

VMZ Shingles

Facade and roofing system made up of panels that interlock into each other on their sides on a wood support.

Specification and installation guide



Saint Mary of the Cross Mausoleum, Melbourne General Cemetery (Australia) - Harmer Architecture

VMZ Shingles



Shopping Center, Brussel (Belgium)
Architecte: Art & Build - Aspect: AZENGAR®

Benefits

Creativity:

A broad choice of forms, shingle sizes and surface aspects

Aesthetics:

Traditional or contemporary, installed using staggered raised joints or aligned joints with dimpling

Easy to install:

Pre-punched notches to stabilise fixing clips, protective film.

Applications

For roofs and facades, according to shingle models, for contemporary architectural projects traditional buildings or renovation of heritage buildings.

VMZ Shingles

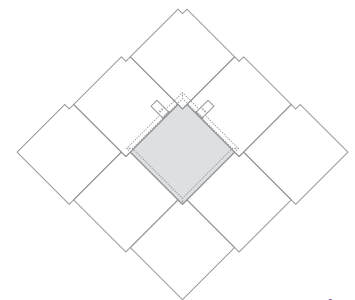
Components

VMZ Shingles

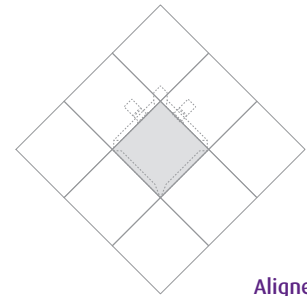
Surface aspects*	Natural zinc, QUARTZ-ZINC®, ANTHRA-ZINC®, PIGMENTO®, AZENGAR®, lacquered zinc Copper in different aspects
Zinc thickness	0.70 mm - 0.80 mm - 1 mm
Copper thickness	0.60 mm - 0.70 mm - 0.80 mm on request
Format of shingles	Square Rectangular Diamond Other shapes on request
Type of joints	Standard installation: Staggered or raised joints Option**: Aligned or flat joints

* to be validated according to project location

** on facade and underside only



Staggered joints



Aligned joints

Framework VMZ Shingles is installed on a continuous support, minimum thickness of timber is 15 mm. The complex must comply with local recommendations. For incompatible and/or non-ventilated support, VMZ Shingles can be manufactured using ZINC PLUS.



Raised joints**



Flat joints**

Fixing clips The shingles must be held in place with VMZINC stainless steel fixing clips. The clips are fixed to the timber support using screws or nails, 2 screws or nails per clip

- Screws 4 x 30 mm minimum with countersunk head
- Ribbed stainless steel nail, length 32 mm minimum, flat head Ø7 mm minimum.

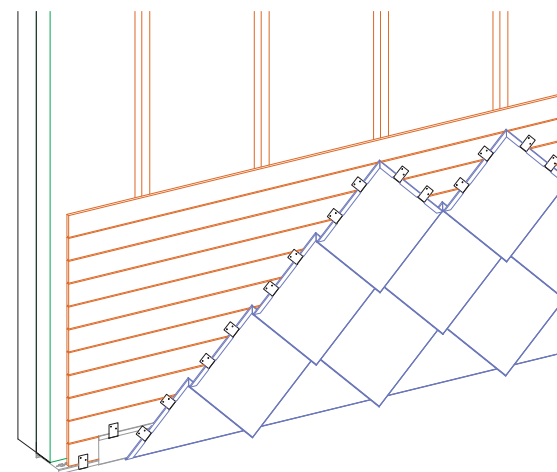


Fixing clip

Area of use

Authorised supports Installation on compatible timber support: decking.
Installation on incompatible timber support: plywood.

Applications Rectangular format: facade, soffit
Square and diamond format: facade, under-side and roof
Other formats: facade, soffit.



