

# HIGH SCHOOL IN PRADES - FRANCE



*make it yours*



# HIGH SCHOOL IN PRADES

## CLIENT :

Occitania regional council

## ARCHITECTS :

Gotanegre & Vermeersch / Chamard & Fraudet

## INSTALLER :

Comero

## DELIVERY OF THE BUILDING :

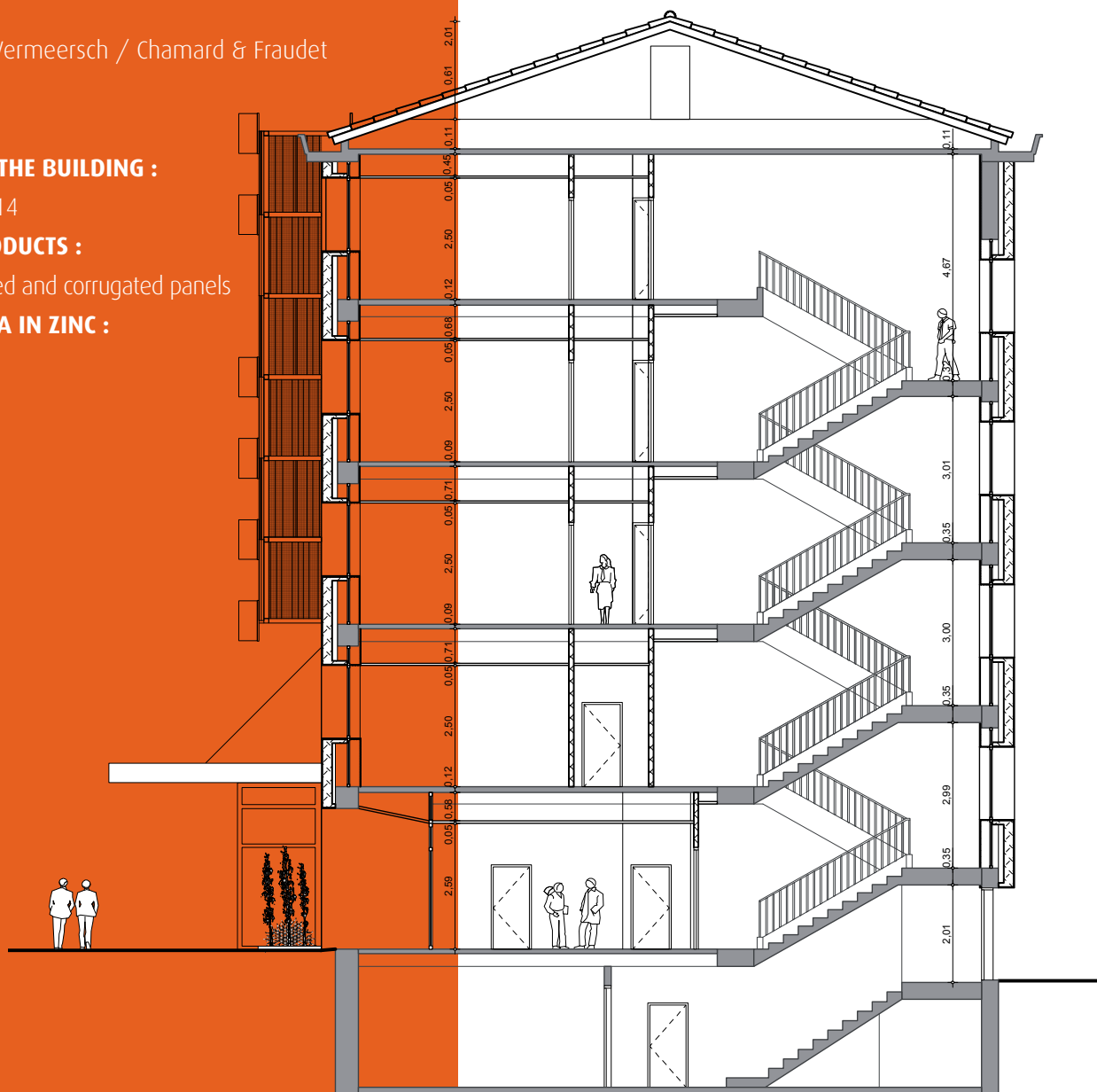
December 2014

## VMZINC® PRODUCTS :

1,136 perforated and corrugated panels

## SURFACE AREA IN ZINC :

820 m<sup>2</sup>



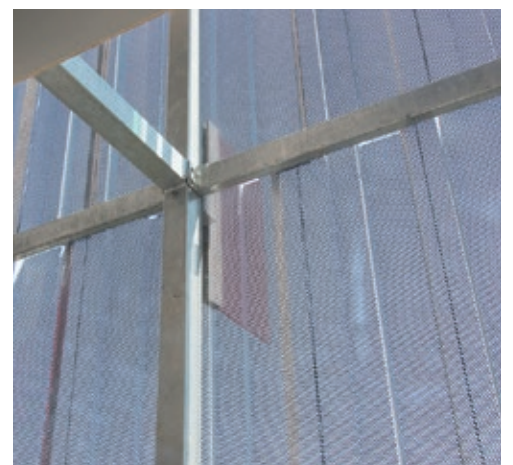
The boys' boarding house is the last phase of the renovation programme of the Charles Renouvier high school in Prades, a town in the French Pyrenees. The programme aimed to modernise the establishment and bring it in line with French thermal regulation RT 2012. This long building (73 metres) has a southerly/south-westerly orientation and previously it was directly exposed to solar radiation. The renovation work commissioned by the Occitania Regional Council was intended to **improve the well-being of pupils and staff**, and to **generate 35 to 40 % of energy savings**.

Architecture firms GOTANÈGRE & VERMEERSCH and CHAMARD & FRAUDET responded to these specifications by recommending **820 m<sup>2</sup> of perforated and corrugated VMZINC® panels**. The VMZINC® team and installation company COMERO followed the design team's layout plans to **create, manufacture, fold and install the 1,136 made-to-order parts**.

