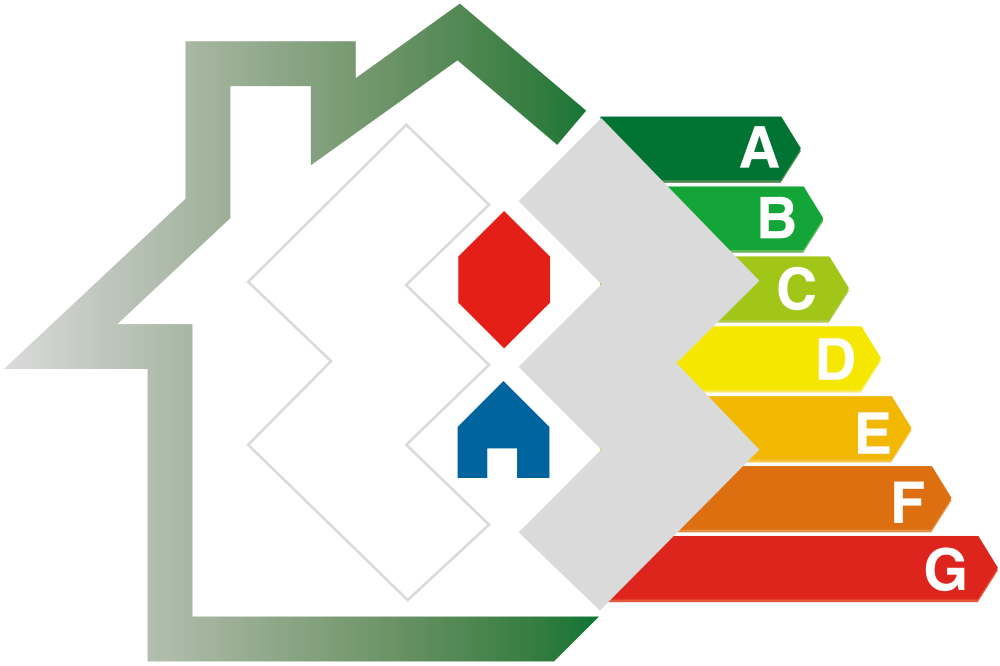
ISOLXTREM® SYSTEM

MANUAL

BAIXENS

baixens.com



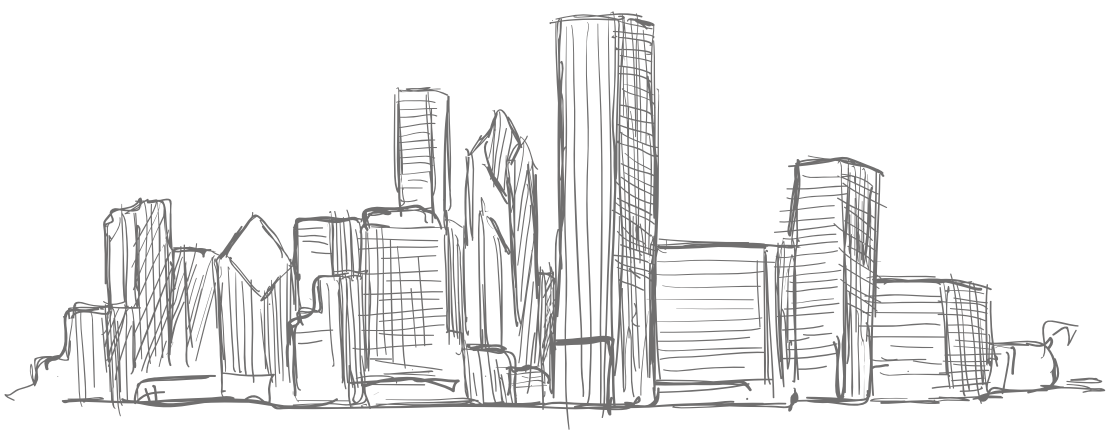
BAIXENS

baixens.com

Testing the difference

TABLE OF CONTENTS

ISOLXTREM SYSTEM



CERTIFICATIONS
ISOLXTREM SYSTEM

ISOLXTREM® SYSTEM is the EXTERNAL THERMAL INSULATION system manufactured with the guarantee of BAIXENS and certified by the prestigious EDUARDO TORROJA Institute of Construction Sciences in Madrid.

See our ETE (European Technical Assessment) brochure for more information.


CSIC

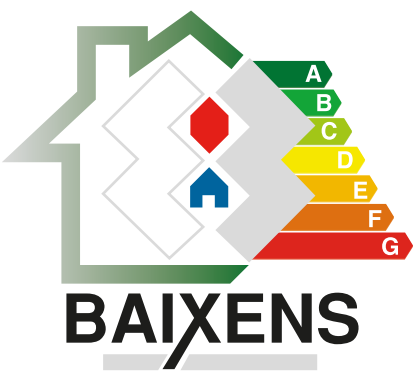
CERTIFICADO DE CONFORMIDAD DEL CONTROL DE PRODUCCIÓN EN FÁBRICA
1219 – CPR – 0090

ISOLXTREM® SYSTEM is the only SATE system manufactured and marketed entirely at our Alginet production site, under the ISO 9001 quality control, ISO 14001 environmental management and OSHAS 18001 occupational health and safety standards.

BENEFITS
ISOLXTREM SYSTEM

The external thermal insulation system (SATE) was born as a façade rehabilitation resource that provided insulation and thus saved energy in the home. Due to its proven advantages, it is now also used in new builds. It is the best energy savings system for buildings.

- ISOLXTREM® SYSTEM is the most efficient way to thermally insulate, both against the cold and the heat, achieving a reduction in energy consumption of more than 50%
- ISOLXTREM® SYSTEM protects against adverse weather conditions, waterproofs and decorates the exterior façade of homes
- ISOLXTREM® SYSTEM allows the walls to breathe while remaining completely waterproof to rainwater
- ISOLXTREM® SYSTEM increases the value of the building, whether it is new or refurbished.
- ISOLXTREM® SYSTEM helps the environment because it does not disperse polluting substances, reduces energy and CO emissions



PRODUCTS
ISOLXTREM SYSTEM

CX-28

RG-116

RX-528

PX-20

PX-28

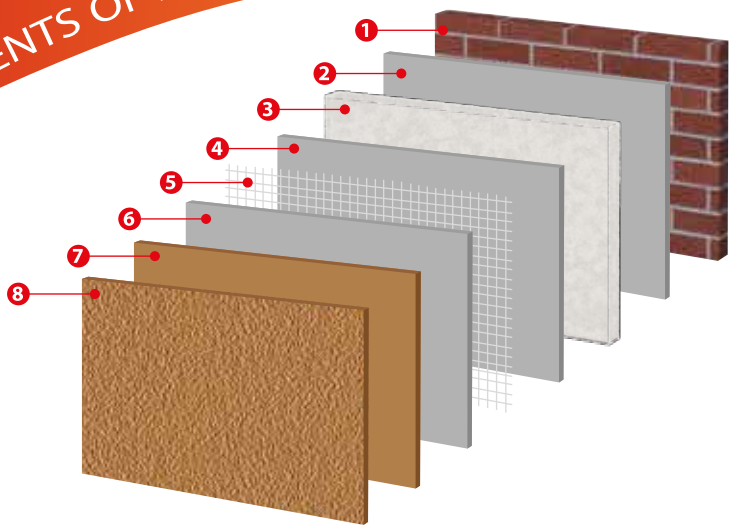
- **CX-28** ISOLXTREM® POLIESTIREX (Bonding and plastering mortar)
- **RG-116** MALLA DE FIBRA ISOLXTREM® (Fibreglass mesh)
- **RX-528** ISOLXTREM® MICROPRIMER (Absorption regulating primer)
- **PX-20** ISOLXTREM® RTX (Acrylic mortar for façades in 4 different finishes)
- **PX-28** ISOLXTREM® SILOXANE TECHNOLOGY (Acrylic mortar with siloxane for façades in 4 different finishes)

THE IDEAL SYSTEM FOR EXTERIOR
THERMAL AND ACOUSTIC INSULATION

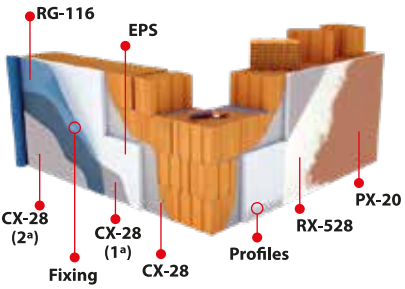
It is important to understand the ISOLXTREM SYSTEM as a comprehensive rehabilitation package. Each component plays a part and ensures optimal results.

It must be applied by professional experts with knowledge of the system, since it is necessary to follow the correct steps for optimal results.

ELEMENTS OF AN INSULATED FAÇADE



1. Bracket
2. CX-28 Isolxtrem® Poliestirex
3. EPS / Mineral wool
4. CX-28 Isolxtrem® Poliestirex (1st layer)
5. RG-116 Fibreglass mesh Isolxtrem®
6. CX-28 Isolxtrem® Poliestirex (2nd layer)
7. RX-528 Isolxtrem® Microprimer
8. PX-20 Isolxtrem® RTX
   PX-28 Isolxtrem® Siloxane Technology



THE IDEAL SYSTEM FOR EXTERIOR THERMAL AND ACOUSTIC INSULATION

ISOLXTREM® SYSTEM

The complete external thermal insulation system manufactured entirely by specialists in the treatment of vertical surfaces.

In this manual we are going to try to explain in a very graphic, easy and pleasant way how we should insulate our homes thermally and acoustically to save energy and have a superior quality of life. With ISOLXTREM® SYSTEM and Baixens, it is possible.

Please, follow the instructions given in this manual and enter the exciting world of thermo-acoustic insulation.

CONDITION OF THE SUBSTRATE

ISOLXTREM SYSTEM

As a general rule, thermo-acoustic insulation works are renovations usually carried out on the outside of buildings, so façades are already painted or plastered with different finishes.

The most important thing for our system to last is that we have a SOLID substrate, which is capable of bearing the weight of all the elements that we are going to superimpose on it.

So, if a substrate is treated with paints, plastic coatings or waterproofing products, elastomeric or not, we must sanitise it until we reach the hard part of it.

The easiest way to remove layers of old paint deposited on a surface is with the help of a pressure washer.

If the paint is so well anchored that we cannot remove it, we will create some anchorage points throughout the surface with the help of a radial machine or a simple spike (photo 1,1b, 2, 2b)

Once the anchorage points are ready, we will proceed to fix the powder produced with the help of our petrifying consolidator RX-501 Fijapren to the solvent.

If the substrate is coated with plaster mortar or weak single-layer, disaggregated, or that detaches from the base, it is essential to completely clean the substrate, eliminating any trace of the plaster or plaster in poor condition. We will use a milling machine until we reach the hard substrate (photo 3, 3b).

Once the substrate has been cleaned, we will proceed to fix the dust produced with the help of a petrifying consolidator (photo 4).

Now that we have sanitised the substrate we will proceed to install the system.

BAIXENS SOLUTION

RX-501 FIJAPREN TO THE SOLVENT

Pre-adherent, penetrating, solvent based fixer-hardener. Petrifying action.

· Penetrating primer
· Product to solvent
· Breathable product
· Acts as a sealer primer
· Ready-to-use material

FINAL COATING INTEGRATED BY TILE

When the substrate presents a particular final coating, it must be treated in a specific way, following a protocol that we will define in each case to give a solution.

Therefore, if a façade is decorated with tiles we must take the following precautions:

1. The tile must be well anchored to the substrate and its grip material must not separate neither from the substrate nor from the back of the tile when applying a force on it.

In the event that the tile detaches from its bonding material or the bonding material detaches from the substrate, we should remove the loose parts until reaching the hard substrate, removing all parts that fall off or are not well anchored.

We then proceed to level the substrate with our CX-61G Colbaix façade repair mortar, thixotropic repair mortar.

2. The tile must not be painted, treated with water-repellent products or have traces of microorganisms.

In the event that there are traces of paint, water-repellent or remains of microorganisms deposited on a surface, we will proceed to remove and clean them with the help of a pressure water washer.

Once observed these precautions, and having given solution to each of them, we will proceed to paint the entire façade surface with our CONCRETE IMPRIVAL RX-504 WITHOUT DILUTING and at the rate of 200g/m2 .
VERY IMPORTANT: Imprival should be coated a maximum of 72 hours after application to avoid possible adhesion problems.

BAIXENS SOLUTION

RX-504 CONCRETE IMPRIVAL

Textured water-based primer for interior/exterior use that acts as an adherent bridge on substrates lacking absorption.

- Good anchorage on smooth surfaces
- Ochre colour
- Rough texture
- Deodorised product

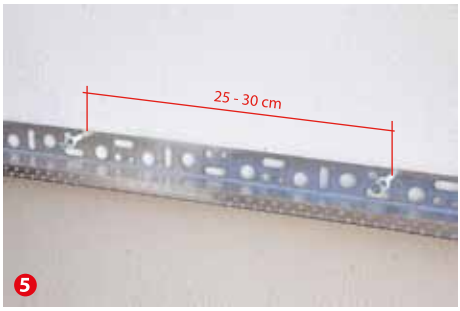
PREPARATION AND ATTACHMENT
OF THE MOUNTING RAILS
ISOLXTREM SYSTEM

The first thing we have to do is take out the levels and mark with a drawing pen.

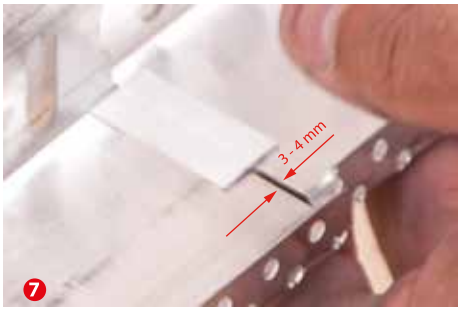
Once the marks have been made and the level has been removed, we will proceed to attach the mounting rail.

First we will mark the position, we will make a hole with a drill, we will place the shim and the screw and, if necessary, we will place the spacers, as many as necessary to absorb the unevenness of the wall.

The distance between screws should not exceed 25-30cm and the first screw should be placed less than 5cm away from the end of the mounting rail (photo 5).



When we have to join two rails, we will place the rail connectors to assemble/couple them and obtain a straight line (photo 6, 6b). The distance between rails will be 3-4 mm. Thus there will be an allowance for the natural expansion of the metal (photo 7).



It is not convenient to superimpose or overlap the rails to avoid unevenness.

When we come across a corner, we must use the appropriate mounting rails for this purpose (photo 8) or, failing that, we must do miter cuts to the conventional mounting rails, both in the interior and exterior angles (photo 9, 9b).

It is important to install the mounting rail clips in the mounting rails to ensure the vertical drainage of water and prevent its return.

APPLICATION
OF THE INSULATING MATERIAL
ISOLXTREM SYSTEM

MIXING OF GLUING MORTAR AND PLASTER ISOLXTREM POLIESTIREX CX-28

Mix with clean water at a rate of 22 %. For each 25 kg bag, 5.50 litres of water should be used for mixing.

THE MIXING OPERATION MUST ALWAYS BE DONE BY ADDING THE POWDER TO THE LIQUID PART (water) AND NEVER IN THE OPPOSITE WAY.

First place the clean water in a container and then adjust the necessary amount of powder according to the instructions.

Mixing must be carried out manually or mechanically using an electric mixer (photo 1).

Next, let the mixture rest for 5 minutes and then apply the product on the substrate with the help of a trowel or spatula (photo 2, 2b).

CX-28 Isolxtrem Poliestirex gluing and plastering mortar has a working time of 2-3 hours. After this time it cannot be used, because if we stirred the mixture to continue using it, we would interrupt its setting curve, producing drying alterations, resistances and superficial hardness.

GLUING EPS PANELS TO THE SUBSTRATE

The gluing of expanded polystyrene (EPS) panels will be done by applying the mixture around the contour of the panel with a width of approximately 5-7 cm and applying 2-3 "blobs" in the centre, leaving a distance of about 10-15 cm between them.

For the correct gluing of the EPS panels to the substrate, in no case will the minimum surface of adhesive applied be less than 40% of the panel surface.

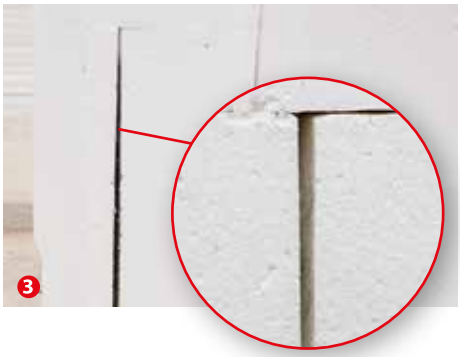
Once the material has been left on the panel, we will place it immediately on the substrate, always starting the first row from the mounting rail, so they are perfectly aligned. Then press the EPS panel onto the substrate with the help of the trowel for a few seconds

Hand tapping is not recommended as it could deform the EPS panels.
In order to avoid as much as possible open joints, we will place all the panels making a slight movement and pressure against those that are already placed, thus we will also guarantee a perfect anchorage of the mortar to the substrate.

From the second row of panels, the laying will be "running bond", that is to say, ensuring that the joints of the EPS panels in the second row do not match those in the first one, those in the third one with those in the second one and so on.

If, once the panels have been placed, some joints are left open (photo 3), we must cut strips of EPS to fill them in properly (photo 4).

We will never fill with the bonding and plastering material as this operation would create a thermal bridge (photo 5).



The panel joints without a good planimetry, the EPS panels will be sanded using an electric or manual sander.

The sanding dust must be removed with a vacuum cleaner before plastering with the plaster mortar.

The gluing with mineral wool will be done by applying a 1st layer of CX-28 Isolxtrem Poliestirex on the entire surface as a plaster.

In order to glue the MW (mineral wool) panels correctly to the substrate, in no case shall the minimum surface of adhesive applied be less than 100% of the panel surface.

We will now proceed in the same way as with the EPS panels described above.

TYPES OF PANELS - MINERAL WOOL

TERMOLAN
ISOLAMIENTOS TERMO-ACÚSTICOS S.A.

· Mineral wool is a material made from volcanic rock.

· It is used mainly as thermal insulation and as passive protection against fire in the building due to its structure, which allows it to house relatively still air inside.

· Due to its multidirectional and elastic structure, mineral wool stops the movement of air particles and dissipates sound energy, being a good acoustic insulator.

ECOTERME

GLUING OF PANELS IN THE CORNERS OF DOORS AND WINDOWS (FAÇADE OPENINGS)

In façade openings we must apply complete panels, cutting them in an "L" shape to avoid the creation of flaws and cracks (photo 6). The joints of the panels must never coincide with the corners of the doors and windows (photo 7).


6


7

In forging fronts and upper part of doors and windows, we always recommend insulation with mineral wool panels that will act as firebreaks when needed.

TYPES OF PANELS - EPS

· Expanded polystyrene (EPS) is a foamed plastic material derived from polystyrene.

· Polystyrene, being one of the best thermal insulators, is widely used in building construction.

· Its most outstanding quality is that it is hygienic, as it does not act as a nutritive substrate for microorganisms. This means that it does not rot, mildew or decompose. Other characteristics include lightness, resistance to humidity and shock absorption capacity.

MARKING OF CONCEALED INSTALLATIONS

Installations that are concealed or covered under the EPS panels must be suitably marked to prevent damage when drilling the anchor holes (photo 8).

In addition, the EPS panels must be emptied in the corresponding places so they can house the connections of these hidden installations (pipes, cables, etc.). To empty the EPS panels we will use a cutter, hot wire machine or sandpaper..
In any case, the minimum thickness of the EPS panel must never be less than 2-3 centimetres (photo 9).


8

9

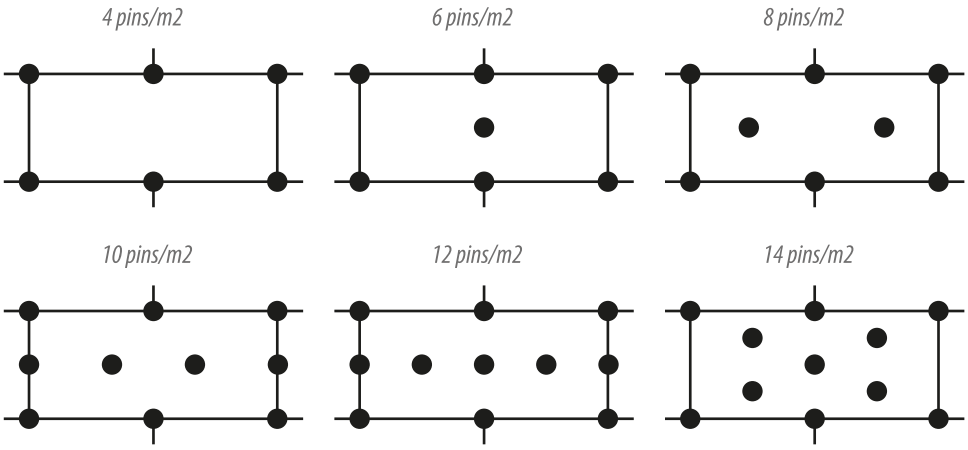
PLACEMENT OF MECHANICAL ATTACHMENTS

After 24 hours of applying the panels on the substrate, we will proceed to place the attachment shims (according to the table attached).


