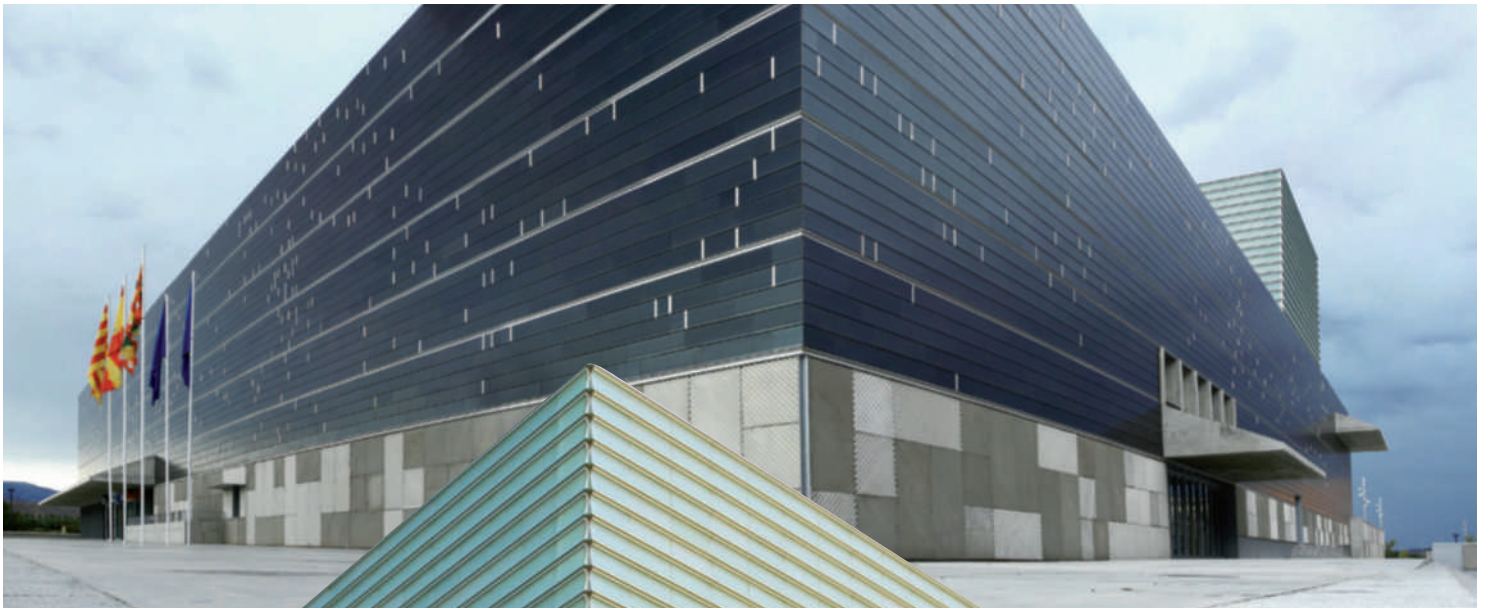


















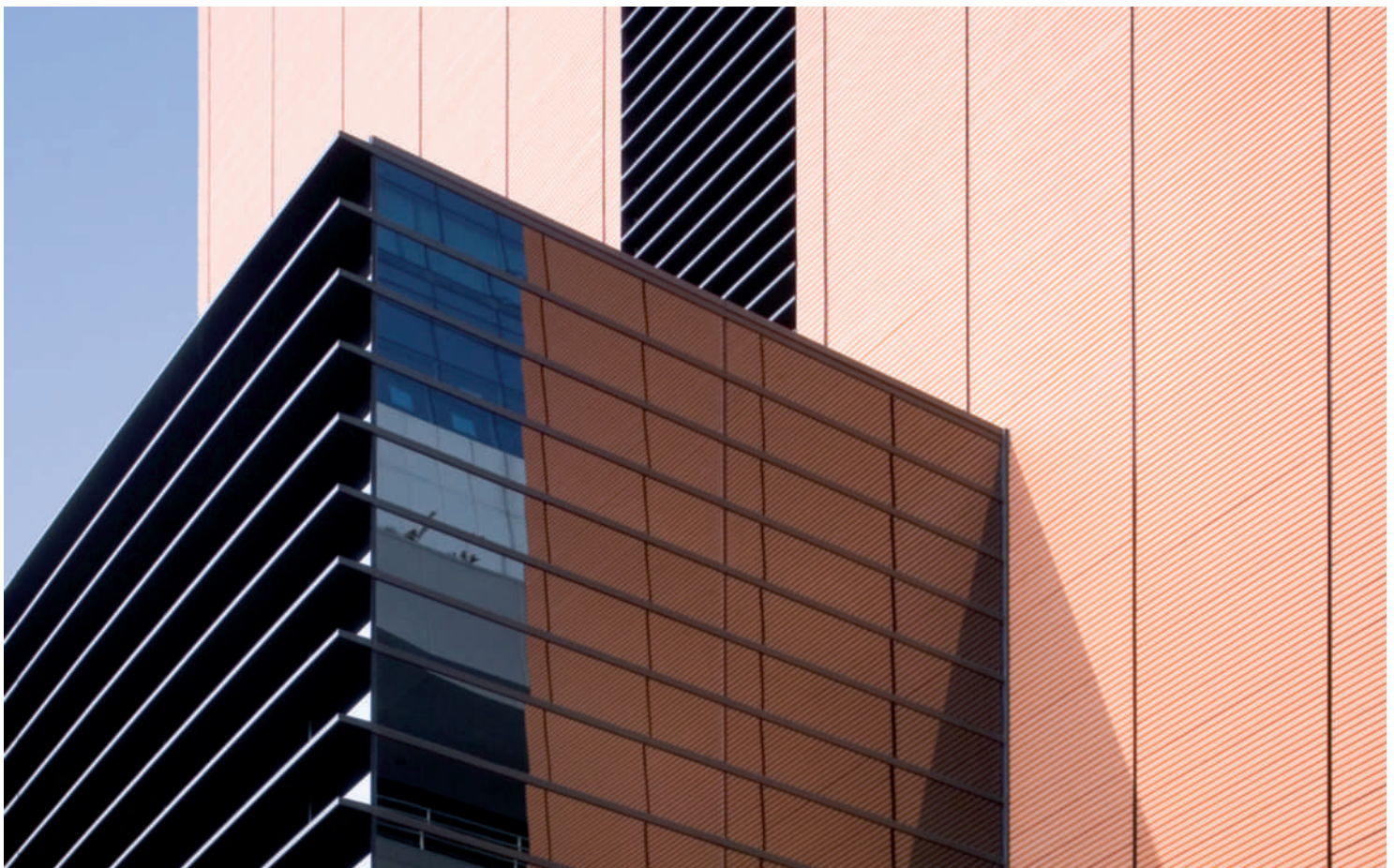


