



EXTERIORS DESIGN

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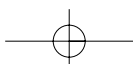
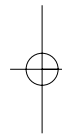
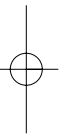
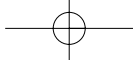


# COLORPLANK

Strong creative fibre

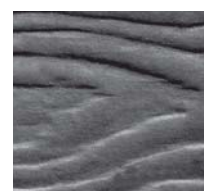


Technical Guide



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## A. DESCRIPTION

### 1. GENERAL PRESENTATION

#### 1.1 General description

COLORPLANK® is an external wall siding system, covered by a **CSTB Technical Assessment**, with a base of siding elements<sup>1</sup> of fiber cement (without asbestos) with, on the back face, an acrylic primer coating and, on the visible face, an acrylic paint facing.

The siding elements, offered in two different section shapes can be laid horizontally or vertically on flat walls.

The siding elements are fixed to:

- timber framing with the aid of nails or screws,
- metal framing with the aid of screws.

A ventilated air space is positioned between the inside face of the siding elements and the outside surface of the bearing wall or of any heat insulation.

#### 1.2 Application field

##### 1.2.1 Wind exposure

Wind exposure, corresponding to pushing forces and pulling forces, under NORMAL (perpendicular) WIND with the following maximal values (in Pascals):

Type of installation	Width of siding elements	On-centre of fasteners 400 mm	On-centre of fasteners 600 mm
Horizontal Top fastener Ø 2.2 x 38 Bottom fastener Ø 2.2 x 45	210	1880	1250
	241	1640	1160
	304	1050	700
Vertical Fixing on rim of upper siding elements	210	1210	---

The permissible strength under NORMAL WIND of the 210 mm width siding elements, installed horizontally and fixed at the top rim every 600 mm, by nails Ø 2.2 x 38 and at the bottom rim, every 1800 mm, by nails Ø 2.2 x 45 mm, corresponds to an applied force of 700 Pa.

##### 1.2.2 Fire safety

The system contains no obstacles to compliance with specifications according to the regulations. The verifications to be performed (in particular, with relation to the "C+D" Rule, including for buildings already in service) shall take the following characteristics into account:

- The European fire reaction rating: A2-s1, d0,
- The fire reaction rating of the painted siding elements by SCB: M 1,
- The combustible mass of the siding elements: 8,5 MJ/m<sup>2</sup>.

##### 1.2.3 Impact resistance

The impact resistance of the horizontally (D0,5-3J, M3-10J) or vertically (D0,5-3J, M3-20J, M50-130J) installed siding elements on studs, 400 or 600 mm on-centre allows for a use on upper storeys or on ground floor. The siding elements can withstand, without damage, impacts with energy as required for applications corresponding to Class Q3 in horizontal installation and to Q4 in vertical installation of the siding elements as defined by Standard P 08-302: Outside Walls of Buildings, given the possibility of replacing accident-damaged siding elements relatively easily.

In application of the attribution rules defined in the document "reVETIR Rating" of systems of heat insulation of façades from the outside the system is rated:

- $r_2 e_2 V_3 E_3 T_2 I_1 R_4$  when installed horizontally,
- $r_2 e_2 V_1 E_3 T_3 I_1 R_4$  when installed vertically.

## 2. MATERIALS

### 2.1 Used for making the siding elements

- Cement,
- Silica,
- Cellulose fibres,
- Tow,
- Admixture.

<sup>1</sup> Siding (or cladding) elements may be referred to as lap siding elements, planks, siding boards, clapboards, weatherboards, boards, siding panels, etc.

## 2.2 Used for finishing the siding elements

- Acrylic primer in aqueous phase on all the faces.
- Acrylic paints on the outside faces.

## 2.3 Used for installation

### 2.3.1 Framing

- Timber framing (battens or support timbers), in compliance with the Specifications of CSTB Books 3316 and 3422, having a mechanical strength corresponding at least to rating C18 according to Standard NF B 52001-4, kept for risk Class 2, according to the jobsite, with a water content no greater than 18% in weight.
- Metal framing, galvanised or aluminium ("T-sections" or "L-sections") in compliance with the Specifications of CSTB Book 3194 "Metal framing and heat insulation of external wall siding, covered by a Technical Assessment or by a Traditionality Certificate" (Delivery 406 – January-February 2000).

### 2.3.2 Fixing lug

- Sheet steel, minimal thickness 20/10 mm, galvanised Z 275, according to Standard NF A 36-321 for the fixing lugs for installing timber framing (battens of support timbers) on masonry.
- Aluminium alloy 30/10 mm or sheet steel, indicated above, for installing metal framing on masonry.

### 2.3.3 Fasteners

On timber framing

- Ring shank nails, stainless steel, broad head Ø 5mm, Ø 2.2 x 40 mm or 50 mm, complying with Standard XP-P30-313 of July 97.
- Self-tapping screw, with ribs, stainless steel body, treated hardened steel point (zinc alloy), self-boring countersunk head, Ø 4.5 x 50 mm, WÜRTH brand, Reference 021584844.

On metal framing

- Self-tapping screw, with ribs, stainless steel body, treated hardened steel point (zinc alloy), self-boring countersunk head, Ø 4.8 x 44 mm, WÜRTH brand, Reference 016614550.

### 2.3.4 Heat insulation

The insulation is to comply with the specifications

of CSTB Book 3316 and with the specifications of CSTB Book 3194 in the case of metal framing.

### 2.3.5 Associated accessories

- Aluminium sheet, baked enamelled or not, thickness 10/10 mm for the various accessories.
- Extruded PVC for the rodent-proof grilles.
- Baked enamelled aluminium sheet, in compliance with Standard NF P 34-601 or baked enamelled steel sheet, in compliance with Standard NF P 34-301 for shielding individuated points.
- Acrylic or polyurethane base seal mastic.
- Retouch paint, from COLORPLANK®.

## 3. ELEMENTS

The COLORPLANK® system is a system of external wall siding, comprising: the siding elements, the specific COLORPLANK® accessories with definition of framing for fixing, various fasteners, complementary heat insulation and sections which may be required for shielding individuated points and made to order.

### 3.1 Wall siding elements

The siding elements are manufactured in the form of fiber-cement panels, in compliance with Class I of Standard NF EN 12.467. The cut-outs are done by high pressure water jet. The boards are transferred into an oven then into an autoclave and stabilized with a water content from 5 to 15%.

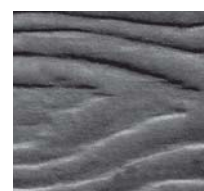
The composition of the fiber-cement of the COLORPLANK® siding is as follows:

- 40 to 45% cement,
- 45 to 50% silica,
- 8 to 10% cellulose fibres,
- 3 to 6% tow and admixtures.

The technical characteristics are as follows:

- Apparent density (when dry) according to EN 12.467, 1 250 kg/m<sup>3</sup>, plus or minus 50 kg.
- Density (under ambient conditions, siding elements at 15% water content), 1 400 kg/m<sup>3</sup>, more or less 50 kg.
- Water absorption after 48h of immersion of the unfinished boards according to UEAtc<sup>2</sup> Guide (CSTB Book 2535): < or = to 45%.

<sup>2</sup> UEAtc – Union Européenne pour l'Agrément technique dans la construction (European Union of Technical Agreement in Building).



- Water impermeability according to EN 12.467: no formation of droplets.
- Heat/rain cycles according to EN 12.467: no visible defect.
- Characteristic flexural strength according to EN 12.467 (test specimen 300 x 300 mm, brought to 250 mm).

Procedure according to EN 12.467	Breaking stress MPa	
	Longitudinally	Transversally
At ambient temperature (siding elements at 15% water content)	> 9.5	> 6.7
48h of immersion in water (siding elements at 40% water content)	> 8.5	> 6.0
100 cycles of freezing (-20°C) then thawing (+20°C)	> 7.0	> 5.0
Hot water (60°C during 56 days)	> 7.0	> 5.0
50 cycles of immersion then drying (18h in water and 6h at 60°C/ 20% water content)	> 7.0	> 5.0

The COLORPLANK® line of siding elements is composed of two section shapes (Figure 1):

- A plain board, referred to as "Classic",
- A board with groove, referred to as "Colonial".

Dimensions:

- Widths: 210 mm (other widths available on request for the Classic section shape),
- Length 3660 mm,
- Thickness 8 mm.

Tolerances on dimensions:

- Width: + or - 5 mm,
- Length: + or - 8 mm,
- Thickness: - 0.8 mm + 1.2 mm,
- Squareness: < or = 3.1 mm over 3660 mm,
- Straightness of the edges: < or = 3.1 mm over 3660 mm.

Weight per unit of surface area:

- 12.6 kg for the 210 mm siding elements,

Appearance: wood textured.

Colours: standard colours and specially prepared colours depending on quantities.