Mechanical impact


Mechanical bolted

Schematic diagram of the placement of the pins per surface unit



The diagram above shows the distribution of pins per square metre. The use of 0.5 m2 (1,000x500 mm) panels is only a visual reference and does not imply that the same layout should be used for panels cut on site.

Number of pins per m2 with 0.20 kN service load at the edges

Basic value of the wind speed (km/h)	Building environment								
	I (free of construction)			II (protected)			III (with a high number of constructions)		
	Building height								
	<10 m	10 to 20 m	25 to 50 m	<10m	10 to 20 m	25 to 50 m	<10m	10 to 20 m	25 to 50 m
<85	6	6	6	6	6	6	6	6	6
85 to 115	8	10	12	8	8	10	6	8	10
115 to 135	10	12	12	10	12	12	8	10	12

Attachment with attachment shims

If the attaching strength is not sufficient, suitable pins must be used depending on the condition of the façade; they must be anchored on solid wall materials with the necessary depth, bearing in mind that tiles and old plaster are not considered a suitable anchorage substrate. The length and diameter of the pins depend on the corresponding walls or the insulating material. The number of pins depends on the height or location (surface, edge). They are installed after the insulation and before the reinforcement, and they must be evenly distributed.

Constructive section of a pin placement

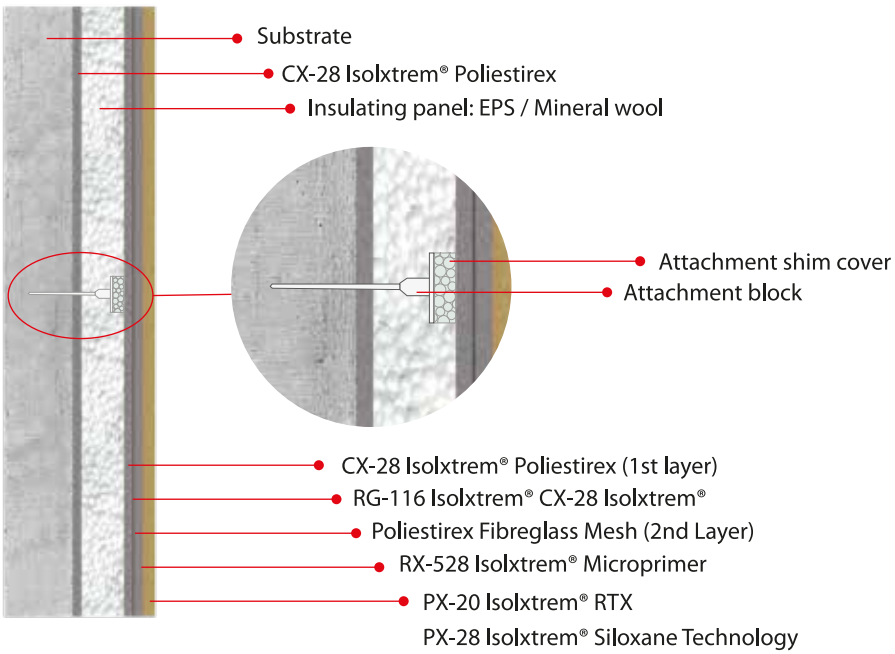
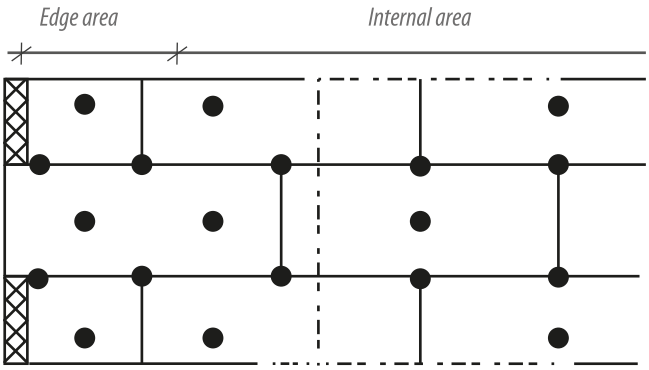
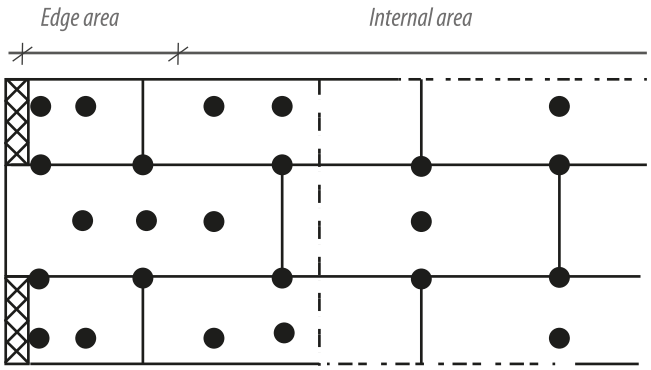


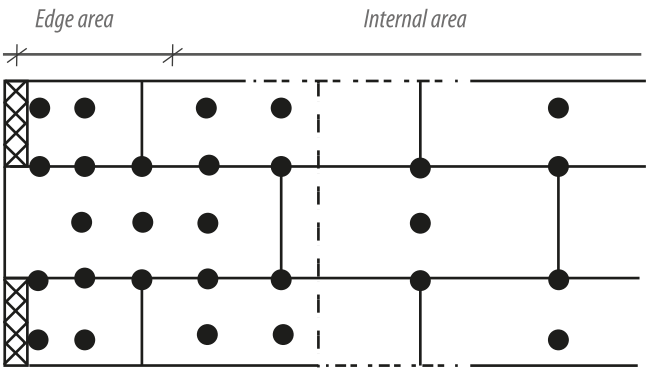
Diagram of the pin placement on the edges of the building



Building height: up to 8 m



Building height: 8 - 20 m



Building height: > 20 m

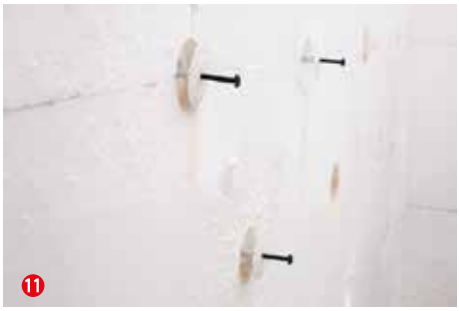
INSTALLATION OF ATTACHMENT SHIMS

Mechanical impact attachment

The holes shall be drilled in the position indicated in the attached table, through the panels. The drilling depth must be at least 1 cm longer than the depth of the attachment pin or shim.

At the same time we drill to insert the shim or pin, we countersink the EPS panel (photo 10). Then, we place the pin until the disc is flush with the EPS panel (photo 11), we hit the plastic bolt with a hammer until it is completely inserted (photo 12)
and then we place the EPS plug (photo 13).


10


11


12


13

Mechanical bolted attachment

The holes are drilled in the position shown in the table on the right (page 22), through the panels. The drilling depth must be at least 1 cm longer than the depth of the attachment pin or shim.

We place the shim or pin for the screwed attachment in the EPS panel (photo 15).
Then we screw with the help of the screwing and cutting accessory (photo 16, 16b).
Then, we place a small EPS tap in the shim cavity (photo 17) and then the EPS cover to cover the hole (photo 18).
With the help of a trowel and applying a light pressure, we will finish installing the cover to leave it flush with the EPS panel (photo 19).


15


16

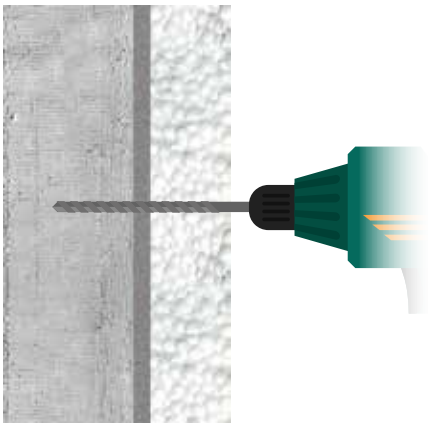

16b

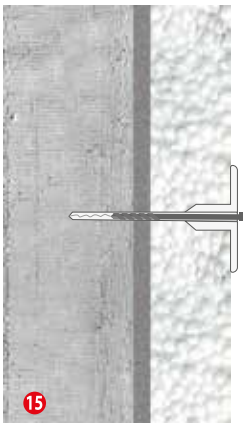

17

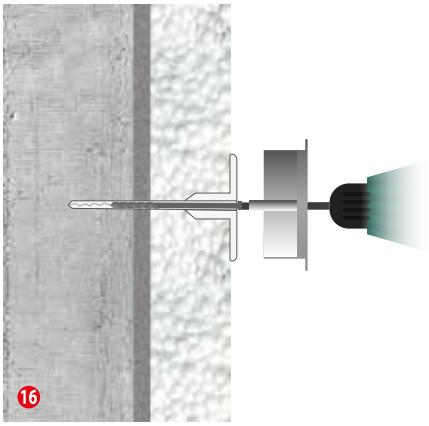

18

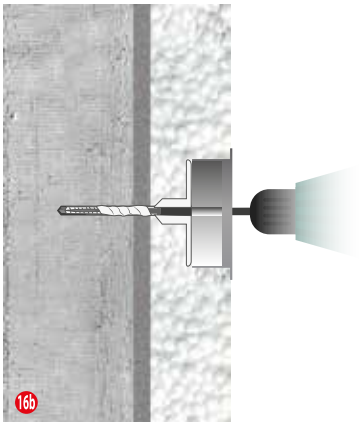

19

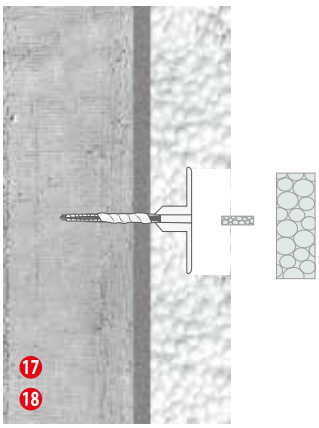
Cross-section of the screwed mechanical installation

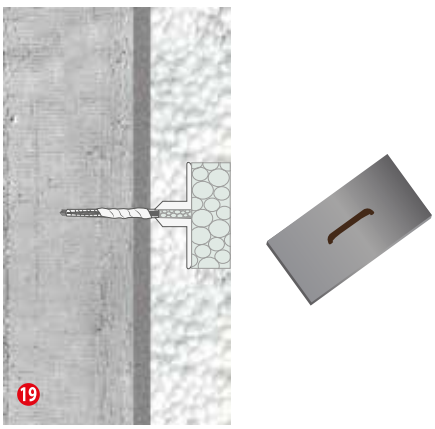












BEHAVIOUR OF THE EPS UNDER ATMOSPHERIC FACTORS

Prolonged exposure to the elements and UV rays can cause the surface of unprotected EPS panels to yellow and become brittle (photo 20).

In order to avoid this we must plaster with CX-28 Isolxtrem Poliestirex within 7-10 days of its installation on the substrate.

If we have allowed more time to elapse since the panels were installed and they have yellowed, we must sand the entire surface and completely remove the dust produced by this cleaning, then plaster with CX-28 Isolxtrem Poliestirex (photo 21, 21b).


20


21

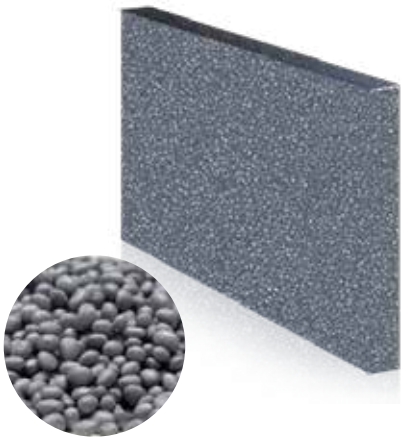

21b

TYPES OF PANELS - NEOPOR®

· Neopor is a new raw material developed by BASF Aktiengesellschaft based on polystyrene with expansion agents for innovative applications.

· The black, pearl-shaped particles are transformed into a granite-coloured rigid foam, which has a considerably higher thermal insulation capacity than the EPS insulation materials.

· Compared to conventional EPS, Neopor® can achieve the same insulation performance with significantly less material.



APPLICATION OF THE PLASTER MORTAR IN FIRST COAT AND PLACEMENT OF THE FIBREGLASS

The plastering of the panels, whether EPS or mineral wool, is done by applying CX-28 Isolxtrem Poliestirex using a trowel.

Before starting to plaster with CX-28 Isolxtrem Poliestirex, and as a reinforcement of the lower parts or skirting boards, we recommend installing the mounting rail clip (photo 22). This accessory is made of PVC and alkaline-resistant fibre mesh. Installation is easy, as it only has to be fitted into the mounting rail pressing lightly. This minimises the risk of cracks in the joint area of the mounting rail (photo 23).


22


23

The application of CX-28 Isolxtrem Poliestirex will start by plastering from the lower part of the skirting board, separating a little with the hand the fibre from the mounting rail clip and putting the CX-28 Isolxtrem Poliestirex on the EPS panel (photo 24). Next, we will apply a moderate pressure with the trowel on the fibre of the mounting rail clip so that the fibre is fully coated and inside the CX-28 Isolxtrem Poliestirex (photo 25, 25b)


24


25


25b

We will continue the application by placing a 1-2 mm layer of mortar over the entire surface of the panels. This application is always done vertically from bottom to top, applying material and removing the excess. Joints are made in reverse, from top to bottom.

We recommend extending CX-28 Isolxtrem Poliestirex on cloths slightly wider than the fibre (1 m wide), to prevent the mixture from drying out before the mesh has been glued (photo 26, 26b). Next and on the surface recently impregnated with CX-28 Isolxtrem Poliestirex, we will install the fibreglass mesh RG-116 Isolxtrem Fibre Mesh (photo 27), applying pressure with the trowel so that the fibre is totally embedded by the gripping mortar CX-28 Isolxtrem Poliestirex (photo 28).

Please remember that in order for the application to be continuous, the fibreglass must be superimposed by at least 10 cm (overlapping operation). The RG-116 Isolxtrem Fibre Mesh has two red strips of 10 cm each printed on its ends to make installation easier and more intuitive (photo 29).

We recommend repeating this operation not only in the façade skirting board, but also in the lower parts (maximum 2 meters high). Thus, the double layer of fibreglass RG-116 Isolxtrem Fibre Mesh and the greater quantity of plaster mortar CX-28 Isolxtrem Poliestirex, will act as a reinforcement, providing a greater resistance to blows (photo 30, 30b).

PRODUCT ISOLXTREM SYSTEM

RG-116 FIBREGLASS MESH ISOLXTREM

Fibreglass mesh indicated for the reinforcement of mortars in External Thermal Insulation System (SATE)

· Reel dimensions: 100 cm x 50 m (approx.) (width x height)
· Weight: 160 g/m
· Mesh size: 3.5 x 3.8 mm
· Thickness: ±0.52 mm
· Fabric: Half-leno

APPLICATION OF THE PLASTER MORTAR SKIMMING AND SMOOTHING - CX-28 ISOLXTREM POLIESTIREX

Once the first coat of plaster mortar has dried, a second coat should be applied to smooth out and skim the defects and marks of the first application and hide any traces of the fibreglass. This application is called skimming and smoothing layer, and prepares the substrate to receive the finish coating layer with a good planimetry.

Once again, this finishing plastering operation is performed by applying CX-28 Isolxtrem Poliestirex with the help of a trowel. The application is always done vertically from bottom to top, applying material and removing the excess (photo 31). Joints are made in reverse, from top to bottom (photo 32).

PRODUCT ISOLXTREM SYSTEM

CX-28 ISOLXTREM POLIESTIREX

Powdered mortar suitable for the gluing of insulating panels made of polystyrene and mineral wool, as well as their subsequent plastering

- Microfibre product
- Normal setting
- Easy to apply
- High adhrence
- Highly resistant finish
- Filling of coke ovens

APPLICATION OF THE ABSORPTION REGULATING PRIMER - RX-528 ISOLXTREM MICROPRIMER

After the correct drying of the second layer (see instructions on page 45) of CX-28 Isolxtrem Poliestirex, we will apply the absorption regulating primer RX-528 Isolxtrem Microprimer.
RX-528 Isolxtrem Microprimer is a ready-to-use product that should be stirred before use (photo 33).

The application can be done by roller, brush or airless. For the first coat application it is possible to dilute RX-528 Isolxtrem Microprimer 10 % in water (photo 34). The subsequent coats should be applied undiluted (photo 35, 36).

Once the application has been made, it is advisable to allow at least 19 hours to elapse before applying the acrylic finishing mortar.


33

34

35


36

For aesthetic reasons, we recommend using coloured Microprimer RX-528 with a colour very similar to that of the finishing acrylic mortar.

APPLICATION OF MICROFIBRE ACRYLIC MORTAR PX-20 ISOLXTREM RTX / PX-28 ISOLXTREM SILOXANE TECHNOLOGY

Acrylic mortar PX-20 Isolxtrem RTX / PX-28 Isolxtrem Siloxane Technology is manufactured in four granulometries.
It is a ready-to-use product, which is why it should be stirred before use.

The application is made by placing the acrylic mortar PX-20 Isolxtrem RTX / PX-28 Isolxtrem Siloxane Technology on the primer RX-528 Isolxtrem Microprimer with the help of a trowel.

The product is then distributed and smoothed (photo 37) and then trowelled onto the substrate until an even and aesthetic surface is obtained (photo 38).


37


38

If we want to use the product as crack prevention system, we will proceed to apply a first coat of PX-20 Isolxtrem RTX / PX-28 Isolxtrem Siloxane Technology (photo 39), and before it dries, we will place the reinforcement mesh RG-116 Isolxtrem Fibre Mesh, pressing it lightly with the help of a spatula or with the same trowel (photo 40), making it penetrate into the first layer of PX-20 Isolxtrem RTX / PX-28 Isolxtrem Siloxane Technology and then, fresh on fresh, apply another layer of product that covers it completely (photo 41, 42).

Finally, we will trowel the product, leaving a flat, waterproof and decorated surface (photo 43).


39

40

41


42


43

PRODUCT ISOLXTREM SYSTEM

PX-528 ISOLXTREM MICROPRIMER

A matt acrylic primer, smooth, pigmented, water-based, suitable for external thermal insulation systems and as an absorption regulating background.

· Smooth finish and excellent levelling
· Exceptional adherence
· Good adherence on poorly absorbent substrates
· Matt product
· Substrate absorption regulator

PRODUCT ISOLXTREM SYSTEM

PX-20 ISOLXTREM RTX

Acrylic texture elastic and waperproofing mortar, indicated as a finishing for external thermo-acoustic insulation systems (SATE).

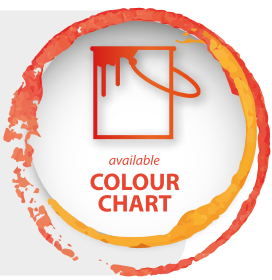
· Easy application and high load capacity
· Hydrophobic product
· Self-cleaning effect
· Allows external walls to be levelled
· Allows to obtain rustic surfaces
· No cracking or flaws
· Protects substrate from carbonation
· Protects the substrate from the attack of microorganisms
· Finishes: coarse, medium, no finish and light
· Elastic and flaw preventing product
· Waterproof and breathable product
· Heavy duty

PX-20G PX-20M

PX-20F PX-20L

COLOUR CHART AVAILABLE FOR THE PRODUCTS:

- **RX-528 ISOLXTREM MICROPRIMER**
- **PX-20 ISOLXTREM RTX**
- **PX-28 ISOLXTREM SILOXANE TECHNOLOGY**



TREATMENT
OF SINGULAR POINTS
ISOLXTREM SYSTEM

SKIRTING BOARDS

The lower area of the façade that converges with the floor must be waterproofed against accumulated moisture from rain or splashes from the roadway. The treatment we recommend to insulate and waterproof this area is the application of our concrete-based waterproofing bicomponent RX-515 Selladur Elastic reinforced with fibreglass (we can use for this purpose the same mesh of the ISOLXTREM® System, i.e., RG-116).

The waterproofing process will consist of cleaning the substrate using a milling machine until it reaches the hard substrate (photo 44) and attaching the powder with a petrifying consolidator RX-501 Fijapren to solvent, then proceed to applying Selladur RX-515 by brush or trowel (photo 45), then gluing the fibreglass mesh RG-116 (photo 46) and finally completely covering the fibre with the same product (photo 47).


44


45

46


47

To achieve full effectiveness of the process, we recommend applying up to 1 metre high and using a total of approximately 3 Kg per square metre.

BAIXENS SOLUTION

RX-515 SELLADUR ELASTIC

Elastic waterproofing bicomponent predosed with a concrete base for anti-humidity treatment.

· Easy to apply
· Waterproof
· It can be applied to swimming pools and covered with adhesive cement, if a subsequent tiling is desired
· Waterproofing of horizontal walls prior to tiling with hollow brick, Catalan tile, tiles, slate, etc.
· Suitable for sealing, coating and protection of all substrates exposed to water aggressiveness

Gama Selladur®

La barrera anti-humedad

EXPANSION JOINTS

The expansion joint profile will be mounted in expansion or movement joints.
The expansion joint profile is made of PVC and alkaline-resistant fibreglass and is used to guarantee the absorption of the expansion or contraction of the substrate.

