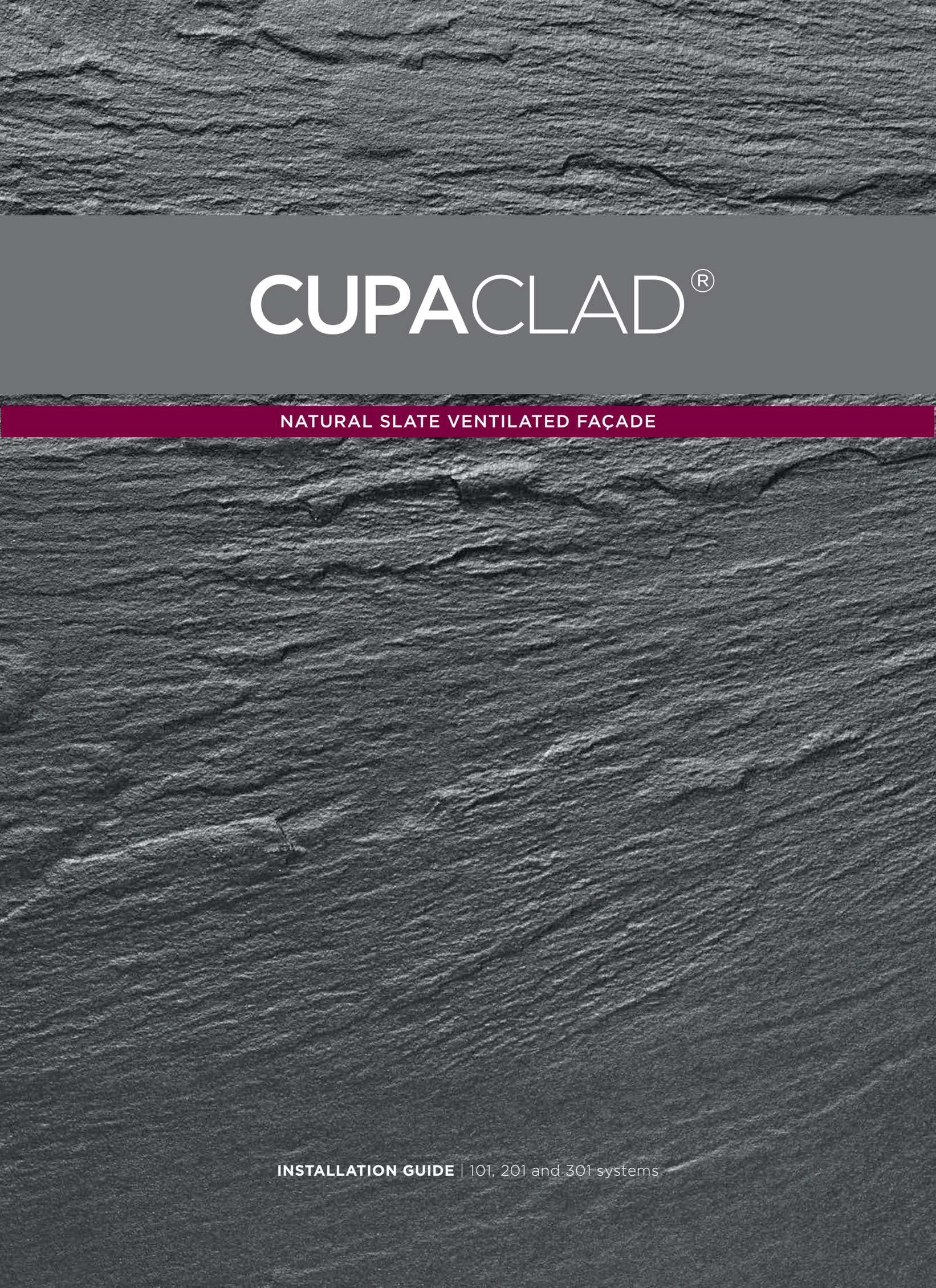


CUPACLAD®

NATURAL SLATE VENTILATED FAÇADE

INSTALLATION GUIDE | 101, 201 and 301 systems

INDEX

CUPACLAD®

CUPACLAD® is a group of ventilated façade systems CUPA natural slate. The natural slate chosen for the Cupaclad systems has been specially selected to meet the requirements of a façade cladding.

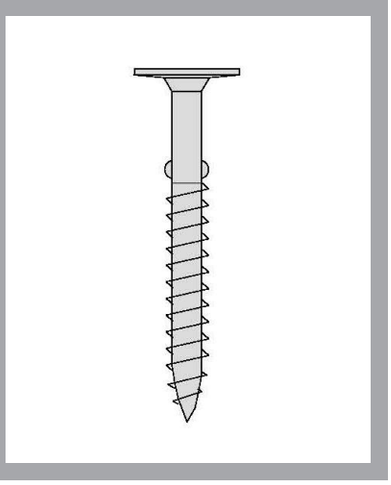
CUPACLAD® solutions are lightweight, easy to install and they help to create a modern building appearance. In new constructions and in renovation works, CUPACLAD® systems can be adapted to every architectural design.

CUPA natural slate is fixed on horizontal battens with different fixing elements. The horizontal battens are fixed over the vertical battens, which are mechanically fixed to the wall, allowing a ventilated cavity.

CUPACLAD® INCLUDES THREE DIFFERENT SYSTEMS, DEPENDING ON THE INSTALLATION PROCESS AND THE DESIRED APPEARANCE:

CUPACLAD® **101**

Invisible fixing system. The slate is installed horizontally and it´s fixed with two stainless steel screws. The heads of the screws are under the lap and remain invisible.

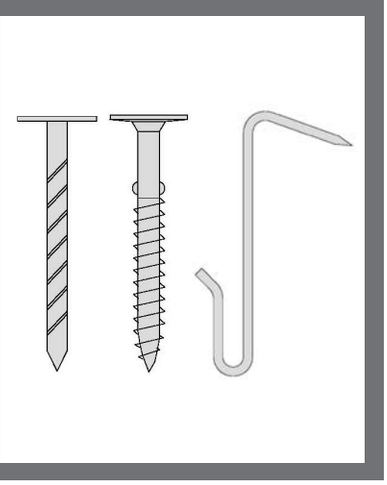


CUPACLAD® **201**

Visible fixing system. The slate is installed horizontally and it´s fixed with two stainless steel brackets. The outer part of the bracket at the bottom of every slate remains slightly visible.

CUPACLAD® **301**

Visible or invisible fixing system. The slate is installed according to the traditional way, with vertical orientation.



VENTILATED FAÇADE

The existence of an air cavity behind the cladding gives CUPACLAD® systems the advantages of a ventilated facade. The main advantages are related to the “chimney effect”, effect of continuous ventilation due to the temperature variation between the outside air and the air inside the cavity:

NO HUMIDITY

Reduction of condensation and humidity; and elimination of filtration of rainwater.

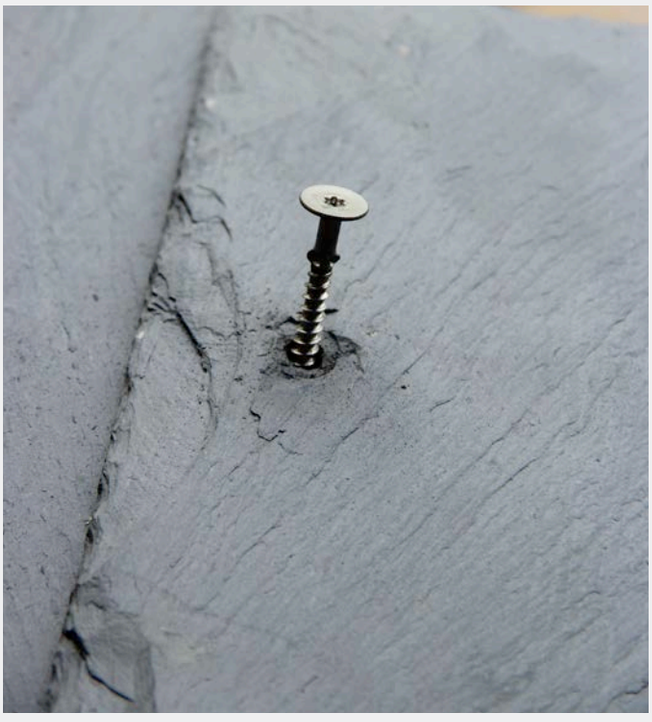
CUPACLAD® SYSTEMS **COMPONENTS**

1. CUPA natural slate for façade

Natural slate gives unparalleled aesthetics. This is an ecological, natural, and long lasting material, and maintains its technical properties over time.

CUPA natural slate for CUPACLAD® systems has a thickness between 5 mm and 8.5 mm depending on the instalation process, has a riven surface, and was specially selected for its technical features to provide the best guarantees for installation in façades.

It is recommended to increase by 5% the total amount of material to account for wastes due to corner cuts, windows or singular points.



2. Slate fixings

The slate can be fitted to the wooden structure using different kinds of fixings in stainless steel. It all depends on the selected CUPACLAD® system.

REDUCING STRUCTURAL MOVEMENTS

Reduction of structural movements and cracks in the building.

ENERGY SAVING

Energy saving and thermal comfort, thanks to the cooling of the building in summer, and the control of thermal dispersion in winter.

DURABILITY OF THE CLADDING

Increase the durability of the cladding.

3. Substructure

Vertical battens

The vertical battens must have the following minimum requirements:

+ A minimum treatment class 3 against biohazards according to EN 335-2, for dampness.

+ Mechanical classification class C 18 according to EN 18 338.

+ When fixing, the maximum wood moisture content must be below 20% (by weight).

Vertical battens must be secured to the supporting wall. The flatness deviation of the support must not exceed 5mm under the rule of 20cm or 10mm under the rule of 2m.

The vertical battens must have a minimum thickness of 25 mm, and a minimum width of 50 mm.

The maximum distance between vertical battens is 600mm.

Fixing of vertical battens

The type and spacing of fixings for vertical battens shall be defined in each project by a specialist, depending on the characteristics of the wall. In any case it is recommended that the distance between fixings should not exceed 1 m.

Horizontal battens

The horizontal battens must have the following minimum requirements:

+ A minimum treatment class 3 against biohazards according to EN 335-2, for dampness.

+ Mechanical classification class C 18 according to EN 18 338

+ When fixing, the maximum wood moisture content must be below 20% (by weight).

+ The battens used shall be free from defects likely to reduce their resistance (biological alterations caused by fungi and insects, localized defects such as knots, resin pockets, or general slopes above 12% over the geometric axis of the batten).

The vertical battens must have a minimum thickness of 38 mm, and a minimum width of 56 mm.

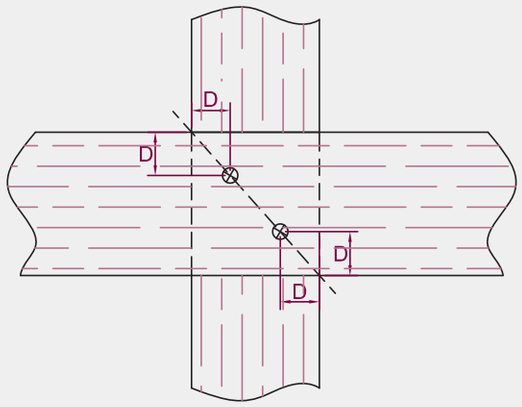
Fixing of horizontal battens

The horizontal battens are fixed to the vertical battens at each intersection. The fixing can be done either by nailing or screwing:

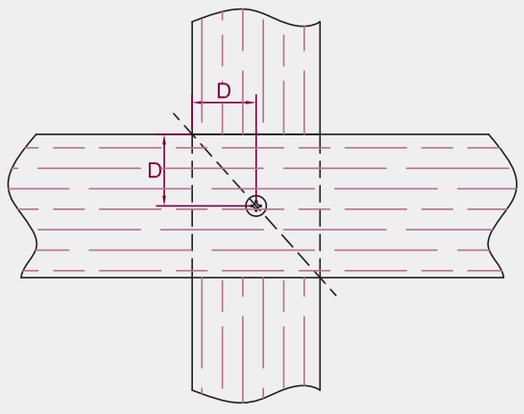
+ **Nailing** is done using two stainless steel nails which are fitted diagonally on the overlapped area formed by the battens. The distance between nails should be at least the specified in the following table.

