

# VM ZINC® façades: New perspectives in zinc



A Umicore brand



# VM ZINC® façades

New perspectives in zinc

## The façade: an aesthetic architectural choice

Architecture has to combine increased functional equipments with the demand for improved lifestyle. As the functions of a building become increasingly sophisticated and modular, the building envelope has to provide a sustainable solution to interfacing with and protecting from the outside elements, while blending harmoniously with the environment.

The façade has to make a statement in both aesthetic and functional terms.

## Zinc cladding: Strong expression by a natural material

Because zinc is traditionally associated with roofing, its use in the vertical plane gives a building a special signature.

With roots in the noble tradition of roofs for prestigious buildings and with a long history in urban contexts, zinc is today asserting its modernity and authenticity. This natural, recyclable material has an organic mineral texture varying between satin and velvet.

It clads façades for all types of architectural projects, leaving its signature on new construction and renovation for commercial buildings and for collective or individual housing.

## VM ZINC®: long-lasting material and aesthetics

VM ZINC® rolled zinc alloyed with copper and titanium, which meets European EN

988 and the PREMIUMZINC® quality label, has an exceptionally long lifespan: 50 to 100 years, depending on its atmospheric environment. The development of a patina reinforces its natural defences against corrosion.

VM ZINC® requires no maintenance. Its pre-weathered surface aspects, QUARTZ-ZINC® and ANTHRA-ZINC®, retain their harmonious aesthetics over time and are highly resistant to urban pollution.

## VM ZINC®: Architecture in a material world

Zinc extends the architect's design range. Its flexibility and malleability highlight or merge with the lines of a building, whether curved or straight.

Installation techniques vary from traditional cladding (curtain wall) to metal roofing methods, opening up a range of architectural combinations: long profiles or small elements, clearly defined upstands or discreet lines, flat surfaces or light and shade effect.

A perfect finish is made easy by the broad range of custom-formed accessories offered by VM ZINC® : junctions, corners, frame fittings, surrounds...are all designed to satisfy architects and installers to perfection.

Zinc can create a visual link between roof and façade, blending subtly with the other materials used in the building envelope: slate, wood, glass, tile, stone, plaster, ceramics, etc.

### VM ZINC® surface aspects

#### **Natural VM ZINC®**

Has a shiny aspect which develops a patina over time. The patina takes longer to form on façades than on roofs because weather exposure is reduced.

#### **QUARTZ-ZINC®**

Has a velvet grey aspect. From the beginning its aspect and texture are very close to the patina of natural zinc. This warm, luminous material, reminiscent of the mineral world, is ideal for façades.

#### **ANTHRA-ZINC®**

Owes its name to its anthracite grey colour and is the hallmark of assertive architecture.

For certain applications, VM ZINC® can be coated in both sides with a polyester lacquer. A range of 6 shades is available.

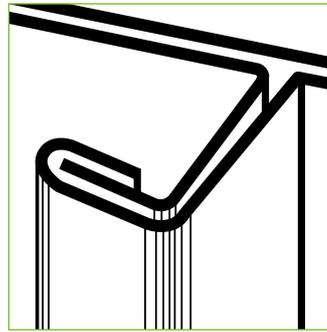


# Standing seam

## From roof to facade

This system has been developed from a typical zinc roofing product. It is also the most adaptable technique as it can be transformed on site.

The standing seam profile recalls the poetic universe of European cities and is based on the know-how of the craftsmen.



From its original function, standing seam has flowed down to clad the façade, wrapping the building in a continuous unifying envelope. The use of standing seam gives continuous joints from the roof to the façade while guaranteeing maximum watertightness. Of course, this technique can also be used for the facade only...

The low profile of its folds creates shadows along the length of the sheets. Single or double lock joints can be chosen to increase or decrease the shadow effects for both vertical and horizontal installations.

Its flexibility follows the most daring architectural shapes, straight or curved, radial or arched.

The style of its long sheets contributes to the modernity, lightness and regularity of the façade.

### Surface aspects:

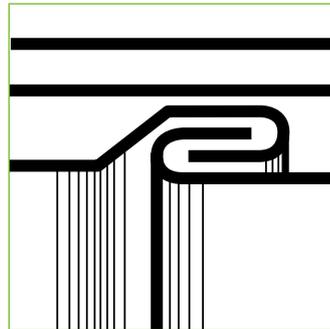
QUARTZ-ZINC®, ANTHRA-ZINC®,  
Natural VM ZINC®, also available in  
Bilacquered VM ZINC®

Architects:  
Pelleau et Michelot, France (above)  
Stanley Saitowitz, USA (top right)

# VM ZINC<sup>®</sup> flat lock panel

## Seamed cladding

This system is based on a traditional zinc cladding technique and uses industrially profiled zinc sheets which are attached to a continuous or spaced wooden support. The sides of the sheets are interconnected by overlapping with a recessed fold.