The installation of the expansion joint profile will be done in the following way:

1. We will apply bonding and plaster material on both sides of the expansion joint.

2. Insert the expansion joint profile into the movement joint.

3. Inside the expansion joint profile we will place strips of EPS previously cut, or a wooden strip, so as not to fill the joint with bonding material.

4. Embed the fibreglass mesh with the trowel in the mortar to attach the expansion joint profile to the construction and let it dry.

5. Once CX-28 Isolxtrem Poliestirex is dry, remove the EPS strips or the wood strip from the inside of the joint and place a trim to cover the gap left by the expansion joint. Then we will continue with the normal process of working on the façade.

FAÇADE OPENINGS (DOORS AND WINDOWS) - VERTICAL EDGES

All vertical edges must be reinforced with mesh corner profiles. The corner profile with mesh protects the vertical angles, helping the creation of perfect edges.

The installation of the corner profile with mesh will be done in the following way:

1. We will apply bonding and plastering material on both sides of the corner.

2. We will place the corner profile with mesh on the mortar, applying a moderate pressure.

3. We will smooth the fiberglass edges with the trowel so the fibre remains inside the bonding material CX-28 Isolxtrem Poliestirex and we will let it dry.

4. Once the CX-28 Isolxtrem Poliestirex is dry, will continue with the normal process of work on the façade.

PRODUCT ISOLXTREM SYSTEM

PX-28 ISOLXTREM SILOXANE TECHNOLOGY

Textured acrylic mortar, elastic and waterproofing, with siloxane components. Specially indicated as a finishing for external thermo-acoustic insulation systems (SATE).

- Easy application and high load capacity
- Hydrophobic product
- Self-cleaning effect
- Allows external walls to be levelled
- Allows to obtain rustic surfaces
- No cracking or flaws
- Protects substrate from carbonation
- Protects the substrate against the attack of microorganisms
- Finishes: coarse, medium, no finish and light
- Elastic and flaw preventing product
- Waterproof and breathable product
- Heavy duty

PX-28G

PX-28M

PX-28F

PX-28L

available
COLOUR CHART

FAÇADE OPENINGS (DOORS AND WINDOWS) - LINTEL

The lintels must be reinforced with mesh rain awning. The rain awning profile with mesh is used to prevent runoff in the changes of plane, preventing the return and filtration of water inside the wall. This profile is not covered with plaster layers, which guarantees the drainage of the lintel.

The installation of the corner profile with mesh will be done in the following way:

1. We will apply bonding and plastering material on both sides of the corner.

22. We will place the rain awning with mesh on the mortar, applying a moderate pressure.

3. We will smooth the fiberglass edges with the trowel so the fibre remains inside the bonding material CX-28 Isolxtrem Poliestirex and we will let it dry.

4. Once the CX-28 Isolxtrem Poliestirex is dry, will continue with the normal process of work on the façade.

ACCESSORIES - PROFILES

Expansion Joint Profile

PVC expansion joint profile with alkaline-resistant fibreglass mesh, ETAG 004 certified, for expansion joints from 5 to 25 mm wide, both vertically flat and in internal corners of the façade.

Corner Profile with Mesh

PVC corner profiles with alkaline-resistant fibreglass mesh, ETAG 004 certified, valid for any mortar thickness. Protects horizontal and vertical angles at edges, windows and doors.

Rain Awning Profile with Mesh

PVC rain awning profile with alkaline-resistant fibreglass mesh, ETAG 004 certified, used in the final plastering of door and window lintels in order to prevent runoff in the changes of plane, preventing the return and filtration of water inside the wall. This profile with rain awning is not covered with plaster layers.

DRYING TIMES
INDICATIONS FOR CORRECT APPLICATION
ISOLXTREM SYSTEM

INTERLAYER DRYING

Due to the multi-layered nature of SATE, installation must be carried out by qualified personnel. In that context, the incorrect application of a single layer can dramatically reduce the life span of the assembly. In general, this reduction in the durability of SATE is due to the fact that some of the layers integrating it have not dried properly before receiving the next one.

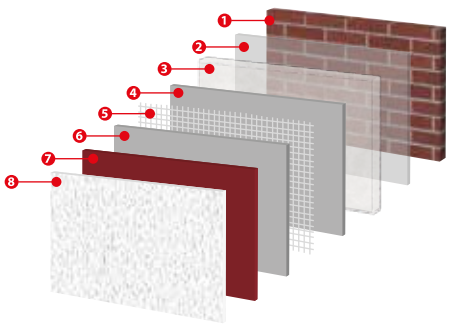
In order to maximise the durability and insulation of the system, the following instructions must be observed:

1. When necessary, mix the products with the appropriate amount of water. Not providing the ideal amount will generate cracks and will cause a reduction of the final adherence of the product.

2. Allow each of the layers that make up the system to dry completely before applying the next one. It should be noted that the drying time required for each layer is directly related to the weather conditions at the installation site.

In order to minimise the waiting time between applications and maximise the durability of SATE, the Baixens technical department has thoroughly studied the drying process of the simplified multilayer unit. Thus, two series of experiments with SATE systems integrated by the following layers were simulated:

1. Substrate
2. CX-28 Isolxtrem® Poliestirex
3. EPS / Mineral wool
4. CX-28 Isolxtrem® Poliestirex (1st layer)
5. RG-116 Fibreglass mesh Isolxtrem®
6. CX-28 Isolxtrem® Poliestirex (2nd layer)
7. RX-528 Isolxtrem® Microprimer
8. PX-20 Isolxtrem® RTX
   PX-28 Isolxtrem® Siloxane Technology



General diagram of the layers integrating the SATE used in the optimisation of the drying parameters. (Each of the layers has been applied in different colours for easy identification).

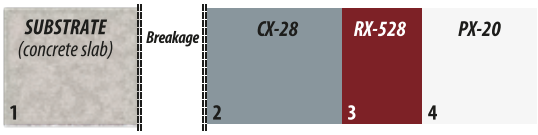
The first series of experiments was applied according to the guidelines of this manual, i.e., allowing each of the layers in the system to dry completely before receiving the next one. For this purpose, a layer of Poliestirex was applied on a test specimen and this layer was left to dry for 48 hours (25 ºC and 50 % relative humidity), then the Microprimer layer was applied. After allowing this layer to dry for 48 hours, the last layer was applied, consisting of the white PX-20 product.

In the second series of experiments, a faulty system was simulated. For this purpose, the Poliestirex layer was left to dry for only 2 hours, then a layer of microprimer was applied and, after two hours, the layer of acrylic finishing mortar was placed on top.

Subsequently, different tensile strength tests were carried out on both series of experiments. These consisted of pulling off different areas of the SATE studied, assessing the force necessary to do it. Thanks to this methodology, we can know which layer is the least resistant in the system when it is applied in a defective way and we can also establish objective criteria with regards to the optimal application and drying conditions.

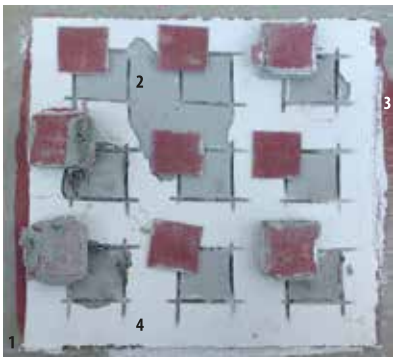
From the results obtained it can be seen that:

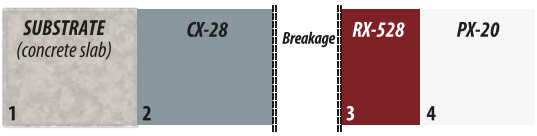
If the system is applied correctly, all layers remain perfectly adhered. The breakage of the system occurs in the substrate that supports the different layers (in our study, the concrete test sample itself).



Cohesive breakage of the substrate produced in a correctly applied system. (All the layers of the system remain adhered, so that only the dark grey colour of the substrate can be seen in the fragments removed).

If the system is applied incorrectly, the adherence between coats decreases dramatically. In this case, an adhesive break occurs between the layers of Poliestirex and Microprimer.





Adhesive breakage produced in a correctly applied system.
(The layer of RX-528 Isolxtrem Microprimer is easily detached from the Poliestirex layer).

In order to know the optimum drying time of the Poliestirex layer, we only need to know the atmospheric temperature and humidity, and the guidelines given in Table 1 must be followed. For example, for environmental conditions of 25°C and 50 % relative humidity, the minimum time to allow the CX-28 Isolxtrem Poliestirex layer to dry is 18 hours.

Minimum drying time for the CX-28 Isolxtrem Poliestirex layer			
Outside Temperature (ºC)	Atmospheric Humidity < 45%	Atmospheric Humidity 46-74%	Atmospheric Humidity > 75%
<10	> 30 hours	> 48 hours	> 66 hours
10-14	25 hours	41 hours	56 hours
15-19	18 hours	28 hours	39 hours
20-24	14 hours	22 hours	30 hours
25-29	11 hours	18 hours	25 hours
30-34	9 hours	15 hours	21 hours
35-39	8 hours	13 hours	18 hours
>40	Do not apply		

Table 1

Next, in order to know when the acrylic finishing mortar can be applied, and therefore, when the microprimer layer will have dried, the humidity of the Poliestirex layer must be measured with a hygrometer at the time of applying the primer and the indications in table 2 must be followed. For example, the humidity of the CX-28 Isolxtrem Poliestirex layer has been measured and we have obtained a 25% reading with our hygrometer. Knowing this figure, we will know that after 7.5 hours the layer of RX-528 Isolxtrem Microprimer will have dried correctly. (If a hygrometer is not available, allow at least 19 hours to elapse before applying the finish acrylic mortar coat, PX-20).

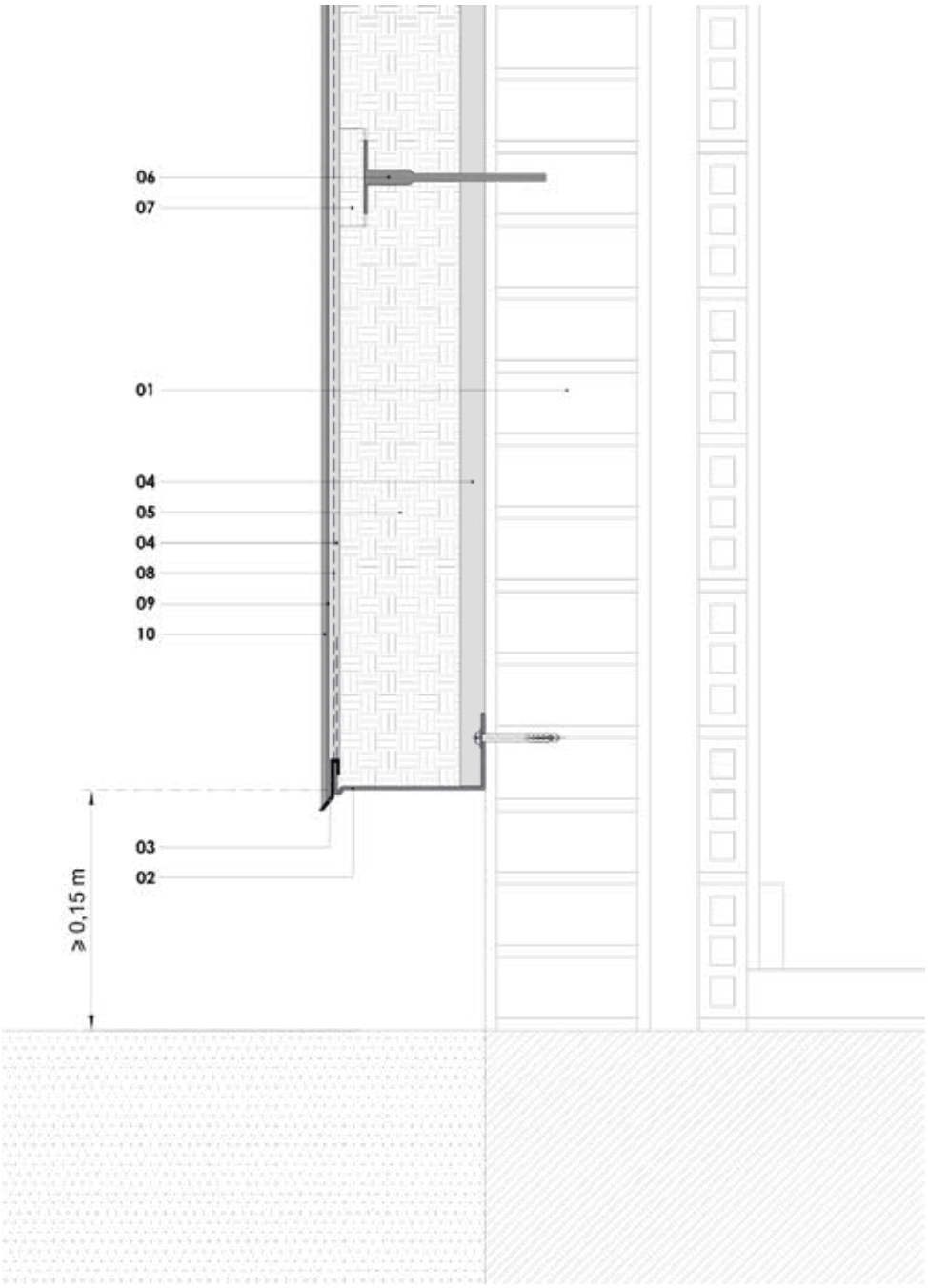
Poliestirex Humidity (%)	Minimum Drying Time for Microprimer (h)
< 45 %	7,5 hours
46 - 74 %	14,5 hours
> 75 %	19 hours

Table 2

PRESTO CATALOGUE
CONSTRUCTION DETAILS
ISOLXTREM SYSTEM

NOTE:
Each construction must be studied and analysed for the correct execution. Baixens has a technical team at your disposal that will advise you in the event of any doubt or query. The company is not responsible for the improper use of its systems and materials, and it waves any liability in this regard.

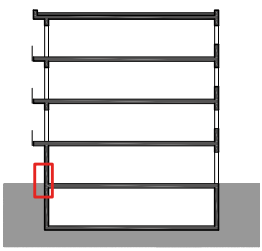
SYSTEM START



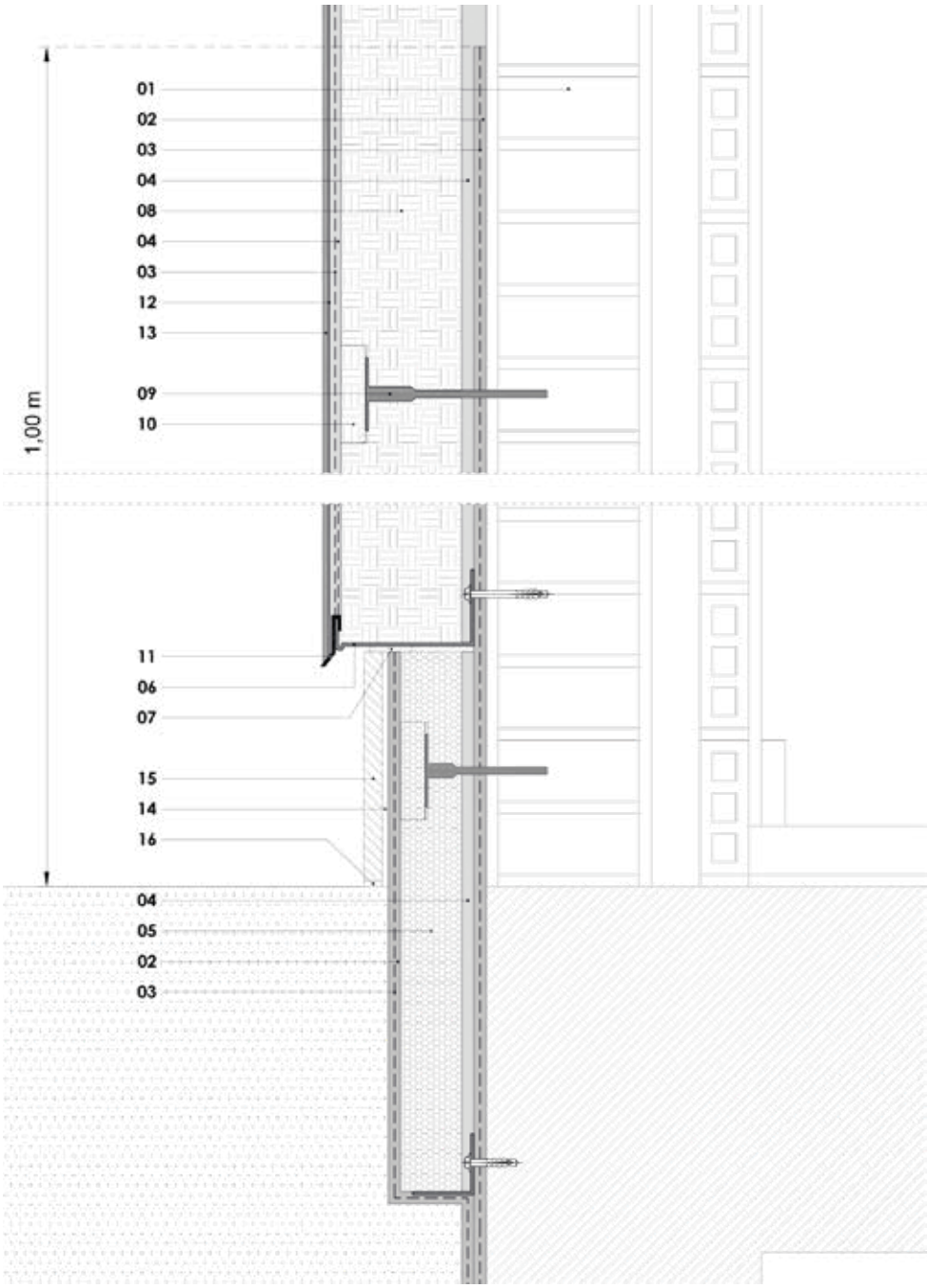
D.C. 01.1 - E: 1/5

LEGEND

01_Initial Substrate. 02_Mounting Rail. 03_PVC Mounting Clip Rail. 04_CX-28 Isolxtrem Poliestirex. 05_MW/EPS panel. 06_Mechanical attachment. 07_MW/EPS plug. 08_RG-116 Isolxtrem Fibre Mesh. 09_RX-528 Isolxtrem Microprimer. 10_PX-20/PX-28 Acrylic Mortar.



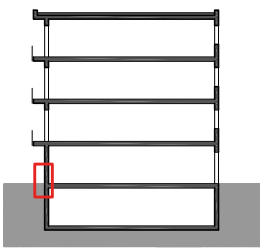
START OF THE BURIED SYSTEM



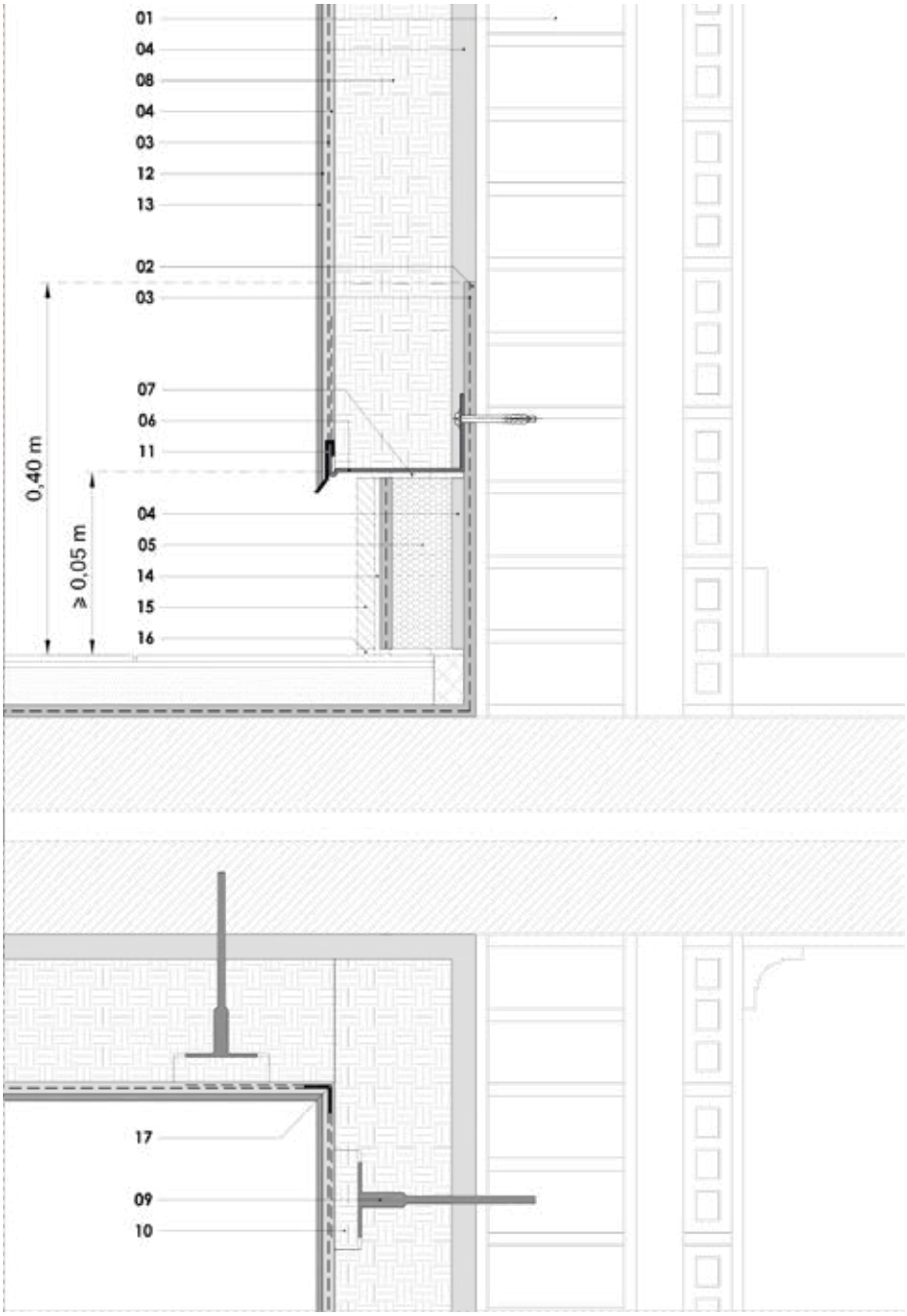
D.C. 01.2 - E: 1/5

LEGEND

01_Initial Substrate. 02_RX-515 Selladur Elastic. 03_RG-116 Isolxtrem Fibre Mesh. 04_CX-28 Isolxtrem Poliestirex. 05_XPS panel. 06_Mounting Rail. 07_Expansive Sealing Tape. 08_MW/EPS panel. 09_Mechanical attachment. 10_MW/EPS plug. 11_PVC Mounting Clip Rail. 12_RX-528 Isolxtrem Microprimer. 13_PX-20/PX-28 Acrylic Mortar. 14_Adhesive cement Flexible Univerflex. 15_Skirting board. 16_CX-23 Juntadur Universal.



