Overlapping panel VM ZINC® 200

Guidelines for specification and installation

Installation video at www.vmzinc.co.uk & www.vmzinc.ie

- **Available in 2 standard lengths**
- **Fixed with nails**
- **Accessories for standard details**

This document applies exclusively to the specification and installation of the designated products or systems in United Kingdom and the Republic of Ireland.

A Umicore brand

VM ZINC® 200 overlapping panel

Introduction to the system

Areas of application

Vertical facades (90°). In the case of buildings higher than 30 metres, please contact our departments.

Dimensions of the elements:

Usable face width: 200 mm centre-to-centre.
Usable face length:
2 and 3 metres

Specifications of the technique:

The profiles are secured to the timber framework (a metal framework is also possible, please contact us) that is secured beforehand to vertical wooden battens with a maximum intermediate distance of 600 mm.
• Due to the vertical timber framework, a continuous ventilated air space exists behind the VM ZINC across the entire area of the facade.
• Ventilation air inlets are also provided at the top and at the bottom of the facade.
• An efficient rainscreen held in position on the vertical timbers by a piece of wood (50 mm wide and a minimum of 20 mm thick) that is secured in the same direction on the battens.

The insulating panels must be firmly secured to their supporting structure so that the insulation panels cannot move and thus block off the ventilation.

Supporting structure:

The overlapping panels are nailed in position on the battens. The battens (in red or white Norwegian pine) with a minimum width of 50 mm, must be installed vertically at a maximum distance of 600 mm from each other.
The wood protecting products (e.g. fungicidal, insecticidal products) must not adversely affect the VM ZINC® in any way.

Fixing the panels

Only nail into position using a pneumatic nail gun (nailing by hand is prohibited) and ring sharked stainless-steel nails that have a minimum length of 32 mm and a flat head with a diameter of 7 mm (Paslode type or equivalent).

A support is placed at each junction between a VM ZINC® 200 overlapping panel and a batten.
The timber batten is secured to the battens by one nail every metre.

Important:

- **Always wear safety goggles and protective gloves when cutting the overlapping panels. Nailing by hand is prohibited.**
- **Two persons are required to hold the elements in position during the nailing. The installation takes place from bottom to top.**
- **Cutting: circular saw with suitable speed and blades, or handsaw for cutting metal, or**
- **Snips for cutting zinc.**

Description

Overlapping panel
L = 2 of 3 m
5 items per package
ANTHRA-ZINC®:
L 2000: SAP: 220014696
L 3000: SAP: 220014697
QUARTZ-ZINC®:
L 2000: SAP: 220014694
L 3000: SAP: 220014695

Eaves apron strip
L =3,05 m
3 items per package
ANTHRA-ZINC®: SAP: 220014702
QUARTZ-ZINC®: SAP: 220014701

Standard verge profiles
L = 3 m
6 items per package
ANTHRA-ZINC®: SAP: 220015226
QUARTZ-ZINC®: SAP: 220015227

Corner profile
2 items per package
ANTHRA-ZINC®: SAP: 220014706
QUARTZ-ZINC®: SAP: 220014705

Closure piece
3 items per package
ANTHRA-ZINC®: SAP: 220014704
QUARTZ-ZINC®: SAP: 220014703

Junction piece between the panels
20 items per package
ANTHRA-ZINC®: SAP: 220014708
QUARTZ-ZINC®: SAP: 220014707

Additional information about the VM ZINC® 200 overlapping panel: at www.vmzinc.co.uk or www.vmzinc.ie

VM ZINC® 200 overlapping panel

Installation in 7 steps

1

Ensure that the eaves apron strip is perfectly horizontal, then nail it into position. These parts typically have a cut out at both ends. If you have to trim a eaves apron strip, you must do this before installing it.

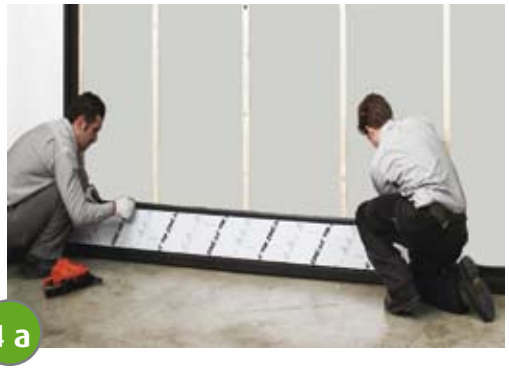
Tip: To obtain a perfect joint where the two eaves apron strips overlap, make an angled incision in the uppermost fold (where the panels are hooked onto each other) or the underlying eaves apron strip.