The Flat Lock system can be installed on flat and gently curved façades.

This installation method intensifies the metallic aspect of the zinc and brings out its vibrant architectural texture.

Natural VM ZINC<sup>®</sup> may be selected with this technique as it enhances the untreated surface aspect. QUARTZ-ZINC<sup>®</sup> can produce a softer, more uniform appearance. On large surface areas, the profiles will create an impression of movement.

The architect can also use an irregular layout and staggered joints for a variety of effects.

### Surface aspects:

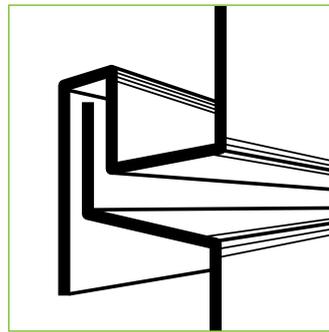
QUARTZ-ZINC<sup>®</sup>,  
Natural VM ZINC<sup>®</sup> (on request)

Architects:  
Safas, Italy (left)  
MBM Arquitectes, Spain (above right)

# VM ZINC<sup>®</sup> interlocking panel

An elegant facade

The VM ZINC<sup>®</sup> interlocking panel system, consisting of long, very flat strips with a marked recessed joint effect, is a traditional solution for framework-mounted cladding.



The strips are profiled in the workshop and are attached by interlocking with a grooved lip to give a recessed joint effect. They are attached to the wood or metal framework by hidden fixing clips on the inside edge of the grooved lip.

The pure lines of the smooth strips and the soft reflections of the zinc create structured, almost graphic aesthetics that emphasise the volume of the building.

## Surface aspects:

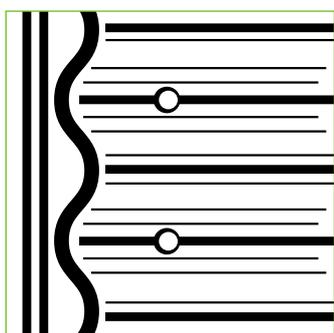
QUARTZ-ZINC<sup>®</sup>,  
ANTHRA-ZINC<sup>®</sup> (on request)

Architects:  
Cauris, France (left)  
Architekten Gössler, Germany (above right)

# VM ZINC<sup>®</sup> sine wave profile

## Rhythm in the facade

Produced by profiling and installed on a secondary wood or metal framework, the Sine Wave profile is also developed from a traditional cladding method. As is the duty of a noble product, zinc has reinvented and modernised this design.



The undulating adds vitality to flat walls; the clear light lines created by the play of light and shade give the façade a distinctive lightness.

Depending on the architect's inspiration, these rhythmic undulations can be installed horizontally or vertically with a choice of 3 wavelengths, providing the architect with the opportunity to juxtapose the shades and finish of the building.

### Surface aspects:

QUARTZ-ZINC<sup>®</sup>,  
ANTHRA-ZINC<sup>®</sup>

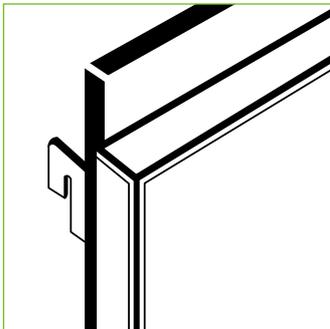


Architects:  
Arcau, France (left)  
Defol et Mousseigne, France (above)

# VM ZINC<sup>®</sup> cassettes

## A structured facade

The main innovation of these cassettes is that very large zinc elements can be installed while ensuring perfect overall flatness, thus creating a refined architecture. The fixing clips are invisible and the installation techniques are modern and meticulous.



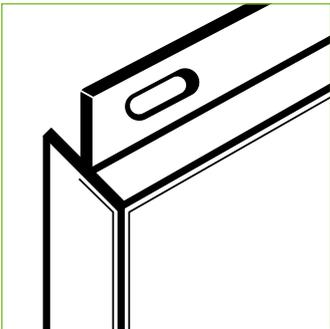
There are two versions of the VM ZINC<sup>®</sup> cassettes, both are supplied with an aluminium frame.

- The FPS system consists of zinc cassettes which are tailor made by bending. They are very flat and 1.5 mm thick.
- The HPS cassette, reinforced by a honeycomb core, is a very high performance system which guarantees impeccable flatness for large surface areas and excellent resistance to high wind loads.