## 3.2 Fixing the siding elements

### 3.2.1 On timber framing (battens or support timbers)

The siding elements are fixed:

either with the aid of stainless steel ring shank nails (description in § 2.33). The nails are to penetrate 30 mm into the support timbers or battens, which implies using:

- nails of 40 mm for a single thickness of board (top fixing of horizontal boards),
- nails of 50 mm for a double thickness of board (bottom fixing of horizontal boards and fixing of vertical boards),

or with the aid of stainless steel screws (description in § 2.33). The screws are to penetrate 30 mm into the support timbers or battens, which implies using screws 40 or 50 mm long.

When installing horizontally, the fixing (masked by the upper siding element) is done on a top longitudinal rim (minimal distance to the edge 25 mm, maximal on-centre 600 mm), and at the bottom (minimal distance to the edge 20 mm, maximal on-centre 1800 mm).

When installing vertically, the siding element is fixed on the longitudinal rim (minimal distance to the edge 15 mm, maximal on-centre 400 mm).

### 3.2.2 On metal framing

The siding elements are fixed with the aid of bimetal screws (description in § 2.33).

When installing horizontally, the siding element (masked by the upper siding element) is fixed on the top longitudinal rim (minimal distance to the edge 25 mm, maximal on-centre 600 mm), and at the bottom (minimal distance to the edge 20 mm, maximal on-centre 1800 mm).

## 3.3 Support framing

### 3.3.1 Timber framing

The framing consists of timber battens or support timbers in single or double grid. It shall comply with the specifications of the document "General Rules for design and installation of timber framing

and of heat insulation of external wall siding, covered by a Technical Assessment" CSTB Book 3316 – January-February 2001, supplemented by the following:

- Concrete or masonry framing:
  - . Minimal spacing, 60 mm wide,
  - . Minimal thickness 30 mm.
- Timber framing:
  - . Minimal spacing, 60 mm wide,
  - . Minimal thickness 15 mm.

### 3.32 Metal framing

The metal framing shall comply with the Specifications of CSTB Book 3194 "Metal framing and heat insulation of external wall siding covered by a Technical Assessment or by a Traditionality Certificate" (Delivery 406 – January-February 2000).

The framing, constrained or freely expandable, consists of vertical bearing "T" or "L" sections, fashioned:

- either by press-forming galvanised steel Z 275 sheet 15 or 20/10 mm according to Standard NF A 36-321
- or by extruding aluminium alloy AGS 6060 or 6063, like the sections of the FACALU LR110 sections of the ETANCO Company 25/10 mm minimum.

### 3.4 Heat insulations

The heat insulation installed most often is mineral fibre panels or rolls in compliance with the specifications of CSTB Book 3316 and with the specifications of CSTB Book 3194 in the case of metal framing.

### 3.5 Associated accessories (Figure 2)

#### 3.51 Inverted outside corner trim piece

Trim piece of baked enamelled aluminium sheet 10/10 mm. Installed before the siding, it shields the salient angles.

#### 3.52 Inside continuous corner trim piece

Trim piece of baked enamelled aluminium sheet 10/10 mm. Installed before the siding, it shields the re-entrant angles.

#### 3.53 L-section moulding

Trim piece of baked enamelled aluminium sheet 10/10 mm. Installed before the siding, it constitutes certain finish work.

#### 3.54 Metal joint trim piece

Trim piece of aluminium sheet 10/10 mm. It is used for positioning in back of the siding elements to make the butt joints of the dry joint siding elements.

#### 3.55 Rodent-proof grille

Rigid PVC L-section trim piece 25 x 25 mm or 30 x 30 mm, perforated on one flange, white or brown colour.

#### 3.56 Complementary trim pieces

These are trim pieces with various uses, usually in installing traditional external wall siding, made of press-formed baked enamelled sheet metal, particularly for the drip moulding, the coping overlay and the window or door opening framing.

#### 3.57 Mastic for closing the joints

The butt joints of the siding elements can be closed with acrylic or polyurethane mastic.

## 4. MANUFACTURING AND QUALITY ASSURANCE

### 4.1 Manufacturing

The siding elements are manufactured in fibrous concrete panels, 3800 mm long by 1400 mm wide. The cut-outs are made by high-pressure jet. The boards are placed in an oven then in an autoclave and stabilised with a water content of 5 to 15%.

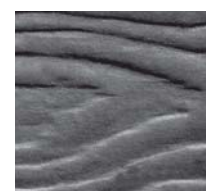
An acrylic primer, in aqueous phase, is applied in the factory on all the faces and in light grey colour.

The siding elements are painted by the SCB Company in its workshops in Saint-Jean-de-Braye, France.

The acrylic paint, in aqueous phase, is applied on the visible faces in two coats in a choice of colours.

### 4.2 Quality Assurance Operations

At the factory, the self-inspection for the production of the siding elements comprises,



in particular, the following points:

- Verification of the compliance of the raw materials, cement, fibres, additives, fillers and water, against the acceptance inspection sheets,
- On the production line, inspection of the raw materials, of the setting and adjustment parameters and of the product characteristics.
- Inspection of finished products:
- Visual appearance (every element),
- Density (once each week),
- Dimensions,
- Flexural strength according to Standard NF EN 12-467 (certified values): minimal breaking stress when damp > or = 8.0 Mpa.

The self-inspection results are recorded and archived.

The factory self-inspection of the finish of the siding elements particularly includes the following points:

- Verification of the compliance of the paints,
- On the production line, inspection of the setting and adjustment parameters and of the product characteristics,
- Regular inspection of finished products, marking, finish appearance.

The self-inspection results are recorded and archived.

## 5. DISTRIBUTION

In Europe, SCB distributes the siding elements and the basic sections specific to the system (angle and connecting sections). Upon request, SCB can also supply the retouch paint along with the fixing nails or screws.

The insulation, the framing timber, the metal framing as well as the press-formed baked enamelled sheet trim sections, in particular for the framing of the outside wall openings (doors or windows), must be procured directly by the installer in compliance with the instructions given in this document.

## 6. IDENTIFICATION

Each siding element contains:

- An identification of the production batch,
- The indication of the factory.

Each pallet contains:

- The name of the system and the number of the Technical Assessment covering the product,
- The certificate number,
- The production number.

## 7. INSTALLATION

### 7.1 General description

The SCB Company does not install the products itself. The installing firms, to which SCB, at their request, provides its technical assistance, do this. For this purpose, it has prepared a detailed installation manual.

The COLORPLANK® siding elements are easily and quickly installed on timber or metal framing for walls of concrete or masonry elements. They can be installed horizontally or vertically on flat surfaces.

They can be installed on Homes of Timber Framing in compliance with DTU 31.2. See Specifications § 7.4.

### 7.11 Storage

The COLORPLANK® siding elements are to be stored flat in a dry location before installation. In case of dampness, it is necessary to wait for the siding elements to dry before their installation.

### 7.12 Ventilation

Ventilation is important whatever the substrate and installation direction of the siding elements.

Ventilation must be provided at several levels:

- At the bottom part, starting the installation of the siding elements at least 5 cm from the finished ground,
- At the top part, providing a space of 10 to 15 mm, without ever blocking the siding elements,
- Next to the outside wall openings, with a cut-out in the lathwork to enable air circulation.

### 7.13 Cutting to size

The COLORPLANK® siding elements are cut out by means of a guillotine, a diamond-faced saw blade or by a saw blade containing hard metal teeth. For

sawing a limited number, a hand saw with hard metal teeth (Sandwick 2600-22-XT-HP brand) would do the job. Small cut-outs can be made using a jigsaw, fitted with a blade with hard metal teeth, or with the aid of a cutter.

## 7.2 Installing siding elements on timber framing

### 7.2.1 General description

The siding elements are installed by nailing or screwing on timber framing (battens or support timbers).

The characteristics of the fastenings are indicated in § 2.33 and § 3.2 of this document.

When nailing manually, it is necessary to make initial holes  $\varnothing$  2.5 mm at the extremities of the boards.

A minimal distance of 15 cm shall be maintained between the bottom of the siding element and the ground level or of 5 cm in the case of a flashing at roofing.

Between one another, the siding elements are to overlap at least 3 cm.

To facilitate installation, it is recommended that the siding elements be traced in advance on the battens.

### 7.2.2 Horizontal installation with overlap, referred to as lap siding (Figures 3)

The COLORPLANK® siding elements are installed horizontally on vertical framing elements with maximal spacing of 600 mm on-centre.

The first siding element installed at the bottom part requires positioning shims on the vertical framing elements to give it a correct slope.

The siding elements are fixed to the vertical timber framing elements by nailing or screwing. The fastenings at the top part, which are masked, are to be located 12 mm from the extremities and 25 mm from the top of the siding element with an on-centre of 600 mm maximum. The fastenings at the bottom part, which are visible, are to be located 15 mm from each extremity of the siding element and 20 mm from the bottom of the siding element with an on-centre of 1800 mm maximum. The nail heads shall not penetrate the

siding element.

Each extremity of the siding element shall coincide with a support element. The boards are butt jointed with sharp cornered joint. The space between two boards shall be 3 mm minimum if the joint is made with a joint trim piece, positioned at the rear part of that joint so as to channel the water onto the board below.