+ **Screwing** is done using a stainless steel screw. The screw is normally fitted in the center of overlapped area formed by the battens.

Type of fixing	Distance D
SCREW	3 x screw ø
NAIL	5 x screw ø



FIXING WITH NAILS



FIXING WITH SCREW

The joining of two consecutive horizontal battens must meet the following:

+ Each end of the horizontal battens should have its own fixing to the vertical batten.;

+ Leave a gap of 3 mm between them.

4. Air cavity

It is mandatory to have an air gap behind the slate. To get the air cavity perfectly ventilated, the following requirements must be met:

+ The gap must be no less than 2cm deep.

+ Must allow enough space for the ventilation in and out. The surface of the ventilation holes at the top and bottom of the façade (expressed in cm per lineal meter of façade) must be at least:

Height of the building (m)	Minimal surface of ventilation (cm^2/ml)
≤ 3m	50
from 3 to 6m	65
from 6 to 10m	80
from 10 to 18m	100
from 18 to 24m	115

At the base of the façade, the gap is protected by a ventilation grill.

5. Waterproof membrane

A waterproof membrane must be fitted over the supporting wall (only for timber houses). Make sure that the membrane does not cause any issues with the ventilation of the air cavity once is fitted.

6. Flashings

Flashings can be made of galvanized steel, aluminum or zinc, and are designed to give a solution for corners, window frames...

7. Supporting Wall

The supporting wall must ensure the stability of the building.

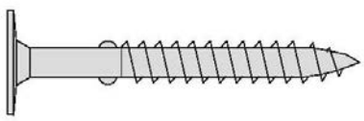
The wall must be sufficiently stable to support the weight of the cladding and the wind loads transmitted through the substructure.

CUPACLAD® systems can adapt to almost any constructive solutions (type of wall, location of the insulation material...)

CUPACLAD® 101

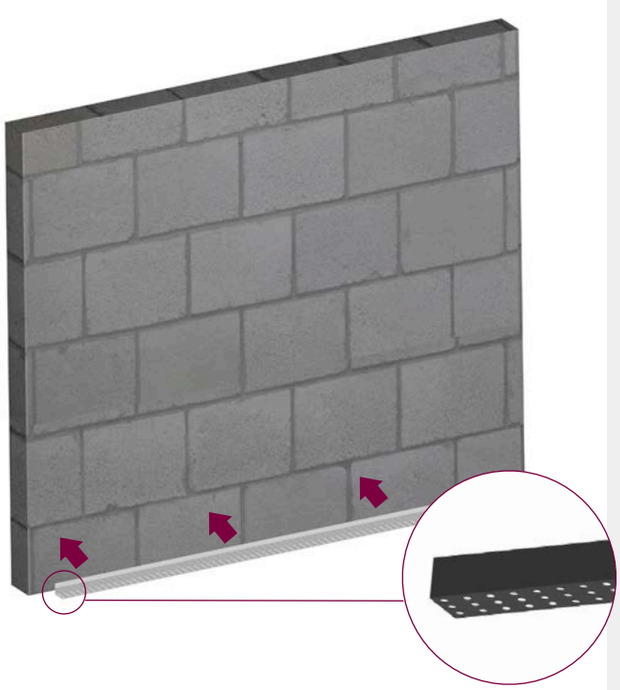
SLATE **FIXINGS**

CUPACLAD® 101 has invisible fixings. Two special CUPACLAD® 101 screws in stainless steel are used to fit every slate to the horizontal battens.



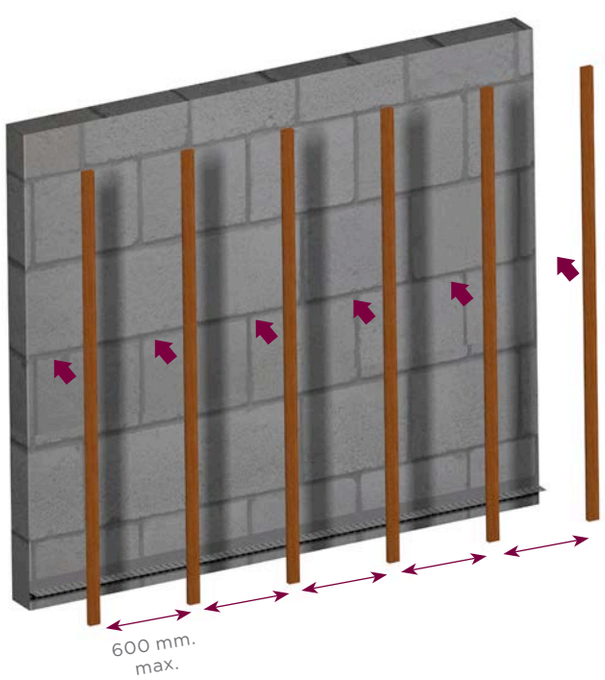
INSTALLATION STEPS

1 FIXING THE FLASHINGS

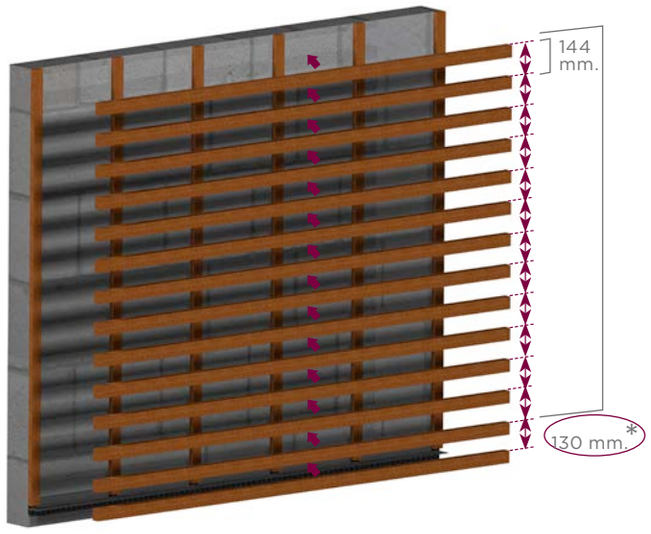


Installing a ventilation grill at the bottom of the façade, and the regular flashings for window frames, corners...

2 FITTING OF THE VERTICAL BATTENS

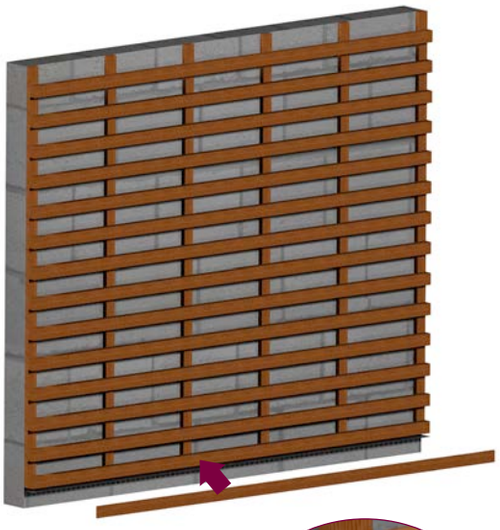


3 FITTING OF THE HORIZONTAL BATTENS



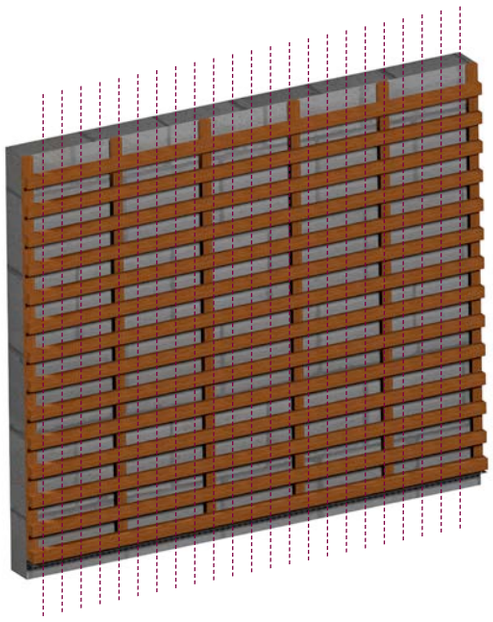
* PLEASE note the different gap between horizontal battens at the bottom of the façade

4 FITTING AN ADDITIONAL HORIZONTAL BATTEN* AT THE BOTTOM OF THE FAÇADE



* The additional horizontal batten must have a thickness of 10mm.

