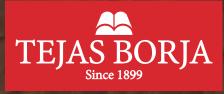
BorjaCLAD Ventilated Facade



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A creative and sustainable solution

Borja CLAD Ventilated Facade

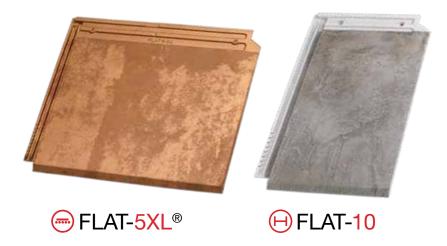
With the constant evolution in exterior cladding in the architectural sector, innovative solutions in ventilated facade systems continue to be brought to market.

BorjaCLAD facades are a new format of exterior cladding for buildings created as a result of the technological revolution which has occurred in Tejas Borja's ceramic products over the last few years.

The high resistance of our ceramic products to the harshest elements is well known. Proof of this are the thousands of projects around the world which have already used tiles from our company.

Whether it be to renovate an existing facade or for a new build, ventilated facade systems are an ideal, economical and easily-installed solution which also offers designers a wide variety of finishes and formats to ensure the complete integration of their project into its surroundings.

To ensure the optimal performance of the facade and straightforward installation, the tile formats used in the system are our latest flat models: FLAT-5XL® y FLAT-10.



WATERTIGHTNESS

Protection from the wind and rain. Reduction in moisture condensation thanks to the ventilated cavity.

EASY TO INSTALL

The facade cladding is installed methodically, following established steps. As only mechanical fixings are used in the cladding system, replacing one or various elements is straightforward.

ENERGY SAVING

The circulation of air prevents heating of the interior face of the facade, reducing the need for air conditioning. Moreover, it enables the installation of continuous insulation, without thermal bridges, to prevent loss of heat in winter and gains in summer.

MINIMAL MAINTENANCE

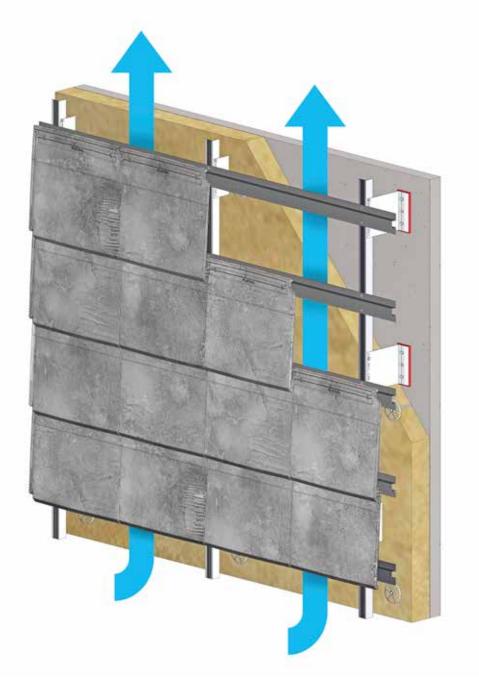
The tiles are made from a material designed to resist the most adverse weather conditions. Consequently, using them in facades means hardly any maintenance is necessary to preserve their appearance and functionality.

DIFFERENTIATION

New aesthetic options for facade design, with the possibility of using the same cladding on the roof and facade. Our wide range of finishes in various formats give a distinctive personality to each project. Suitable for new builds and renovations.

INVISIBLE FIXINGS

A complete technical system, installed over an aluminium substructure resistant to corrosion in any environment, with hidden fixings and a perfectly plumb facade.