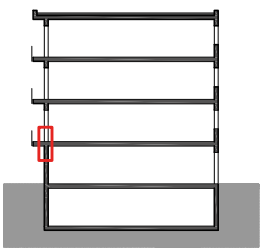
SYSTEM START IN A BALCONY



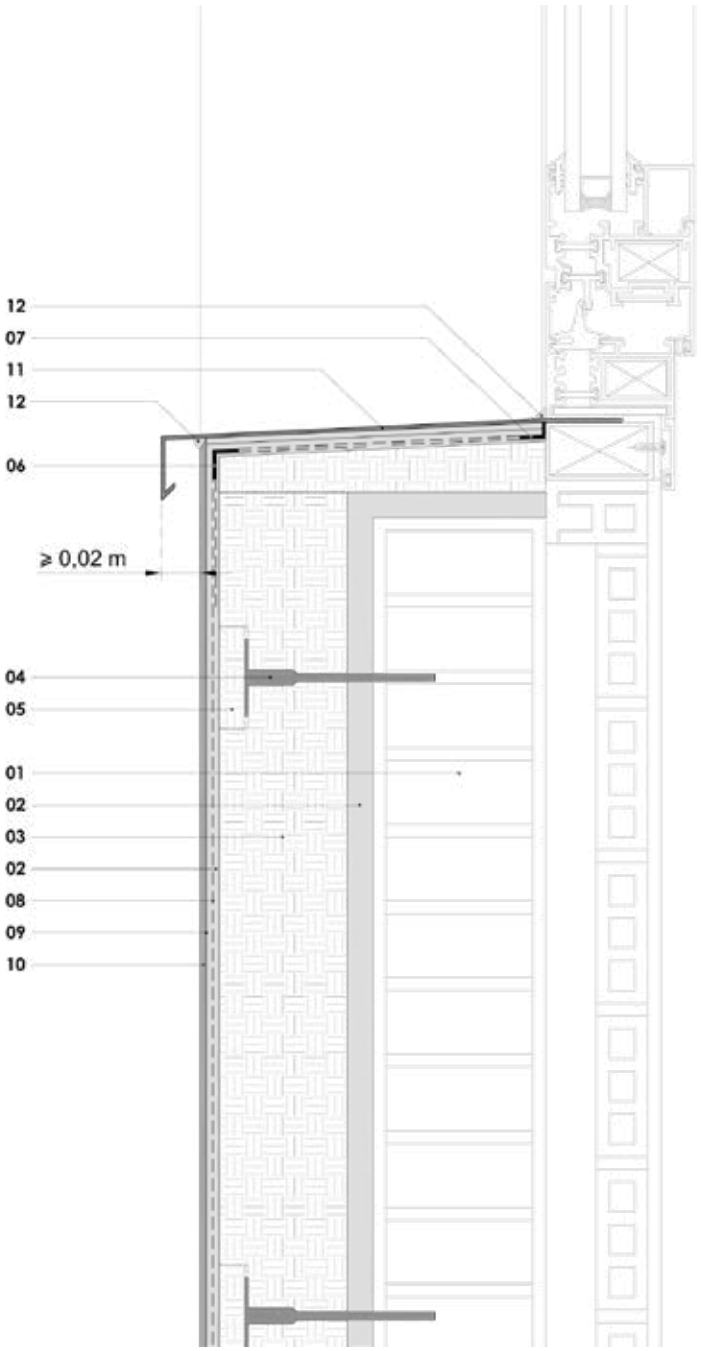
D.C. 02 - E: 1/5

LEGEND

01_Initial Substrate. 02_RX-515 Selladur Elastic. 03_RG-116 Isolxtrem Fibre Mesh. 04_CX-28 Isolxtrem Poliestirex. 05_XPS panel. 06_Mounting Rail. 07_Expansive Sealing Tape. 08_MW/EPS panel. 09_Mechanical attachment. 10_MW/EPS plug. 11_PVC Mounting Clip Profile. 12_RX-528 Isolxtrem Microprimer. 13_PX-20/PX-28 Acrylic Mortar. 14_Adhesive cement Flexible Univerflex. 15_Skirting board. 16_CX-23 Juntadur Universal. 17_PVC Corner Profile.



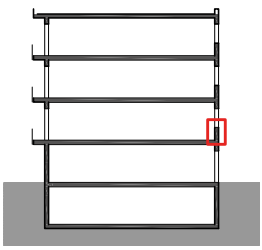
SILL IN FAÇADE OPENINGS



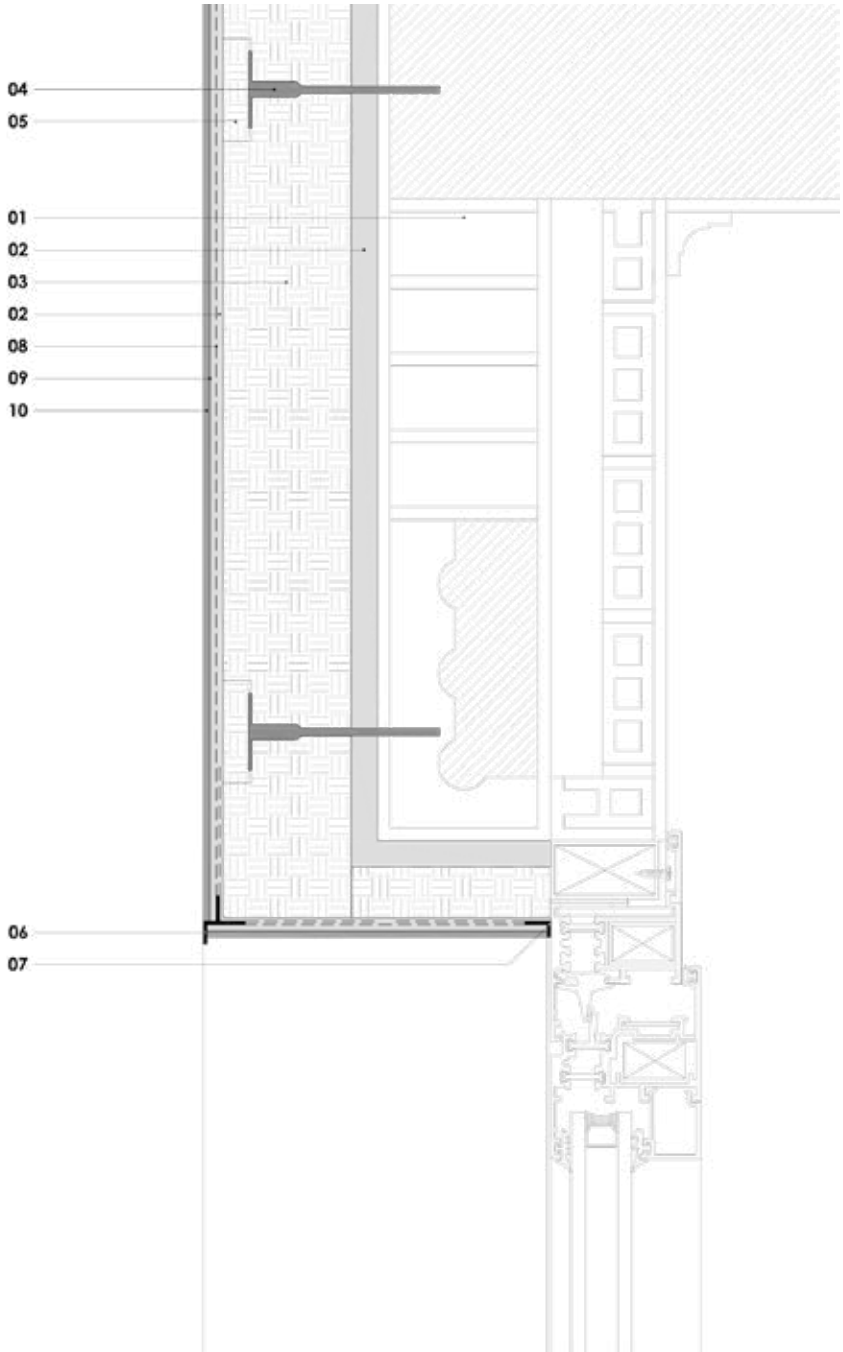
D.C. 03 - E: 1/5

LEGEND

01_Initial Substrate. 02_CX-28 Isolxtrem Poliestirex. 03_MW/EPS panel. 04_Mechanical attachment. 05_MW/EPS plug. 06_PVC window sill profile. 07_PVC Window Frame profile. 08_RG-116 Isolxtrem Fibre Mesh. 09_RX-528 Isolxtrem Microprimer. 10_PX-20/PX-28 Acrylic Mortar. 11_Metallic Sill. 12_Polyurethane Sealing Putty.



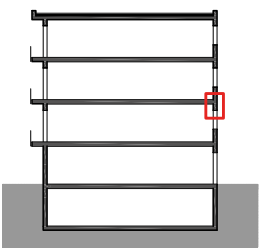
LINTEL IN FAÇADE OPENINGS



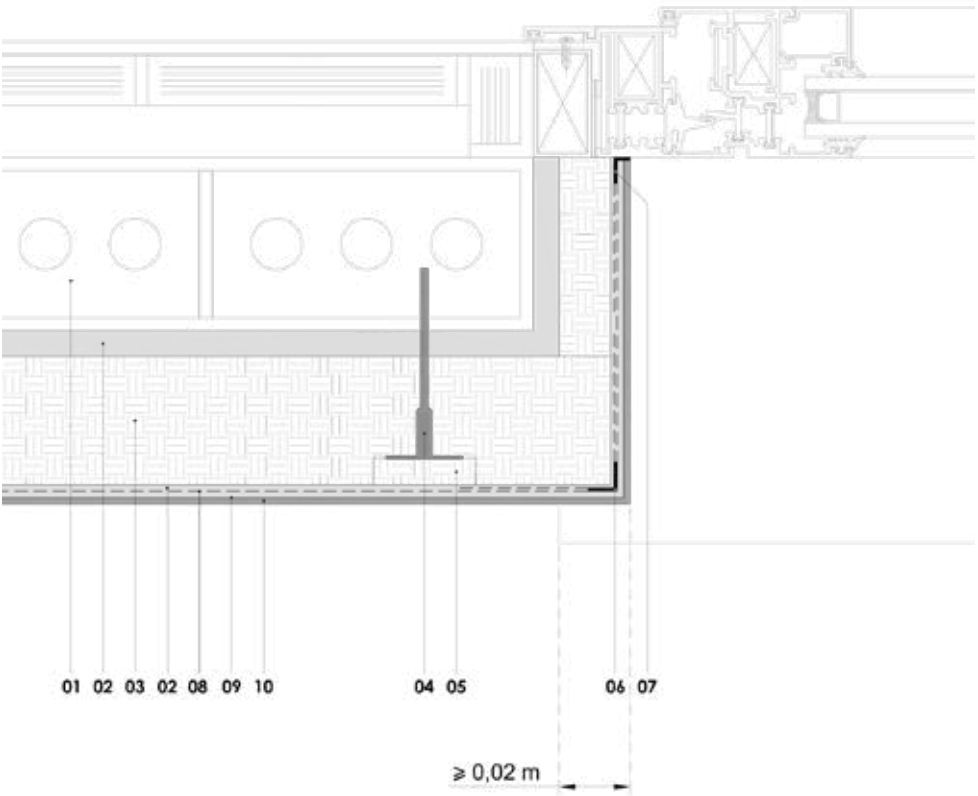
D.C. 04 - E: 1/5

LEGEND

01_Initial Substrate. 02_CX-28 Isolxtrem Poliestirex. 03_MW/EPS panel. 04_Mechanical attachment. 05_MW/EPS plug. 06_PVC rain awning profile. 07_PVC Window Frame profile. 08_RG-116 Isolxtrem Fibre Mesh. 09_RX-528 Isolxtrem Microprimer. 10_PX-20/PX-28 Acrylic Mortar.



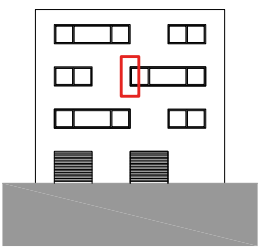
JAMB IN FAÇADE OPENINGS



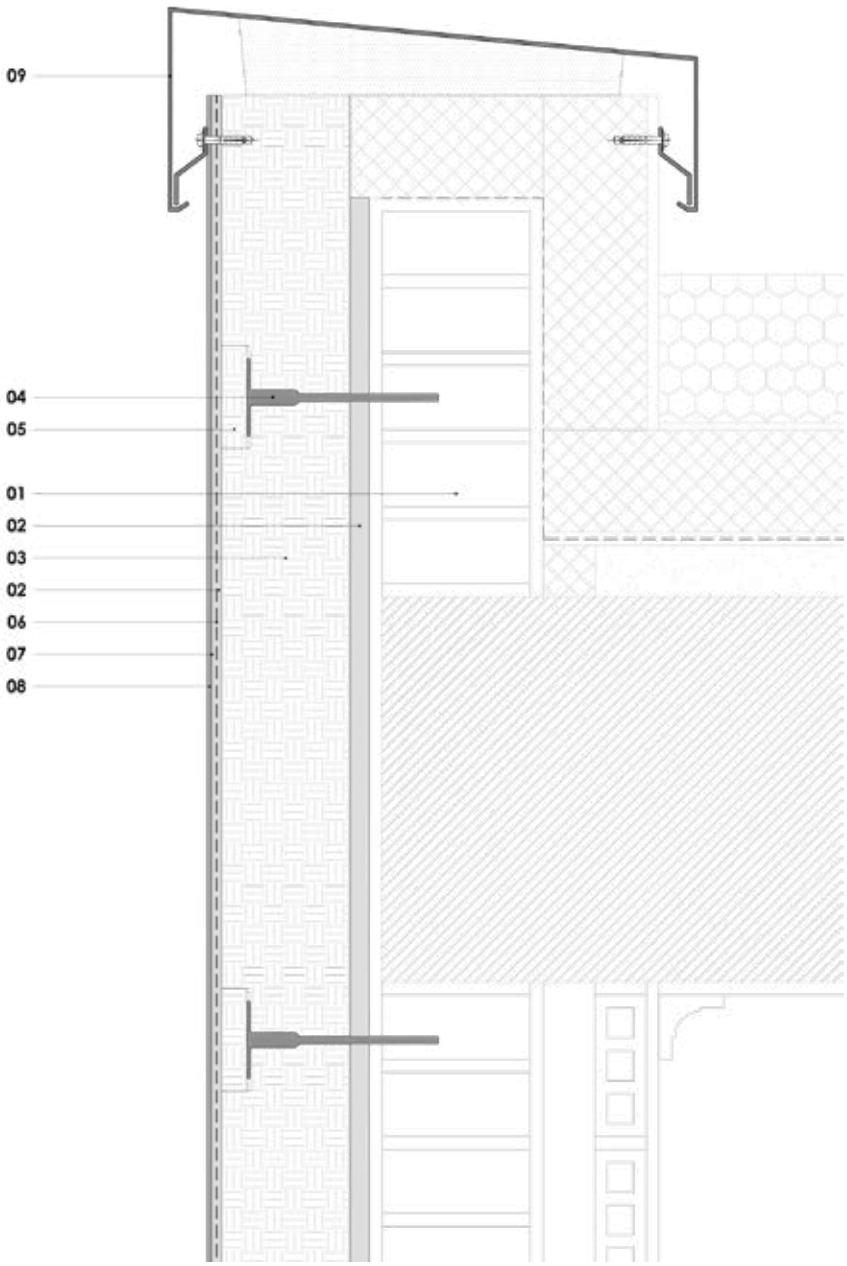
D.C. 05 - E: 1/5

LEGEND

01_Initial Substrate. 02_CX-28 Isolxtrem Poliestirex. 03_MW/EPS panel. 04_Mechanical attachment. 05_MW/EPS plug. 06_PVC Corner Profile. 07_PVC Window Frame profile. 08_RG-116 Isolxtrem Fibre Mesh. 09_RX-528 Isolxtrem Microprimer. 10_PX-20/PX-28 Acrylic Mortar.



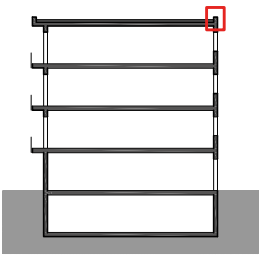
CROWNING



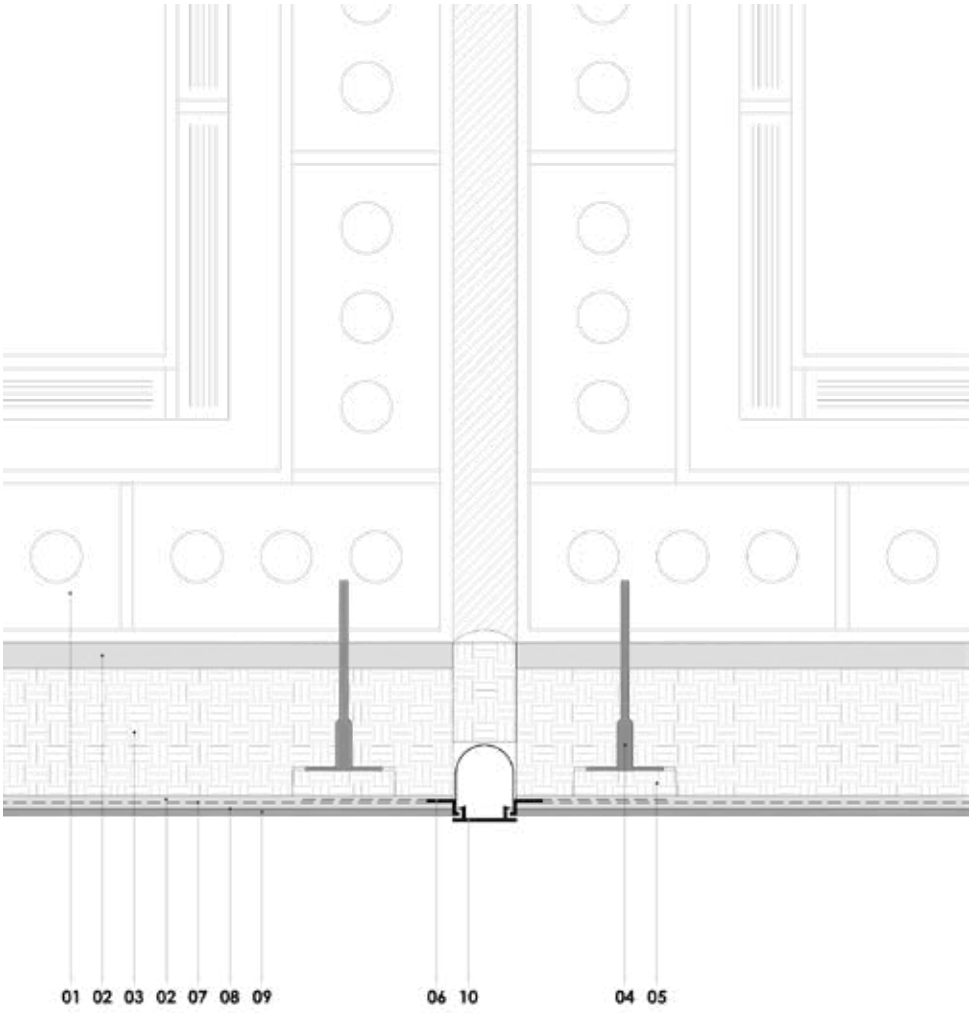
D.C. 06 - E: 1/5

LEGEND

01_Initial Substrate. 02_CX-28 Isolxtrem Poliestirex. 03_MW/EPS panel. 04_Mechanical attachment. 05_MW/EPS plug. 06_RG-116 Isolxtrem Fibre Mesh. 07_RX-528 Isolxtrem Microprimer. 08_PX-20/PX-28 Acrylic Mortar. 09_Finishing Metal Sheet.