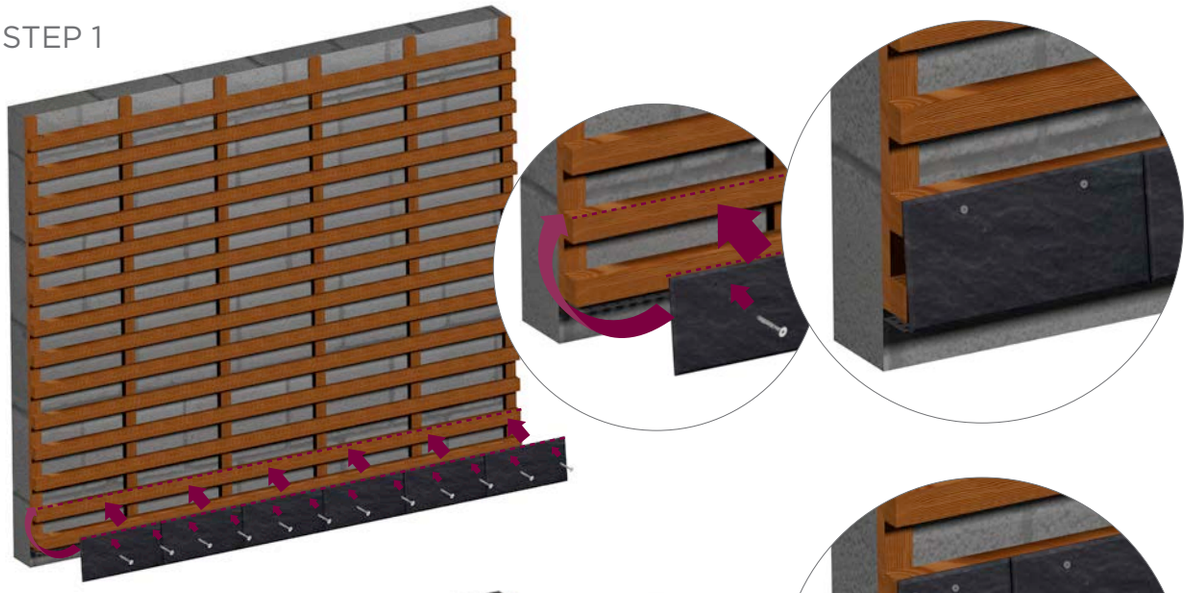
5 CHALK MARKS



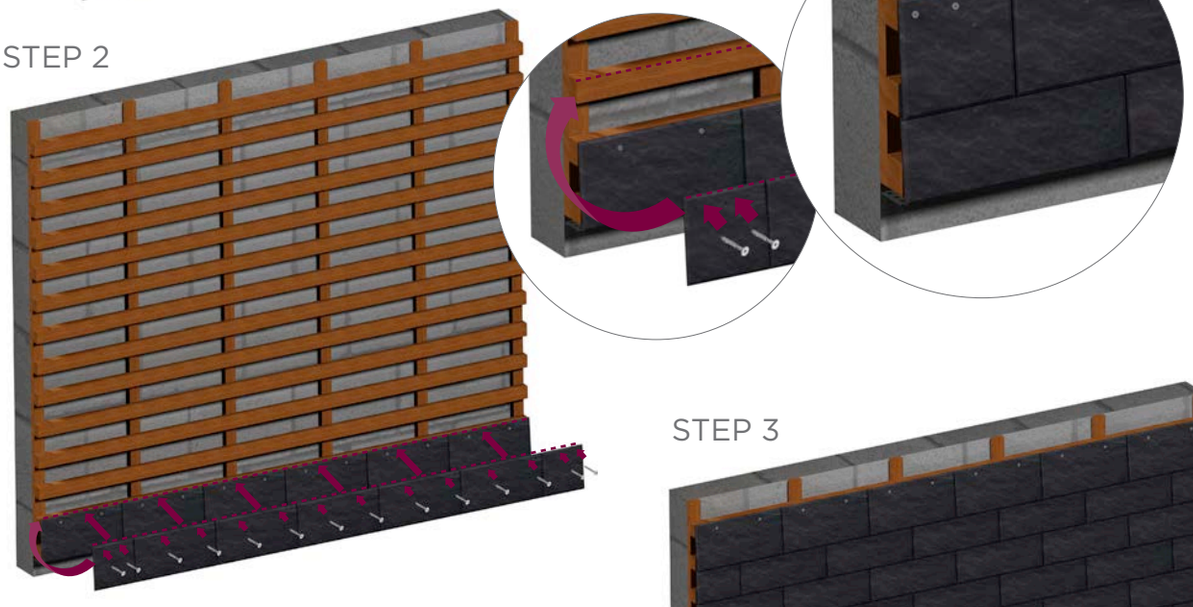
Make chalk marks for the vertical installation guidelines. We advise to mark at least the vertical joints for every three slates.

6 FIXING THE SLATES WITH THE SPECIAL CUPACLAD® 101 SCREWS IN STAINLESS STEEL.

STEP 1



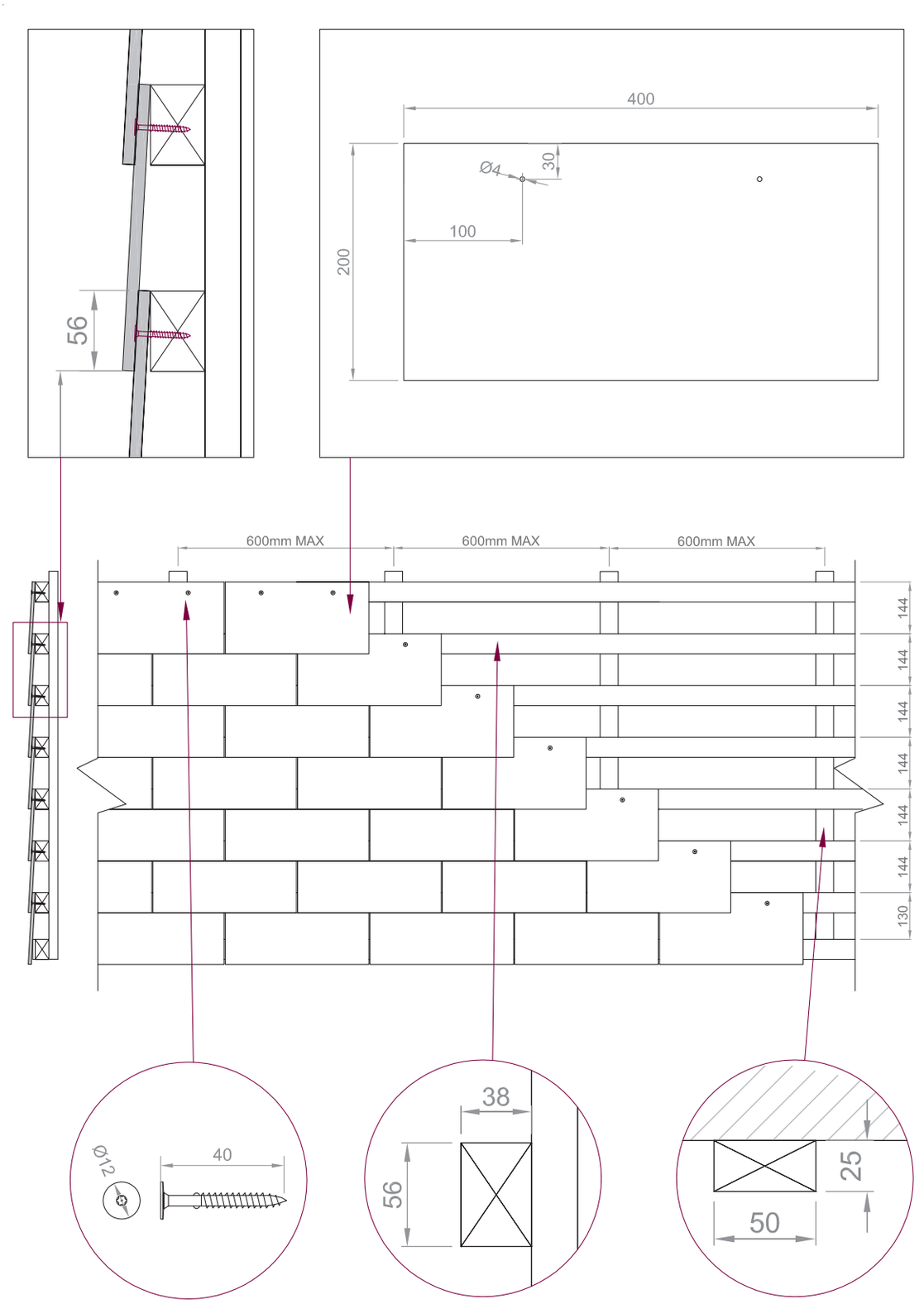
STEP 2



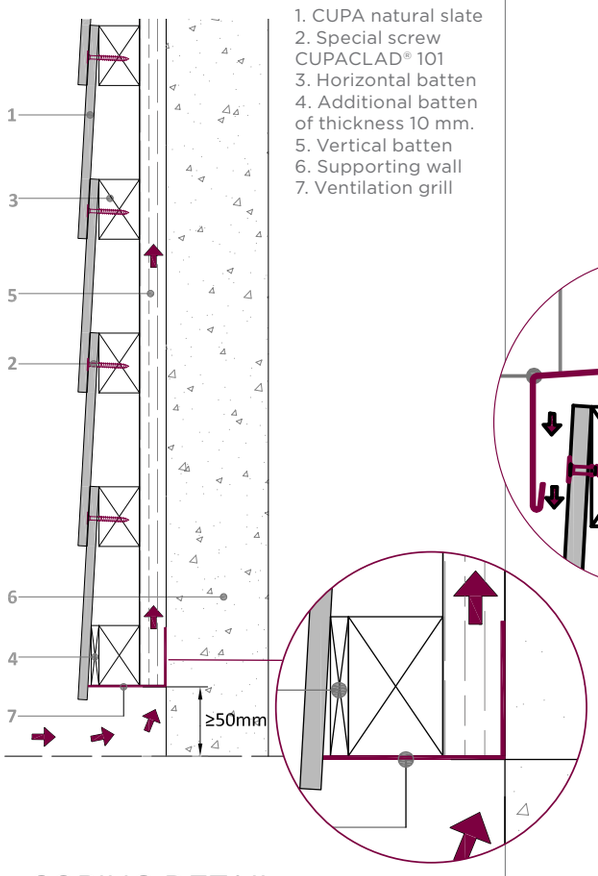
STEP 3

TECHNICAL DRAWINGS CUPACLAD® 101

SYSTEM DETAILS

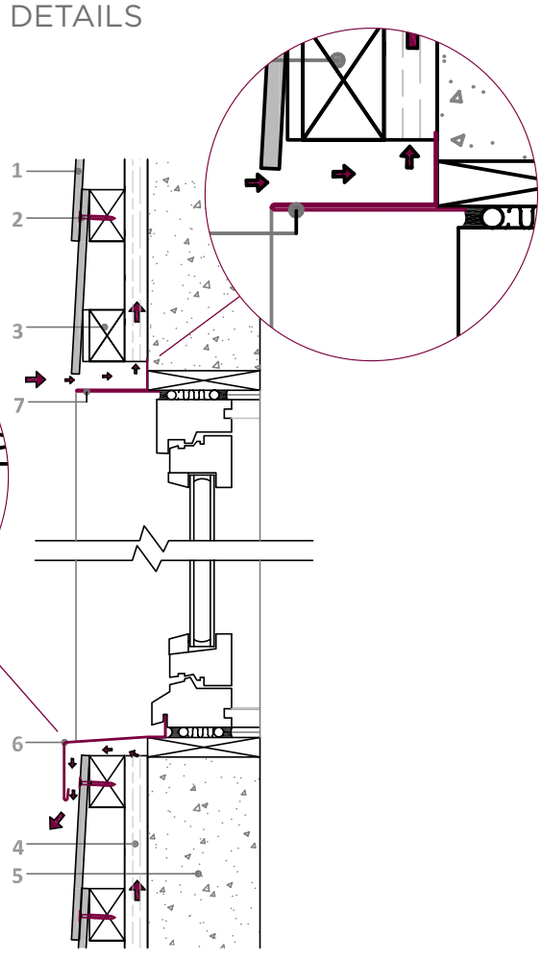


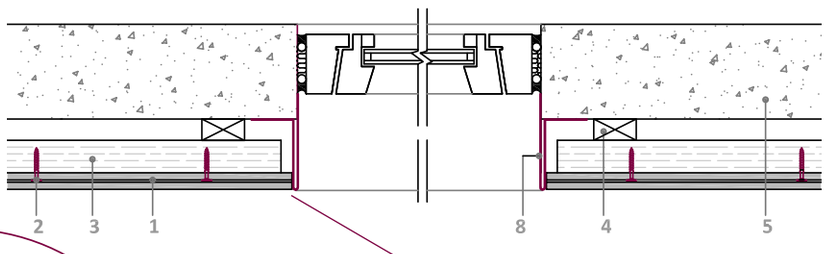
BASE DETAIL



1. CUPA natural slate
2. Special screw CUPACLAD® 101
3. Horizontal batten
4. Additional batten of thickness 10 mm.
5. Vertical batten
6. Supporting wall
7. Ventilation grill