In both cases these very flat cassettes with their pronounced joints bestow purity and perfection on an architectural project to reveal it in all its grandeur.

### Surface aspects:

QUARTZ-ZINC<sup>®</sup>,  
ANTHRA-ZINC<sup>®</sup> (on request)

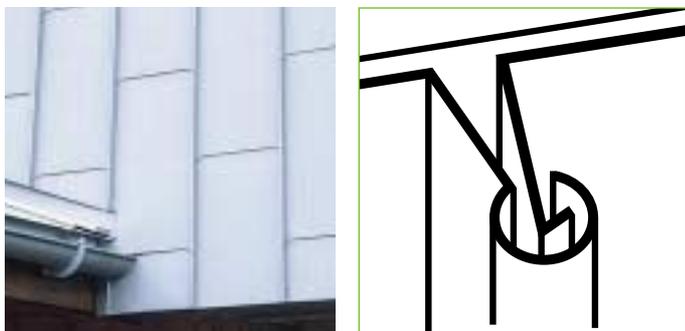


Architect:  
BK Concept, France

# DEXTER®

## A functional facade

Originally a roofing product with aesthetics close to those of standing seam, DEXTER® is a patented pre-formed ventilated cladding system in VM ZINC®. It can be used on flat façades in both new construction and renovation, and does not require extensive on site preparation.



Whether aligned or staggered, this exclusive assembly system does not require mechanical tools. The joints can be interlocked by manual pressure, simplifying the installation of zinc on façades.

The regularity of the elements is reminiscent of the wood shingles in the French Jura, giving the architecture a regional feel.

### Surface aspects:

QUARTZ-ZINC®,  
ANTHRA-ZINC® (on request)

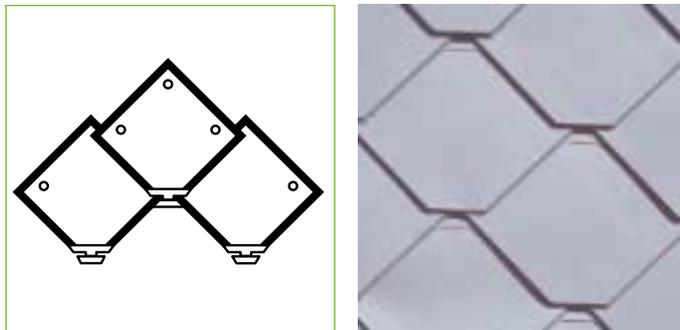


Architects:  
Jean-Philippe Thomas, Olivier Fassio,  
Jean-Brice Viaud, France (right)  
Design team : Batimex, France (above left)

# ADEKA®

## Facades and tradition

ADEKA® is a patented roofing and cladding system made up of small pre-formed elements in pre-weathered zinc. Quick and easy installation uses screws and built-in fixing lugs, providing excellent watertightness for façades exposed to bad weather, particularly gable ends. This second skin is especially suitable for severe climates and for private housing.



A range of matching accessories is available for special requirements.

With ADEKA®, VM ZINC® has brought right up to date the traditional aesthetics of small diamond-shaped shingles.

### Surface aspects:

QUARTZ-ZINC®,  
ANTHRA-ZINC® (on request)

Architects:  
Serrat Arquitectos, Spain

### The VM ZINC® teams: the zinc experts

VM ZINC® assists all its customers from design to installation. Thanks to the availability and expertise of VM ZINC® specifiers and technicians, you will be quickly convinced of the ability of zinc to combine technical performance, economic competitiveness and architectural value.

VM ZINC® offers the following services in particular:

The design assistance team is made up of architects, draftspersons and CAD technicians. They carry out feasibility studies, provide zinc specifications, layout drawings, detail drawings and working drawings; they also develop innovative concepts in line with architects' ideas.

On-site technical assistance is provided by a team of professional technicians who help contractors with building site start-ups on request, or provide ad hoc training in PRO-ZINC centres for contractors who are not used to installing zinc.

The sole purpose of this document is to describe the main technical characteristics of VM ZINC products manufactured by Umicore.

The specification and installation of these products are the sole responsibility of the architects and building professionals who must ensure these products are used in a way suited to the end purpose of the construction and that they are compatible with other products and techniques used.

The specification and installation of the products implies respecting the standards in force and the manufacturer's recommendations. In this regard, Umicore publishes and regularly updates specification and installation manuals for specific geographic areas and provides training courses. All the information on the latter can be obtained from the local VM ZINC team.

Umicore can not be held responsible for any specification or use of its products that has not respected all these standards, recommendations and practices.