THERMAL INSULATION

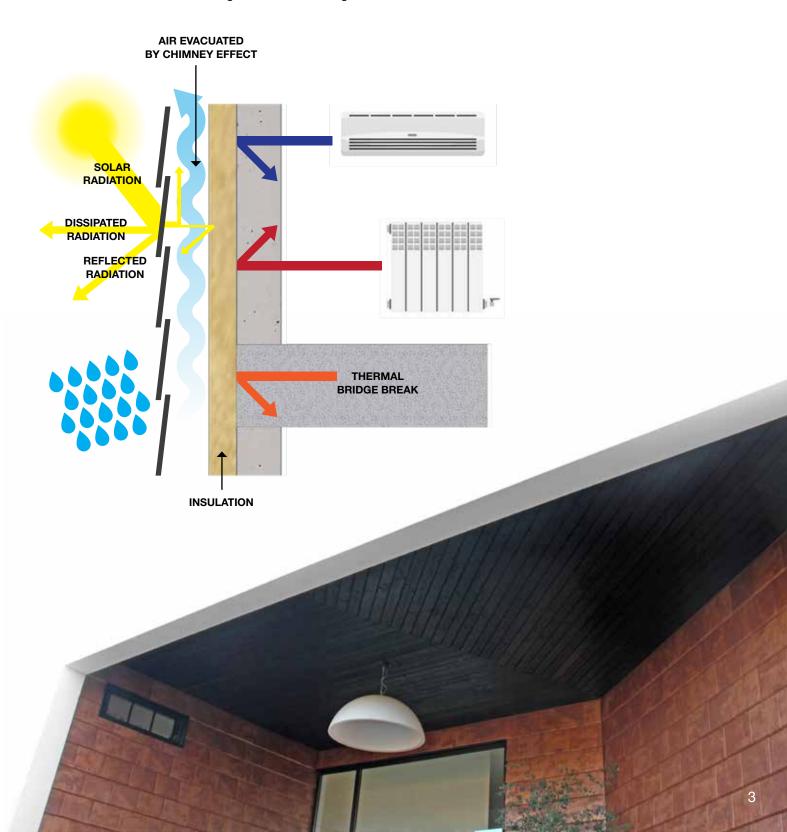
With the BorjaCLAD ventilated facade system the ventilation cavity creates an ideal space to house thermal insulation running along the exterior wall of the building.

With the installation of continuous insulation between the existing wall and the layer of ceramic cladding, the facade can be completely insulated without thermal bridges.

This installation prevents the loss of heat to the exterior during the winter and prevents external heat being trapped in summer, with an energy saving between 15% and 35% both in heating and air conditioning.

As the insulation is on the exterior face of the wall and building frames, this gives the building a greater thermal mass which translates into an increase in thermal inertia. This means, in addition to a significant energy saving, greater interior comfort. The cladding acts as a screen reflecting a great amount of solar radiation, preventing it from penetrating the building.

Moreover, to break the thermal bridge in the metal fixings on the supporting structure, the brackets come with insulating wedges.



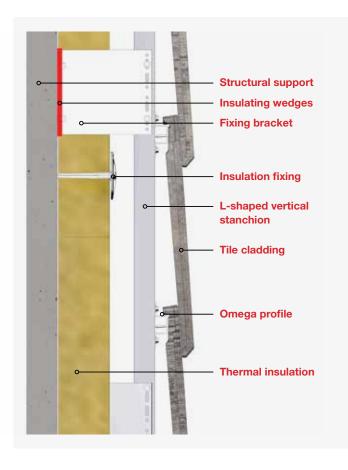
SYSTEM INSTALLATION

The system is made up of anchor fasteners, brackets and aluminium profiles, and is specifically designed for vertical substructures clad with ceramic tiles.

First, a survey will be made to determine which fixings will be used in the project. This will depend on the type of support structure provided by the facade and the state it is in. The potential support structures can be made from different base materials:

- Concrete support: Reinforced, aerated or pre-stressed.
- Masonry support: Thermal clay, bricks or concrete blocks.
- Light support: Laminated wood or metal structure.

The resistance of the anchor fasteners may vary greatly between some support materials and others, and at times it may be necessary to carry out resistance trials on site.





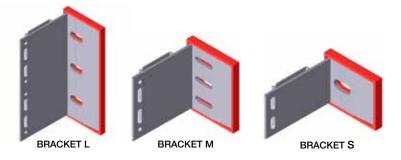
When the supporting structure is ready, the installation of the metal substructure will begin, following these steps:

FIXING THE BRACKETS TO THE FACADE.

Using screws appropriate for each project. These anchor fastenings join the vertical stanchions to the supporting wall, and correct any deterioration of the facade.