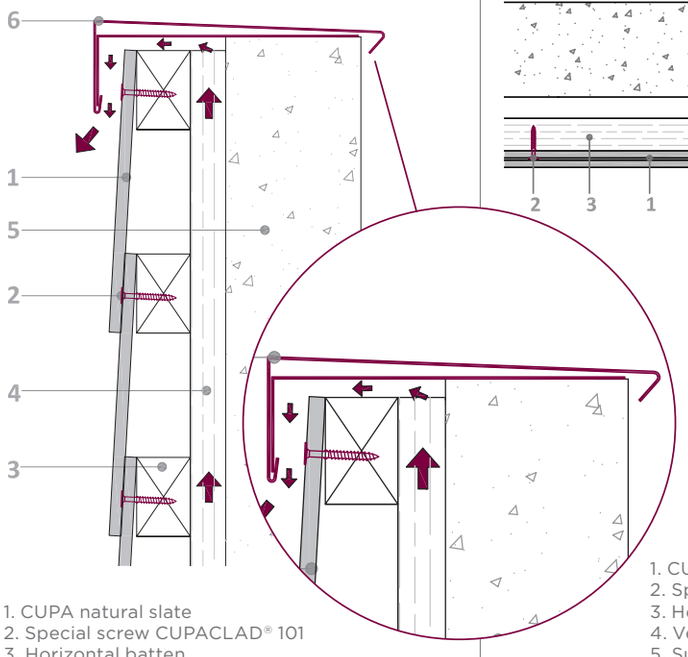
WINDOW FRAME DETAILS





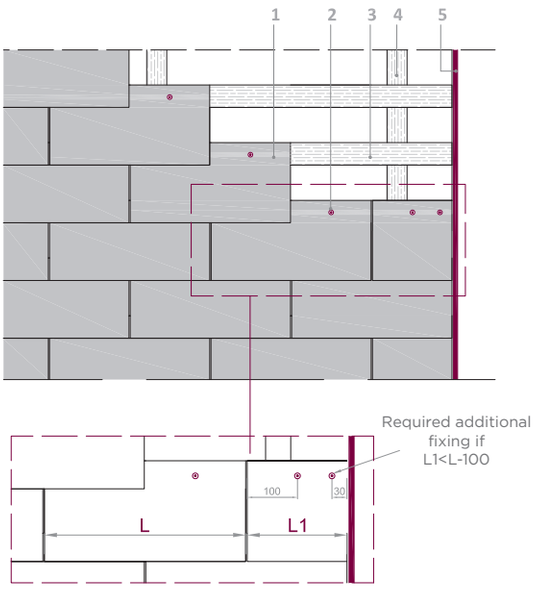
1. CUPA natural slate
2. Special screw CUPACLAD® 101
3. Horizontal batten
4. Vertical batten
5. Supporting wall
6. Sill flashing
7. Lintel flashing
8. Jamb flashing

COPING DETAIL



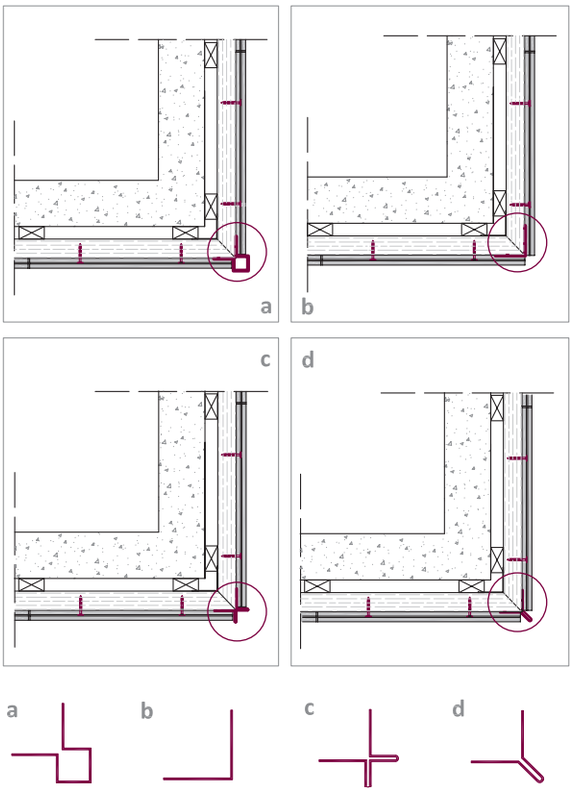
1. CUPA natural slate
2. Special screw CUPACLAD® 101
3. Horizontal batten
4. Vertical batten
5. Supporting wall
6. Coping flashing

LATERAL FINISH DETAIL

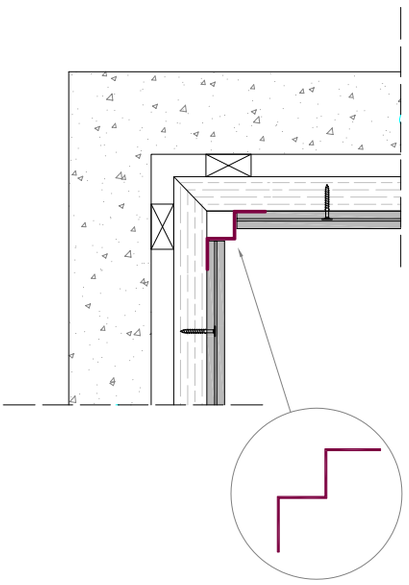


1. CUPA natural slate
2. Special screw CUPACLAD® 101
3. Horizontal batten
4. Vertical batten
5. Lateral flashings

EXTERNAL CORNER DETAIL



INTERNAL CORNER DETAIL



CUPACLAD® 101	
Slate dimension	40x20 cm
Thickness	7,5 (325%) mm
Color	Blue-black
Overlap	5,6 cm
Exposure	40 x 14,4 cm
Horizontal battens. Distance top edge/ top edge	14,4 cm
No. slates /m²	17,4
Weight/m² (slate)	30 Kg/m² approx.
Weight per pallet	1500 kg approx.
Type of fixings	Screw
No. fixings /slate	2 screws/slate
Fixings material	Stainless steel

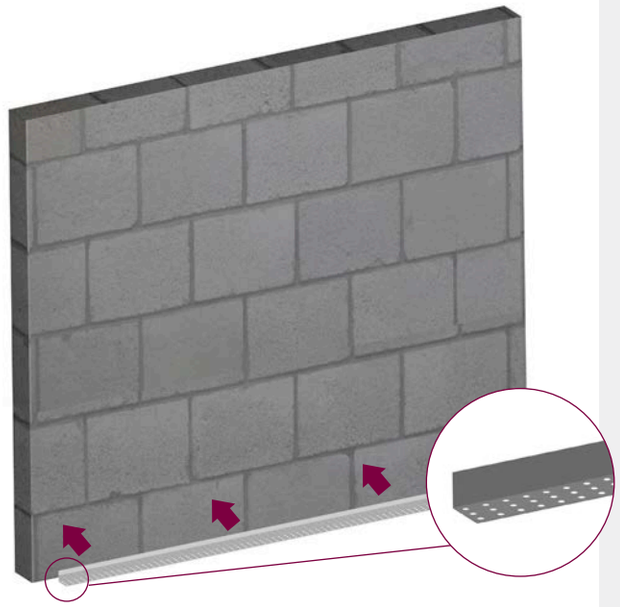
CUPACLAD® 201

SLATE **FIXINGS**

CUPACLAD® 201 has visible fixings. It is required to use two special CUPACLAD® 201 brackets in stainless steel to fit every slate to the horizontal battens. The brackets can have both metal and lacquered finish.

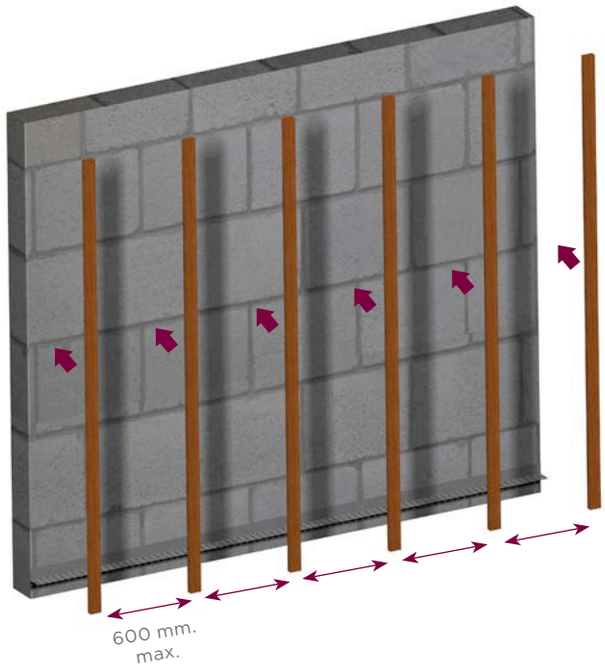
INSTALLATION STEPS

1 FIXING THE FLASHINGS

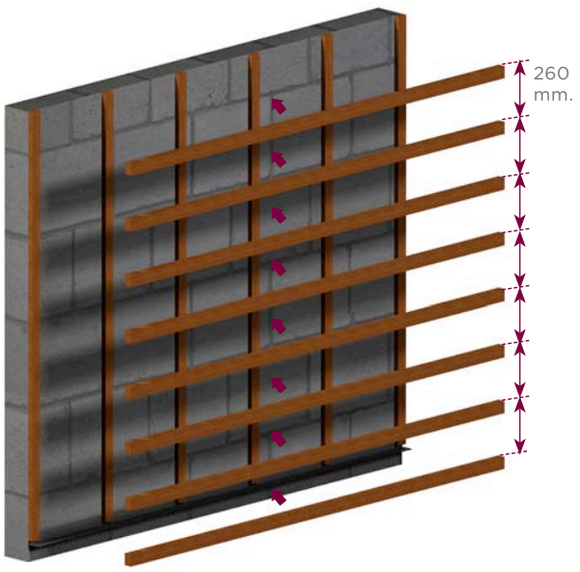


Fixing a ventilation grill at the bottom of the façade, and the regular flashings for window frames, corners...

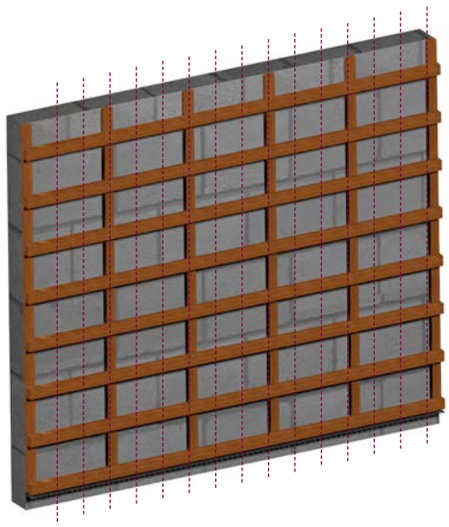
2 FIXING OF THE VERTICAL BATTENS



3 FIXING OF THE HORIZONTAL BATTENS

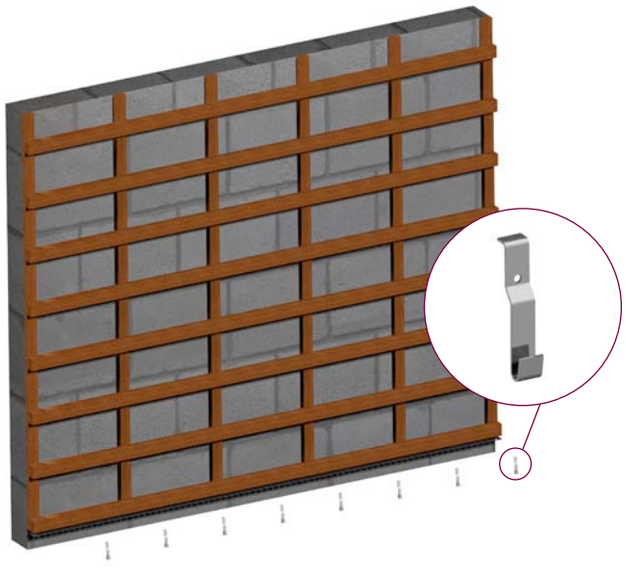


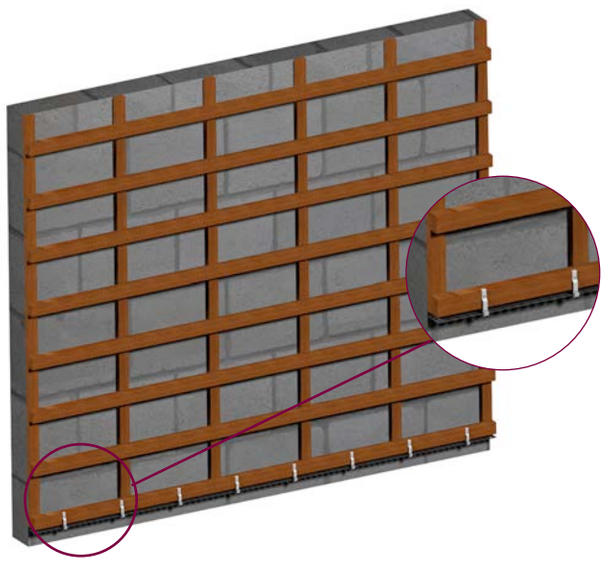
4 CHALK MARKS



Make chalk marks for the vertical installation guidelines. We advise to mark at least the vertical joints for every three slates, as well as the position of the brackets.