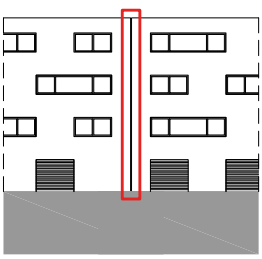
EXPANSION JOINT



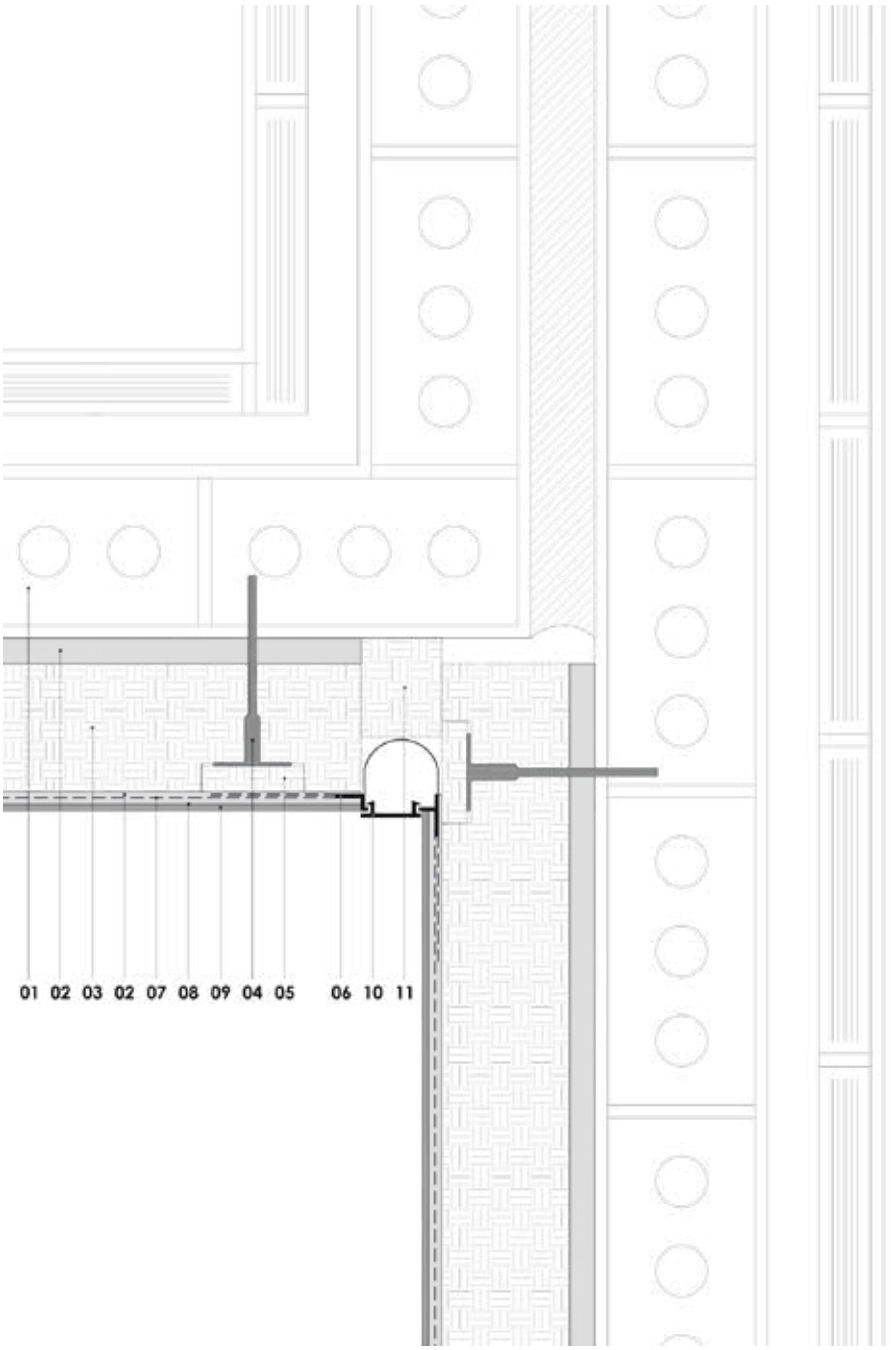
D.C. 07.1 - E: 1/5

LEGEND

01_Initial Substrate. 02_CX-28 Isolxtrem Poliestirex. 03_MW/EPS panel. 04_Mechanical attachment. 05_MW/EPS plug. 06_PVC Expansion Joint profile 07_RG-116 Isolxtrem Fibre Mesh. 08_RX-528 Isolxtrem Microprimer. 09_PX-20/PX-28 Acrylic Mortar. 10_PVC cover. 11_Compressible insulating material.



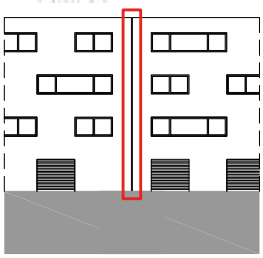
CORNER EXPANSION JOINT



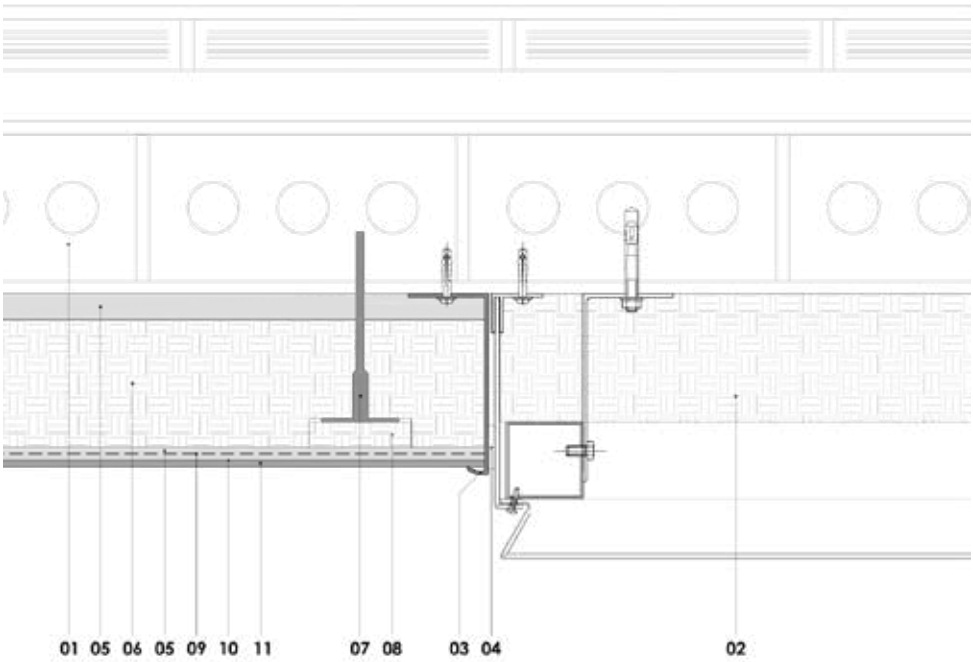
D.C. 07.2 - E: 1/5

LEGEND

01_Initial Substrate. 02_CX-28 Isolxtrem Poliestirex. 03_MW/EPS panel. 04_Mechanical attachment. 05_MW/EPS plug. 06_PVC Expansion Joint profile 07_RG-116 Isolxtrem Fibre Mesh. 08_RX-528 Isolxtrem Microprimer. 09_PX-20/PX-28 Acrylic Mortar. 10_PVC cover. 11_Compressible insulating material.

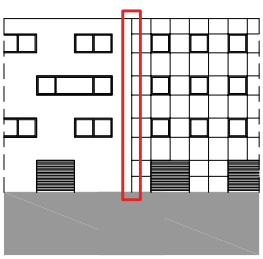


MEETING POINT BETWEEN TWO TYPES OF SYSTEMS

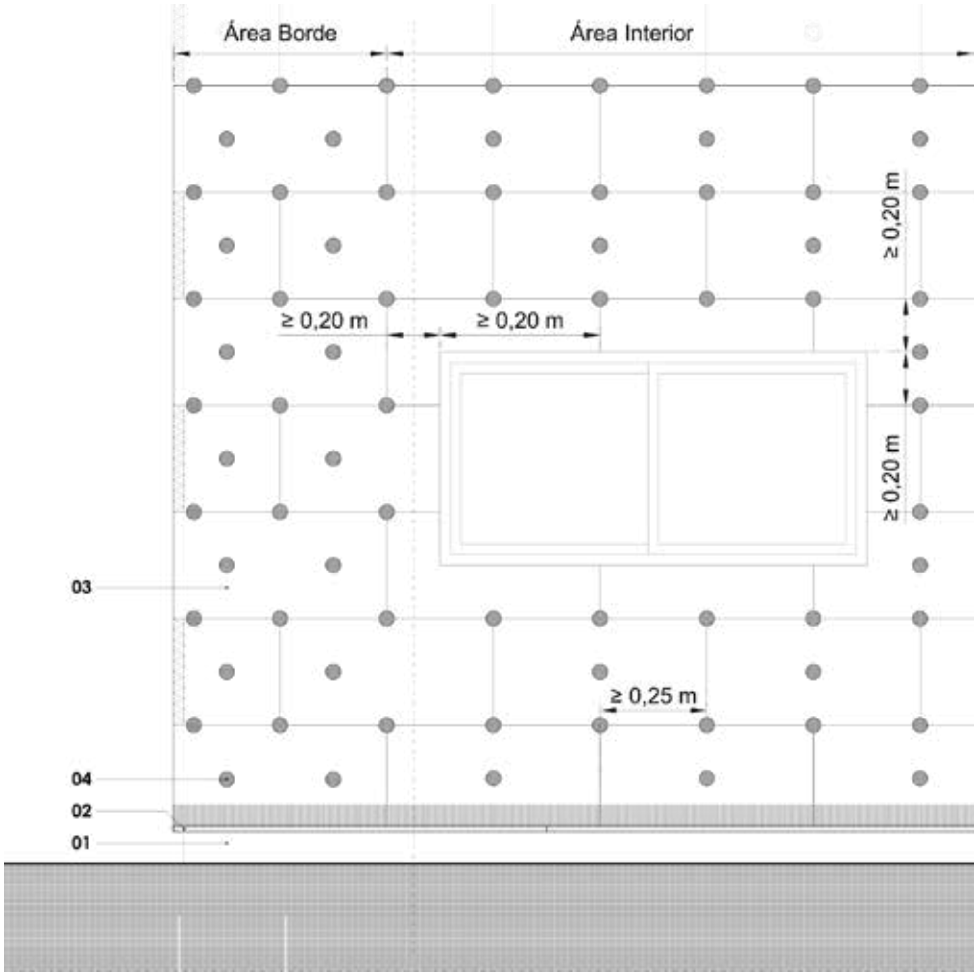


D.C. 08 - E: 1/5
LEGEND

01_Initial Substrate. 02_Ventilated façade. 03_Finishing profile. 04_Expansive Sealing Tape. 05_CX-28 Isolxtrem Poliestirex. 06_MW/EPS panel. 07_Mechanical attachment. 08_MW/EPS plug. 09_RG-116 Isolxtrem Fibre Mesh. 10_RX-528 Isolxtrem Microprimer. 11_PX-20/PX-28 Acrylic Mortar.



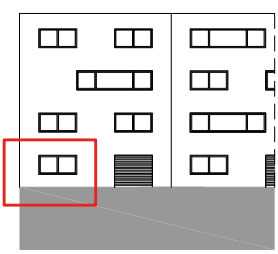
ARRANGEMENT OF PANELS AND ATTACHMENTS



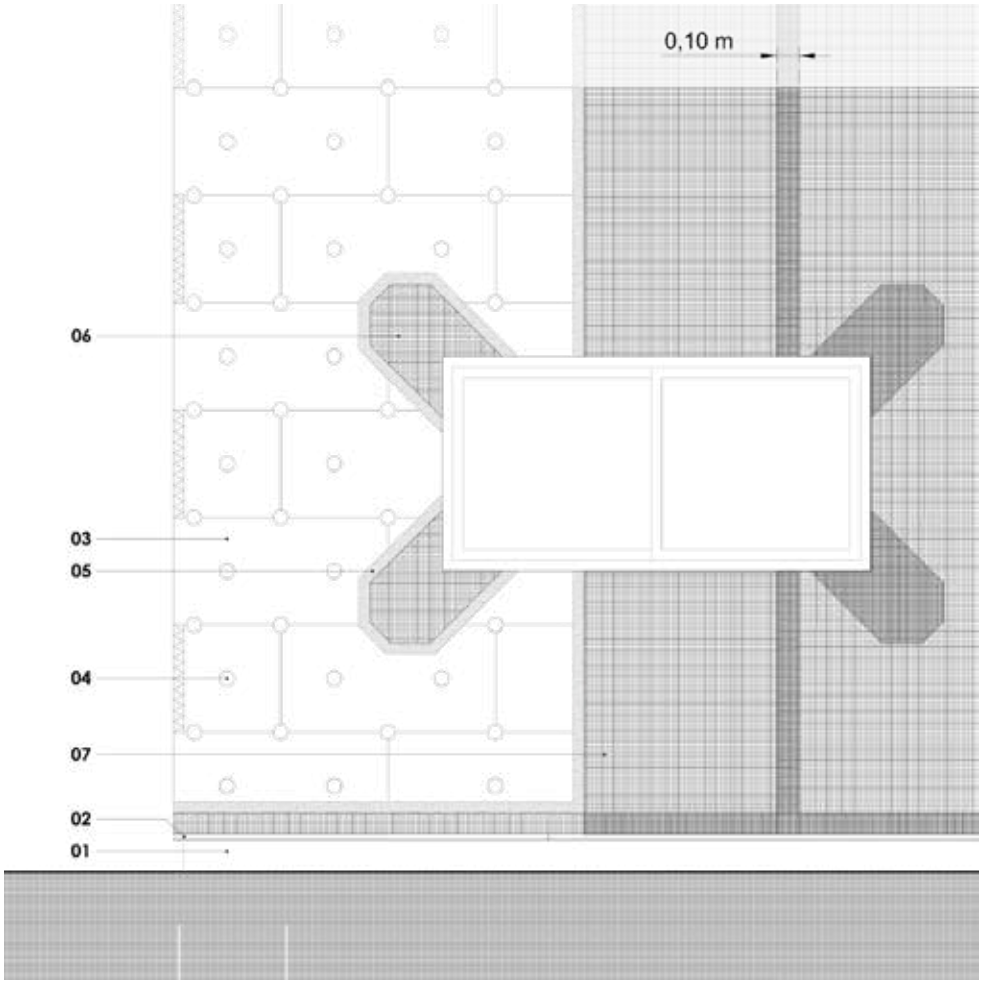
- The panels will be installed "butt joined" without leaving any type of joint. They will be placed from the bottom to the top in the plane of the façade and corners of the building, forming horizontal counterpeated rows (staggered). Correct counterpeat is considered when the separation distance is greater than or equal to 0.25 m.
- In façade opening, the panels will be cut into an "L" shape. The sides of these panels must have a minimum length of 0.20 m.
- The type of fastening depends on the type of substrate, and its arrangement must be homogeneous. For more information, please check page 20 of our installation manual.
- The number of attachments is obtained using a static calculation specific to the project location, taking into account the wind forces (DB SE-AE Section 3.3). For calculation, you can also consult the table located on page. 22 of our installation manual. Higher wind forces are formed in the corners.

D.C. 09 - E: 1/5
LEGEND

01_Initial Substrate. 02_PVC Mounting Profile with Mounting Clip Profile 03_MW/EPS panel. 04_Mechanical fastening with MW/EPS plug.



MESH IN FAÇADE AND OPENING DIAGONALS

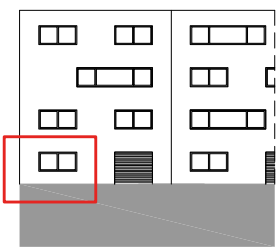


- The corners of windows and doors should be reinforced diagonally. The dimensions of the fibre mesh must be at least 0.650 x 0.330 m. This reinforcement is essential to minimise the risk of cracking.

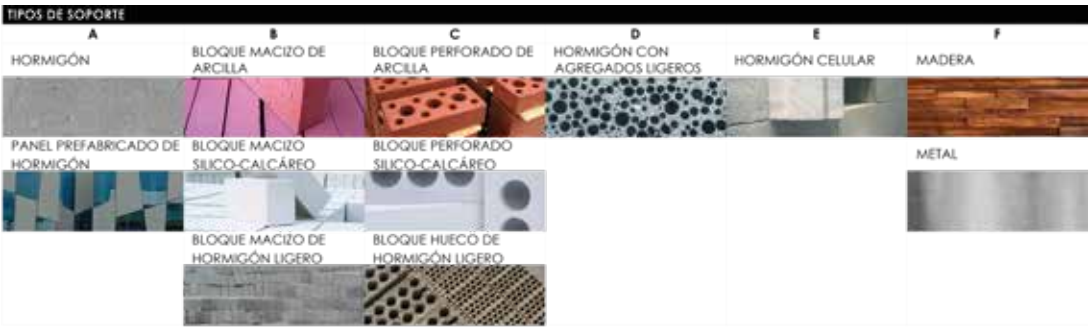
- The reinforcement mesh in the façade must have an overlap of 0.10 m on itself and on the mesh of the system profiling.

D.C. 10 - E: 1/5
LEGEND

01_Initial Substrate. 02_PVC Mounting Profile with Mounting Clip Profile 03_MW/EPS panel. 04_Mechanical fastening with MW/EPS plug. 05_CX-28 Isolxtrem Poliestirex. 06_Fiber Mesh for Corner Reinforcement. 07_RG-116 Isolxtrem Fibre Mesh.