2

Nail the verge profiles (and the continuous eaves apron strip, in accordance with the technique used) into position.

3

Trim the panels 15 mm shorter than the length measured between the verge profiles.



4 a

Installation of the panels with continuous vertical connections: slide in at an angle and click the inside fold into the groove of the panel that has already been previously installed.

Installation video
www.vmzinc.co.uk
or www.vmzinc.ie

4 b

Installation of the elements with spring connections: install the first panel (start from the left, or from the right) and click the groove of the panel that has already been installed. Then slide in the connecting piece. Nail this panel into position. Then install the next panel by sliding it over the connecting piece, whilst allowing a clearance of 3 mm between each panel.
Caution: the panel junctions are always made beside a rafter.

Tip: The first row must be installed perfectly horizontal in order to attain an optimal finish and result.

5

Nail the overlapping panel in position: one nail per rafter.
Ensure that the panel is firmly secured in the middle between the verge profiles. Ensure that the panel is perfectly horizontal before it is nailed into position.

Tip: As the installation of the panels progresses, regularly check that the panels are horizontal and that the rows are straight.

6

The last element at the top is installed at the same time as the head closure piece.

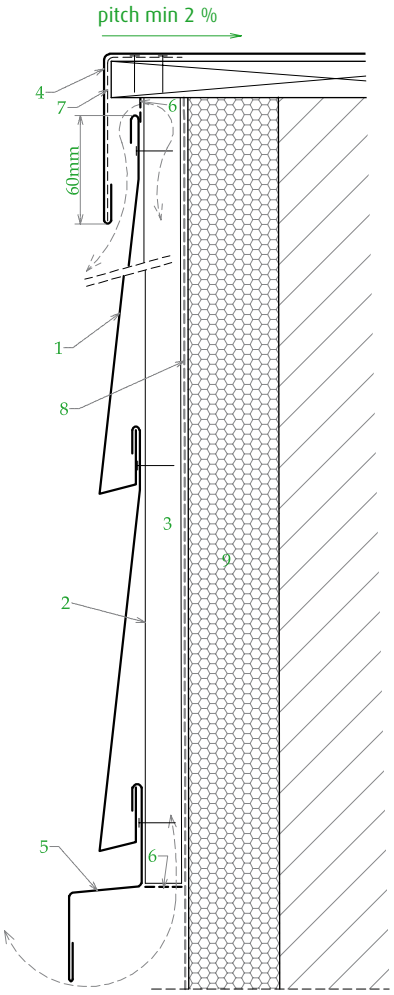
Place the VM ZINC® 200 overlapping panel in position (if necessary, trim to size at the top). Slide the head closure piece behind the panel and then secure the two parts together.

7

Use a piece of wood and a wooden hammer to hammer down the uppermost part of the strip.

VM ZINC® 200 overlapping panel

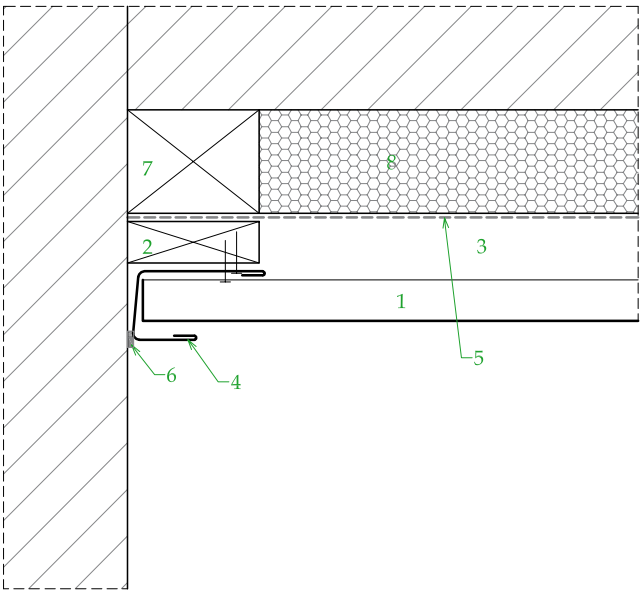
Base / top edge of facade



1. VM ZINC® 200 overlapping panel
2. Batten, 20 mm thick, 50 mm wide
3. Ventilated space
4. Capping piece in VM ZINC®
5. Standard eaves apron strip in VM ZINC®
6. Mesh (2mm max. weave)
7. Folded clip in VM ZINC® ,
   d = 1.3 mm, l = 250 mm, 2 per m
8. Breather membrane
9. Thermal insulation