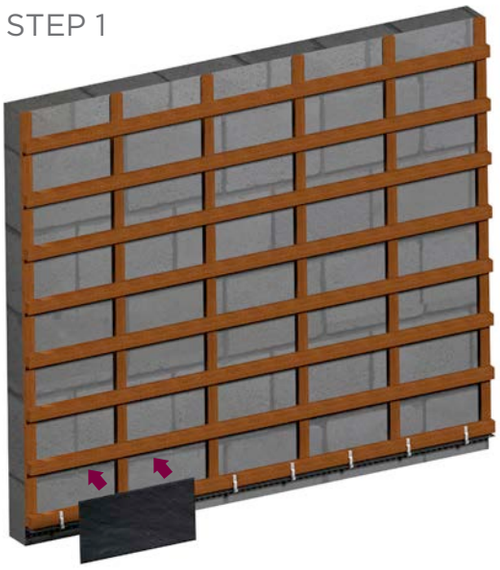
5 POSITIONING AND FIXING THE STAINLESS STEEL BRACKETS

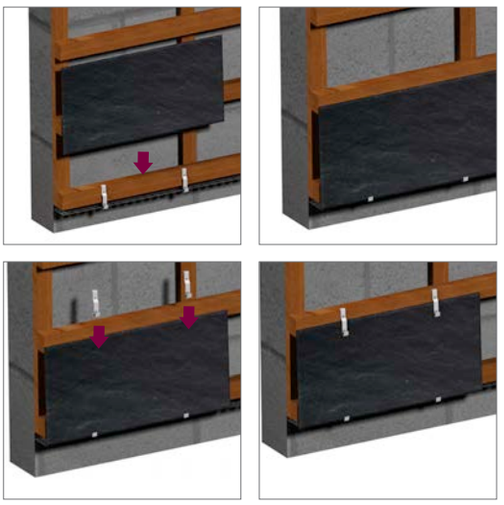




6 FIXING THE SLATES

STEP 1





STEP 2

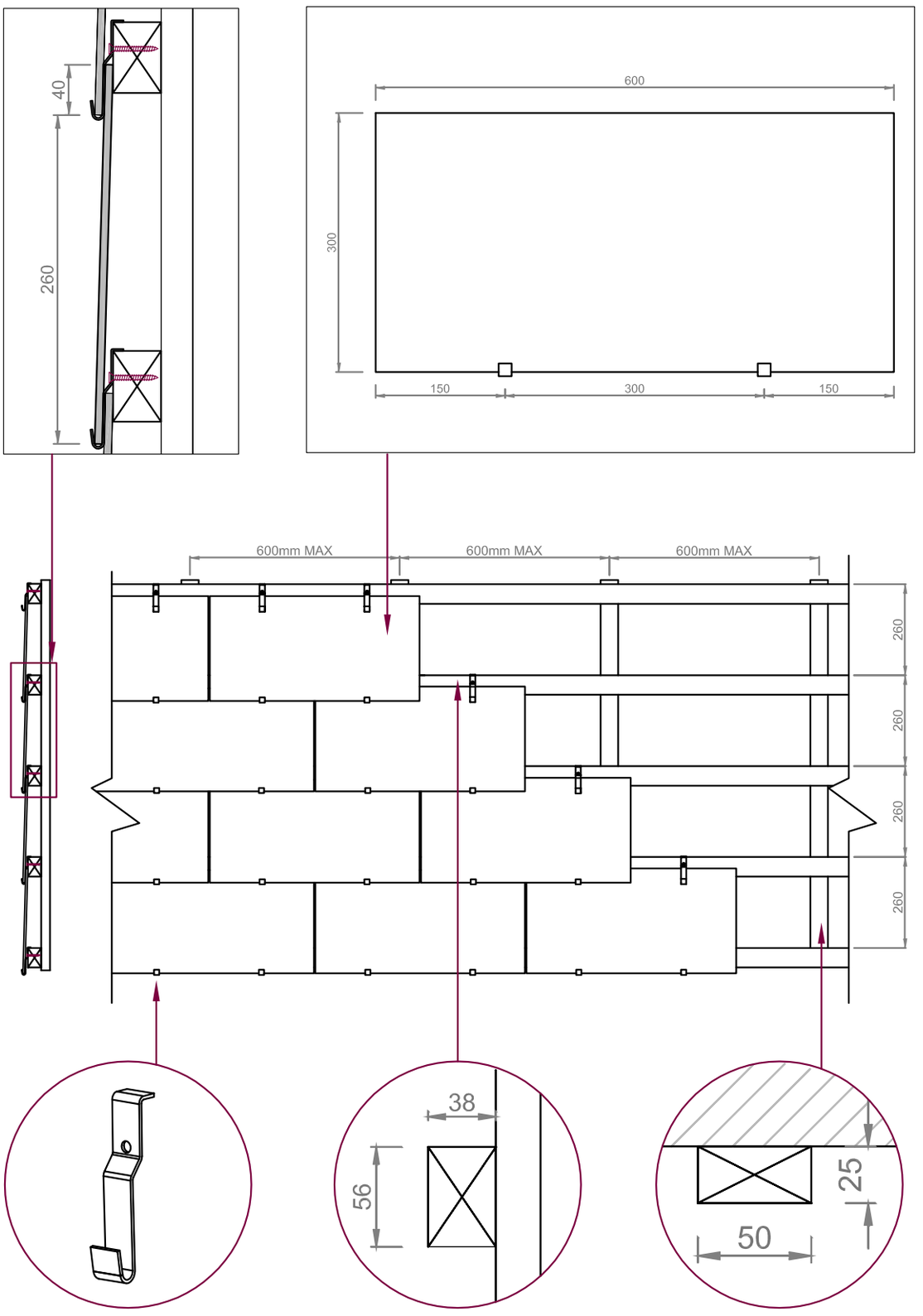
STEP 3

STEP 4

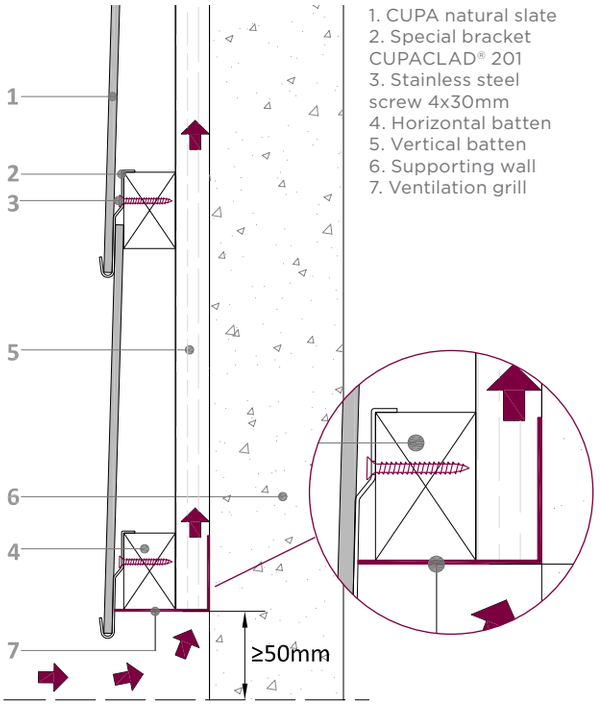
STEP 5

TECHNICAL DRAWINGS CUPACLAD® 201

SYSTEM DETAILS

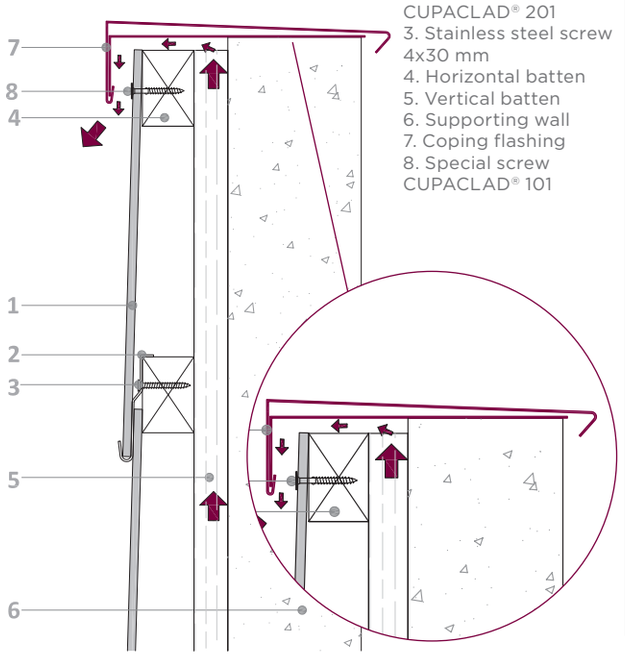


BASE DETAIL



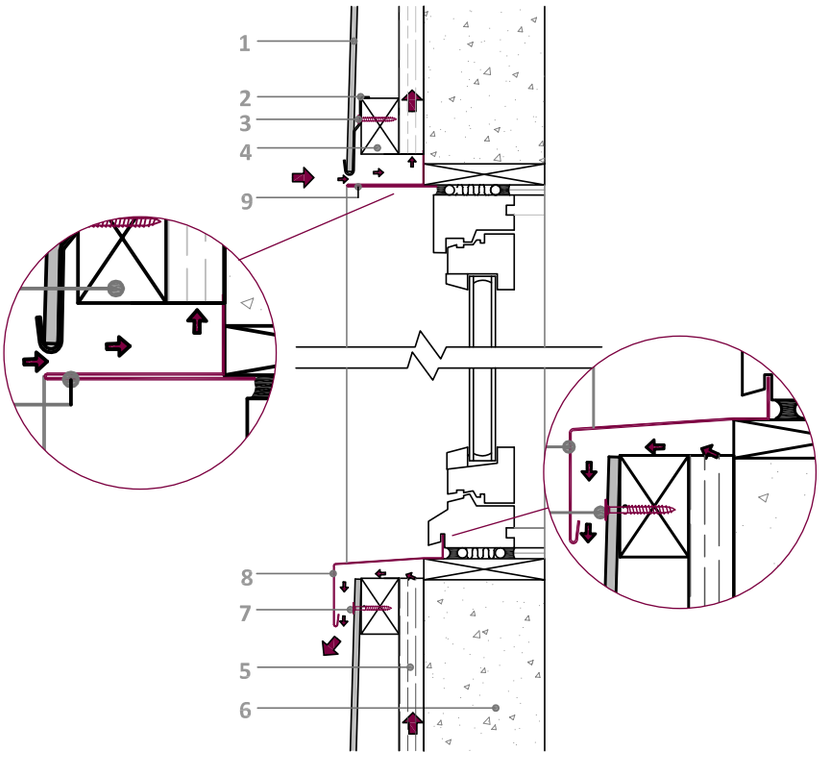
1. CUPA natural slate
2. Special bracket CUPACLAD® 201
3. Stainless steel screw 4x30mm
4. Horizontal batten
5. Vertical batten
6. Supporting wall
7. Ventilation grill