### 7.2.3 Vertical installation (Figure 4)

Only the "Classic" section shape can be installed vertically on timber framing. The COLORPLANK® siding elements are installed vertically on horizontal support timbers or battens, spaced 400 mm on-centre. To enable correct air circulation, cut-outs of 100 mm are to be made in zigzag in the battens.

The siding elements are fixed to the horizontal battens by nailing or screwing. The fastenings are to be located 15 mm from the edge of the siding element with an on-centre of 400 mm. The nail heads are not to penetrate the siding element.

Every 3.66 m, the overlapping boards are subdivided by a drip moulding.

## 7.3 Installing siding elements on metal framing

### 7.3.1 General description

The installation on metal framing shall comply with the specifications of CSTB Book 3194 "Metal framing and heat insulation of external wall sidings covered by a Technical Assessment or by a Traditionality Certificate" (Delivery 406 - January-February 2000).

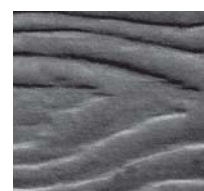
The siding elements are installed by screwing to the metal framing ("L-sections" or "T-sections").

The characteristics of the fastenings are indicated in § 2.33 and § 3.2 of this document.

A minimal distance of 15 cm shall be maintained between the bottom of the siding element and the ground level or of 5 cm in the case of a flashing at roofing.

Between one another, the siding elements are to overlap at least 3 cm minimum.

To facilitate the installation, it is recommended that the siding elements be traced in advance on the framing.



### 7.32 Horizontal installation with overlap, referred to as lap siding (Figure 15)

The COLORPLANK® siding elements are installed horizontally on vertical framing elements with maximal spacing of 600 mm on-centre.

The first siding element installed at the bottom part requires positioning shims on the vertical framing elements to give it a correct slope.

The siding elements are fixed to the vertical metal framing elements by screwing. The fastenings at the top part, which are masked, are to be located 12 mm from the extremities and 25 mm from the top of the siding element with an on-centre of 600 mm maximum. The fastenings at the bottom part, which are visible, are to be located 15 mm from each extremity of the siding element and 20 mm from the bottom of the siding element with an on-centre of 1800 mm maximum. The countersunk heads of the screws shall penetrate the siding element.

Each extremity of the siding element shall coincide with a support element. The boards are butt jointed with sharp cornered joint. The space between two boards shall be 3 mm minimum if the joint is made with a joint trim piece, positioned at the rear part of that joint so as to channel the water onto the board below, or 6 mm if the joint is waterproofed with an acrylic mastic, described in § 3.57.

### 7.4 Particularity of installing on timber framing structures

- It is mandatory to install a rain-guard on Timber Framing Houses (see DTU 41-2, Art. 6.1)
- For timber framing houses, the thickness of the vertical battens can be brought to 15 mm if they are positioned perpendicularly to the timber framing elements.

## 8. INDIVIDUATED POINTS

### 8.1 Shielding angles

Salient angles can be shielded with a baked enamelled aluminium sheet trim piece 10/10 mm, referred to as "Inverted outside corner trim piece". This trim piece is to be installed on the framing elements before installing the COLORPLANK® siding elements (Figures 7 and 18).

Re-entrant angles can be shielded with a trim piece of baked enamelled aluminium sheet 10/10 mm, referred to as the "Continuous inside corner trim piece". This trim piece is to be installed on the framings before the installation of the COLORPLANK® siding elements (Figures 8 and 19).

Angles can also be shielded by timber trim pieces according to DTU 41-2, or other accessories, which would provide perfect leakproofing. The joint between the siding element and the trim piece is to be waterproofed with an acrylic mastic in the case of an angle trim piece, which has no extension in back of the siding elements (Figures 9 and 10).

### 8.2 Shielding with siding outside angles

The outside angles of the siding can be shielded with a baked enamelled aluminium sheet trim piece 10/10 mm, referred to as the "L-section trim piece". This trim piece shall be installed on the framings before the installation of the COLORPLANK® siding elements (Figure 11).

### 8.3 Shielding with the bottom of the façade

It is recommended that a rodent-proof grille be installed at the bottom part of the façades (Figures 12 and 17).

### 8.4 Various shieldings (Figures 13, 14, 17 and 20)

Complementary trim sections can be installed to shield individuated points. These are the sections habitually used in installing traditional external wall sidings. They are made of press-formed baked enamelled sheet, particularly for the drip moulding, the overlay on the coping and the framing of the door or window opening.

## 9. MAINTENANCE AND SERVICING

The COLORPLANK® outside siding elements were designed to keep their eye appeal over the years without servicing. However, the atmosphere of certain regions and certain polluting environments may require a minimum of servicing.

### 9.1 Current servicing

The COLORPLANK® siding is cleaned easily with soapy water (example: dishwashing detergent) or any other non-abrasive detergent, with the aid of a soft nylon brush.

In case of very dirty surfaces, use a water hose at a local water supply pressure less than 3 bars; the use of high pressure washing equipment, which may cause water to penetrate under the siding and/or damage the paint film, is positively discouraged.

Small damaged surfaces can be repaired using paint.

### 9.2 Renovation by painting

In the long term, it is possible to apply a new coat of paint on the COLORPLANK® siding elements. After cleaning (see previous Chapter), a paint recommended by SCB is to be applied. This paint can be applied with a brush, a roller or a spray gun in one or two coats.

### 9.3 Replacing a siding element

After removing the accident damaged siding element, position a new siding element with the same section shape, to be fixed by visible nailing on the bottom and top rim of the siding element.

## B. EXPERIMENTAL RESULTS

The COLORPLANK® siding elements have been subjected to numerous tests in the United States, in Australia and in France.

The following tests were carried out in France:

- Fire rating M1

Test Report No. D040541-CEMAT/1.

- Fire rating, Euroclass A2-s1, d0

Test Report No. RA04-0153 according to European Standard NF EN 13501-1

- Absence of asbestos

Test Report No. 99/312

- Resistance to wind effects

CSTB Test Report No. CL01-098

- Resistance to outside impacts

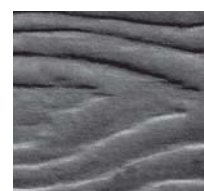
CSTB Test Report No. CL01-099

The COLORPLANK® siding elements hold **CSTB Technical Assessment No. 2/04-1079.**

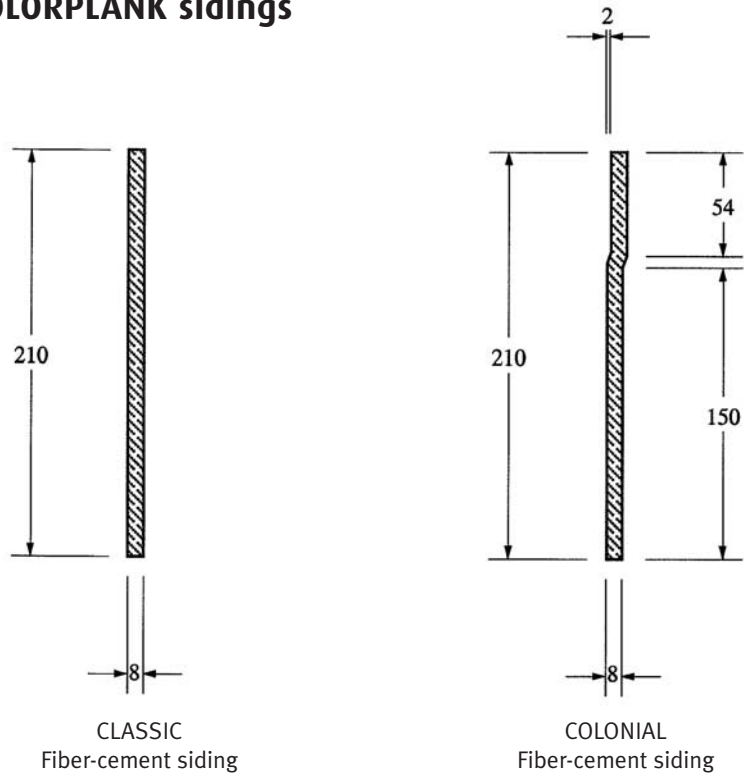
## C. REFERENCES

The façade siding techniques using fiber-cement elements have been used throughout the world for more than fifty years.

On simple request, the SCB Company can provide a list of references in France and in other European countries in the various application fields.