VMZ Shingles

Examples

Traditional or renovated projects



Texas dome (USA)
Aspect: copper



Pau (France)
Aspect: naturel zinc

Lons-le-Saulnier (France)
Aspect: naturel zinc

VMZ Shingles

Examples

Traditional or renovated projects



Arbor, Konstancin Jeziorna (Poland)
Architect: Mjetaloplastyka Stanisław Głusiński
Aspect: naturel zinc



VMZ Shingles

Examples

Contemporary projects



Gare Mittim, Wallisellen (Switzerland) - Architect: CH Architekten AG Volketswil
Aspects: QUARTZ-ZINC®, PIGMENTO® red, green, blue



University, Calgary (Canada) - Architect: Marshall
Tittlemore Architect - Aspect: ANTHRA-ZINC®



Private House, Hohenems
(Austria)
Architect:
Marc Hoffenscher
Aspect: AZENGAR®

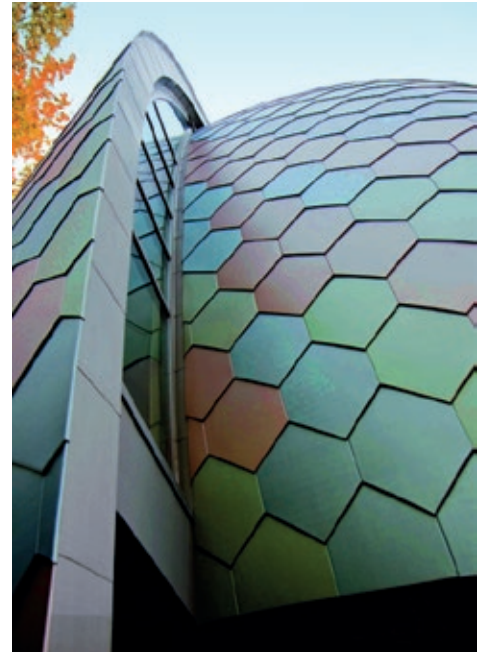
VMZ Shingles

Examples

Contemporary projects



Johnson County Criminalistics Laboratory Mission (USA) - Architect: PGAV Architects
Aspect: QUARTZ-ZINC®



Office extension, Hoboken (USA) - Architect: Justin Nardone & Dean Marchetto
Aspects: PIGMENTO® red, green, blue



Intercommunal library,
Bonneville (France)
Architect: Didier Onde
Architectures
Aspect: QUARTZ-ZINC®,
PIGMENTO® red, green,
blue, brown

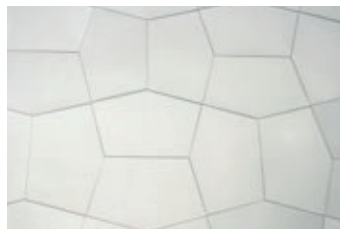
Description of the system

Shingles are a traditional product that have been manufactured since VMZINC was created. The range has been expanded over the years and today offers a number of formats and a variety of aesthetics. Square, rectangular, smooth or ornamental, in the form of diamonds or customised pieces, VMZINC shingles can be used in all types of projects.

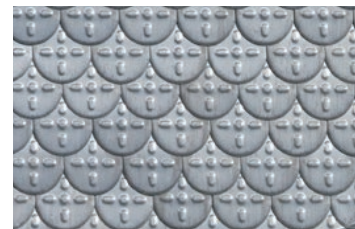
VMZ Shingles range



Standard shingles



Customised shingles



Ornamental shingles

Material VMZ Shingles are available in zinc and copper, materials that are

- Natural and noble
- Durable, thanks to their auto-protection (patina)
- Minimal maintenance
- Rot-proof
- Non-flammable
- Ecological.

Surface aspects VMZINC provides a broad choice of surface aspects in zinc (natural, preweathered or engraved), making it possible to harmoniously combine them with other natural materials such as wood, stone, slate and glass.

Options

- ZINC PLUS for installation on supports that are incompatible with zinc and/or not ventilated
- ZINC STRAT for projects in harsh atmospheric conditions in accordance with the areas of use established for each zone.



Natural zinc



Lacquered zinc



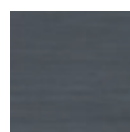
QUARTZ-ZINC®



ANTHRA-ZINC®



PIGMENTO®
red



PIGMENTO®
blue



PIGMENTO®
green



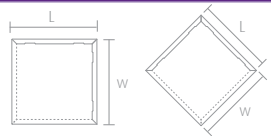
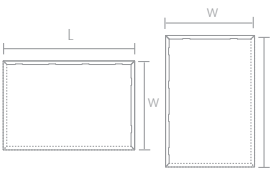
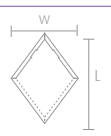
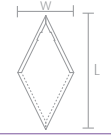
PIGMENTO®
brown