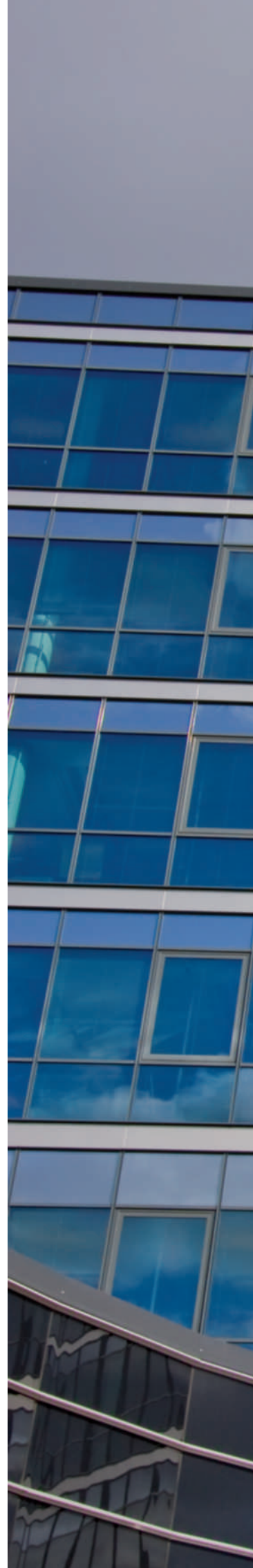
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