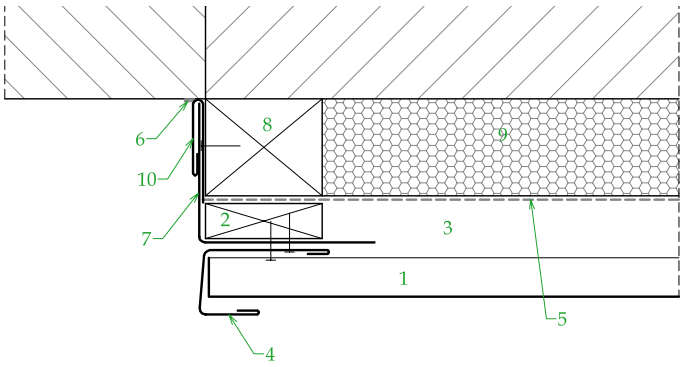
Only nail into position using a pneumatic nail gun (nailing by hand is prohibited) and ring shanked nails that have a minimum length of 32 mm and a flat head with a diameter of 7 mm (Paslode Hafte or equivalent).

Side edge connection against wall



1. VM ZINC® 200 overlapping panel
2. Batten, 20 mm thick, 50 mm wide
3. Ventilated space
4. Standard verge profile in VM ZINC®
5. Breather membrane
6. Flexible sealant, compatible with VM ZINC®
7. Rafter
8. Thermal insulation

Verge

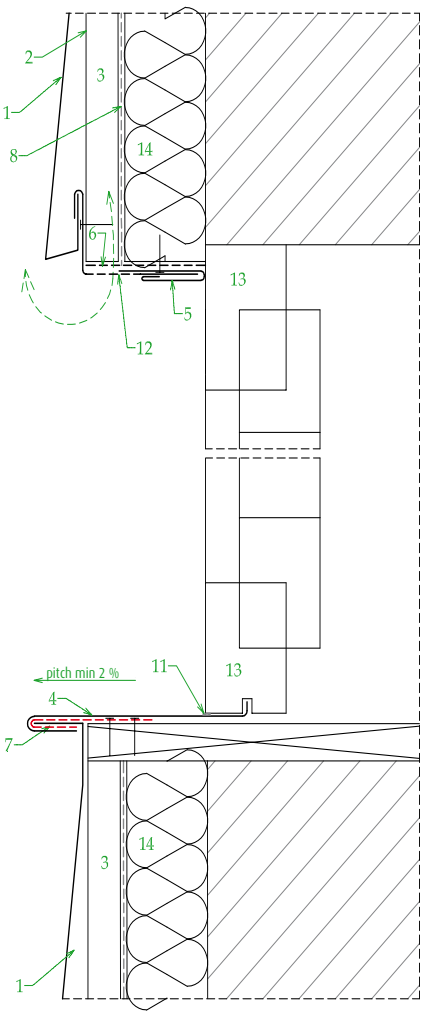


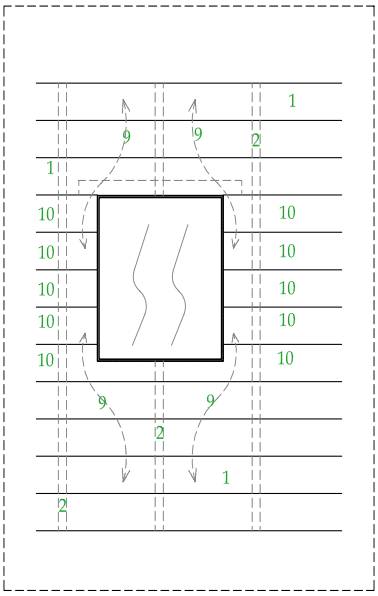
1. VM ZINC® 200 overlapping panel
2. Batten, 20 mm thick, 50 mm wide
3. Ventilated space
4. Standard verge profile in VM ZINC®
5. Breather membrane / rain screen
6. Flexible sealant, compatible with VM ZINC® (optional, according to weather conditions)
7. Standard corner profile in VM ZINC® (width depends on the thickness of the complex)
8. Rafter
9. Thermal insulation
10. Standard strip to be hammered down in VM ZINC®