One fixed point per profile must be installed, the rest will be sliding points which will allow the movement of the substructure to prevent expansion problems.

These brackets can be supplied in various sizes (L, M and S) and with different finishes depending on whether insulation is going to be installed in the ventilated cavity and how thick this insulation might be. Moreover, and if necessary for the project, the brackets can be supplied with insulating wedges to break thermal bridges.



2 POSITIONING AND FIXING THE STANCHIONS.

These are L-shaped profiles screwed to the brackets which have already been fixed to the wall. These profiles must be perfectly plumb; to ensure this is the case they are levelled before being fixed to the brackets.

A space must always be left between successive profiles to prevent expansion. In the detailed plan for each project the size of the space required will be calculated using reference data, with the minimum space being 10 mm. The first and last anchor fastener screwed into the brackets will never be more than 250 mm from the ends of the L-shaped profile.

INSTALLATION OF THE OMEGA PROFILES.

Once the vertical stanchions have been plumbed and fastened, the horizontal profiles will be fixed in place. These form the support structure onto which the ceramic pieces are attached. Each piece of ceramic cladding is fixed to the omega profile using two self-drilling screws and the pre-marked holes in the tile.

The vertical distance between profiles will be determined by the useful length of the ceramic piece to be fixed in place. This distance varies both for the FLAT-5XL[®] and the FLAT-10 tile.

4 ALUMINIUM MESH AND TRIMS.

In the lowest area of the facade an aluminium mesh will be installed to allow air to flow into the ventilated cavity while preventing animals from entering the space.

The trims at the joins in the facade are closed using lacquered aluminium sheets with designs and finishes chosen for each project according to its requirements.

5 FIXING THE CLADDING.

Once the facade substructure and metal trims have been installed, the tiles will be fixed onto the system. The tiles in each row will overlap the fitting area of the files in the row below.

The tiles can be installed in a herringbone pattern (staggered course) or with continuous joins, depending on the project design.

Every piece has rear supports which rest on each level of the horizontal omega profiles, leaving the tiles hanging from the substructure. The cladding is fixed to the profile using 2 self-drilling screws in the upper area of each tile, and with a hidden fixing bracket in the lower part of the lateral overlap.

When accommodating singular features, joins in a ceramic tile facade are made using trims made from folded aluminium sheet in a precise and elegant combination with the ceramic tiles of the cladding.

These singular points may occur on exterior corners, interior corners, door or window frames, joins between the roof and the wall, etc.

The trim profiles will be planned and made specifically for each project. It is possible to choose a RAL colour for the aluminium finish to complement the available FLAT tile finishes.





The BorjaCLAD facade system is designed specifically for each site where it is to be installed. There is no standardized facade system as each project is different.

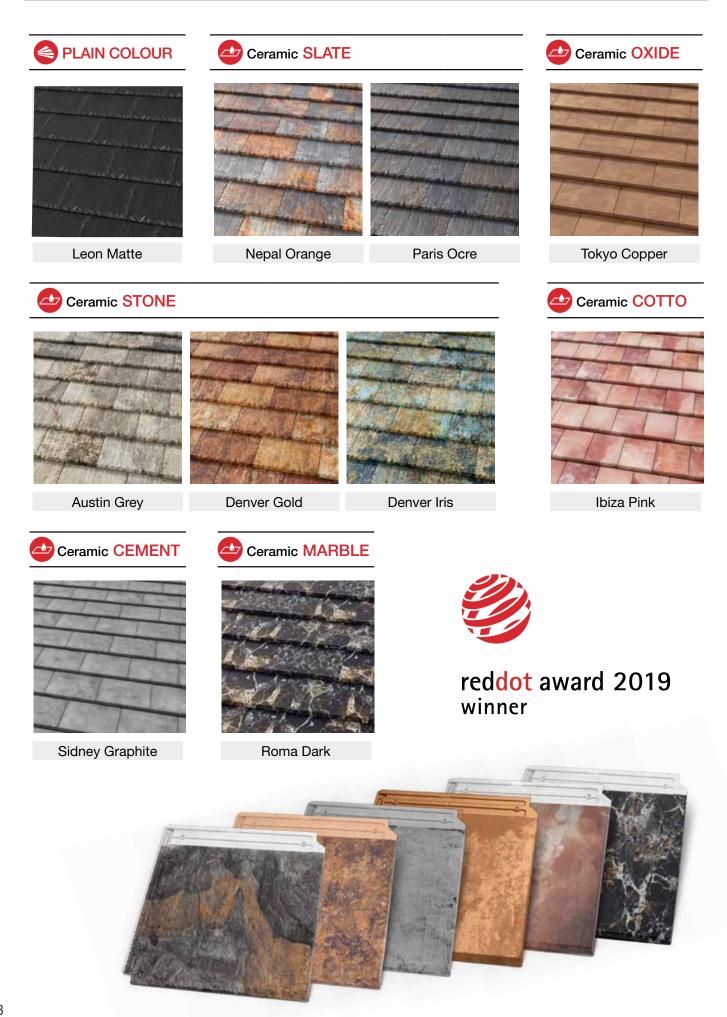
Consequently, Tejas Borja works closely with a leading company specializing in substructures and fastenings to guarantee the proper functioning and safety of the system.