AZENGAR®

Description of the system

Standard formats Standard range: installed using staggered raised joints

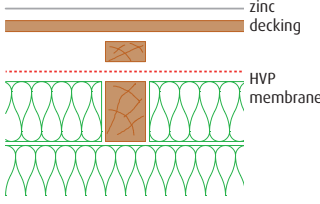
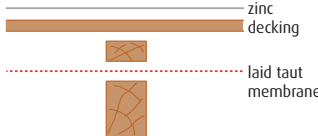
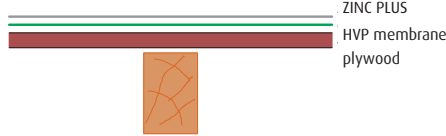
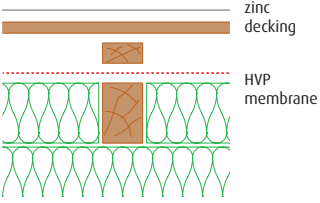
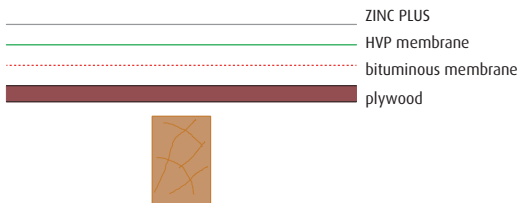
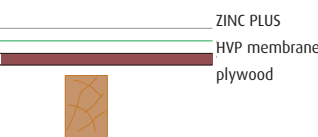
Format of Shingles		Visible width w (mm)	Visible length L (mm)	Number of clips per shingle	Number of pieces/m ²	Weight/m ² (thick. 0,70 mm) (kg)	Weight/m ² (thick. 0,80 mm) (kg)
Square		235	235	2	19	0.454	0.518
		420	420	4	6	1.260	1.440
		590	590	4	3	2.262	2.586
Rectangle		235	470	3	10	0.809	0.924
		235	940	4	5	1.520	1.737
		420	630	5	4	1.789	2.045
		420	840	6	3	2.318	2.650
		590	885	6	2	3.259	3.724
Wide diamond		274	215	2	33	0.311	0.356
		290	230	2	29	0.384	0.439
		432	336	2	14	0.716	0.818
Narrow diamond		371	193	2	27	0.443	0.506
		391	206	2	24	0.539	0.616
		585	301	2	11	1.027	1.173

Customised formats Installed using aligned/flat joints and customised dimensions: contact us.



Area of use

Roofing application

Non or sparsely exposed area			
	Slope < 30°	30° ≤ Slope ≤ 45°	Slope ≥ 60°
Compatible timber support, decking	No		
Plywood	No		
Highly exposed area			
Compatible timber support, decking	No		
Plywood	No		

HVP Membrane (high vapour permeability)

These high-tech membranes are extremely effective and are characterised by their high permeability. They are sufficiently watertight to prevent infiltration of water, but their specific texture facilitates evacuation of water vapour from the building. This makes it possible to install them directly on the insulation without any risk of condensation. A membrane is considered HVP when its Sd value ≤ 1 m.

Laid taut membrane

- Reinforced HVP membranes where there is no insulating support
- Reflective membranes: These products have breathing capacity and the ability, thanks to their aluminium (or aluminized) fronts, to reflect heat from the exterior and the interior.
- Bituminous membranes: made up of a fabric coated with bitumen, these membranes are characterised by their watertightness, as well as their high mechanical resistance. They are heavier than their counterparts, and provide better wind resistance and their non-slip surface is safer for installers.

Remark: support and position of vapour barrier and/or breathable membrane in compliance with local construction rules.

Area of use

Facade application

The geometry of the surface will be flat or curved.

Climatic constraints

Each zinc surface aspect can evolve differently over time according to the type of environment (coastal, high UV exposure, snow, etc.) and according to applications (roofing, facade).

The various VMZINC surface aspects are suitable for normal rural, urban and industrial atmospheres.

Use of certain surface aspects may not be suitable where environments are very harsh. If necessary, we recommend contacting VMZINC services for further information.

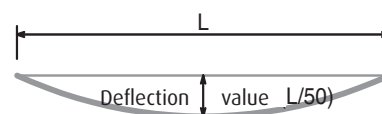
Performance tables

Space between fixing clips 320 mm maximum

The values below have been validated for projects located in France.