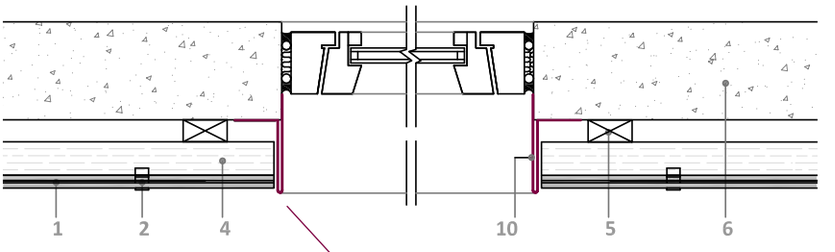
COPING DETAIL

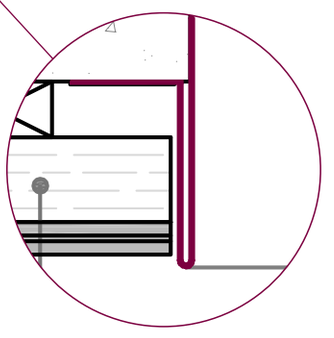


1. CUPA natural slate
2. Special bracket CUPACLAD® 201
3. Stainless steel screw 4x30 mm
4. Horizontal batten
5. Vertical batten
6. Supporting wall
7. Coping flashing
8. Special screw CUPACLAD® 101

WINDOW FRAME DETAILS

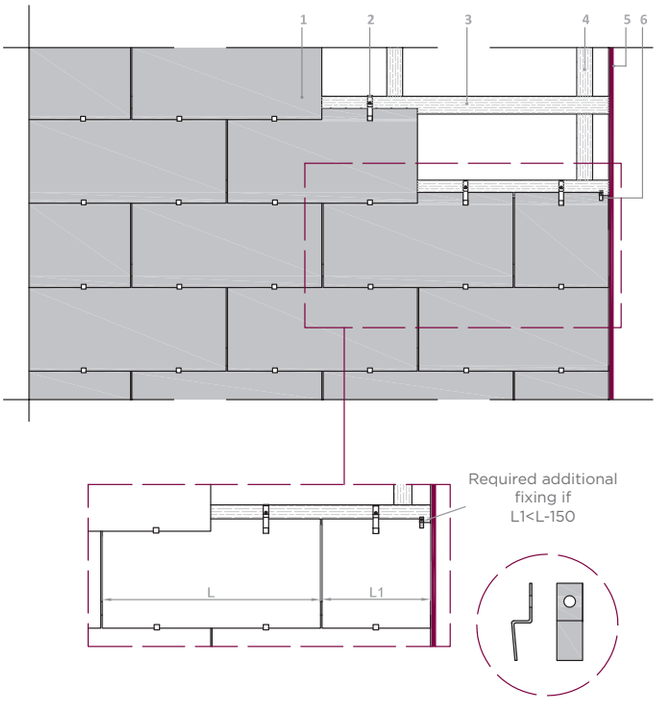






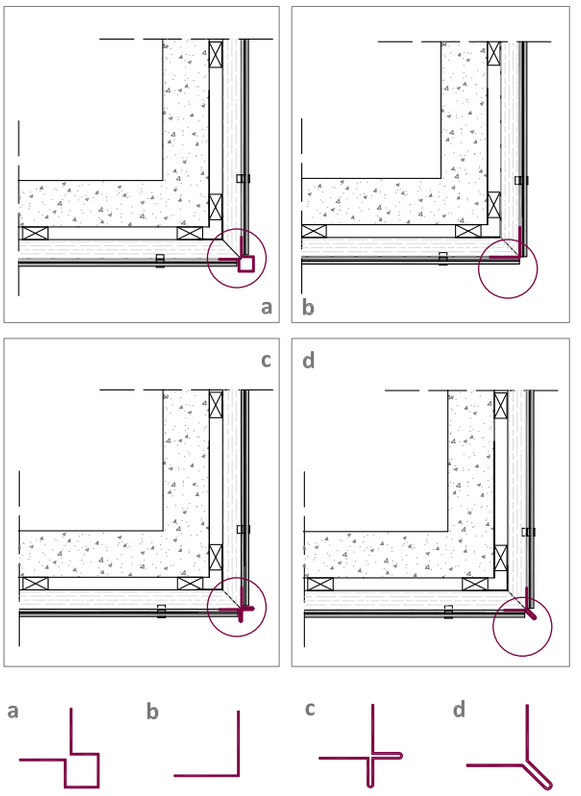
1. CUPA natural slate
2. Special bracket CUPACLAD® 201
3. Stainless steel screw 4x30mm
4. Horizontal batten
5. Vertical batten
6. Supporting wall
7. Special screw CUPACLAD® 101
8. Still flashing
9. Lintel flashing
10. Jamb flashing

LATERAL FINISH DETAIL

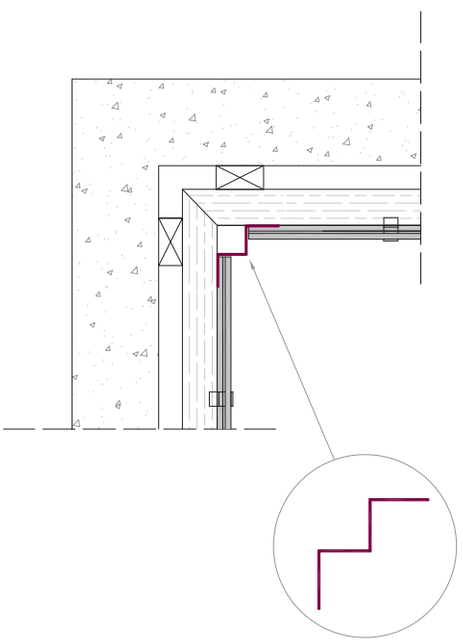


1. CUPA natural slate
2. Special bracket CUPACLAD® 201
3. Horizontal batten
4. Vertical batten
5. Lateral flashing
6. Special metallic fixing for lateral finish

EXTERNAL CORNER DETAIL



INTERNAL CORNER DETAIL

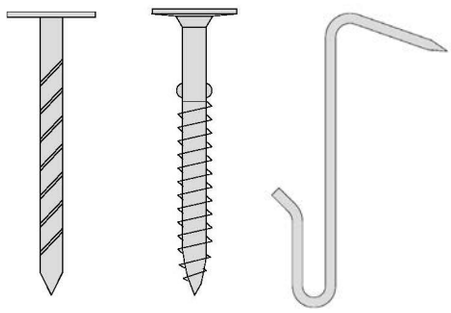


CUPACLAD® 201	
Slate dimension	60x30 cm
Thickness	6 (325%) mm
Slate color	Grey
Overlap	4 cm
Exposure	60x26 cm
Horizontal battens. Distance top edge/ top edge	26 cm
No. slates /m²	6,4
Weight/m² (slate)	20 Kg/m² approx.
Weight per pallet	1500 kg approx.
Type of fixings	Bracket
No. fixings /slate	2 brackets/slate
Fixings material	Stainless steel

CUPACLAD® 301

SLATE **FIXINGS**

CUPACLAD® 301 has both invisible and visible fixings. Two nails or two special CUPACLAD® 101 screws per slate are used for an invisible fixing; and one or two hooks per slate for a visible fixing. The fixings must be made of stainless steel.

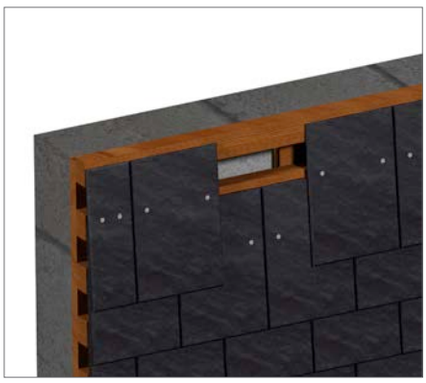


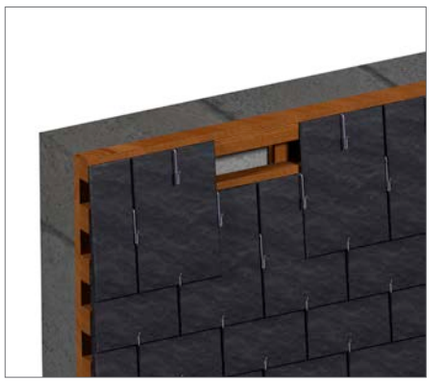
INSTALLATION STEPS

CUPACLAD® 301 is the traditional method of fixing slates with a triple-lap. Several slate formats can be used as well as different overlap dimensions. For this reason, the installation of the system CUPACLAD® 301 must be performed by a specialist slate roofer.

The **main installation** steps are the followings:

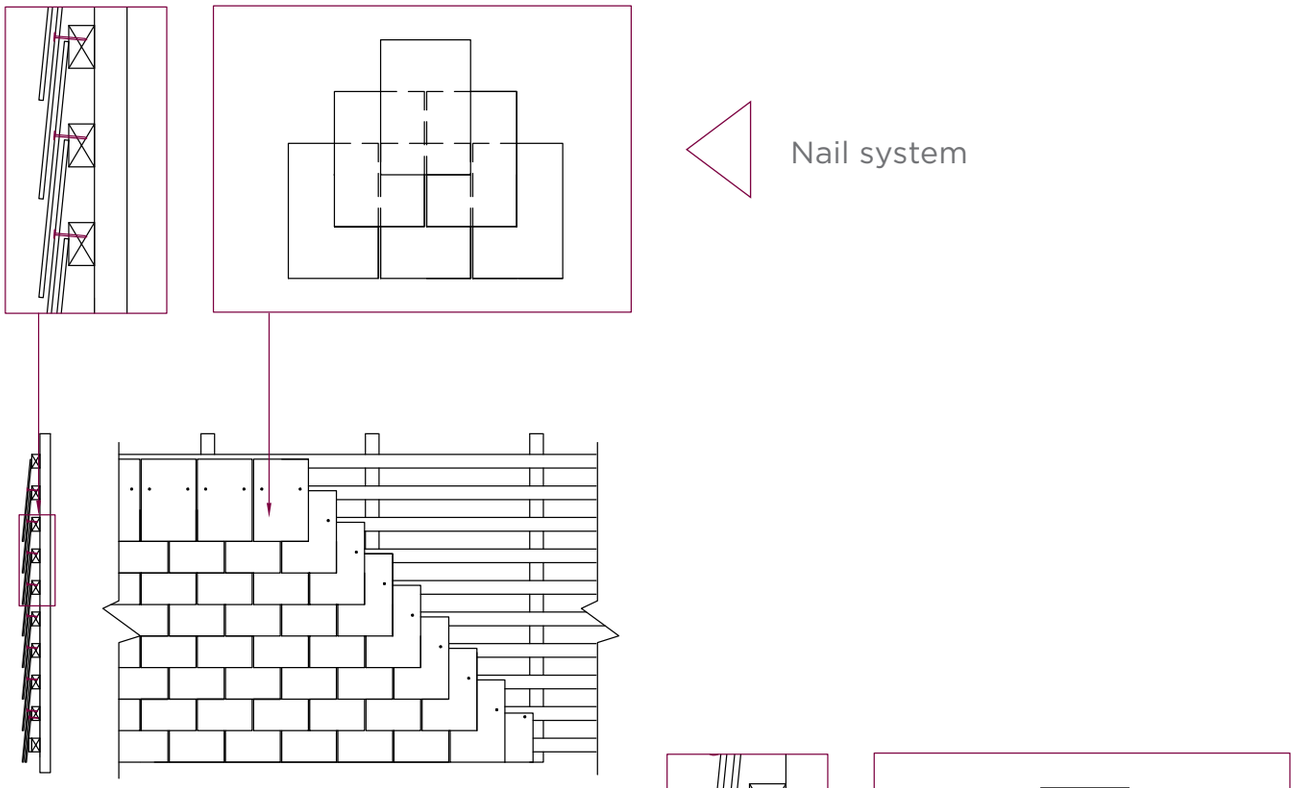
1. Installing a ventilation grill at the bottom of the façade.
2. Fixing the vertical battens.
3. Fixing the horizontal battens.
4. Fixing an additional horizontal batten at the bottom of the façade.
5. Chalk Marks.
6. Fixing the slates.