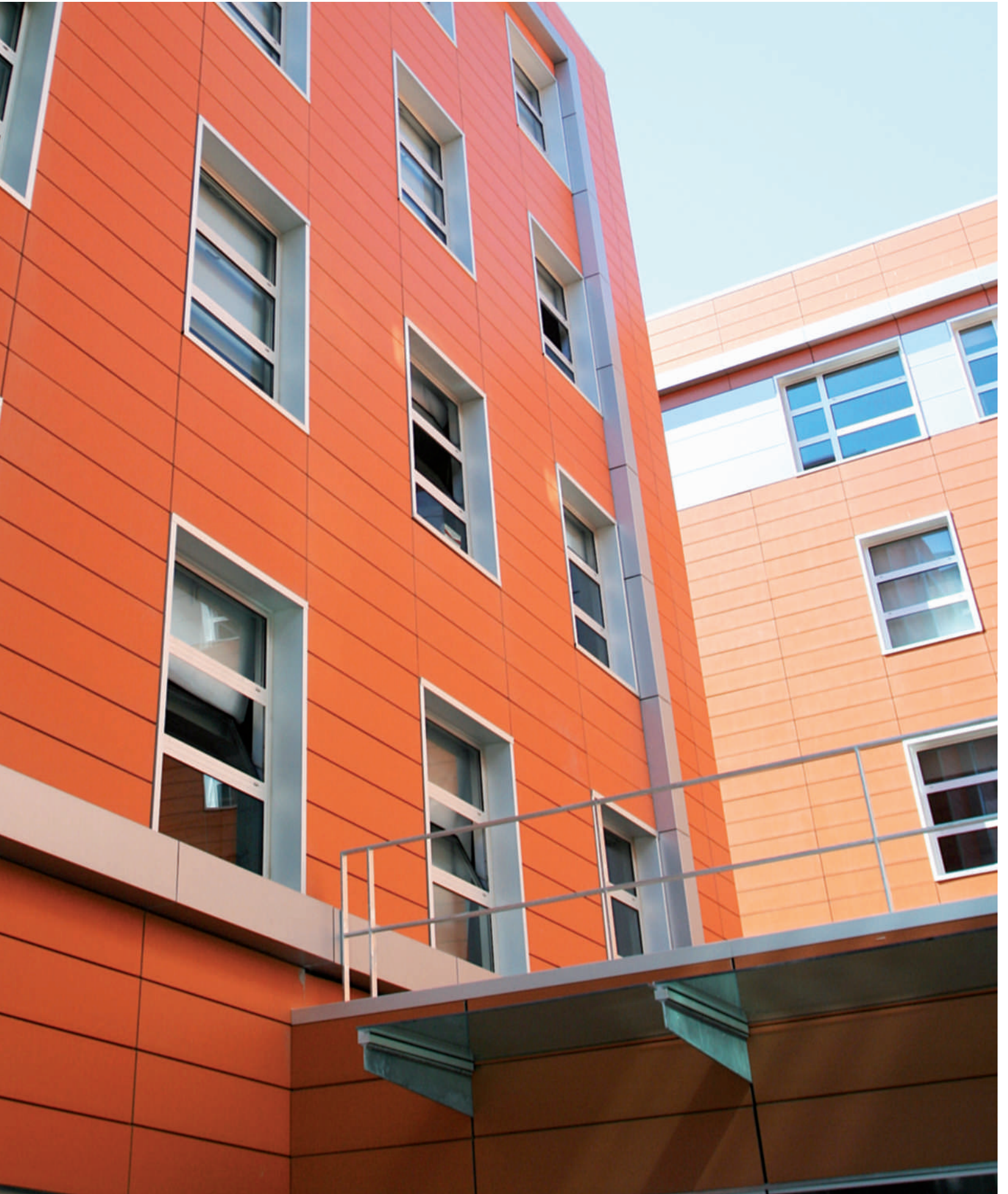




