Failure value/2.65 in Pa

Length (mm)		≤ 600		601 to 900		901 to 1200	
Thickness (mm)		0.7	0.8	0.7	0.8	0.7	0.8
Width (mm)	≤ 600	1414	1810	1320	1689	1225	1568
	900	1320	1689	744	952	690	884



Deflection value 1/50th in Pa

Longueur (mm)		≤ 600		601 à 900		901 à 1200	
Thickness (mm)		0.7	0.8	0.7	0.8	0.7	0.8
Largeur (mm)	≤ 600	1040	1220	890	868	740	868
	900	890	1068	779	760	648	760

Reaction to fire

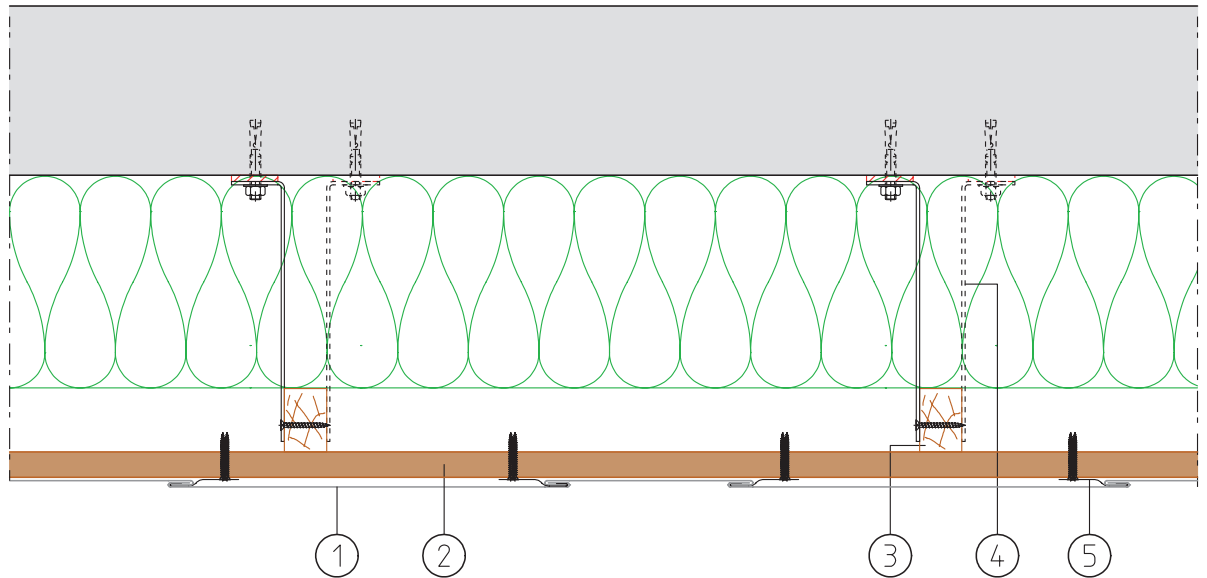
The cladding is classified A1 for Natural zinc, QUARTZ-ZINC®, ANTHRA-ZINC®, AZENGAR® and Copper, and A2 for PIGMENTO® and bilacquered.

Storage Recommendations

Store in a sheltered ventilated space with a non-humid floor. Stacking maximum 2 levels.