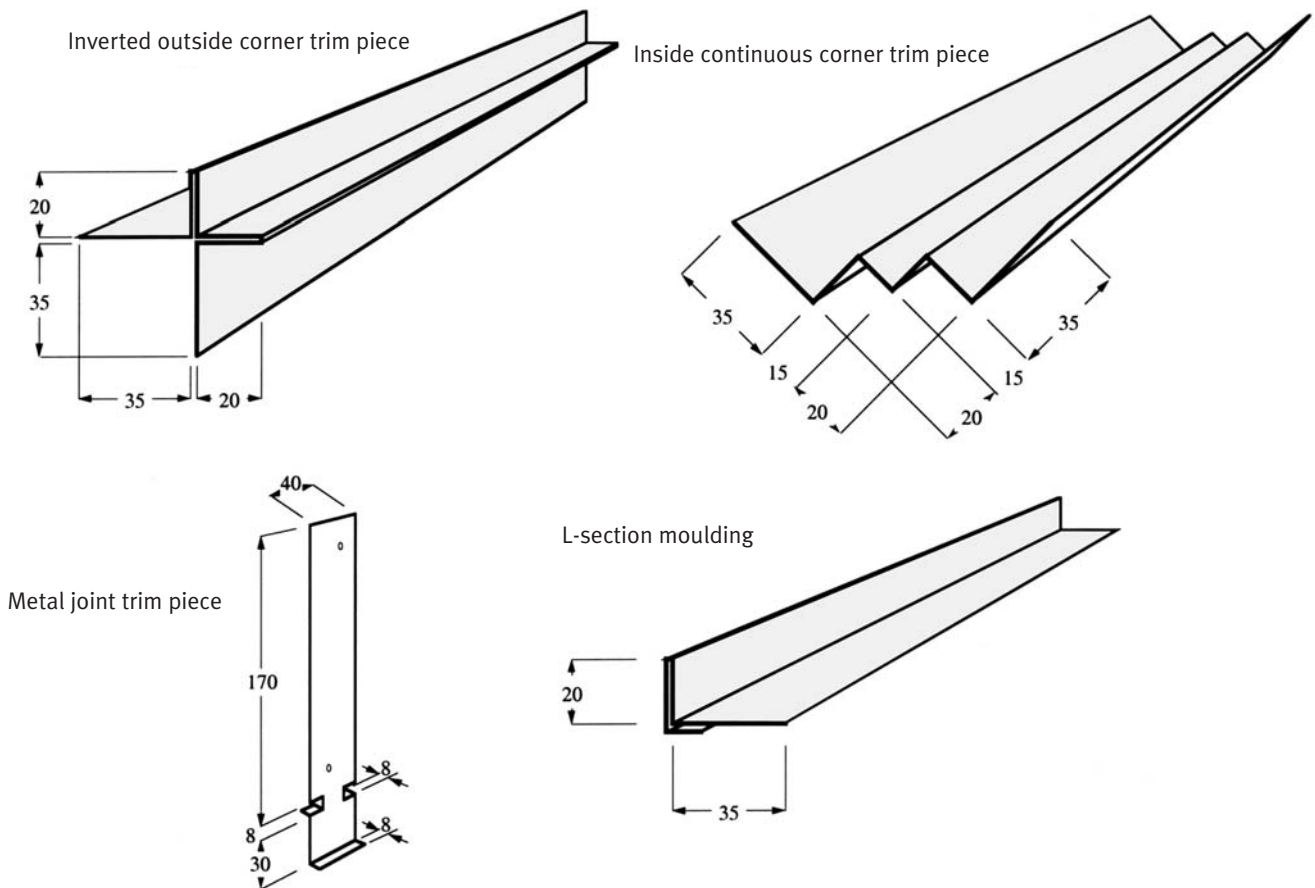


**Figure 1 COLORPLANK sidings**

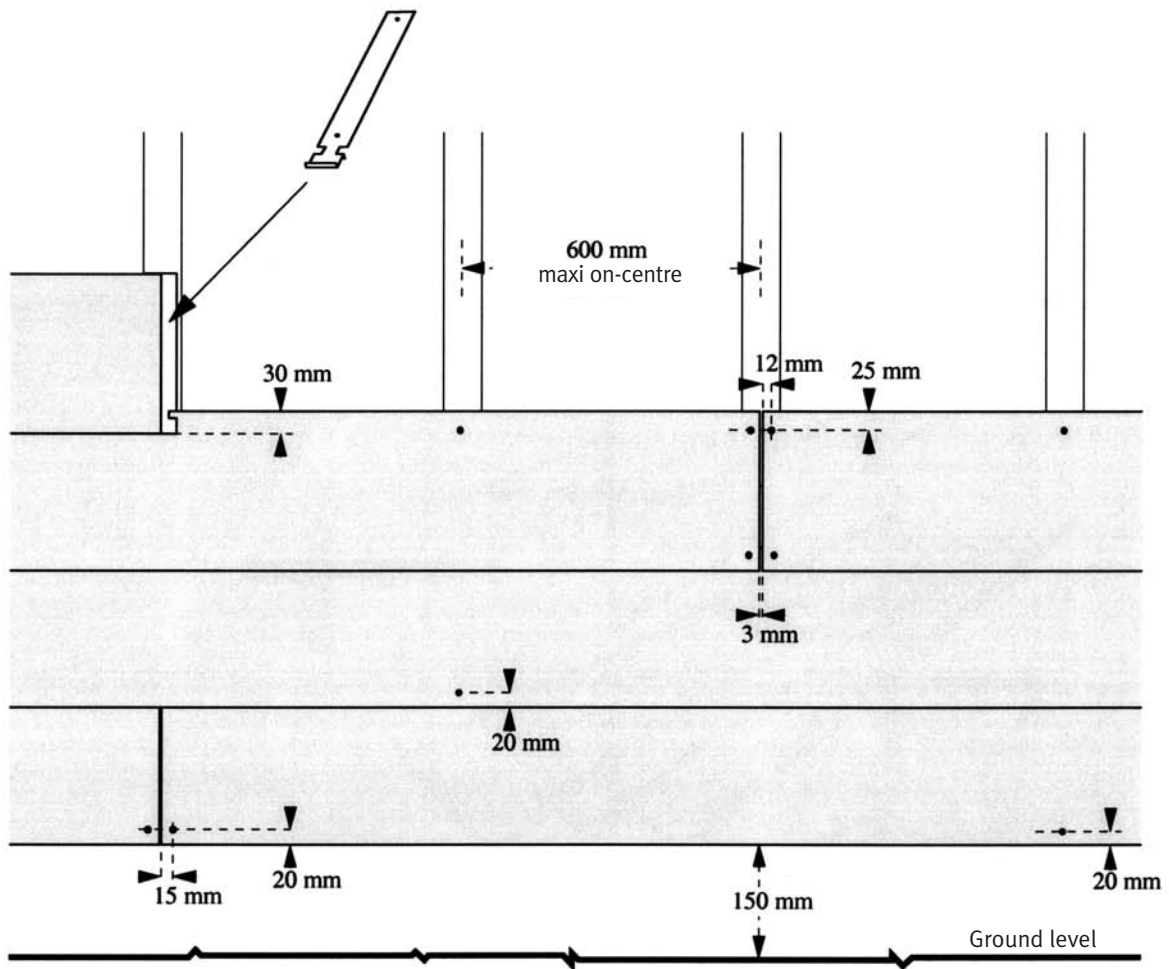


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**Figure 2 COLORPLANK accessories**

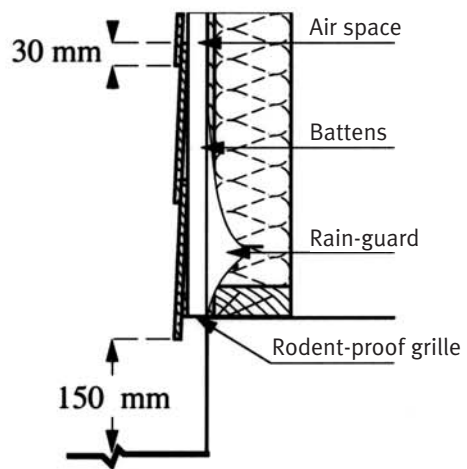


**Figure 3 Horizontal installation**

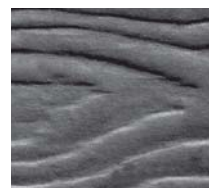
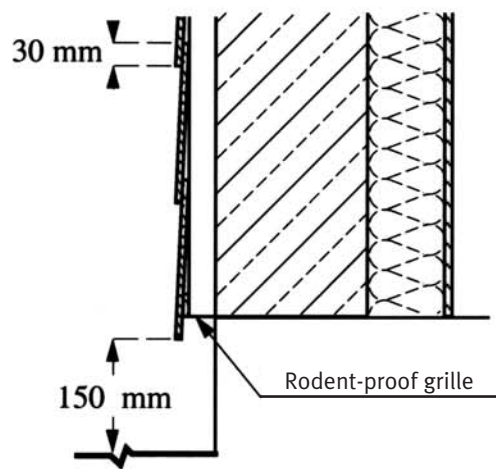