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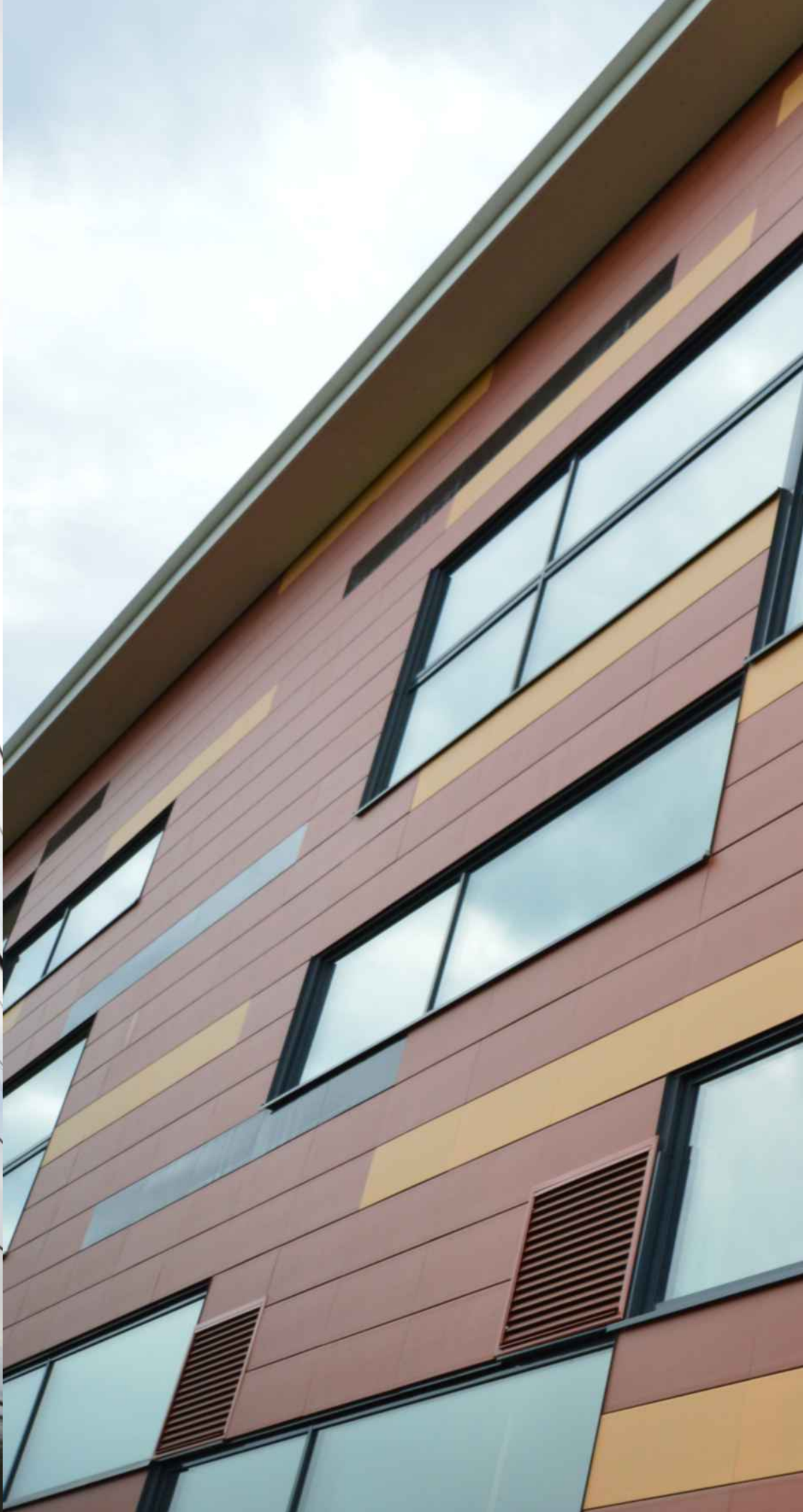