ANCHORAGE OF SATE INSULATION PANELS



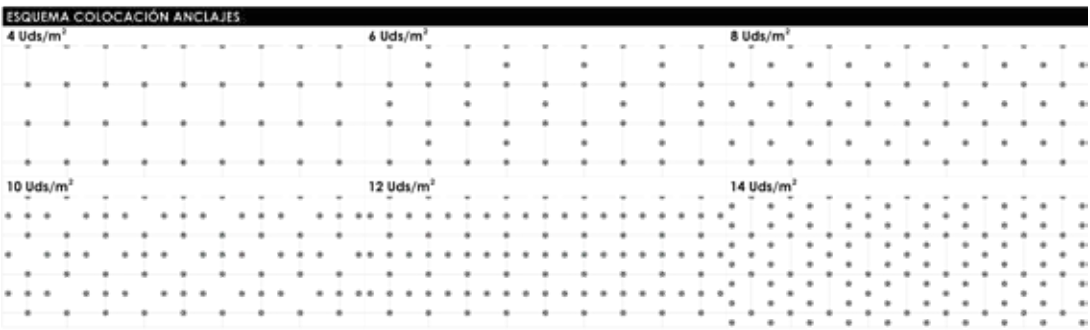
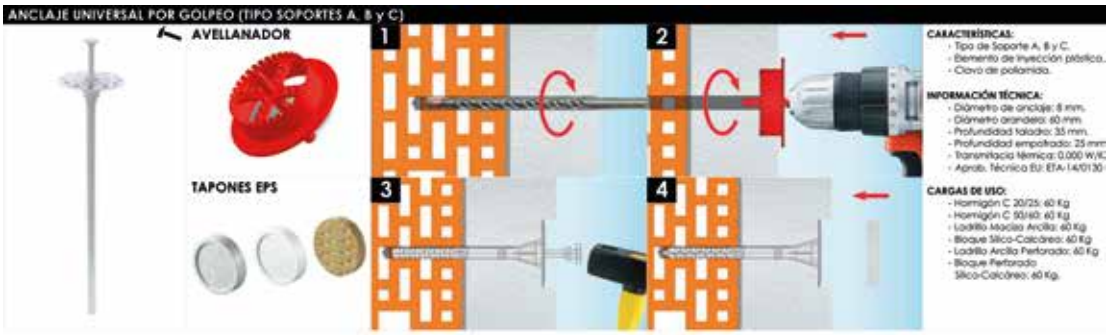


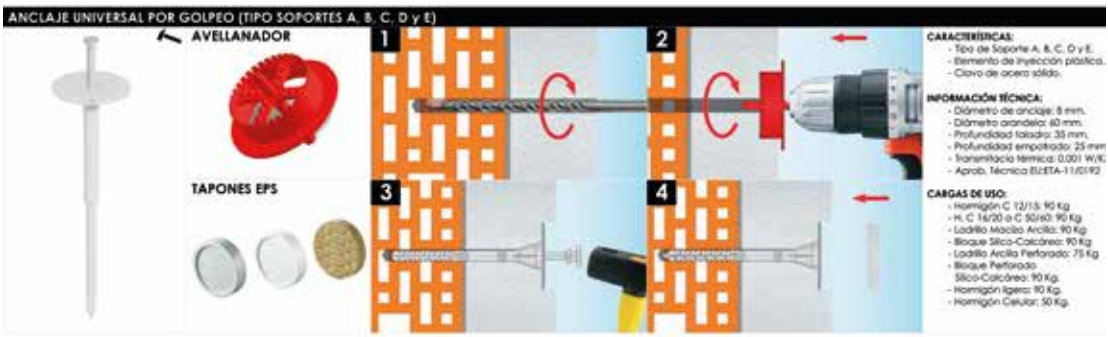
TABLA PARA CONOCER EL NÚMERO DE ANCLAJES

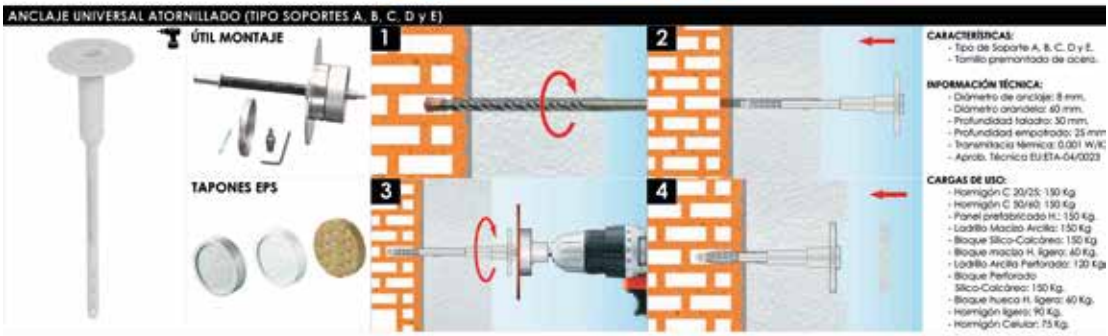
Valor básico de la velocidad del viento (km/h)	Entorno del Edificio								
	I (libre de construcción)			II (Protegido)			III (con un nº elevado de construcciones)		
	Altura de la edificación								
	<10 m	10 a 20 m	25 a 50 m	<10 m	10 a 20 m	25 a 50 m	<10 m	10 a 20 m	25 a 50 m
<85	6	6	6	6	6	6	6	6	6
85 a 115	8	10	12	8	8	10	6	8	10
115 a 135	10	12	12	10	12	12	8	10	12

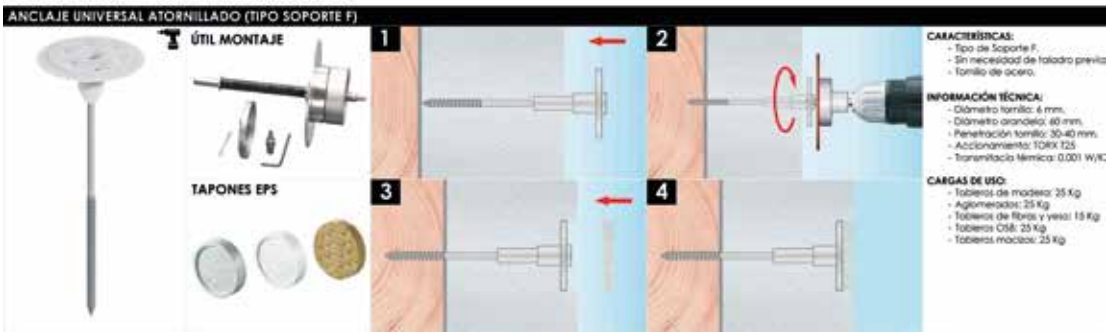
REFUERZO EN ESQUINAS (VIENTO)

ANCHORAGE OF SATE INSULATION PANELS









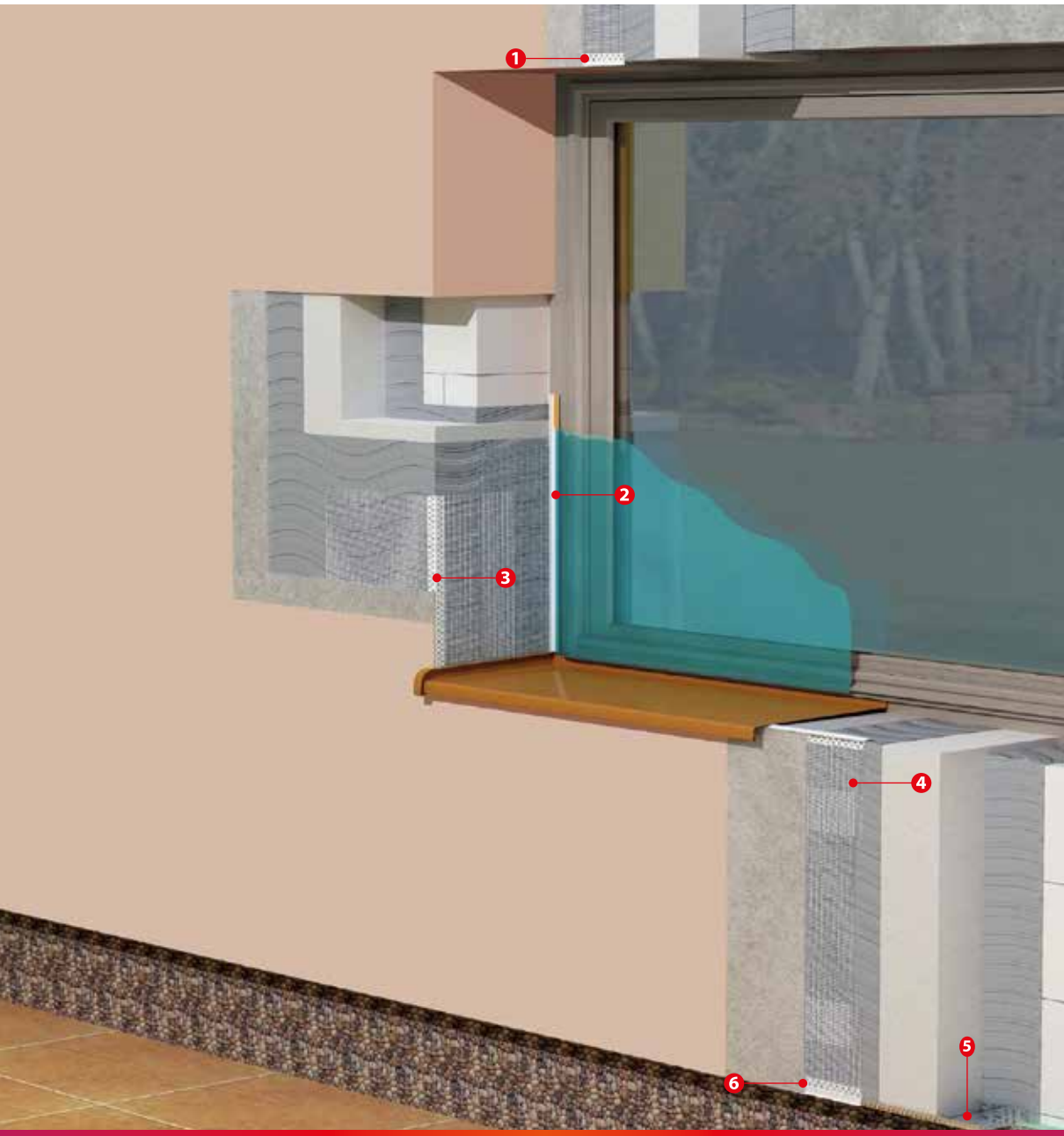
MOUNTING ELEMENTS FOR SATE FAÇADES (WITHOUT MECHANICAL ATTACHMENT)

MOUNTING ELEMENTS FOR SATE FAÇADES (WITH MECHANICAL ATTACHMENT)

CILINDRO	INSTALACIÓN	SECCIÓN	CARACTERÍSTICAS
CUBO S	INSTALACIÓN	SECCIÓN	CARACTERÍSTICAS
CUBO M	INSTALACIÓN	SECCIÓN	CARACTERÍSTICAS
CUBO L	INSTALACIÓN	SECCIÓN	CARACTERÍSTICAS
FIJACIÓN L FRONTAL	INSTALACIÓN	SECCIÓN	CARACTERÍSTICAS
FIJACIÓN L LATERAL	INSTALACIÓN	SECCIÓN	CARACTERÍSTICAS
MECANISMO	INSTALACIÓN	SECCIÓN	CARACTERÍSTICAS

ACCESSORIES
PROFILES AND CORNER PROTECTORS
ISOLXTREM SYSTEM

To ensure the durability and effectiveness of the external thermal insulation system (SATE) ISOLXTREM® SYSTEM, each and every one of its accessories and complements must be CE marked and ETAG marked.



Rain Awning Profile with Mesh 1

PVC rain awning profile with alkaline fibreglass mesh and certified ETAG 004, used in the final plastering of door and window lintels in order to prevent runoff in the changes of plane, preventing the return and filtration of water inside the wall. This profile with rain awning is not covered with plaster layers.

Window Frame Profile 2

Self-adhesive PVC window frame profile with mesh of ETAG 004-certified alkaline-resistant fibreglass. Allows the SATE to be connected to the door and window structure openings frames without leaving gaps or spaces.

Corner Profile with Mesh 3

PVC corner profiles with alkaline-resistant fibreglass mesh, ETAG 004 certified, valid for any mortar thickness. Protects horizontal and vertical angles at edges, windows and doors.

Window Sill Profile 4

For self-adhesive PVC window sill with alkaline-resistant fibreglass mesh, ETAG 004 certified. It is used for durable and waterproof sill construction (standard sills made of aluminium, wood, PVC, stone or made-to-measure sills).

Mounting Profile 5

Mounting profile made of 0.7 mm thick aluminium. It is placed horizontally at the lower limit of the area to be coated, anchored to the substrate by means of screws, spacers and connectors, with a spacing of 3 mm between them, facilitating the mounting of the system assembly and guaranteeing it is horizontal. It includes a rain awning that guarantees the vertical drainage of the water, preventing its return.

Mounting Clip Profile 6

Mounting clip profile made of PVC with alkaline-resistant fibreglass mesh, ETAG 004 certified, to fit into the mounting profile. It includes a rain awning that guarantees the vertical drainage of the water, preventing its return and minimising the risk of cracks in the joint area of the mounting profile.

Cutting Accessory Polystyrene stopper 7

PVC cutting accessory to make the cavity in the insulating panel and polystyrene plugs of 70 mm diameter for embedding.

Lateral Profile

Side profile made of 0.8 mm thick aluminium, placed in the vertical limits of the area to be coated, facilitating the closure of the system.

Expansion Joint Profile

Expansion joint profile in PVC with alkaline-resistant fibreglass mesh, ETAG 004 certified, for expansion joints from 5 to 25 mm wide, both vertically flat and in internal corners of the façade.

Mechanical Fixing Shims

ETAG 014 certified mechanical attachment shims, with a 60 mm plate, for 10 mm diameter drills (drill bit) with circular head. They are made of plastic to prevent condensation that could cause stains in the coating.

Corner protections

PVC corner protectors or guards resistant to the weathering and to alkalis, great durability and lateral holes to guarantee the attachment to the substrate for the finishing of plasters and mortars, allowing a perfect finish in corners.


Plast


Arrow Tip


Single-layer Partition Wall


PVC Single-layer

Beading

Flexible and resistant trapezoidal PVC beading for single-layer and façade mortar. Prepared to create joints and designs.

Chamfer Strip

PVC chamfer strips to manufacture the concrete ones in walls and pillars. They are placed in formworks to create bevels in corners and joints of the concrete.

RE-COAT, THE PERFECT ALLY OF THE ISOLXTREM SYSTEM

TERMOLAN
ISOLAMIENTOS TERMO-ACÚSTICOS S.A.

RE-COAT MINERAL WOOL

· The RE-COAT mineral wool is a rigid, uncoated, uniformly thick, high-density panels made of water-repellent mineral wool fibres oriented and bonded with thermosetting synthetic resin.

· It is used mainly as thermal insulation and as passive protection against fire in the building due to its structure, which allows it to house relatively still air inside.

· Due to its multidirectional and elastic structure, mineral wool stops the movement of air particles and dissipates sound energy, being a good acoustic insulator.

TRAINING
FOR PROFESSIONALS
ISOLXTREM SYSTEM

KNOWLEDGE TAKES NO SPACE

At Baixens we believe that ongoing training is important. For this reason, we regularly offer customised training courses for professionals in the sector.

Our courses allow professionals to develop and renew the skills and knowledge they already know and use, and to learn about the latest techniques and innovations we bring to the market.

All our courses have an approximate duration of 1-2 days, because they are intensive and personalised. Theoretical and practical contents are taught, and an accredited diploma is awarded at the end of the course.

Professionals who wish to know how to apply our SATE System, or any of our other products, can train at our facilities upon registration. If you are interested, send us an email with your personal details (full name, town, telephone and company) to info@baixens.com or call 96 175 08 34.

PHOTO GALLERY

COLOURS
A LA CARTE
ISOLXTREM SYSTEM

CUSTOMISED COLOURS

With our tintometric systems you can get the acrylic mortar in the shade that you wish.

A service allowing us to provide you with any colour you want for your finish: thick, medium, no finish or light.
To your liking!

TINTOMETRIC SYSTEM

The products that make up the ISOLXTREM SYSTEM line can be pigmented with the range of colours listed in our "The Answer colour collection" menu. Thousands of combinations with a perfectly balanced finish and following the latest trends in outdoor design and decoration can be acquired.

Our coloured Isolxtrem System products are supplied following a strict tintometric quality control, providing minimum ΔE values. Baixens ensures uniformity and reproducibility of colour within the same batch thanks to its modern tinting system.

If you wish to use two different batches of the same coloured product for the same façade, Baixens recommends requesting information on its tinting compatibility. In addition, if the product is to be used for the continuation of a work, please indicate the batch number previously applied.

It should be noted that the visual assessment of colour may vary according to texture, nature of the base selected and the type of trowelling carried out on the acrylic mortar finish.

C-131
Not trowelled

C-131
Trowelled

ADDITIONAL
INFORMATION
ISOLXTREM SYSTEM

DATA SHEET

The correct wording in a product technical data sheet is important to ensure consumer satisfaction, since it contains all the information necessary for its proper use.

All technical information (descriptions, characteristics, applications, etc.) of the products of the ISOLXTREM® SYSTEM range can be found in the brochure prepared for that purpose.

EUROPEAN TECHNICAL EVALUATION

The European Technical Evaluation-ETE is the European document with the technical evaluation of the performance of a manufacturer's product or kit in relation to the essential characteristics applicable for the use intended by the manufacturer.

The ETE is prepared in accordance with the European Assessment Document (EAD), which covers the product and its intended uses.

See our ETE brochure for more information.

RANGE BROCHURES

The ISOLXTREM® SYSTEM range includes three brochures where you can find all the information you need to know and correctly use the thermo-acoustic outdoor insulation system.

- Application Manual.
- Product data sheets.
- ETE. European Technical Evaluation.

SAMPLE BOX + INDIVIDUAL SAMPLE

- Sample of the four available finishes.
- Sample of the wide variety of colours of the ISOLXTREM® SYSTEM.
- Range brochures.

OTHER PRODUCTS
IN THE RANGE
ISOLXTREM SYSTEM

ENERGY EFFICIENCY

Rualaix®
ISOLXTREM®
THERMO-ACOUSTIC INSULATING PLASTER - INDOORS

RX-127

Rualaix®
ISOLXTREM®
THERMO-ACOUSTIC INSULATING PLASTER - OUTDOORS

RX-209

ISOLXTREM®
PINTHERM - ANTI-CONDENSATION PAINT

RX-417

ISOLXTREM®
FIXATHERM - THERMO-ACOUSTIC INSULATING SETTER

RX-530

ISOLXTREM®
IMPER-SOUND - WATERPROOFING AND THERMO-ACOUSTIC INSULATION

PX-23

– foto [illegible]

Follow

wherever you are

baixens.com
sistema-sate-baixens.com

On our website you will find:

- What's new
- Technical and safety data sheets
- Product Selection Guide
- Video tutorials and much more

Use the QRs to access product information more quickly or to visit our website

BAIXENS
baixens.com

Testing the difference

ISO 9001
ISO 14001
OHSAS 18001
BUREAU VERITAS
Certification

Baixens Certifies

We take care of the quality

It is the basic premise in the manufacturing of our products

Certified since 2001

ISO 9001

We respect the environment

We strive to preserve our environment

Certified since 2004

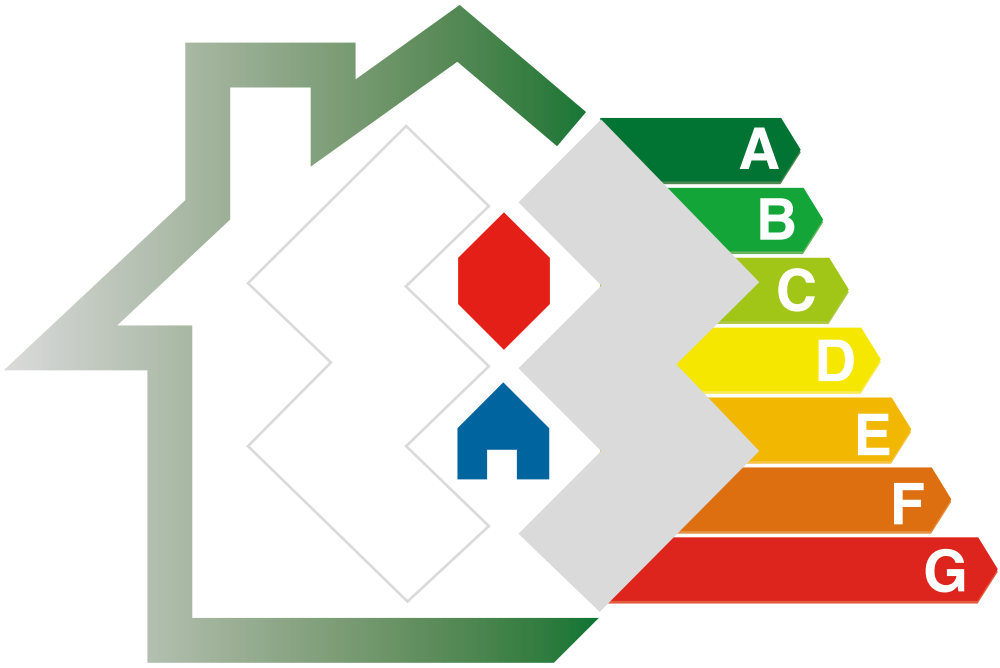
ISO 14001

We take care of our own people

We implemented our own occupational health and safety system

Certified since 2010

OHSAS 18001



BAIXENS

baixens.com

Testing the difference

Testing the difference

BAIXENS ESPAÑA/PORTUGAL
CENTRO CERTIFICADO BUREAU VERITAS
Pol. Ind. Moncarra, S/N
46230 Alginet (Valencia)
T.: 961.750.834
F.: 961.752.471

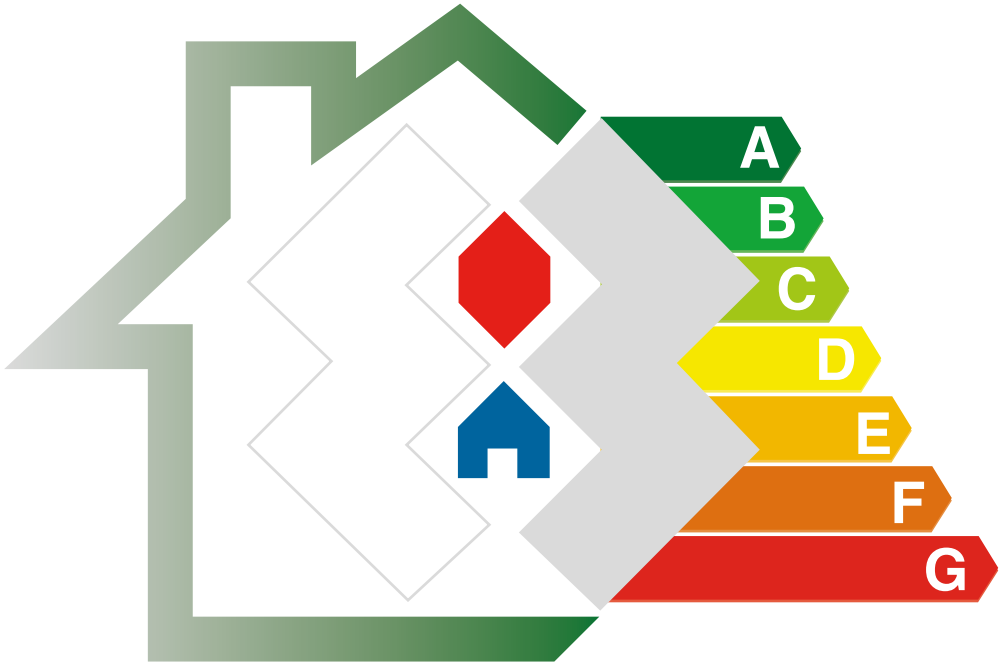
BAIXENS FRANCE
14, Rue Du Pont Neuf
75001 Paris (France)
T.: 0.800.90.14.37
F.: 0.800.90.20.52