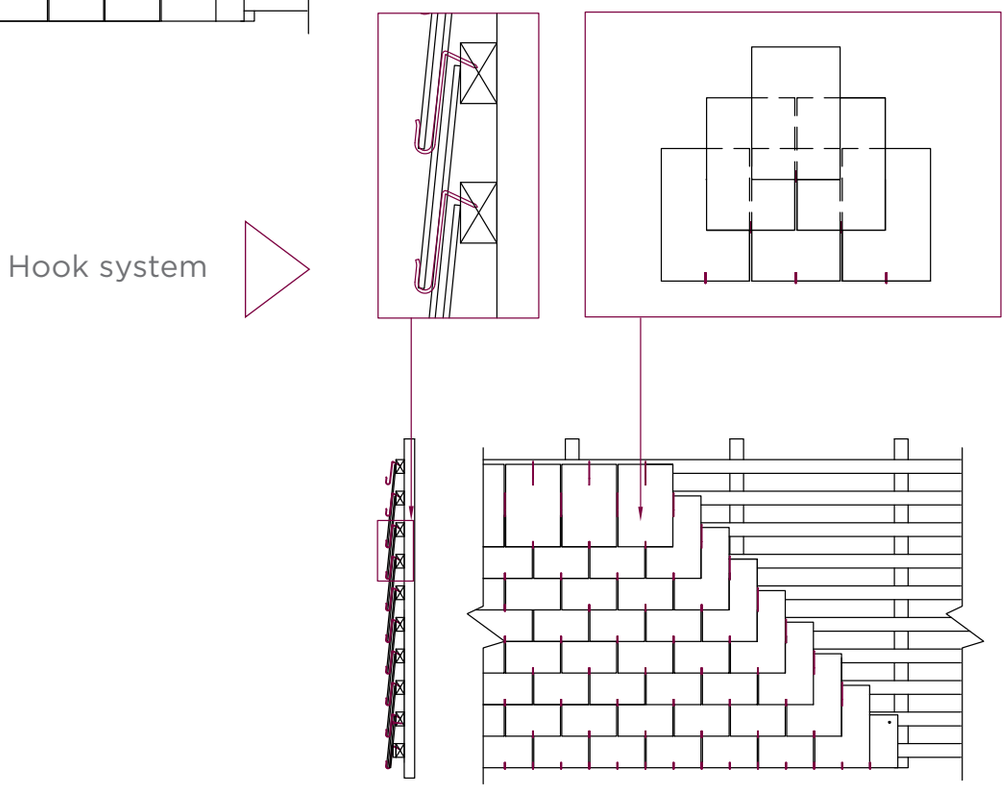




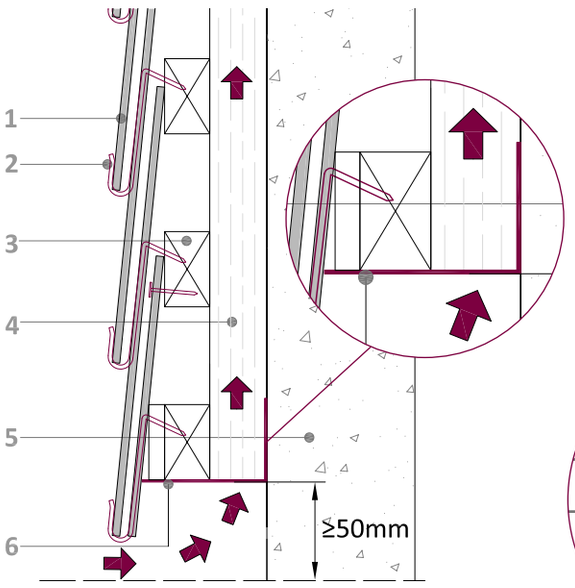
TECHNICAL DRAWINGS CUPACLAD®

SYSTEM DETAILS



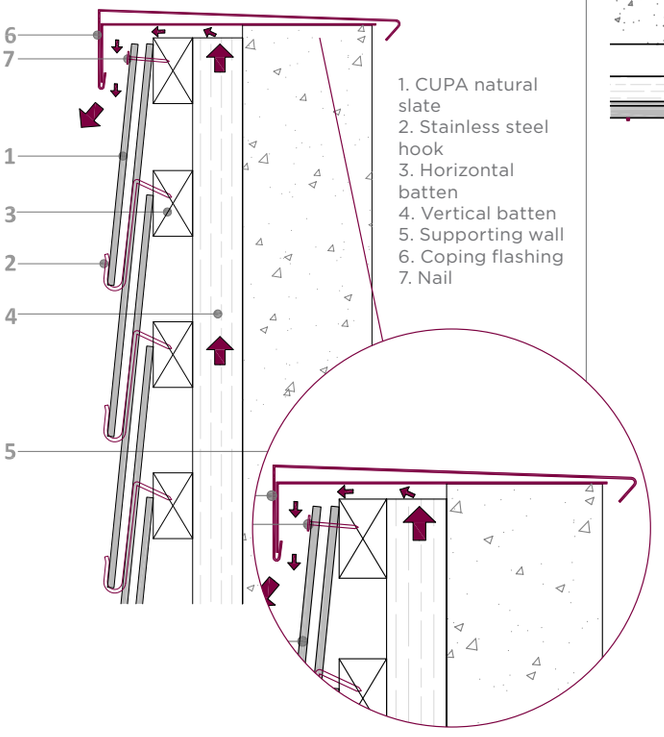


BASE DETAIL



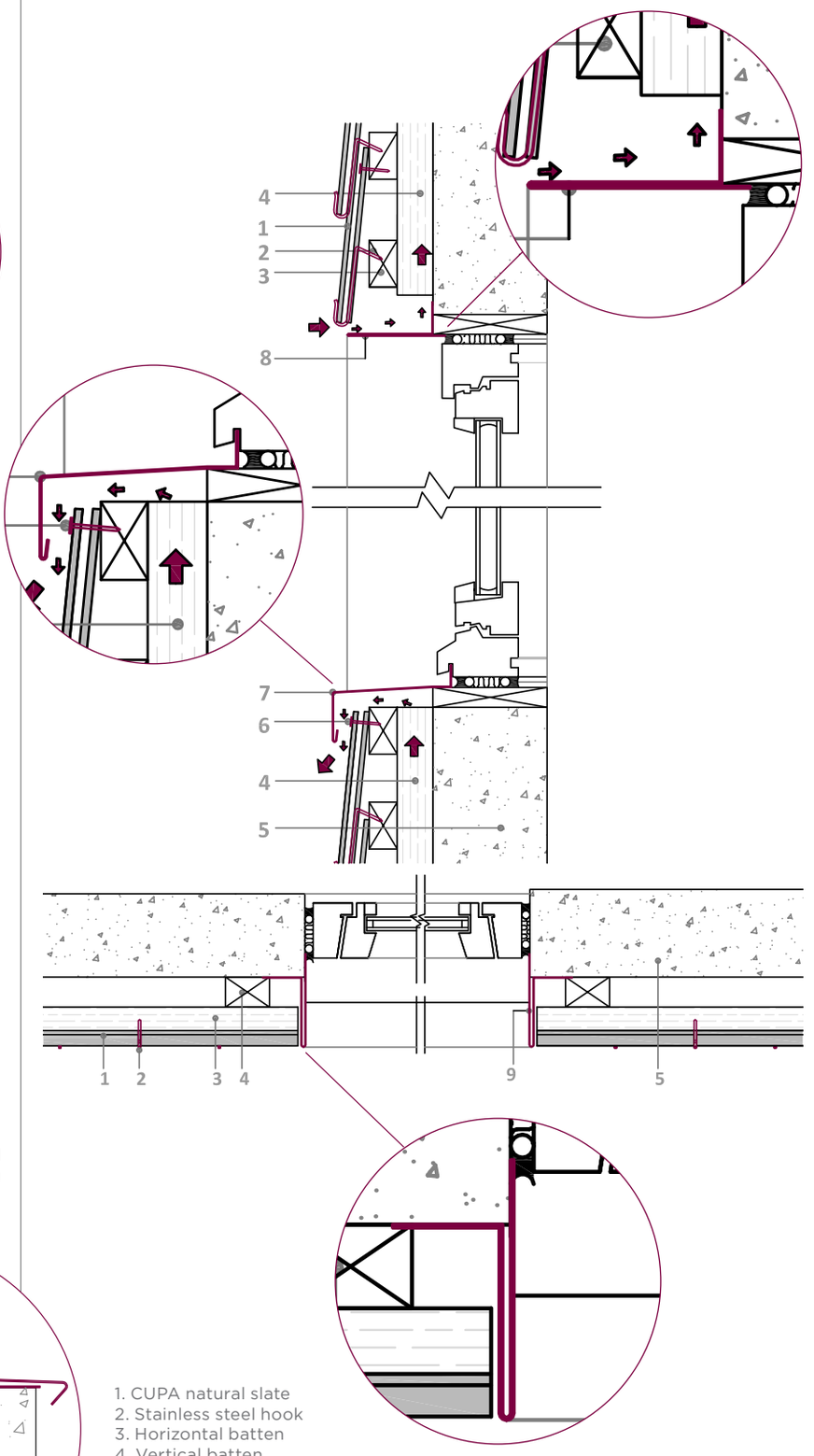
1. CUPA natural slate
2. Stainless steel hook
3. Horizontal batten
4. Vertical batten
5. Supporting wall
6. Ventilation grill

COPING DETAIL



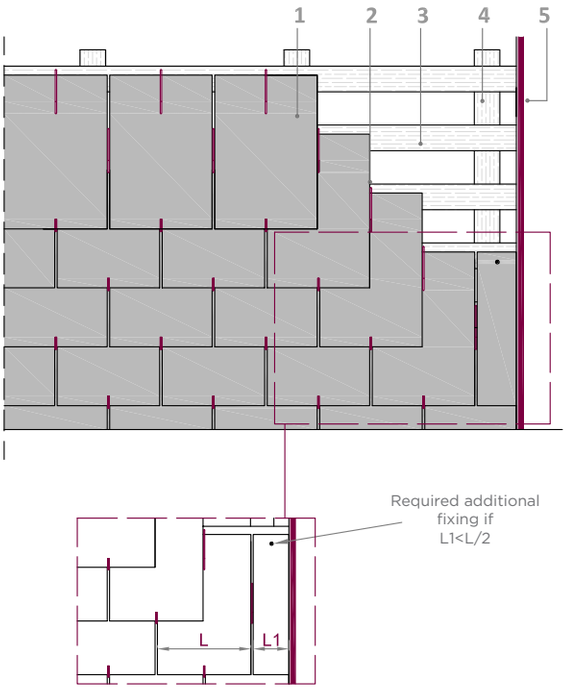
1. CUPA natural slate
2. Stainless steel hook
3. Horizontal batten
4. Vertical batten
5. Supporting wall
6. Coping flashing
7. Nail