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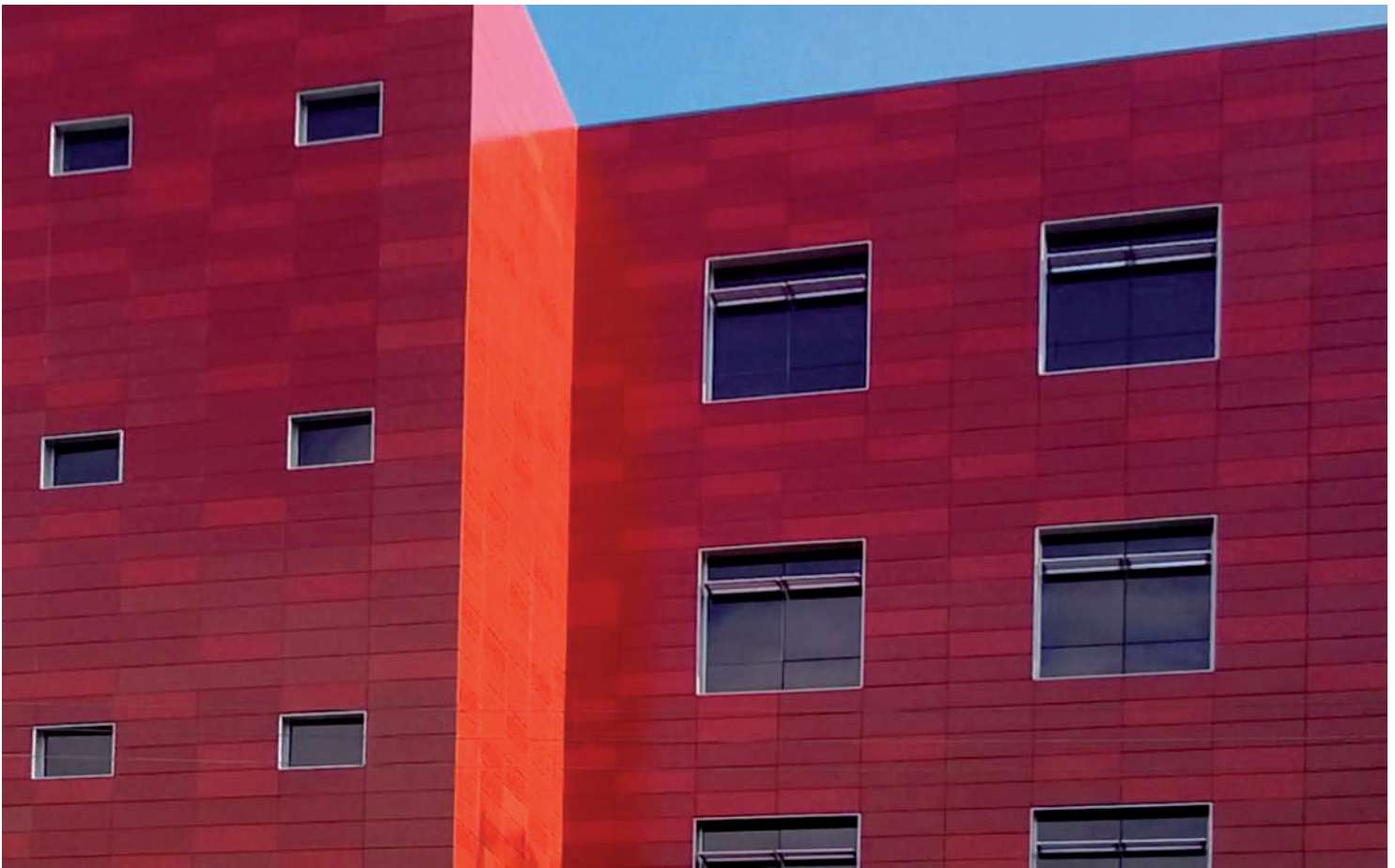