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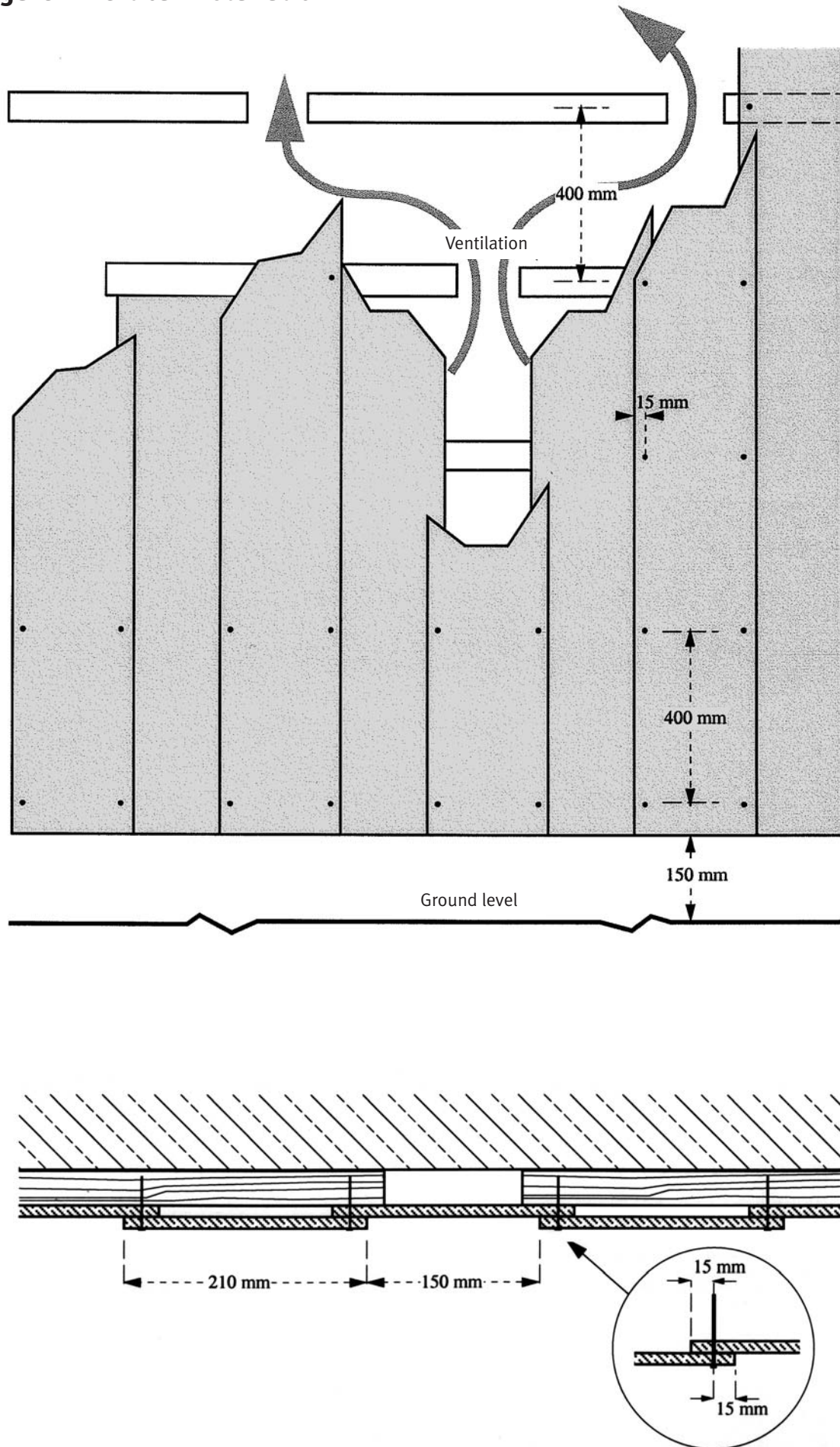
**Timber framing**



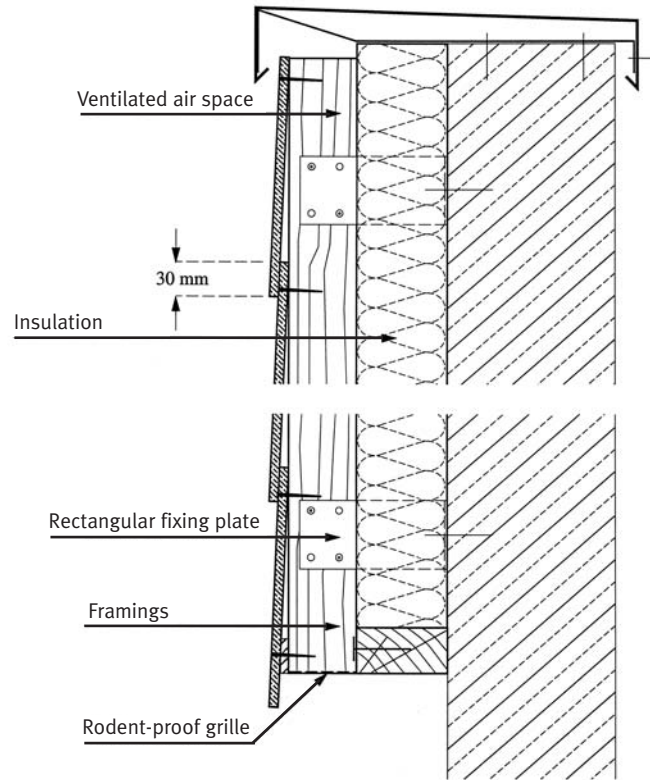
**Masonry**



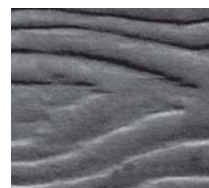
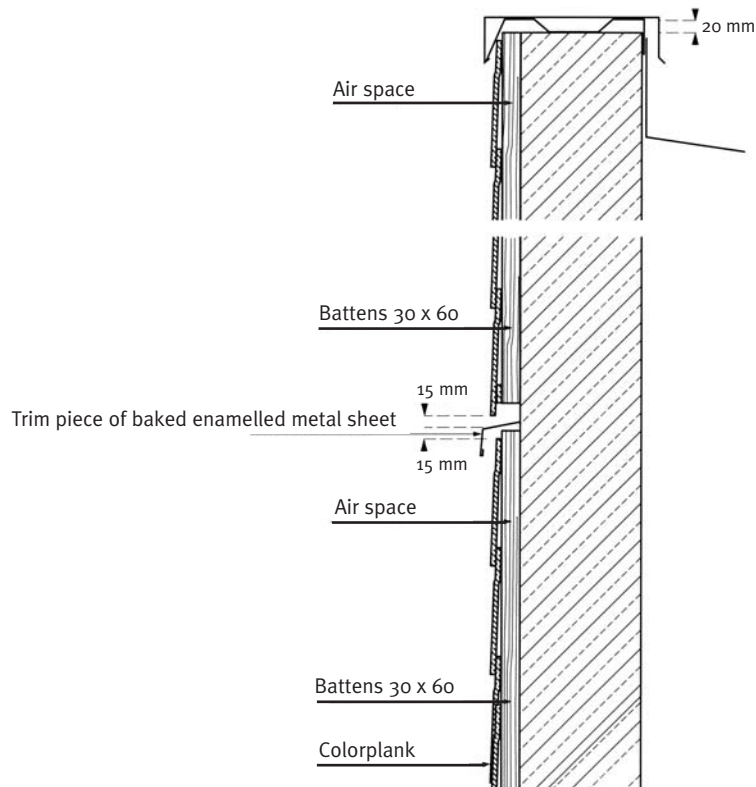
**Figure 4 Vertical installation**



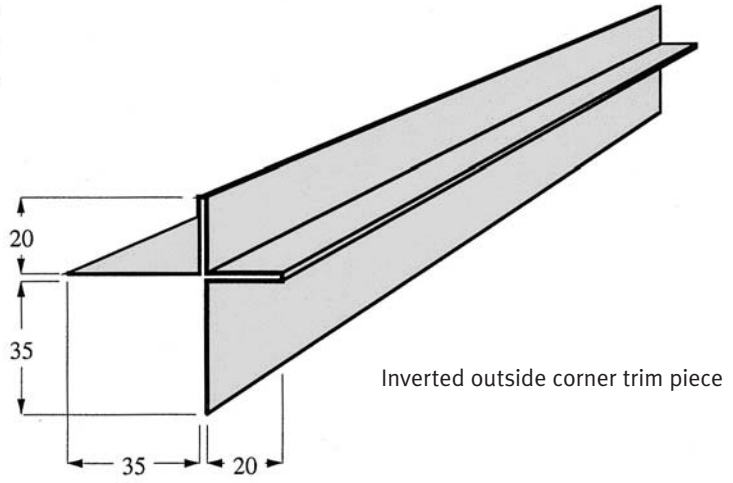
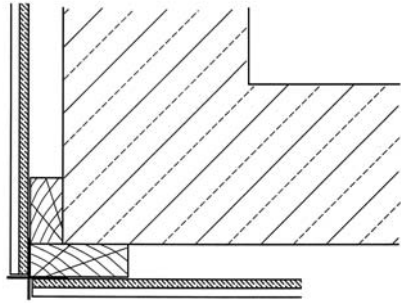
**Figure 5 Cross sectional view of horizontal installation with insulation**