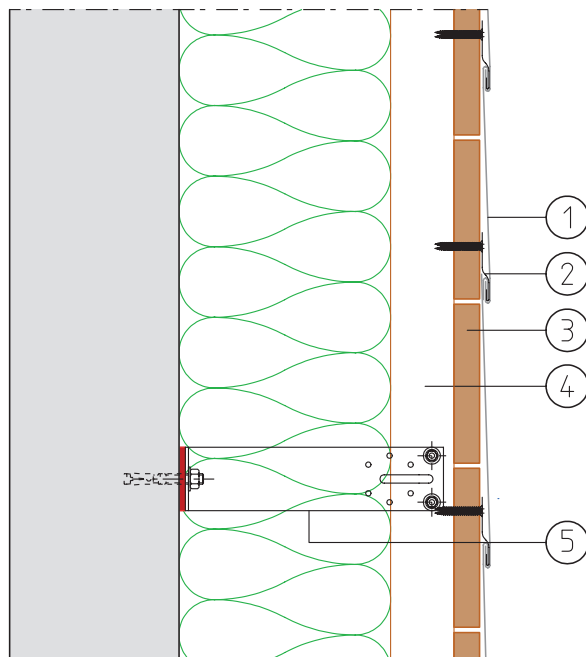
Installation

Horizontal section



- 1 VMZ Shingle
- 2 Decking
- 3 Subframe
- 4 Fixing bracket
- 5 Fixing clip

Vertical section

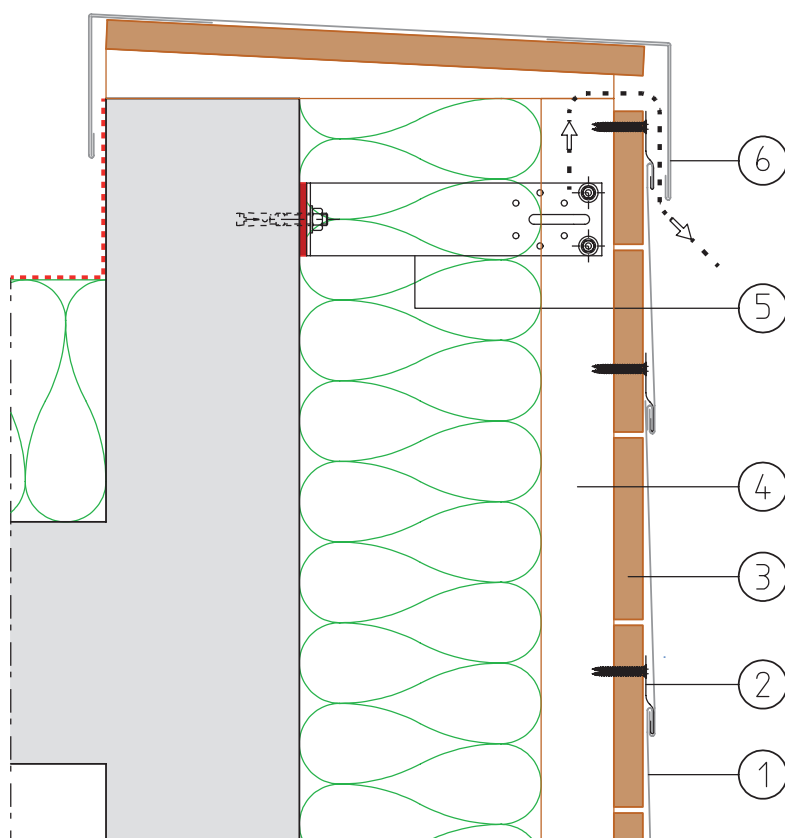


- 1 VMZ Shingle
- 2 Fixing clip
- 3 Decking
- 4 Subframe
- 5 Fixing bracket

Installation

Flashings

Roof parapet

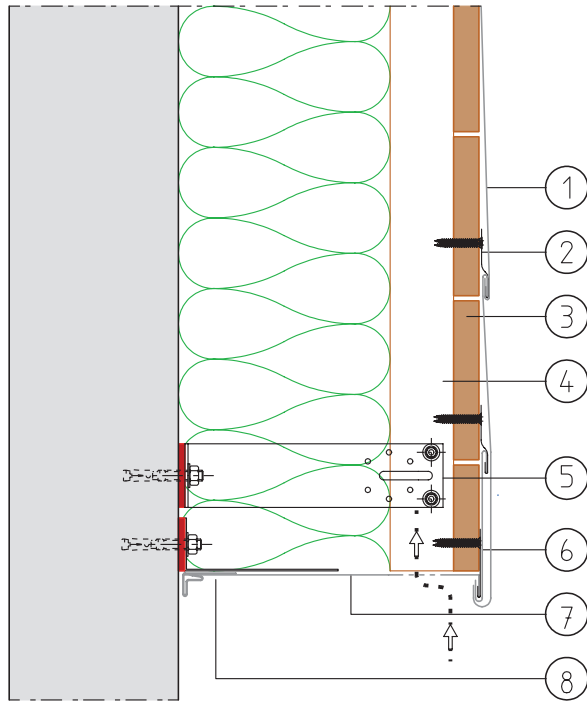


- 1 VMZ Shingle
- 2 Fixing clip
- 3 Decking
- 4 Subframe
- 5 Fixing bracket
- 6 Coping