The success of every project lies in the detail, and this is why the most advanced software is used to calculate and adjust the following documentation for each project:

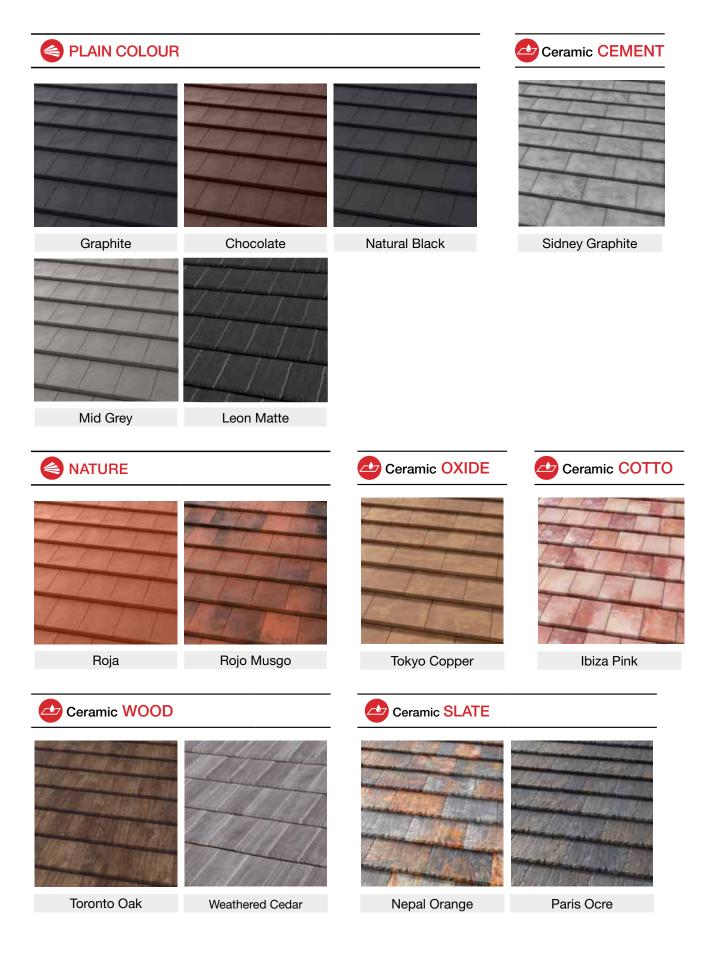
- Calculation of the initial offer using the project data received.
- Detailed calculation of the entire project once confirmation received from the client.
- Calculation of loads following Eurocode 9 + Eurocode 1 "CTE (Wind + Weight)"
- Detailed installation designed in CAD.
- Cut optimizer for profiles.
- Detailed modulation of the facade and its joins.
- Detailed quote.



FLAT-5XL® / FINISHES



H FLAT-10 / FINISHES



NOTES: FLAT-5XL[®] BorjaJET available upon request. Delivery time 4-6 weeks. Weathered Cedar, Leon Matte, Ceramic Slate and Ceramic Stone are models with texture.



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