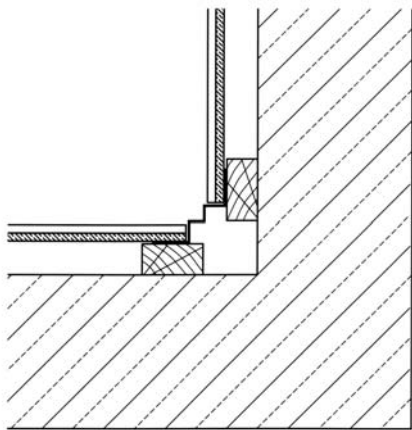
**Figure 6 Details - broken joint and coping**



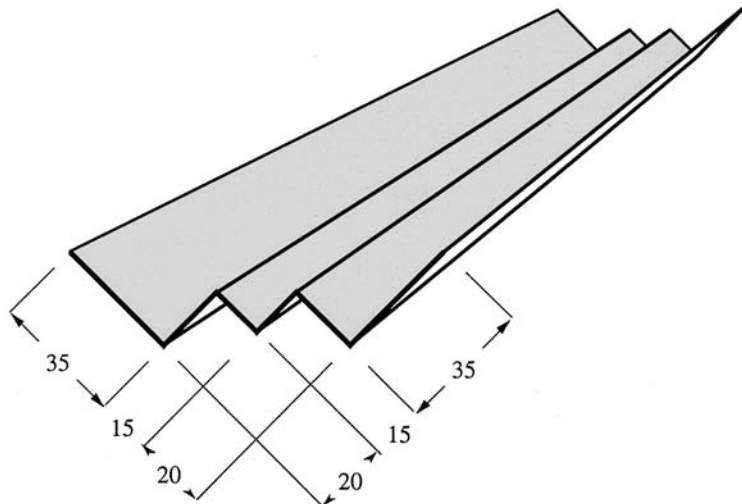
**Figure 7 Salient angle**



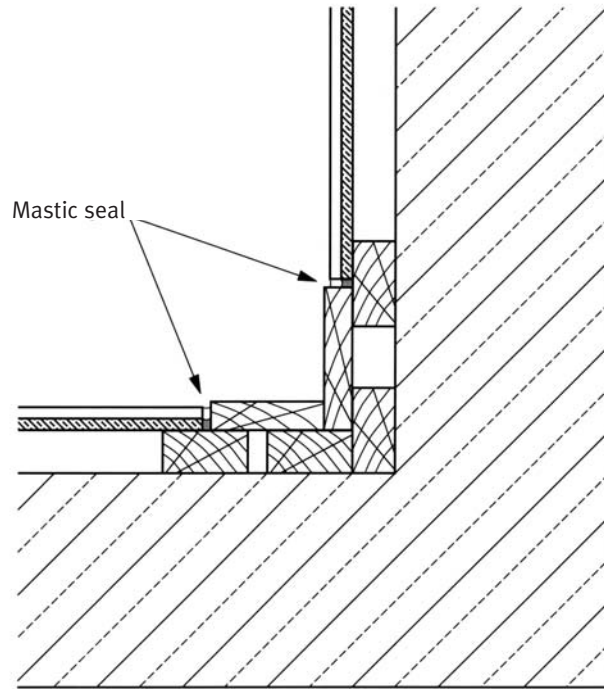
**Figure 8 Re-entrant angle**



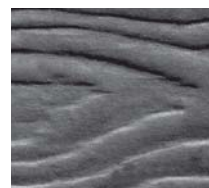
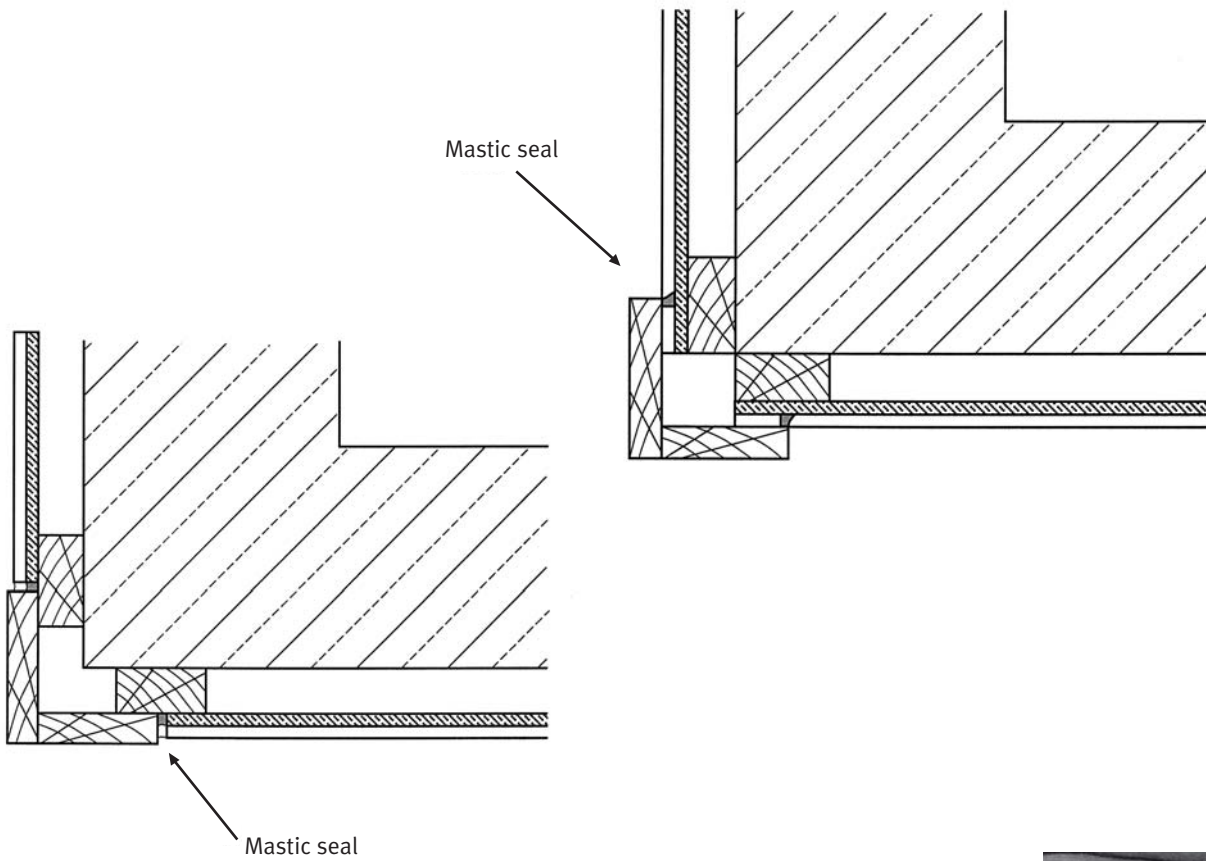
Continuous inside corner trim piece



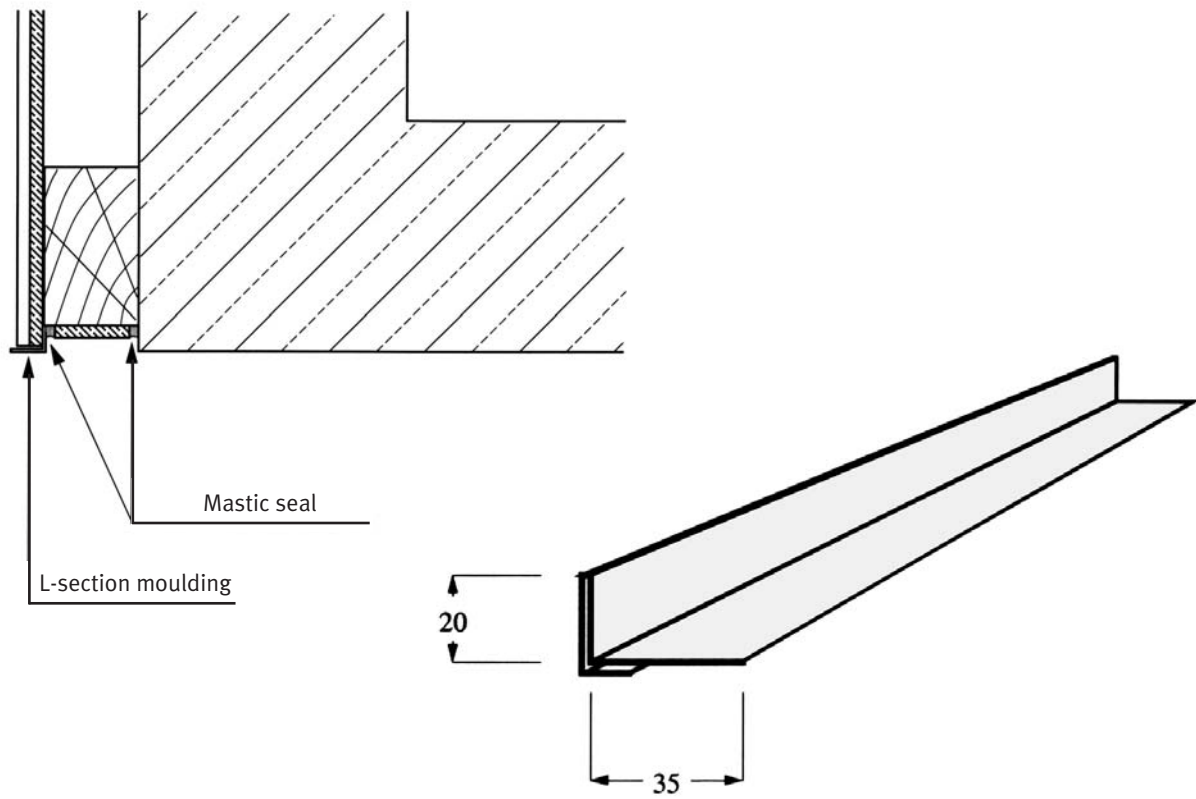
**Figure 9 Solid wood re-entrant angle**