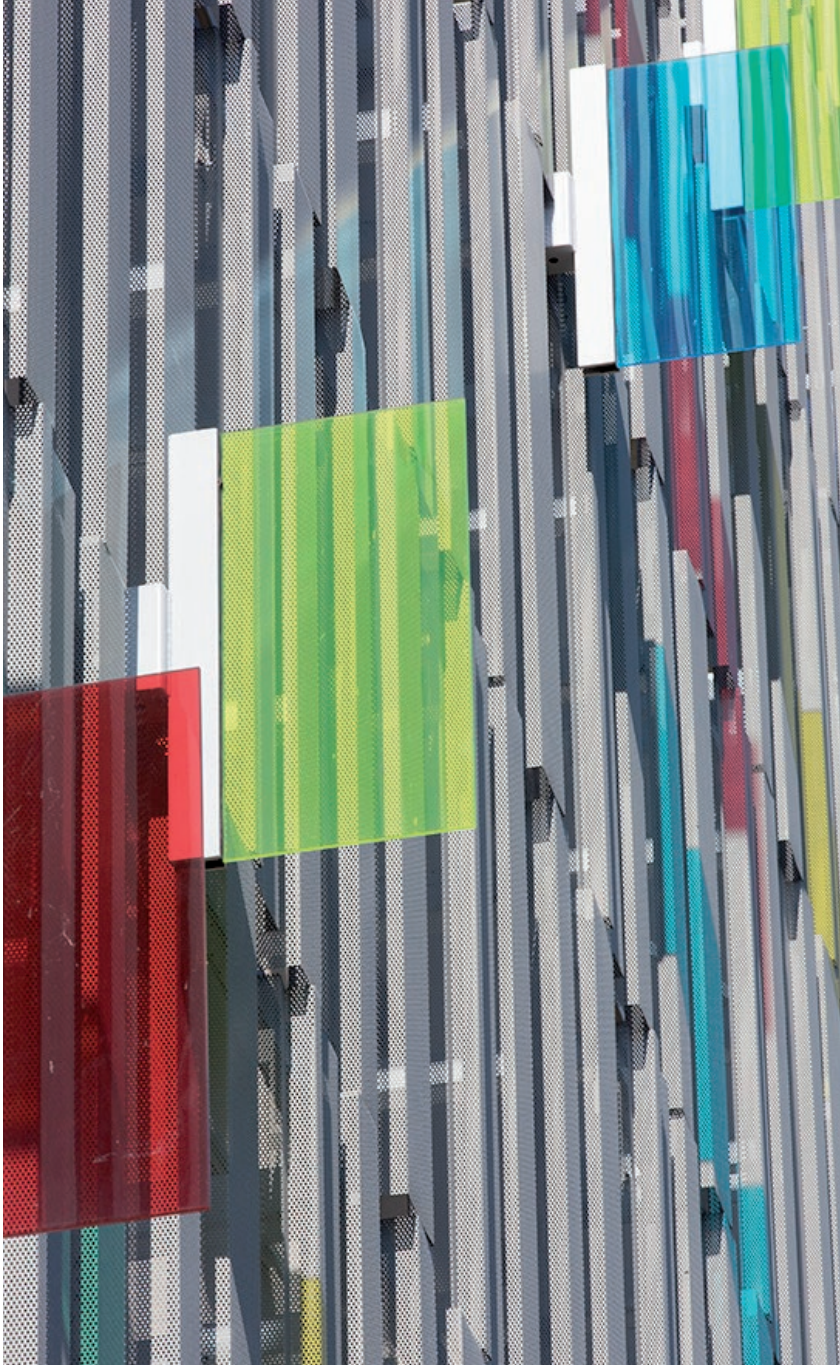


This technical, architectural zinc Mashrabiya is fixed to a metal framework. It makes it possible to shield the glass facade and serves several purposes:

- a **protective screen**, which filters some of the heat and sunlight. Combined with external insulation (type PSE 100 mm), **it optimises thermal comfort in winter and summer**, while still providing natural light. The latter floods into the living spaces, minimizing the use of electric lighting.
- **A screen** providing **greater privacy in the bedrooms** overlooking the high school's courtyard. From indoors, boarders keep their view of the exterior without being bothered by any prying eyes.