WINDOW FRAME DETAIL



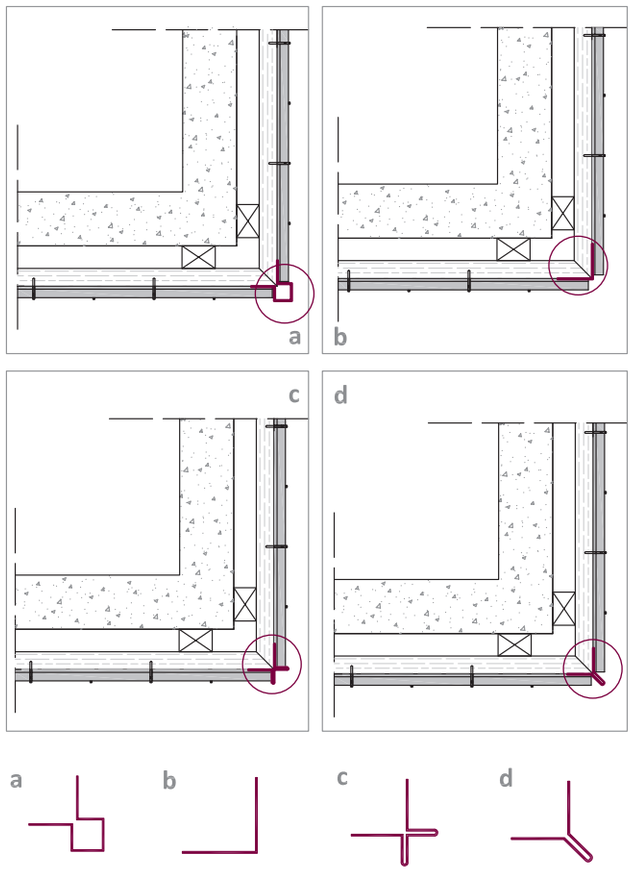
1. CUPA natural slate
2. Stainless steel hook
3. Horizontal batten
4. Vertical batten
5. Supporting wall
6. Nail
7. Sill flashing
8. Lintel flashing
9. Jamb flashing

LATERAL FINISH DETAIL

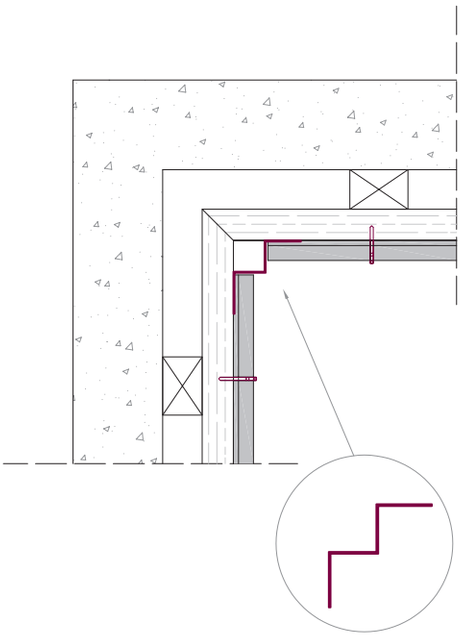


1. CUPA natural slate
2. Stainless steel hook
3. Horizontal batten
4. Vertical batten
5. Lateral finish flashing

EXTERNAL CORNER DETAIL

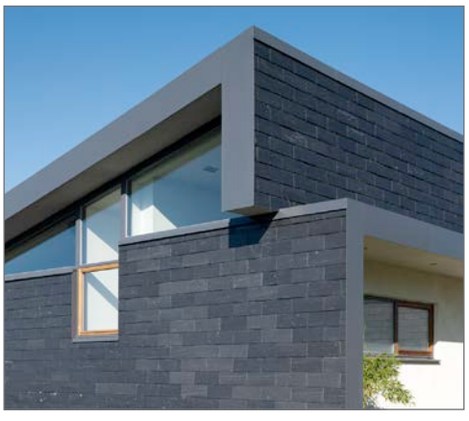


INTERNAL CORNER DETAIL



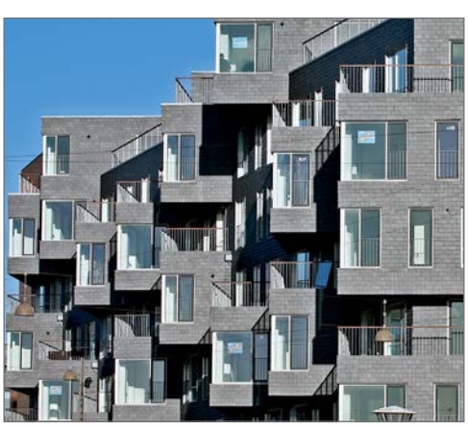
This document is an installation guide for CUPACLAD® systems. The seller company cannot be considered responsible if the systems are not installed in accordance with these recommendations. The use of the screw CUPACLAD® 101 and the bracket CUPACLAD® 201 is essential for a correct performance of the systems. The seller will not accept any liability for damages caused by other types of fixings.

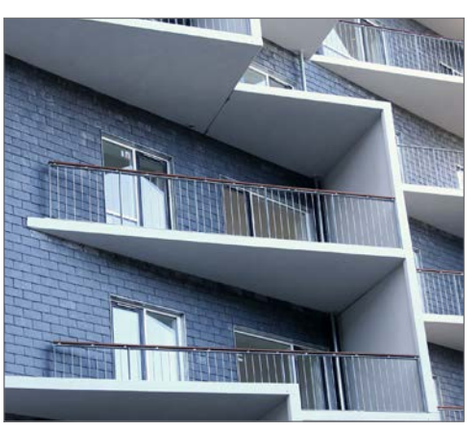
CUPACLAD® 101

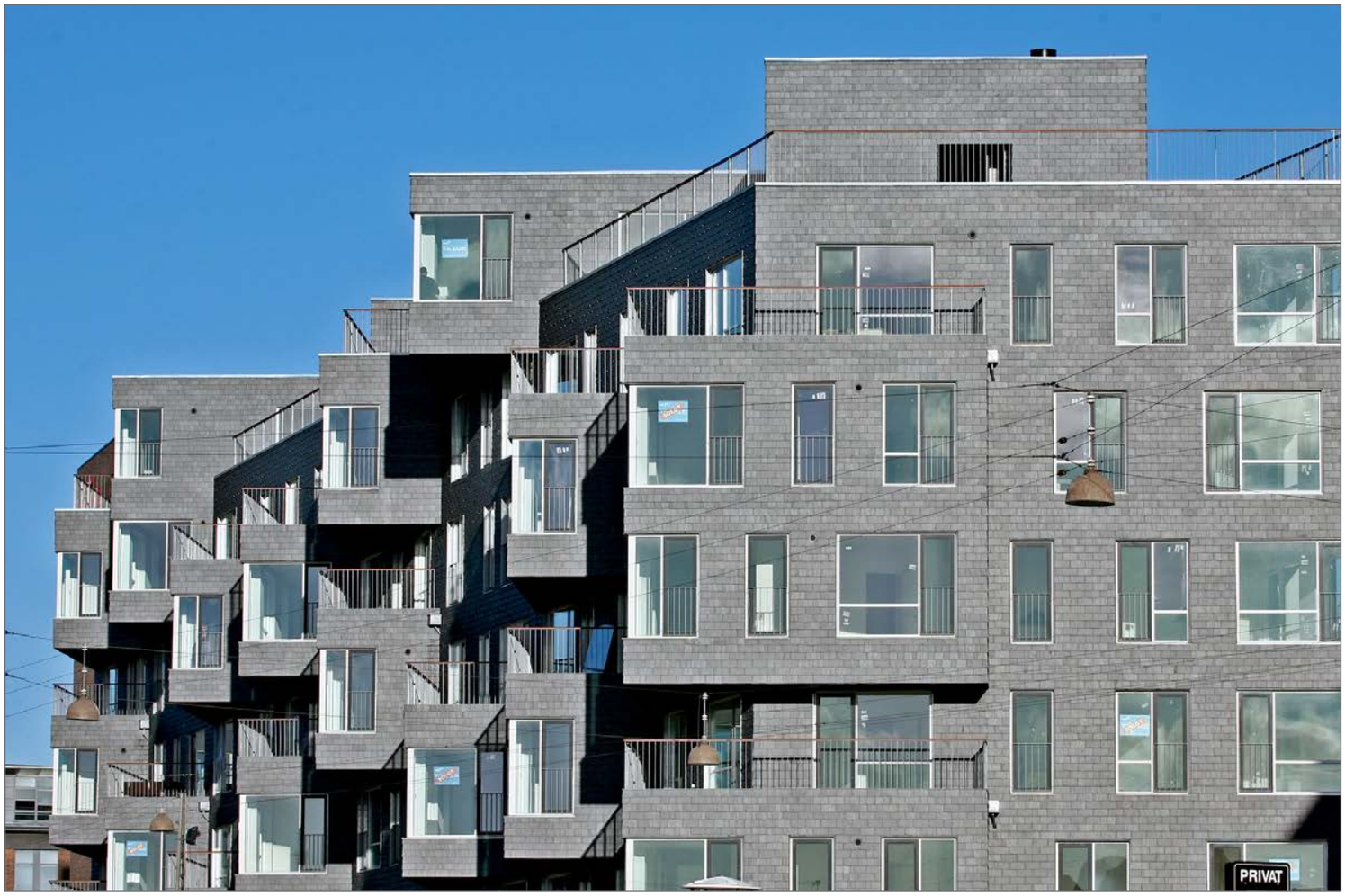


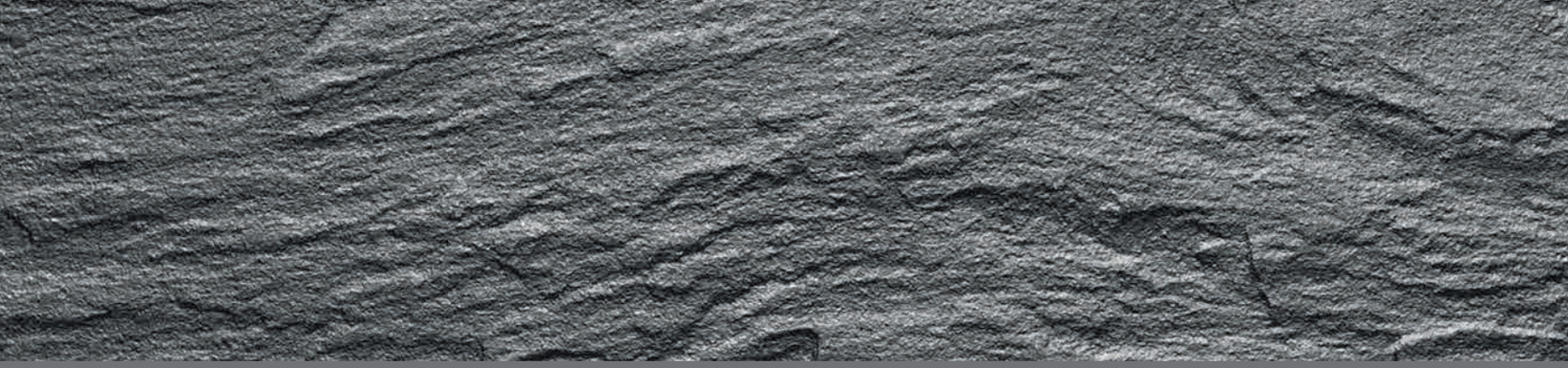
CUPACLAD® 201

CUPACLAD® 301






PRIVAT



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CUPACLAD® systems have been designed and developed by CUPA