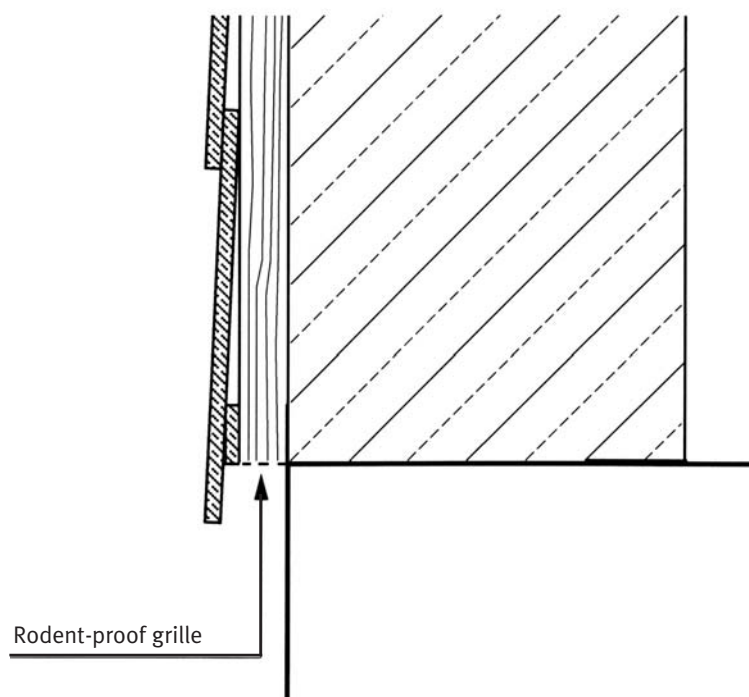
**Figure 10 Solid wood salient angle**



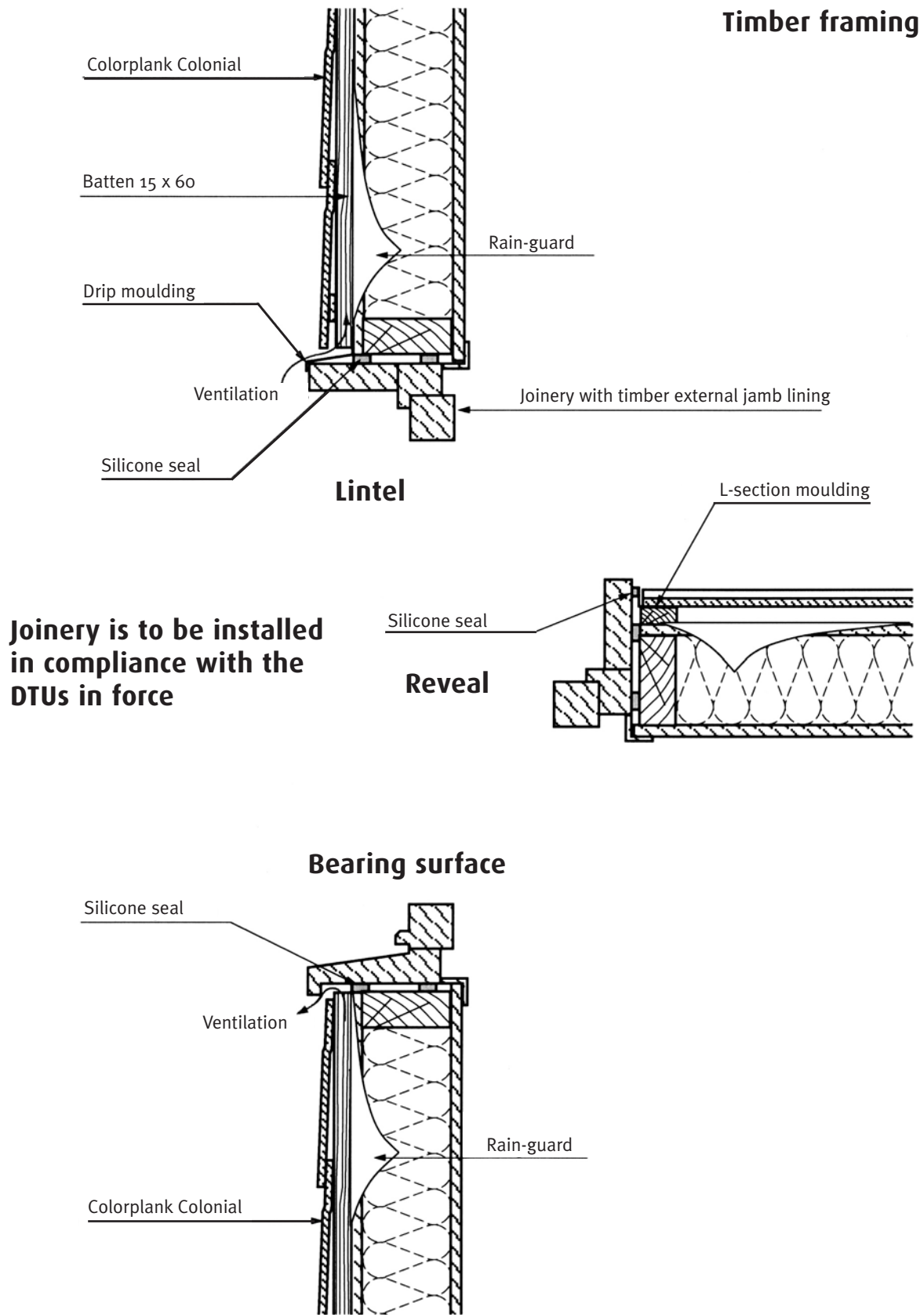
**Figure 11 L-section moulding**



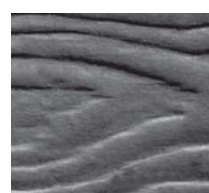
**Figure 12 Rodent-proof grille**



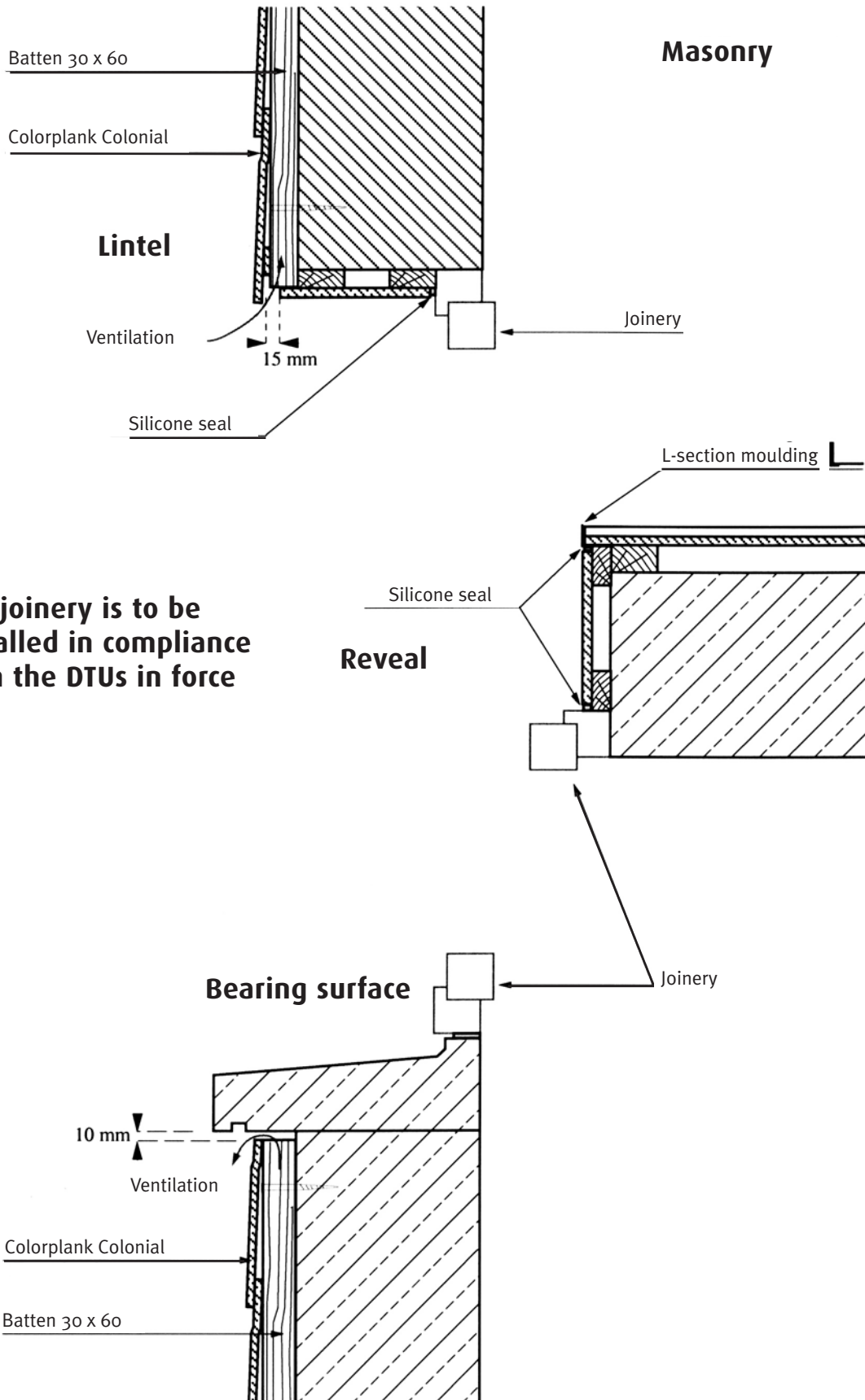
**Figure 13 Sectional view of joinery at the outside surface**