BAIXENS ITALIA / BULOVA
Via Pietro Nenni, 36
46019 Cicognara - Mantova (Italy)
T.: 0375/88181/790016
F.: 0375/88831
www.bulova-pennelli.com

M&D. Ene. 2018

ISOLXTREM® SYSTEM

CERTIFICATION ETA



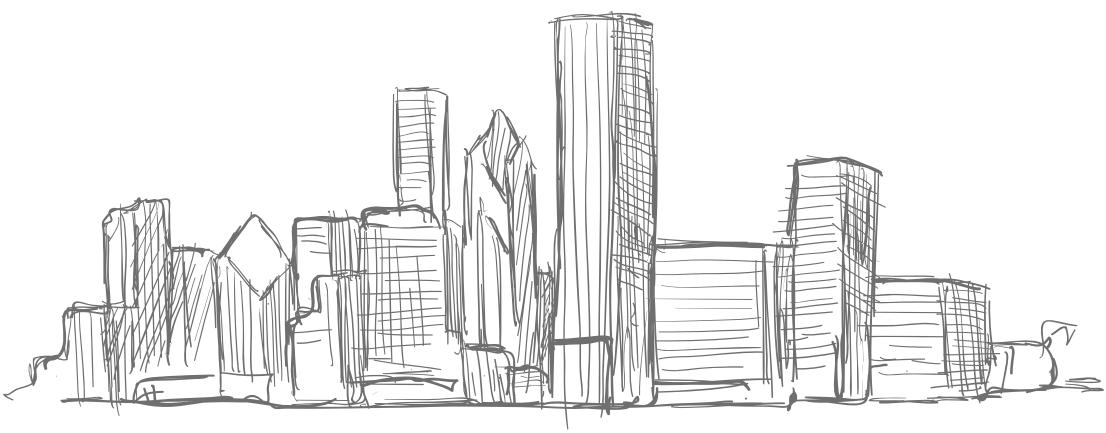
BAIXENS

baixens.com

Testing the difference

TABLE OF CONTENTS

ISOLXTREM SYSTEM



PRODUCTS
ISOLXTREM SYSTEM

CX-28

RG-116

RX-528

PX-20

PX-28

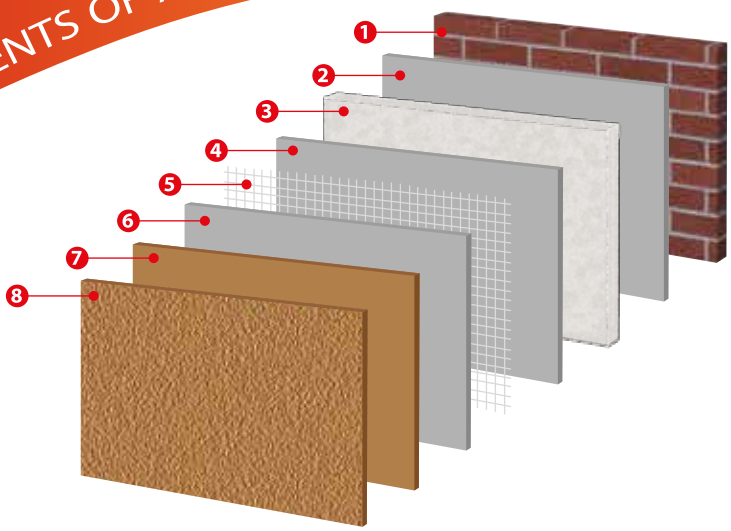
- **CX-28** ISOLXTREM® POLIESTIREX (Bonding and plastering mortar)
- **RG-116** MALLA DE FIBRA ISOLXTREM® (Fibreglass mesh)
- **RX-528** ISOLXTREM® MICROPRIMER (Absorption regulating primer)
- **PX-20** ISOLXTREM® RTX (Acrylic mortar for façades in 4 different finishes)
- **PX-28** ISOLXTREM® SILOXANE TECHNOLOGY (Acrylic mortar with siloxane for façades in 4 different finishes)

THE IDEAL SYSTEM FOR EXTERIOR
THERMAL AND ACOUSTIC INSULATION

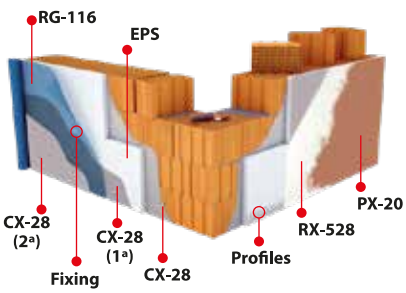
It is important to understand the ISOLXTREM SYSTEM as a comprehensive rehabilitation package. Each component plays a part and ensures optimal results.

It must be applied by professional experts with knowledge of the system, since it is necessary to follow the correct steps for optimal results.

ELEMENTS OF AN INSULATED FAÇADE



1. Bracket
2. CX-28 Isolxtrem® Poliestirex
3. EPS / Mineral wool
4. CX-28 Isolxtrem® Poliestirex (1st layer)
5. RG-116 Fibreglass mesh Isolxtrem®
6. CX-28 Isolxtrem® Poliestirex (2nd layer)
7. RX-528 Isolxtrem® Microprimer
8. PX-20 Isolxtrem® RTX
   PX-28 Isolxtrem® Siloxane Technology



CERTIFICATION
ETA
ISOLXTREM SYSTEM

ISOLXTREM® SYSTEM is the EXTERNAL THERMAL INSULATION system manufactured with the guarantee of BAIXENS and certified by the prestigious EDUARDO TORROJA Institute of Construction Sciences in Madrid.
See our ETE (European Technical Assessment) brochure for more information.

The Institute of Construction Sciences Eduardo Torroja (IETcc) is a Center of the Superior Council of Scientific Research, belonging to the Area of Science and Technology of Materials. Its fundamental function is to carry out scientific research and technological developments in the field of construction and its materials.

ISOLXTREM® SYSTEM is the only SATE system manufactured and marketed entirely at our Alginet production site, under the ISO 9001 quality control, ISO 14001 environmental management and OSHAS 18001 occupational health and safety standards.

INSTITUTO DE CIENCIAS DE LA CONSTRUCCIÓN EDUARDO TORROJA
C/ Serrano Galvache n. 4. 28033 Madrid (Spain)
Tel.: (34) 91 302 04 40 / Fax: (34) 91 302 07 00
direccion.ietcc@csic.es www.ietcc.csic.es

Designated according to Article29 of Regulation (EU) Nº 305/2011

Member of EOTA
www.eota.eu

European Technical Assessment

ETA 15/0015
of 06/ 11/ 2018

Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) Nº305/2011:	Instituto de Ciencias de la Construcción Eduardo Torroja (IETcc)
Trade name of the construction product	**Sistema ISOLXTREM**
Product family to which the construction product belongs	External Thermal Insulation Composite System with rendering for use on building walls
Manufacturer	**ESTABLECIMIENTOS BAIXENS, S.L** Pol. Ind. MONCARRA s/n 46230 ALGINET (Valencia). Spain.
Manufacturing plant(s)	Pol. Ind. MONCARRA s/n 46230 ALGINET (Valencia). Spain.
This European Technical Reportssessment contains	11 pages including 2 Annexes which form an integral part of this assessment. Annex 3. Contain confidential information and is not included in the ETA when that assessment is publicly available.
This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of	Guideline for European Technical Approval (ETAG) nº 004 ed. 2013, used as European Assessment Document (EAD)
This version replaces	ETA 12/0151 issued on 03/05/2017

Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and should be identified as such.

Communication of this European Technical Assessment, including transmission by electronic means, shall be in full (excepted the confidential Annex(es) referred to above). However, partial reproduction may be made, with the written consent of the issuing Technical Assessment Body. Any partial reproduction has to be identified as such.

This European Technical Assessment may be withdrawn by the issuing Technical Assessment Body, in particular pursuant to information by the Commission according to Article 25 Paragraph 3 of Regulation *(EU) No 305/2011*.

SPECIFIC PARTS OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of the product

The External Thermal Insulation Composite System (from now on, referred to as ETICS) "ISOLXTREM" is designed and installed in accordance with the manufacturer, design and installation instructions, deposited at the IETcc.

It is made up on site from these components. The manufacturer is ultimately responsible for the ETICS ISOLXTREM, which is a bonded system with supplementary mechanical fixings with EPS panel and mechanically fixed ETICS with supplementary adhesive on MW panel, the minimum number of fasteners per square metres are 6 for EPS and MW.

This ETICS comprises the following components, which are factory produced by the manufacturer or a supplier.

Components			Coverage Aprox ([kg/m²)	Thickness Aprox [mm]
Insulation material with associated method of fixing	**ISOLXTREM Panel EPS:**. *Bonded* Board of Expanded polystyrene (EPS) (EN 13163) with supplementary mechanical fixings (minimum 6 fasteners/m^2) **ISOLXTREM Panel MW**. Mechanically fixed Mineral wool (MW) (EN 13162) with supplementary adhesive (minimum 6 fasteners/m^2)[1]		0,2- 6 7,5- 30	10 - 300 50 - 200
	Adhesive: *ISOLXTREM POLIESTIREX.* Minimum bonded surface: 40 % for EPS and 80% for MW. (cement based mortar in powder requiring addition and mixing with 22,0 ± 1,0% water.		1,3-1,5 per mm thickness	3,0-5,0
	Adhesive COLBAIXTHERM. Minimum bonded surface: 40 % for EPS and 80% for MW. (cement based mortar in powder requiring addition and mixing with 24,0 ± 1,0% water.			
Base coat	***ISOLXTREM POLIESTIREX.*** See above + ISOLXTREM 160			
	+ Finishing coat	**ISOLXTREM RTX / ISOLXTREM SILOXANE TECHNOLOGY** (3 coats)+double ISOLXTREM 160 or single ISOLXTREM 330	0.7-1.4 l/m^2 per mm thickness	5,0-7.0
		ISOLXTREM RTX LIGERO PX-20 /ISOLXTREM SILOXANE TECHNOLOGY PX-28 (3 coats)+double ISOLXTREM 160 or single ISOLXTREM 330	0.7 l/m^2 per mm thickness)	5
Glass fibre mesh	***Malla ISOLXTREM 160.*** Glass fibre mesh resistant to the alkalis ***Malla ISOLXTREM 330.*** Glass fibre mesh resistant to the alkalis		0,15/ 0,36	0,5
Primer coat	***ISOLXTREM MICROPRIMER.*** Acrylic binder based painter which may require optionally 5% water		0,20	--
Finishing coat	**ISOLXTREM RTX / ISOLXTREM SILOXANE TECHNOLOGY.** *Acrylic binder based ready to use paste with 3 different size grading particles* ISOLXTREM RTX PX-20F// ISOLXTREM SILOXANE TECHNOLOGY *PX-28F (1 mm),* ISOLXTREM RTX PX-20 M/ ISOLXTREM SILOXANE TECHNOLOGY *PX-28M (1,5 mm) and* ISOLXTREM RTX PX-20 G /ISOLXTREM SILOXANE TECHNOLOGY *PX-28G* (2 mm)		0.5 – 2,3	0,5 – 7
	ISOLXTREM RTX LIGERO PX-20L /ISOLXTREM SILOXANE TECHNOLOGY PX-28L. *Acrylic binder based ready to use paste*		0.7 l/m^2 per mm thickness)	1-1,5
	RX- 417 ISOLXTREM PINTHERM. *Acrylic binder based ready to use*		18-23 m^2/L	0,5
	PX-04 WASH-IMPER FACHADAS. *Acrylic binder based ready to use*		0.7-1.5 l/m^2	1-1.5
	PX-05 ELASTINE FACHADAS. *Acrylic binder based ready to use*		0.7-1.5 l/m^2	1-1.5
	PX-06 ACRILASTIC FACHADAS LISO. *Acrylic binder based ready to use*		0.7-1.5 l/m^2	1-1.5
	PX-15 ACRILASTIC FACHADAS RUGOSO. *Acrylic binder based ready to use*		0.7-1.5 l/m^2	1-1.5
Additional Finishing coat	**PX-29. REPELEX TOTAL.** Water repellent product, which can be applied on any of the above finishing coat, when they are still wet. *Xyloxanic binder based ready to use*		0.130-0.170 l/m^2	--
Fasteners	**TACOS DE FIJACIÓN MECÁNICA TTH 10/60**: Plastic anchors (expansion element and sleeve) for insulation material with different lengths in relation with thickness of insulation board.		Remain under the manufacturer responsibility	
Ancillary elements	**Aluminium profiles:** Base, corners, top and window sills, and its fixing devices			

2 Specification of the intended use in accordance with the applicable EAD

This ETICS is intended to be used as external thermal insulation for building walls. The walls are made of masonry (bricks, blocks…), or concrete (cast on site or as prefabricated panels) with a reaction to fire classification A1 to A2-s2,d0 according to EN 13501-1 or A1 according to the EC decision 96/603/EC as amended. The ETICS is designed to give the wall to which is applied satisfactory thermal insulation.

This ETICS is made of non load-bearing construction elements. It does not contribute directly to the stability of the wall on which is installed, but it can contribute its durability by providing enhanced protection from the effect of weathering.

(1) The numbers of fasteners used with MW must comply with the National requirements.

This ETICS can be used on new or existing (retrofit) vertical walls. It can also be used on horizontal or inclined surfaces which are not exposed to precipitation. The ETICS is not intended to ensure the airtightness of the building structure.

Design and installation of ETICS should take into account principles laid down in chapter 7 of ETAG 004 and shall be done in accordance with national instructions. This ETA covers application of bonded ETICS where the concrete for testing of bond strength is representative for masonry or concrete. For bonded applications onto other substrates (e.g. organic paints or ceramic tiles), testing on the job site is necessary.

The provisions made in this ETA are based on an assumed working life of 25 years as minimum, provided that the conditions laid down for the installation, appropriate use, maintenance and repair are met. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right product in relation to the expected economically reasonable working life of the works.

Installation. The ETICS is installed on site. It is the responsibility of the manufacturer to guarantee that the information about design and installation of this ETICS is effectively communicated to the concerned people. This information can be given using reproductions of the respective parts of this ETA. Besides, all the data concerning the execution shall be clearly indicated on the packaging and/or the enclosed instruction sheets using one or several illustrations.

The wall on which the ETICS is applied shall be sufficiently stable and airtight. Its stiffness shall be large enough to ensure that ETICS is not subjected to deformations, which could lead to damage. The requirements given in ETAG 004, chapter 7 have to be considered.

*Design***.** In any case, the user shall comply with the national regulations and particularly concerning fires and wind load resistance. Only the components described in clause 1 with characteristics according to clause 3 of this ETA can be used for this ETICS.

The works including the details (connection, joint,.) shall be designed in order to avoid water penetration behind the system. The minimal surface area for the bonded ETICS, and the method of bonding shall comply with the characteristics of the ETICS as well as the national regulations. In any case, the minimal surface shall be at least 40 % for EPS and 80% for MW. Besides, the numbers of fasteners used with MW must comply with the National requirements.

Execution. The recognition and preparation of the substrate as well as the generalities about the execution of the ETICS shall be carried out in compliance with:

- Chapter 7 of the ETAG. 004, with imperative removal of any existing paint finish or renders which may difficult the bond resistance of the system.
- Corresponding national regulations.

The particularities in execution linked to the method of bonding/ mechanically fixings and the application of the rendering system shall be handled in accordance with manufacturer prescriptions. In particular it is suitable to comply with the quantities of rendering applied, the thickness regularity and the drying periods between layers.

Use, maintenance and repair of the works. It is accepted that the finishing coats shall normally be maintained in order to fully preserve the system's performance. Maintenance will include at least:

- The repairing of localised damaged areas due to accidents
- The application of various products or paints, possibly after washing or "ad hoc" preparation.

Necessary repairs should be done rapidly. It is important to be able to carry out maintenance as far as possible using readily available products and equipment, without spoiling appearance.

3 Performance of the product and references to the methods used for its assessment

The identification tests and the assessment for the intended use of this ETICS according to the Essential Requirements were carried out in compliance with the ETA Guidance n. 004: External Thermal Insulation Composite Systems with Rendering- edition February 2013 (called ETAG 004, in this ETA).

3.1 ETICS Characteristics

Mechanical resistance and sability (BWR 1). No relevant.

Safety in case of fire ((BWR 2). (EN 13501-1). Fire reaction (EN 13501-1)

System composition		Finishing coat	Euroclass
Adhesive + insulation+ any base coat" + One of these finishing layers	EPS boards (thickness 60 mm)	ISOLXTREM RTX / ISOLXTREM SILOXANE TECHNOLOGY	B-s1,d0
		ISOLXTREM RTX LIGERO PX-20L /ISOLXTREM SILOXANE TECHNOLOGY PX-28L	B-s1,d0
	MW boards (thickness 60 mm)	ISOLXTREM RTX / ISOLXTREM SILOXANE TECHNOLOGY	B-s1,d0
		ISOLXTREM RTX LIGERO PX-20L /ISOLXTREM SILOXANE TECHNOLOGY PX-28L	B-s1,d0

Hygiene, health and environment (BWR 3)

Water absorption

***ISOLXTREM POLIESTIREX* + finishing coat**	**After 1 h**		**After 24 h**	
***Without and with* PX-29. REPELEX TOTAL**	**------**	**With PX-29.**	**------**	**With PX-29**
ISOLXTREM POLIESTIREX	< 1kg/m²	< 1kg/m²	<0.5 kg/m²	<0.5kg/m²
ISOLXTREM MICROPRIMER + ISOLXTREM RTX (2mm)				
ISOLXTREM MICROPRIMER + ISOLXTREM RTX LIGERO				
ISOLXTREM MICROPRIMER + RX-417 ISOLXTREM PINTHERM				
ISOLXTREM MICROPRIMER + PX-04 WASH-IMPER FACHADAS				
ISOLXTREM MICROPRIMER + PX-05 ELASTINE FACHADAS				
ISOLXTREM MICROPRIMER + PX-15 ACRILASTIC FACHADAS RUGOSO				

Hygrothermal behaviour. It has been assessed on two rigs. During heat rain and heat – cold cycles, none of the following defects occurs during testing: Blistering or peeling of any finishing; Failure or cracking associated with joints between insulation product boards or profiles fitted with system; Detachment of render and cracking allowing water penetration to the insulation layer.

This system is therefore assessed as resistant to hygrothermal cycles.

Freeze / thaw behaviour. The water absorption of the base coat and of rendering system is less than 0.5 kg/m² after 24 hours and so the system can be assessed as freeze/thaw resistant without any further testing.

Impact resistance. The resistance to hard body impacts (3 and 10 Joules) tests carried out on samples of systems compositions lead to the following categories:

Base coat + with different internal mesh + ISOLXTREM RTX/ ISOLXTREM SILOXANETECHNOLOGY						
Insulation	**PX-20G / PX-28G (2mm)**		**PX-20M / PX-28M (1,5mm)**		**PX-20L / PX-28L**	
	Malla ISOLXTREM 160					
	Single	***Double***	**Single**	***Double***	**Single**	***Double***
EPS	II	II	III	III	III	III
MW	II	I	II	II	II	I

Base coat + with different internal mesh + finishing coat								
Insulation	**RX-417 ISOLXTREM PINTHERM**		**PX-04 WASH-IMPER FACHADAS**		**PX-05 ELASTINE FACHADAS**		**PX-15 ACRILASTIC FACHADAS RUGOSO**	
	Malla ISOLXTREM 160							
	Single	**Double**	**Single**	**Double**	**Single**	**Double**	**Single**	**Double**
EPS	III	II	I	I	II	II	II	I
MW	I	I	I	I	I	I	I	I

Base coat and finishing coat ISOLXTREM RTX/ ISOLXTREM SILOXANETECHNOLOGY						
Insulation	**PX-20G / PX-28G (2mm)**		**PX-20M / PX-28M (1,5 mm)**		**PX-20L / PX-28L**	
	Single Malla ISOLXTREM 330	**Double Malla ISOLXTREM 160**	**Single Malla ISOLXTREM 300**	**Double Malla ISOLXTREM 160**	**Single Malla ISOLXTREM 330**	**Double Malla ISOLXTREM 330**
EPS	I	I	I	I	I	I
MW	I	I	I	I	I	I

Water vapour permeability

Equivalent air thickness	**All possible combinations of the system (point 1), with and without PX-29**
≤ 2 m (EPS) // ≤ 1 m (MW)	≤ 1 m

Dangerous substances. This system complies with the provisions of Guidance Paper H(2). A declaration of conformity in this respect was made by the manufacturer. In addition to the specific clauses relating to dangerous substances contained in this ETA, there may be other requirements applicable to the ETICS falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the EU Regulations 305/11, these requirements need also to be complied with, when and where apply.