VM ZINC® 200 overlapping panel

Window junction possibility 1:

If the Overlapping panel VM ZINC® 200 follows the line of the lintel

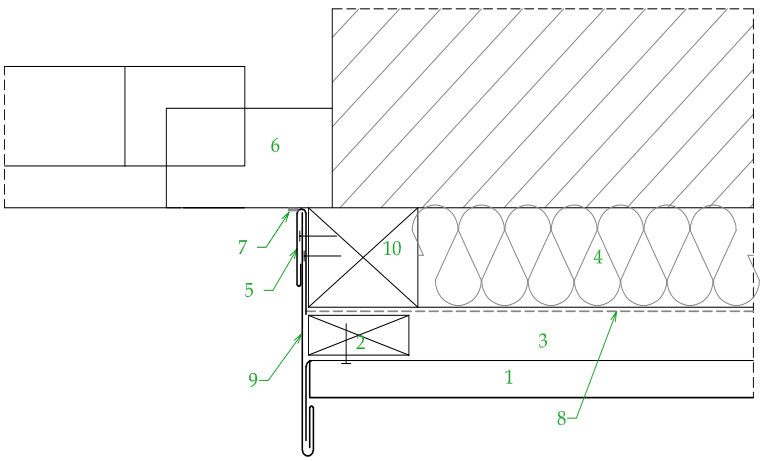




the span window is max. 1,5 m long

1. Overlapping panel VM ZINC® 200
2. Batten, 20 mm thick, 50 mm wide
3. Ventilated space
4. Sill in VM ZINC®
5. Closure piece in VM ZINC®
6. Mesh (2mm max. weave)
7. Folded clip in VM ZINC® th. = 1 mm, w = 250 mm, 2 per m
8. Breather membrane
9. Continuous ventilation
10. Overlapping panel VM ZINC® 200 (allow the lateral panels to pro trude by 50 mm on the side of the frame)
11. Flexible sealant, compatible with VM ZINC® (optional according to weather conditions)
12. Finish in VM ZINC with local ventilation openings
13. Window profile
14. Thermal insulation

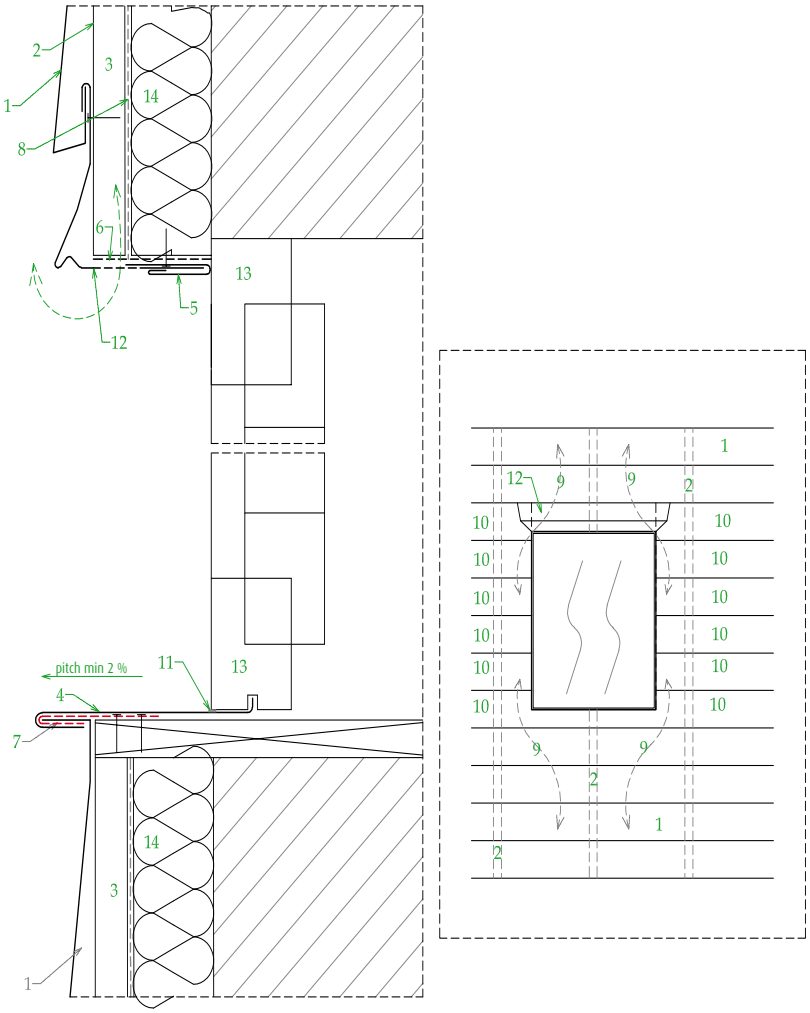
Only nail into position using a pneumatic nail gun (nailing by hand is prohibited) and ring shanked nails that have a minimum length of 32 mm and a flat head with a diameter of 7 mm (Paslode Hafte or equivalent).