Installation

Flashings

Base trim

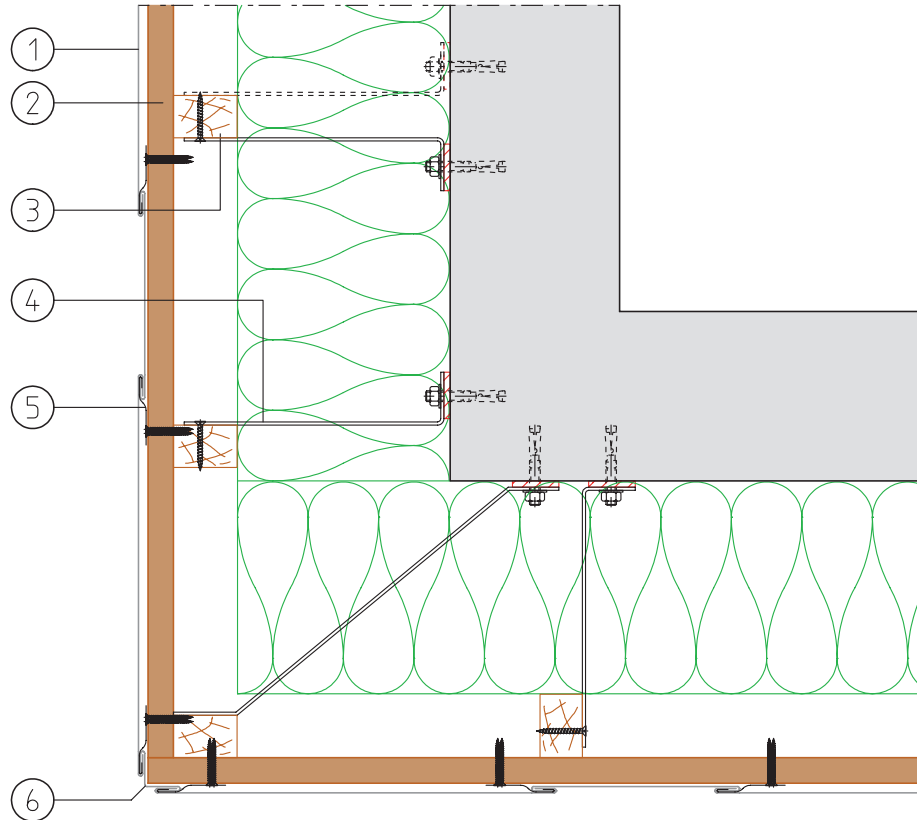


- 1 VMZ Shingle
- 2 Fixing clip
- 3 Decking
- 4 Subframe
- 5 Fixing bracket
- 6 Gutter strip
- 7 Perforated corner strip
- 8 Folded flashing strip