- **an elegant QUARTZ-ZINC® envelope**. It gives the building **rhythm and creates constantly changing plays of shadow and light**. During the daytime, it makes the building look lightweight and dynamic. At nightfall, it seems to disappear and partially reveal the illuminated interior of the dormitories.



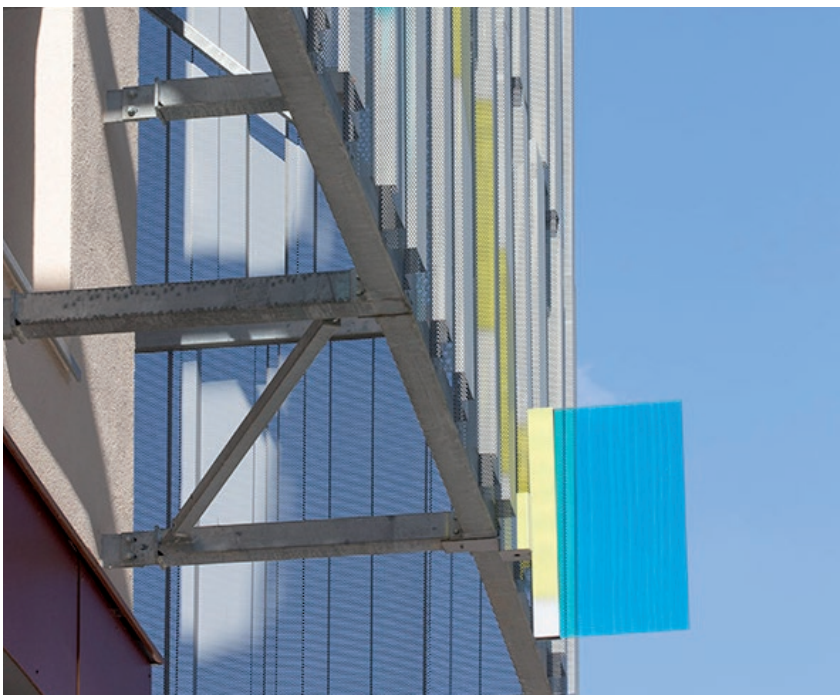
Durable, resilient and easy to maintain, zinc is particularly suited to this mountainous environment.



## Rhythmic forms and tones

The building, which houses the boarding accommodation, is located at the edge of the plot. Its architectural programme is visible on its facade: a podium on the first two floors grouping together new classrooms that can cater for up to 250 people, and three upper floors for approximately sixty rooms.