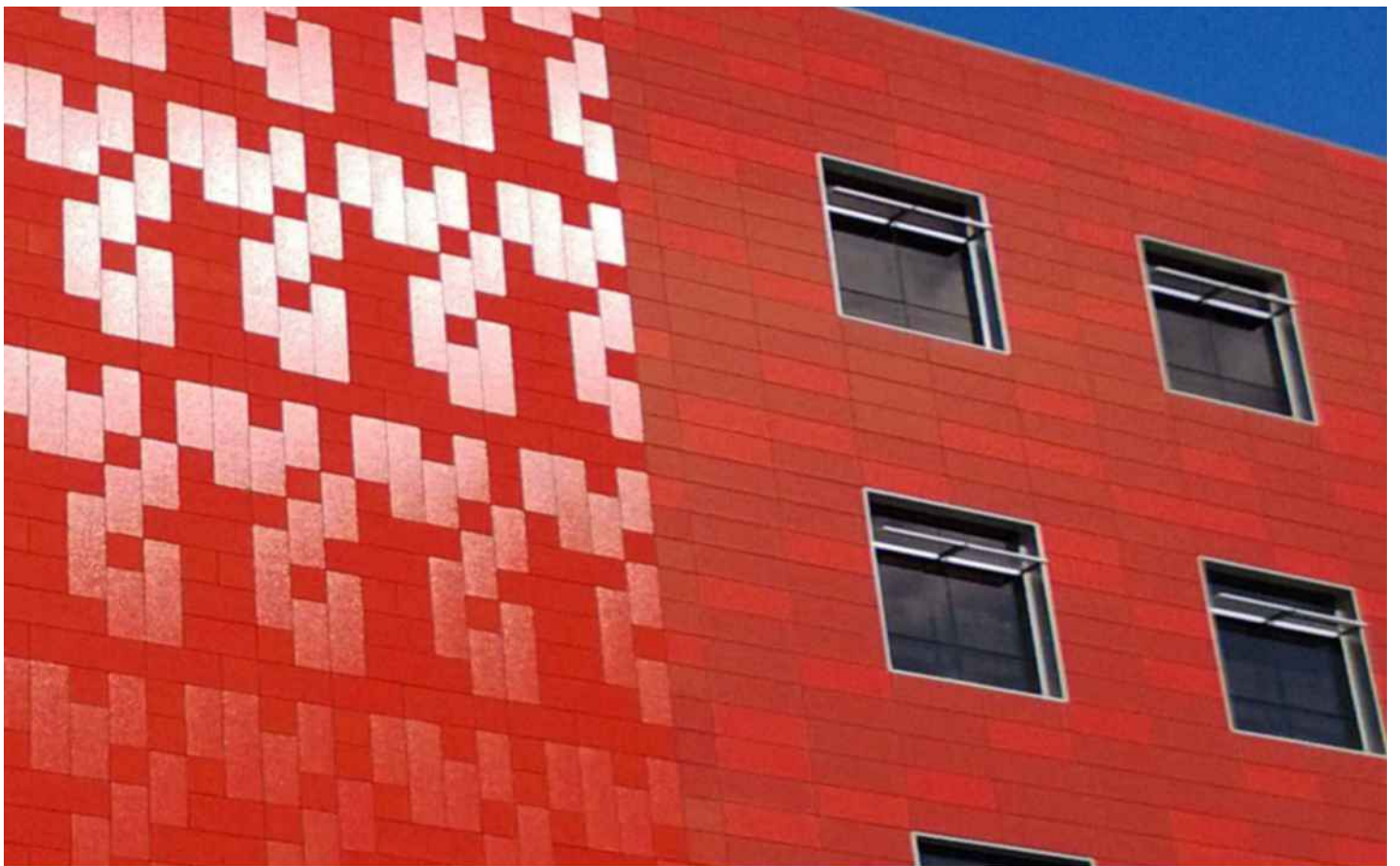




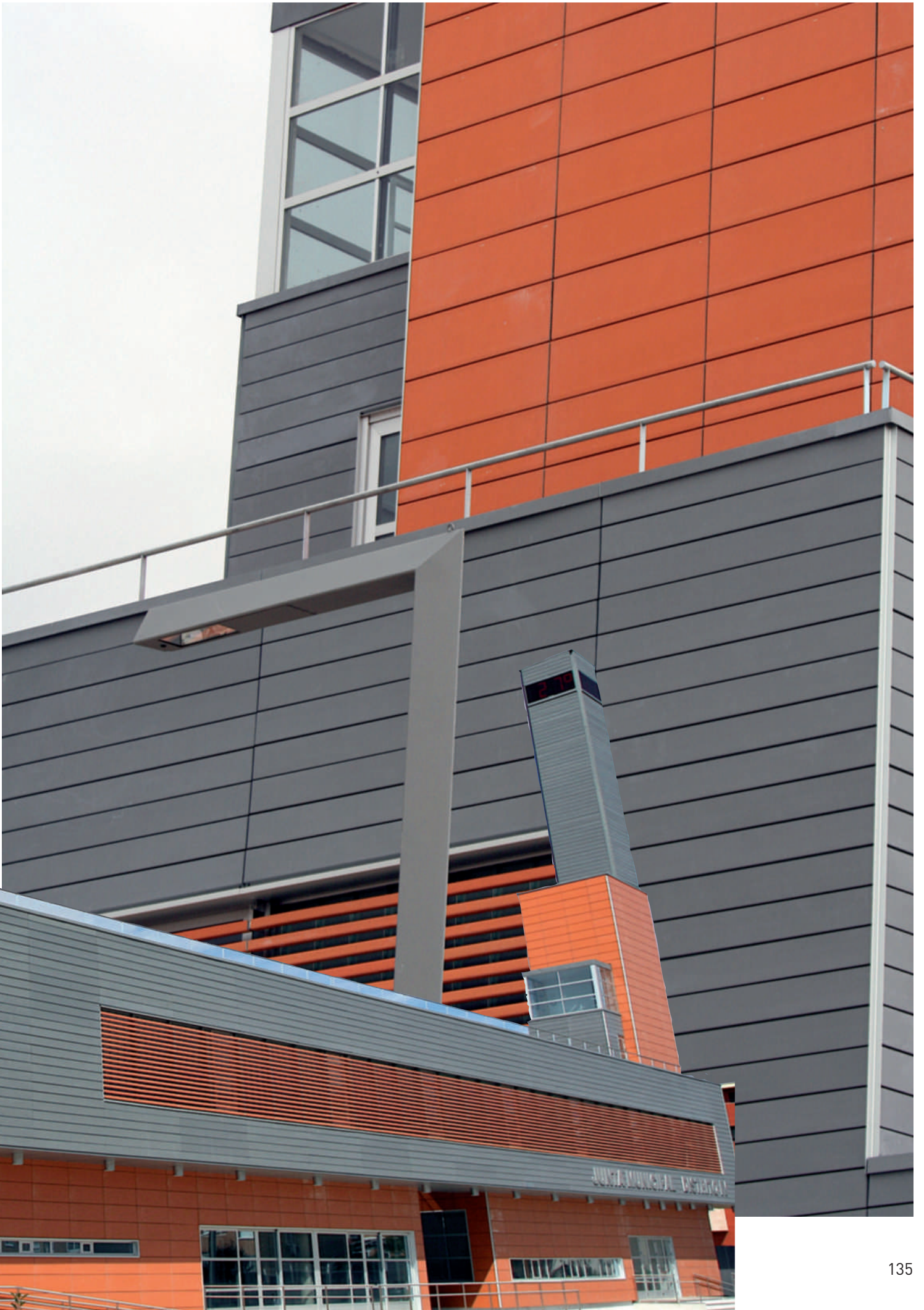




























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