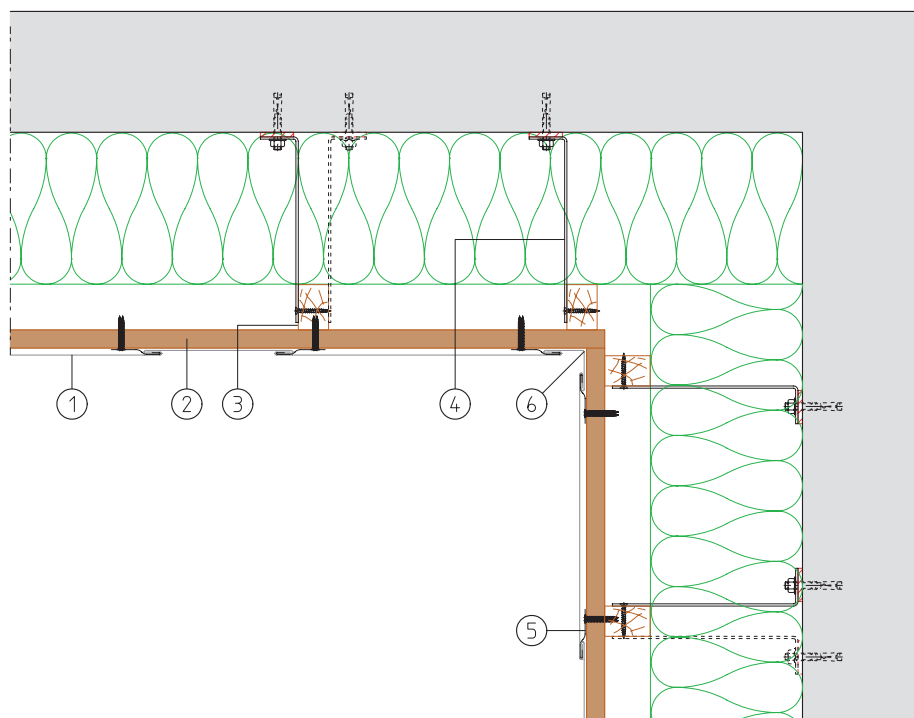
Installation

Corners

External corner



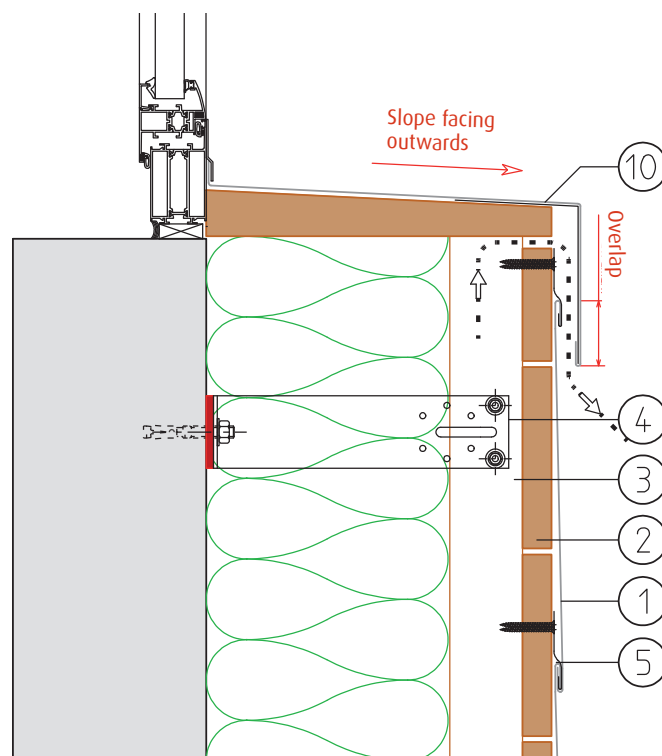
Internal corner



- 1 VMZ Shingle
- 2 Decking
- 3 Subframe
- 4 Fixing bracking
- 5 Fixing clip
- 6 Corner strip

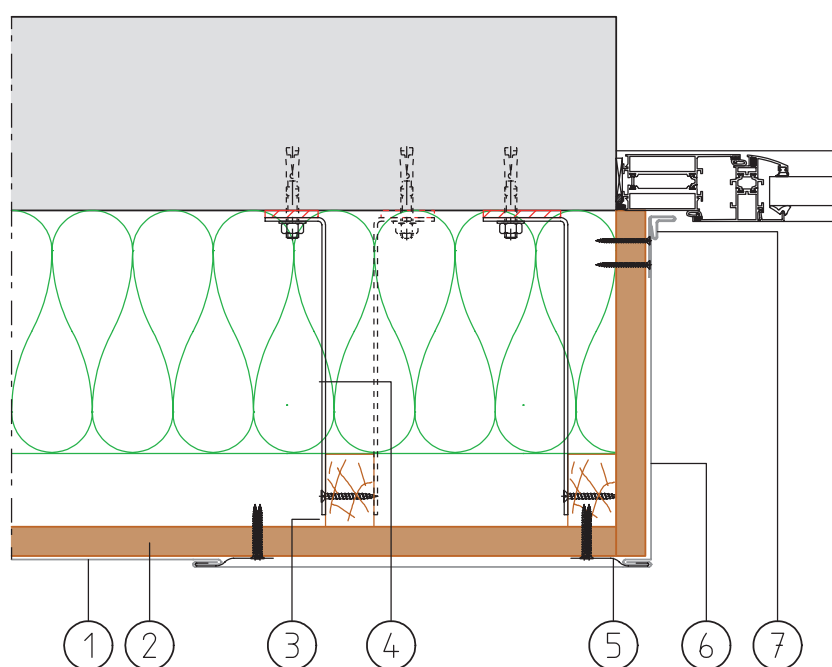
Installation

Window surround



Installation

Window surround



- 1 VMZ Shingle
- 2 Decking
- 3 Subframe
- 4 Fixing bracking
- 5 Fixing clip
- 6 Jamb
- 7 Folded flashing strip
- 8 Gutter strip
- 9 Perforated lintel
- 10 Window ledge

Supports comply with market recommendations; please consult recommendations on our website: www.vmzinc.fr