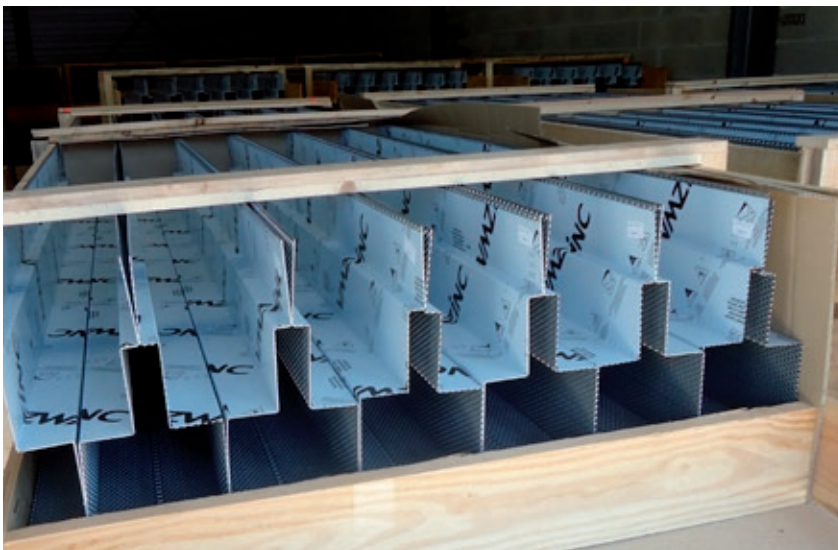
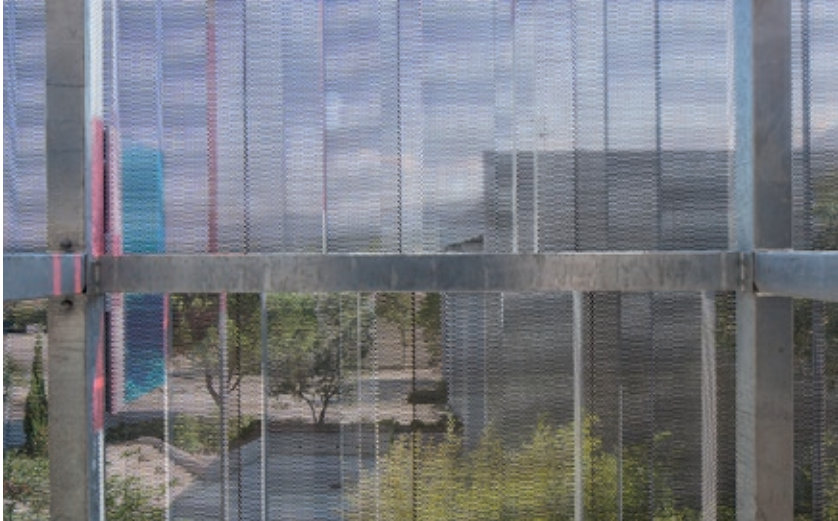
Overhanging the timber of the day area, the QUARTZ-ZINC® skin resizes the building in its space, giving it nuance and momentum, and mitigating its monolithic aspect. The folds, combined with the coloured glass panels, create a dual rhythm for the building. These multicoloured “pixels” protrude arbitrarily from the facade. They are reflected in the zinc mesh and create variations in intensity of light throughout the days and seasons.



VMZINC® meets the requirements of architects seeking original solutions to give their projects a specific identity. Colours on request, made-to-order forms, perforations, embossing or dimpling, the brand provides solutions for new means of expression. It acts as a genuine partner, supporting clients and design teams to budget, test and produce the ideal solution.

# 35%

transparency rate



## Made-to-order Creation and installation

Upstream of the project, a prototype of the perforated and corrugated system was produced and validated by the two architecture firms. It features perforations that are 5 mm in diameter and spaced 8 mm apart, i.e. 35 % transparency.

All the profiles were then packaged and delivered per type of fold in order to ensure fast, easy installation on this 820 m<sup>2</sup> facade. Each module is made up of four elements with specific profiles.

They are fixed onto a metal framework, 130 cm from the facade of the building, using self-drilling screws and washers at the edges of each ribbed element.

The complete structure was designed to guarantee resistance to winds of over 160 kph, an asset for this high school located in the Eastern French Pyrenees, reputed for its Tramontana wind!



Type 1  
1675 mm  
nbr 254



Type 2  
1675 mm  
nbr 256



Type 3  
1675 mm  
nbr 256



Type 3  
1675 mm  
nbr 254