(2) *Guidance Document H:* "A harmonized approach related to dangerous substances under the Construction Products Directive".

Safety in use (BWR 4)

Bond strength: Base coat onto insulation board. The tests were performed on samples of EPS and MW insulation boards faced with base coat and in all cases breakage location was 100% on insulation:

ISOLXTREM POLIESTIREX *onto insulation board* (MPa)			
Thermal insulation	**Initial state**	**After hydrothermal cycles (on the rigs)**	**After free/thaw cycles (on the samples)**
EPS	≥ 0,08	≥ 0,08	----------
MW	0,01	0,01	----------

ISOLXTREM RTX/ ISOLXTREM SILOXANETECHNOLOGY *onto insulation board* (MPa)			
Thermal insulation	**Initial state**	**After hydrothermal cycles (on the rigs)**	**After free/thaw cycles (on the samples)**
EPS	≥ 0,08 (0,12)	≥ 0,08 (0,12)	----------
MW	0,01	0,01	----------

Bond strength: Adhesive onto insulation board. The tests were performed on samples of EPS and MW insulation boards faced with base coat and in all cases breakage location was 100% on insulation:

Adhesive onto insulation board (MPa)				
Adhesive	**Thermal insulation**	**Initial state**	**Immersion 48 h and 2 h drying**	**Immersion 48 h and 7 d drying**
ISOLXTREM POLIESTIREX	EPS	≥ 0,08	≥ 0,03	≥ 0,08
	MW	0,01	0,01	0,01
Adhesive COLBAIXTHERM	EPS	≥ 0,08 (0,16)	≥ 0,03 (0,12)	≥ 0,08 (0,14)
	MW	0,01	0,01	0,01

Bond strength: Adhesive onto concrete

Adhesive onto concrete (MPa)			
Adhesive	**Initial state**	**Immersion 48 h and 2 h drying**	**Immersion 48 h and 7 d drying**
ISOLXTREM POLIESTIREX	1,7 ≥ 0,25	1,24 ≥ 0,08	1 ≥ 0,25
COLBAIXTHERM	1,4 ≥ 0,25	1,16 ≥ 0,08	1 ≥ 0,25

Displacement test of the fasteners. NPA since the bonded area exceeds 20 %

Pull-through of the fasteners

Values (N/ fastener)	Dry conditions	Wet conditions
Minimal	305	370
Mean	510	553

The mineral wool used in the test has 6 cm of thickness. The test results are also valid for Insulation product of the same type with ≥thickness and/or higher tensile strength perpendicular to the faces and Anchors with ≥ plate diameter and/or the same or higher plate Stiffness (see EOTA Technical Report n° 26).

Protection against noise (BWR 5). NPA

Energy economy and heat retention (BWR 6)

Thermal resistance. The additional thermal resistance R_{ETICS} provided by the ETICS to the substrate wall is calculated in accordance with EN ISO 6946 from the nominal value of the insulation product´s thermal resistance R_D given accompanied to the CE marking and from the thermal resistance of the rendering system R_{render} which is about 0,02 m²K/W.

$$R_{ETICS} = R_D + R_{render}$$

The thermal bridges caused by mechanical fixing devices influence the thermal transmittance of the entire wall and shall be taken into account using the following calculation:

$$U_c = U + \Delta U \ (W/m^2K),$$

U_c: Corrected thermal transmittance (W/(m².K)) of the entire wall,, including thermal bridges.
U: thermal transmittance of the entire wall, including ETICS, without thermal bridges) (W/(m².K):

$$U = \frac{1}{R_i + R_{render} + R_{substrate} + R_{se} + R_{si}}$$

$\mathbf{R_i}$: thermal resistance of the insulation product // $\mathbf{R_{render}}$:thermal resistance of the render (about 0,02 (m².K)/W).
$\mathbf{R_{substrate}}$: thermal resistance of the substrate of the building (concrete,brick…)((m².K)/W) //
$\mathbf{R_{se}}$: external superficial thermal resistance ((m².K)/W). // $\mathbf{R_{si}}$: internal superficial thermal resistance ((m².K)/W).

ΔU: Correction term of the thermal transmittance for mechanical fixing devices

$$\Delta U = X_p \cdot n,$$

n: number of anchors (through insulation product) per m² // X_p:point thermal transmittance value of the anchor (0.002 W/K).

Aspect of durability and serviceability

Bond strength after ageing. In all cases breakage location was 100% on EPS and MW:

Rendering system (base coat + finishing coat)	**Thermal insulation**	**After Hydrothermal cycles** (rigs) **(MPa)**
ISOLXTREM POLIESTIREX + ISOLXTREM RTX / SILOXANE TECHNOLOGY	EPS	≥ 0,08
	MW	0,01
ISOLXTREM POLIESTIREX + ISOLXTREM RTX LIGERO / PX-28L	EPS	≥ 0,08
	MW	0,01
ISOLXTREM RTX / SILOXANE TECHNOLOGY	EPS	≥ 0,08
	MW	0,01
ISOLXTREM RTX LIGERO / PX-28L	EPS	≥ 0,08
	MW	0,01

3.2 Characteristics of the components

Detailed information on the chemical composition and other identifying characteristics of the components, following Annex C of ETAG 004, has been deposited at the IETcc. Further information can be observed from the product data sheets, which are part of the Technical Documentation for this ETA.

Insulation product. Factory–prefabricated, uncoated boards made of EPS and MW, having the description, characteristics and performances (as minimum) defined in the table below:

Characteristics	**Standard**	**EPS**	**MW**
Reaction to fire Euroclass	EN 13501-1	B1	A1
Length (mm) / Tolerance type	EN 822	1000 / L2	1200
Width (mm) / Tolerance type	EN 822	500/ W2	600
Thickness (mm) / Tolerance type	EN 823	10 a 300 / T2	50-200 /T5
Squareness	EN 824	S2	-----
Flatness	EN 825	P4	-----
Density (kg/m^3)	EN 1602	15- 20	150/95
Thermal conductivity a 10 ºC (W/m.K)	EN 12667 o EN 12939	0,04	0,036
Dimensional stability under Temperature and humidity specific conditions	EN 1604	DS(70,-)2 DS (N) 2	DS (H)
Tensile strength perpendicular to the faces in dry conditions (N/mm^2)	EN 1607	≥ TR 100	≥ TR 7,5
Water absorption ((partial immersion) (kg/m^2)	EN 1609	<1	< 1
Water vapour diffusion (μ)	EN 12086	40 a 50	1
Shear strength (N/mm²)	EN 12090	0,1 ≥ 0,02	-------
Shear modulus (N/mm²)	EN 12090	≥ 1	-------

Render. Render strip tensile resistance: NPA

Fasteners. Fastener with CE marking with ETA nº 09/0318. Plate dimensions of 60 mm diameter and plate and Stiffness 0,9 kN/mm^2.

Glass fibre mesh. The mesh with CE marking (ETA 13/0392). Tearing strength after ageing of the glass fibre mesh was tested according to the ETAG 004:

Status	**Units**	**Malla ISOLXTREM 160/330**	
		Warp direction	Weft direction
Initial	N / mm	≥ 20	
Ageing	N / mm	≥ 20	
	Resistencia Residual (%)	≥ 50	

4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

System of attestation of conformity. According to the decision 97/556/EC of the European Commission [3] amended by 2001/596/EC [4] the system of assessment and verification of constancy of performance (see Annex V to Regulation (EU) nº 305/2011) given in the following table applies.

Product	**Intended uses**	**Level or Classes**	**System**
ISOLXTREM	External Thermal Insulation Composite System with rendering for use on building walls	Any	2+

This system of attestation of conformity +2 is defined as follows:

Tasks for the manufacturer: Initial type-testing of the product, Factory production control and Testing of samples taken at the factory in accordance with a prescribed test plan.

(3) Official Journal of the European Communities L229/14 of 20.08.1997
(4) Official Journal of the European Communities L209/33 of 02.08.2001

Tasks for the notified body: Certification of factory production control on the basis of:

- Initial inspection of factory and of factory production control.
- Continuous surveillance (annual), assessment and assessment of factory production control.

5 Technical details necessary for the implementation of the AVCP system, as provided for the applicable EAD

The ETA is issued for this kit on the basis of agreed data/information, deposited at IETcc, which identifies the product that has been assessed and judged. It is the manufacturer's responsibility to make sure that all those who use the kit are appropriately informed of specific conditions according to sections 1, 2, 4 and 5 including the annexes of this ETA. Changes to the ETICS or the components or their production process, should be notified to the IETcc before the changes are introduced. IETcc will decide whether or not such changes affect the ETA and if so whether further assessment or alterations to the ETA shall be necessary.

5.1 Tasks of the manufacturer

Factory production control. The manufacturer shall exercise permanent internal control of production. All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic manner in the form of written policies and procedures, including records of results performed. This production control system shall ensure that the product is in conformity with this ETA.

The manufacturer may only use components stated in the technical documentation of this ETA including Control Plan. The incoming raw materials are subjected to verifications by the manufacturer before acceptance.

For the components of the ETICS which the manufacturer does not manufacture by himself, he shall make sure that factory production control carried out by the other manufacturers gives the guarantee of the components compliance with the ETA.

The factory production control shall be in accordance with the Control Plan(5) which is part of the Technical Documentation of this ETA. The Control Plan has been agreed between the manufacturer and the IETcc and is laid down in the context of the factory production control system operated by the manufacturer and deposited at the IETcc. The results of factory production control shall be recorded and evaluated in accordance with the provisions of the Control Plan.

Initial type-testing of the product. Initial type-testing carried out by the IETcc is that set out in chapter 5 of the guideline for External Thermal Insulation Composite System with rendering for use on building walls (ETAG 004). The IETcc assessed the results of these tests in accordance with chapter 6 of this Guide, as part of the ETA issuing procedure.

The verifications underlying this ETA have been furnished on samples from the current production, these will replace the initial type-testing carried. After changing the production process or starting the production in another manufacturing plant the initial type-test shall be repeated.

Other tasks of manufacturer. The manufacturer shall, on the basis of a contract, involve a body which is notified for the tasks referred to in section 4 in the field of ETICS in order to undertake the actions laid down in this clause. For this purpose, the control plan shall be handed over by the manufacturer to the notified bodies involved.

For initial type - testing of the ETICS and the components the results of the tests performed as part of the assessment for the ETA shall be used unless there are changes in the production line or plant. In such cases the necessary initial type- testing has to be agreed with the IETcc.

The manufacturer shall make a declaration of conformity, stating that the ETICS is in conformity with the provisions of this ETA.

5.2 Tasks of notified bodies. The notified body shall perform:

Initial inspection of factory and of factory production control. The Notified Body shall ascertain that, in accordance with the Control Plan, the factory (in particular the employees and the equipment) and the factory production control are suitable to ensure continuous and orderly manufacturing of the components according to the specifications mentioned in clause 2 of this ETA.

(5) The control plan is a confidential part of this European Technical Assessment and only handed over to the notified body involved in the procedure of attestation of conformity. See section 3.2.2.

Continuous surveillance, assessment and assessment of factory production control, in accordance with the provisions laid down in the control plan, at least one per year.

The notified body shall retain the essential points of its actions referred to above and state the results obtained and conclusions drawn in a written report. The notified certification body involved by the manufacturer shall issue an EC Certificate of factory production control stating the conformity of the provisions of this ETA.

In cases where the provisions of the ETA and its control plan are no longer fulfilled the notified certification body shall withdraw the certificate of conformity and inform to IETcc without delay.

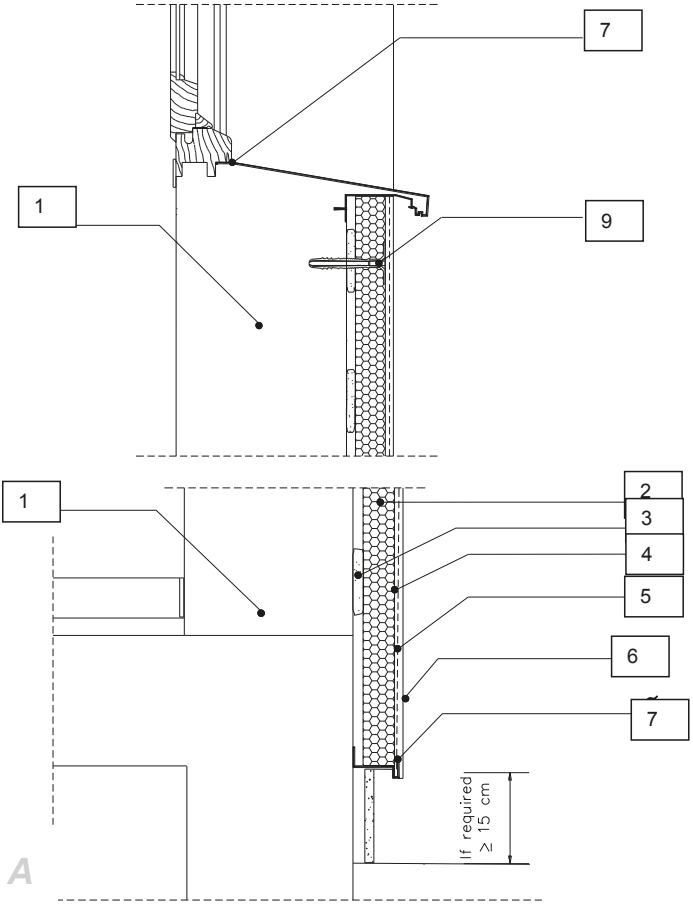
Issued in Madrid on 06/ 11/ 2018
by

Instituto de Ciencias de la Construcción Eduardo Torroja

CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS
c/ Serrano Galvache 4. 28033 Madrid (Spain).
director.ietcc@csic.es www.ietcc.csic.es

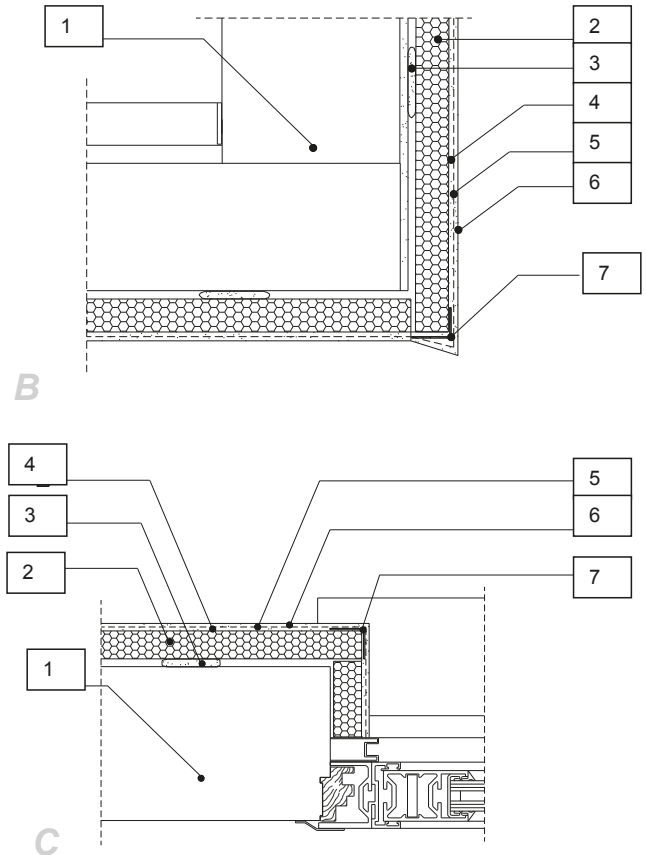
On behalf of the Instituto de Ciencias de la Construcción Eduardo Torroja

Director - IETcc



1. Substrate
2. *EPS / MW board*
3. Adhesive
4. Base coat *)*
5. Glass fibre standard mesh
6. Finishing coat
7. Aluminium base profile
9. Fixing

DETAIL A: VERTICAL SECTION OF BASE AND APERTURE (WINDOW)	**Annex 1** of European Technical Assessment



1. Substrate
2. EPS / MW boards
3. Adhesive
4. Base coat
5. Glass fibre standard mesh
6. Finishing coat
7. Aluminium corner profile

DETAIL B: VERTICAL SECTION OF APERTURE (WINDOW)
DETAIL C: HORIZONTAL SECTION OF APERTURE (WINDOW)

Annex 2
of European
Technical Assessment

TRAINING
FOR PROFESSIONALS
ISOLXTREM SYSTEM

KNOWLEDGE TAKES NO SPACE

At Baixens we believe that ongoing training is important. For this reason, we regularly offer customised training courses for professionals in the sector.

Our courses allow professionals to develop and renew the skills and knowledge they already know and use, and to learn about the latest techniques and innovations we bring to the market.

All our courses have an approximate duration of 1-2 days, because they are intensive and personalised. Theoretical and practical contents are taught, and an accredited diploma is awarded at the end of the course.

Professionals who wish to know how to apply our SATE System, or any of our other products, can train at our facilities upon registration. If you are interested, send us an email with your personal details (full name, town, telephone and company) to info@baixens.com or call 96 175 08 34.

ADDITIONAL INFORMATION ISOLXTREM SYSTEM

RANGE BROCHURES

The ISOLXTREM® SYSTEM range includes three brochures where you can find all the information you need to know and correctly use the thermo-acoustic outdoor insulation system.

- Application Manual.
- Product data sheets.
- ETE. European Technical Evaluation.

SAMPLE BOX + INDIVIDUAL SAMPLE

- Sample of the four available finishes.
- Sample of the wide variety of colours of the ISOLXTREM® SYSTEM.
- Range brochures.

Follow

wherever you are

baixens.com
sistema-sate-baixens.com

On our website you will find:

- What's new
- Technical and safety data sheets
- Product Selection Guide
- Video tutorials and much more

Use the QRs to access product information more quickly or to visit our website

BAIXENS
baixens.com

Testing the difference

ISO 9001
ISO 14001
OHSAS 18001
BUREAU VERITAS
Certification

Baixens Certifies

We take care of the quality

It is the basic premise in the manufacturing of our products

Certified since 2001

ISO 9001

We respect the environment

We strive to preserve our environment

Certified since 2004

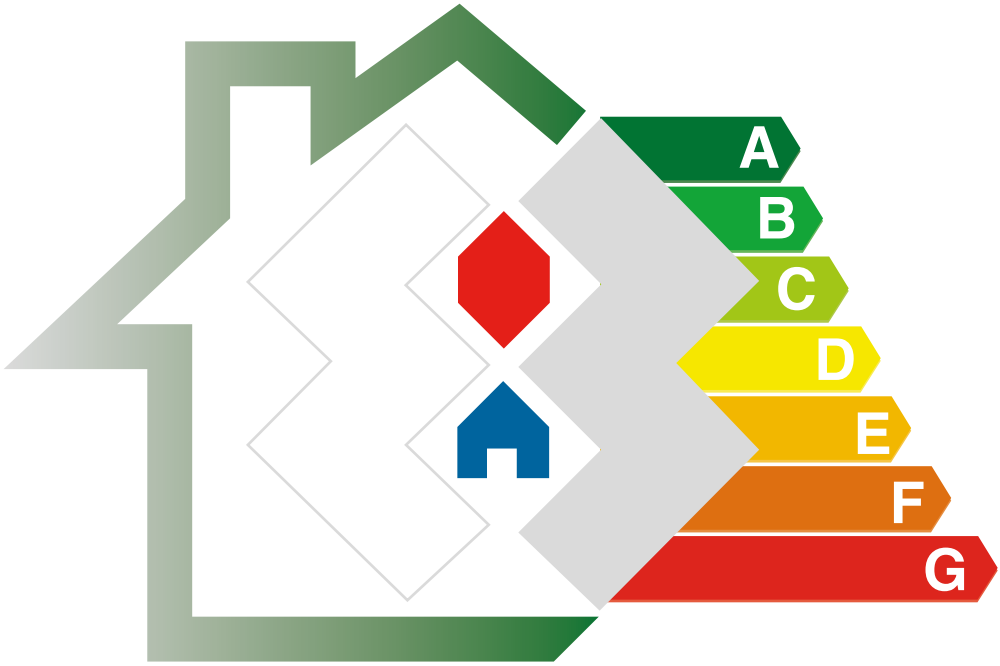
ISO 14001

We take care of our own people

We implemented our own occupational health and safety system

Certified since 2010

OHSAS 18001



BAIXENS

baixens.com

Testing the difference

BAIXENS
baixens.com

Testing the difference

BAIXENS ESPAÑA/PORTUGAL
CENTRO CERTIFICADO BUREAU VERITAS
Pol. Ind. Moncarra, S/N
46230 Alginet (Valencia)
T.: 961.750.834
F.: 961.752.471

BAIXENS FRANCE
14, Rue Du Pont Neuf
75001 Paris (France)
T.: 0.800.90.14.37
F.: 0.800.90.20.52

BAIXENS ITALIA / BULOVA
Via Pietro Nenni, 36
46019 Cicognara - Mantova (Italy)
T.: 0375/88181/790016
F.: 0375/88831
www.bulova-pennelli.com

CERTIFIED COMPANY
ISO 9001
ISO 14001
OHSAS 18001
MADE IN E.U.

M&D. Ene . 2019