1. Overlapping panel VM ZINC® 200 (allow the lateral panels to protrude by 50 mm on the side of the frame)
2. Batten, 20 mm thick, 50 mm wide
3. Ventilated space
4. Thermal insulation
5. Closure piece in VM ZINC®
6. Window profile
7. Flexible sealant, compatible with VM ZINC®
8. Breather membrane
9. Continuous finish in VM ZINC®
10. Rafter

Window junction possibility 2:

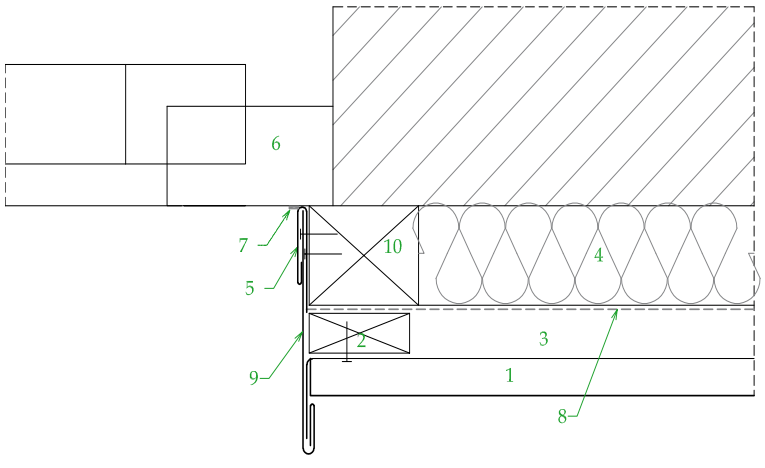
If the overlapping panel VM ZINC® 200 “doesn’t” follow the line of the lintel



the span window is max. 1,5 m long

1. Overlapping panel VM ZINC® 200
2. Batten, 20 mm thick, 50 mm wide
3. Ventilated space
4. Sill in VM ZINC®
5. Closure piece in VM ZINC®
6. Mesh (2mm max. weave)
7. Folded clip in VM ZINC® th. = 1 mm, w= 250 mm, 2 per m
8. Breather membrane
9. Continuous ventilation
10. Overlapping panel VM ZINC® 200 (allow the lateral panels to pro trude by 50 mm on the side of the frame)
11. Flexible sealant, compatible with VM ZINC® (optional according to weather conditions)
12. Finish in VM ZINC with local ventilation openings
13. Window profile
14. Thermal insulation

Only nail into position using a pneumatic nail gun (nailing by hand is prohibited) and ring shanked nails that have a minimum length of 32 mm and a flat head with a diameter of 7 mm (Paslode Hafte or equivalent).



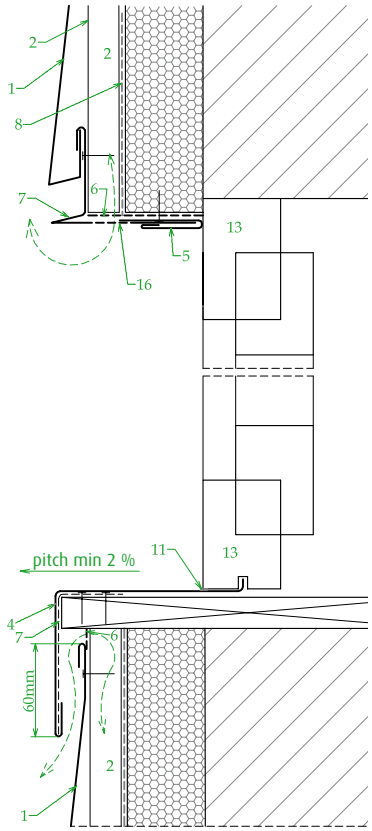
1. Overlapping panel VM ZINC® 200 (allow the lateral panels to protrude by 50 mm on the side of the frame)
2. Batten, 20 mm thick, 50 mm wide
3. Ventilated space
4. Thermal insulation
5. Closure piece in VM ZINC®
6. Window profile
7. Flexible sealant, compatible with VM ZINC®
8. Breather membrane
9. Continuous finish in VM ZINC®
10. Rafter

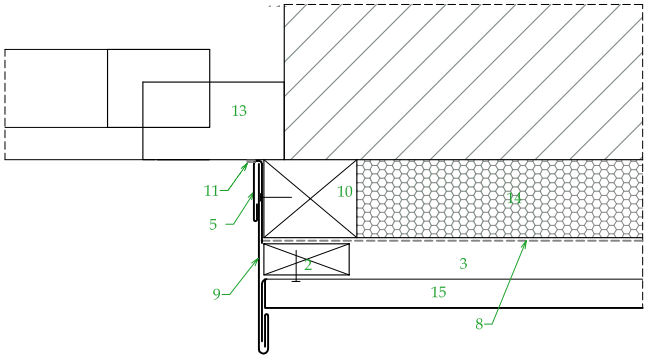
VM ZINC® 200 overlapping panel

Window junction possibility 2:

If the overlapping panel VM ZINC® 200 “doesn’t” follow the line of the lintel

Junction with windows (L max. 6 m)





1. VM ZINC® 200 overlapping panel
2. Batten, 20 mm thick, 50 mm wide
3. Ventilated space
4. Sill in VM ZINC®
5. Closure piece
6. Mesh (2mm max. weave)
7. Folded clip in VM ZINC® d = 1.3 mm, l = 250 mm, 2 per m
8. Breather membrane
9. continuous finish in VM ZINC®
10. Rafter
11. Flexible sealant, compatible with VM ZINC® (optional according to weather conditions)
12. Standard verge profile in VM ZINC®
13. Window profile
14. Thermal insulation
15. VM ZINC® 200 overlapping panel (allow the lateral panels to pro trude by 50 mm on the inside of the frame)
16. Finish in VM ZINC® with local ventilation openings

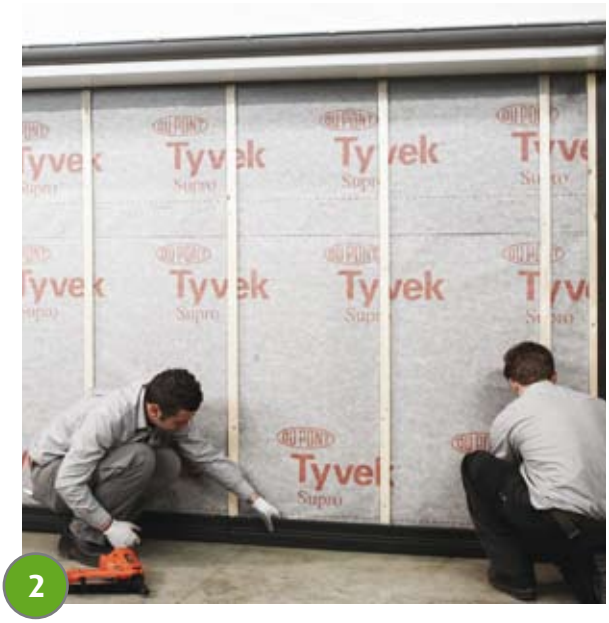
Arch. SPRL J. Andre - J. Windeshausen

More pictures: www.vmzinc.co.uk or www.vmzinc.ie

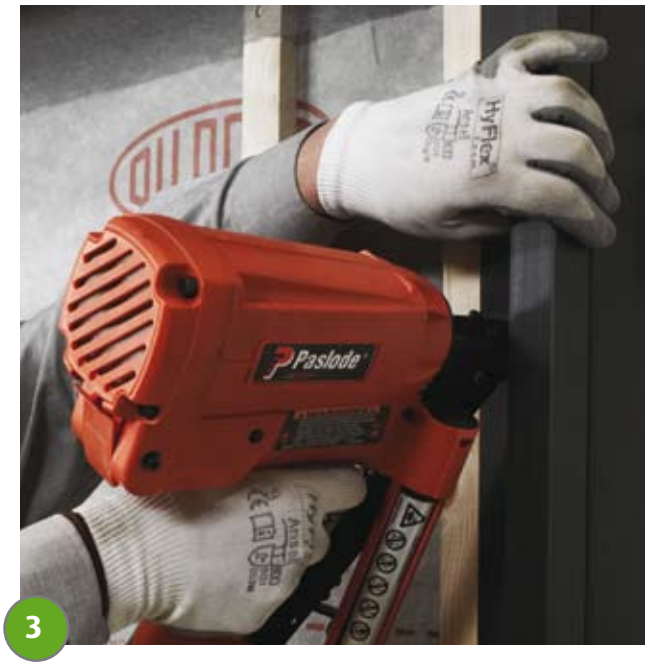
VM ZINC® 200 overlapping panel

Installing the corner profile

1



2



3

4

1 First of all, install and nail the corner profile into position.

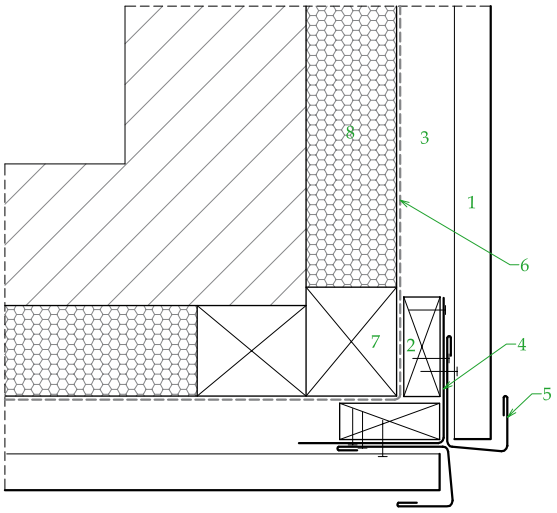
2 Installation of the eaves apron strips.

3 Install and nail the verge profiles (and according to the technique used, the vertical continuous joints).

4 Then install the panels as described in ‘Installation in 7 steps’.

Overlapping panel VM ZINC® 200

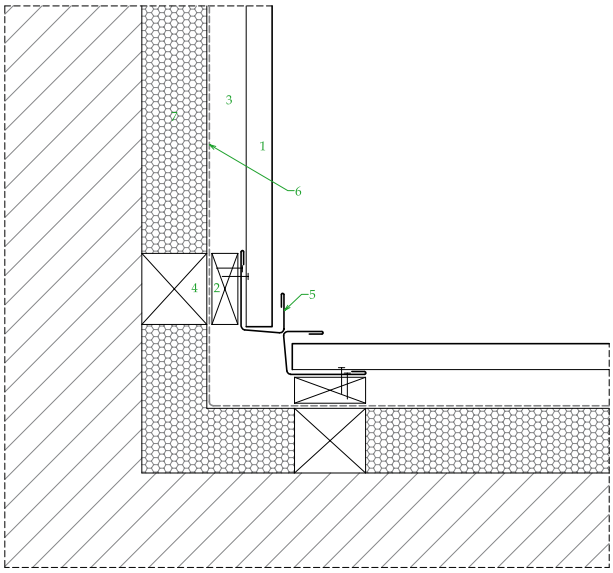
External corner



1. VM ZINC® 200 overlapping panel
2. Batten, 20 mm thick, 50 mm wide
3. Ventilated space
4. Standard corner profile in VM ZINC®
5. Standard verge profile in VM ZINC®
6. Breather membrane
7. Rafter
8. Thermal insulation

Only nail into position using a pneumatic nail gun (nailing by hand is prohibited), ring shanked nails, with a minimum length of 32 mm, a flat head, and 7 mm in diameter (Paslode Hafte or equivalent).

Internal corner



1. VM ZINC® 200 overlapping panel
2. Lath, 20 mm thick, 50 mm wide
3. Ventilated space
4. Rafter
5. Standard verge profile in VM ZINC®
6. Breather membrane / rain screen
7. Thermal insulation

Only nail into position using a pneumatic nail gun (nailing by hand is prohibited) and ring shanked nails that have a minimum length of 32 mm, a flat head, and a diameter of 7 mm (Paslode Hafte or equivalent).

VM ZINC® 200 overlapping panel

Ventilation of VM ZINC® used for facade cladding

Contact with the outside air provides the CO2 required to form the natural patina layer on the VM ZINC®. Without contact with the external air, VM ZINC® can, possibly with the presence of condensation water, undergo a chemical reaction.

This can result in aggressive corrosion that starts on the underside of the VM ZINC® and that will only be visible when the VM ZINC® is completely perforated. Ventilation on the underside of the VM ZINC® is absolutely vital for the durability and the service life.

Optimal ventilation is obtained when air is continuously enters the base of the façade and continuously exits the top edge of the facade. When ventilation is not feasible at the base and at the top edge, this is replaced by another system of ventilation that is integral in the facade.
These air openings are carefully distributed in order to ensure that the entire surface of the facade is ventilated.

A mesh (2mm max. weave) prevents the entry of wasps, birds, rodents, etc.

The minimum depth of the air layer is 20 mm. The total area of the air inlets (top & bottom) is 1/1,000th of the surface area of the cladding, with a minimum width of 10 mm in the case of continuous ventilation.
In general we advise planning a total area for ventilation at the top that is 1.5 times greater than at the base of the cladding.

The insulation is usually located under the ventilated space. The breather membrane must be high performance, the insulation panels must also be sufficiently rigid and well anchored to their structure to prevent them from moving and blocking the ventilation space. This membrane also prevents convection currents of (cold) outside air from entering the building.

Arch. sprl J. Andre - J. Windeshausen

Final tips:

▲ Remove the protective film from each VM ZINC® 200 overlapping panel as quickly as possible in one operation, and at the latest, thirty days after installation.

▲ QUARTZ-ZINC® and ANTHRA-ZINC® are natural materials: the panels must be stored and transported on pallets, underneath a tarpaulin, protected against adverse weather conditions and humidity in a ventilated environment. You can find more details about the methods of transportation, storage, and the other materials to avoid contact with, on our website.

Installation video
www.vmzinc.co.uk or www.vmzinc.ie

Subject
This document is intended for specifiers (building project architects and design teams) and users (companies responsible for installation on the building site) of the designated product or system. Its purpose is to provide the main information, text and diagrams, relating to specification and installation of the relevant product or system: presentation, area of applicability, description of the component parts, installation (including supporting structures), and finishes. Any use or specifications outside the area of use and/or the specifications contained in this manual requires specific consultation with the Umicore technical departments. This does not commit the latter to any responsibility with regard to the feasibility of the design or implementation of these projects.
Countries of application
This document applies exclusively to the specification and installation of the designated product or system on building sites in United Kingdom and the Republic of Ireland.
Qualifications and reference documents
We again reiterate that the specification of complete building systems for a specific project falls under the exclusive competence of the prime contractors for the building, who in particular, must ensure that the use of the prescribed products is in keeping with the constructive purpose of the WORKPIECE and that it can be combined with the other products and techniques used.
It is also explicitly stated that in order to use this installation guide appropriately, knowledge of the material VM ZINC® and the profession of roofer / zinc worker are prerequisites. When commencing the work, it is necessary to fully comply with all of the standards that are applicable in the country where the work will be performed. In this context, Umicore organizes training courses, reserved for professionals.
Responsibility
Unless otherwise agreed in writing by Umicore, the latter cannot be held responsible for any damage resulting from a specification or installation that does not respect all of Umicore's specifications and the above mentioned standards and practices.

VM ZINC® 200 overlapping panel

Additional details at www.vmzinc.co.uk or www.vmzinc.ie or contact our technical department.

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