**Joinery is to be installed in compliance with the DTUs in force**

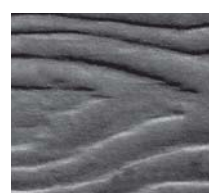
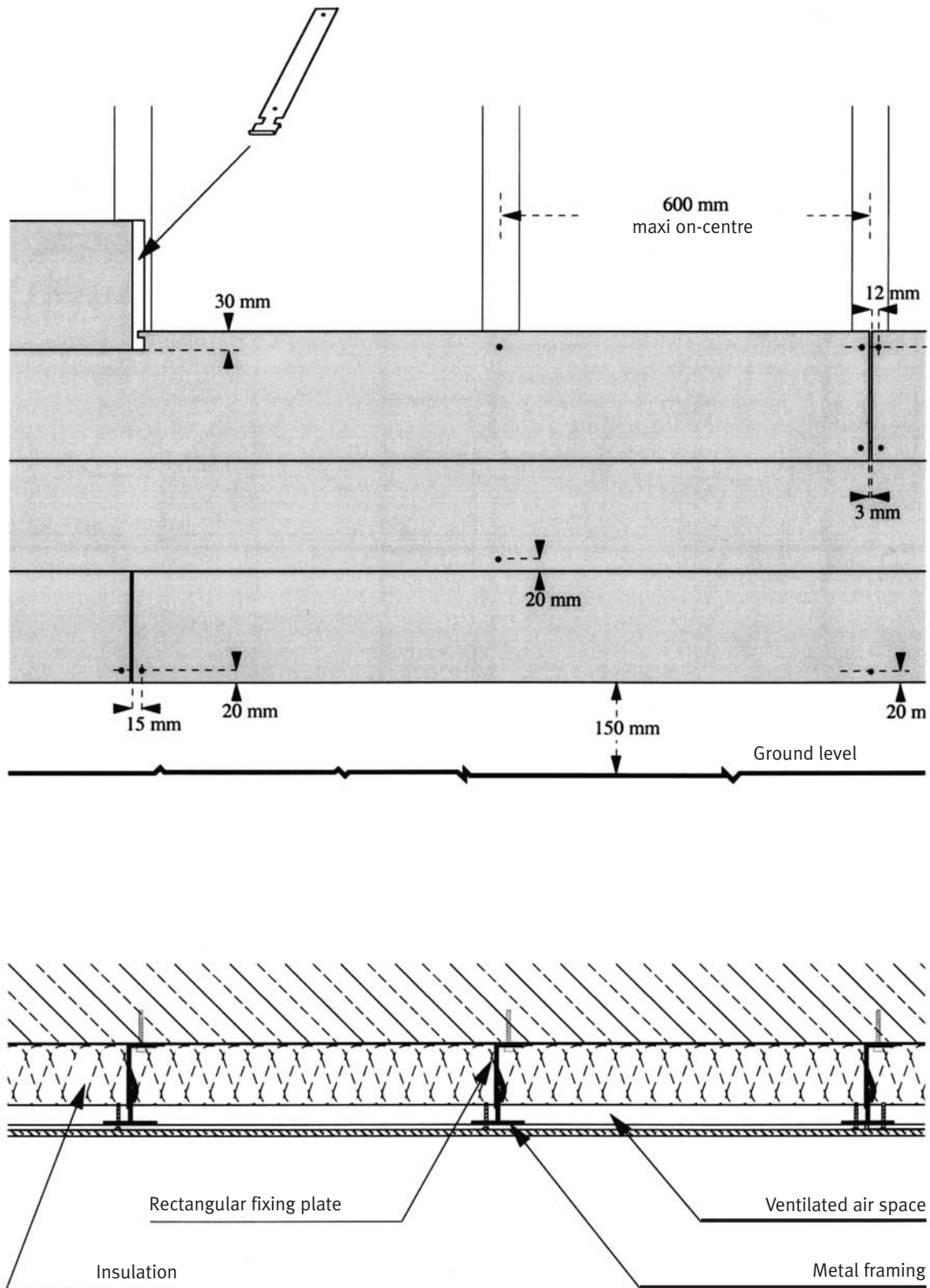


**Figure 14 Sectional view of joinery with reveals**

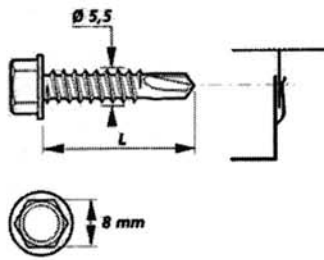


**The joinery is to be installed in compliance with the DTUs in force**

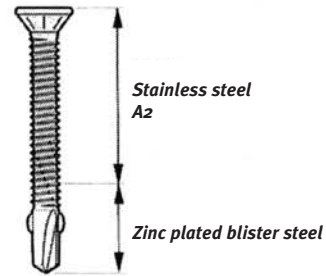
**Figure 15 Horizontal installation on metal framing**



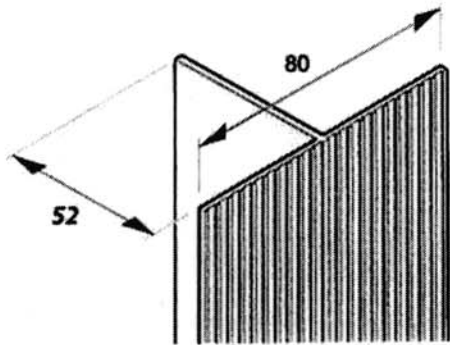
### Figure 16 Associated accessories for installing on metal framing



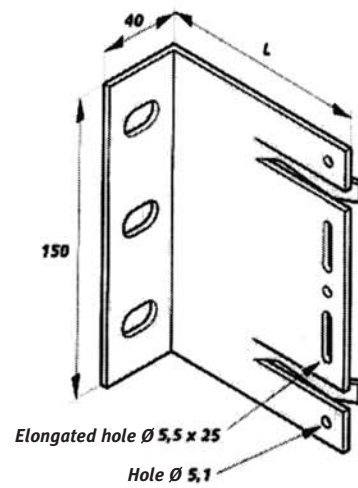
Hexagonal head self-tapping screw  
Stainless steel  $\varnothing 5.5 \times 25$   
For fixing vertical sections on the fixing plates



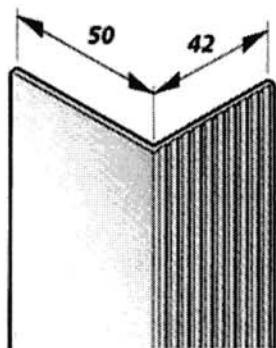
Bimetall countersunk head screw with ribs  
Stainless and zinc plated blister steel  
 $\varnothing 4.8 \times 45$   
For fixing the siding elements to the vertical framing



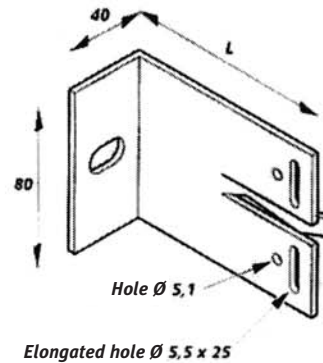
Aluminium section T 80/52  
The T-section is used for fixing siding elements.



Fixing plate LR 150, aluminium with clamps  
For ordinary fixing and butt joining of sections

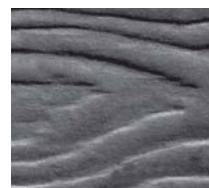
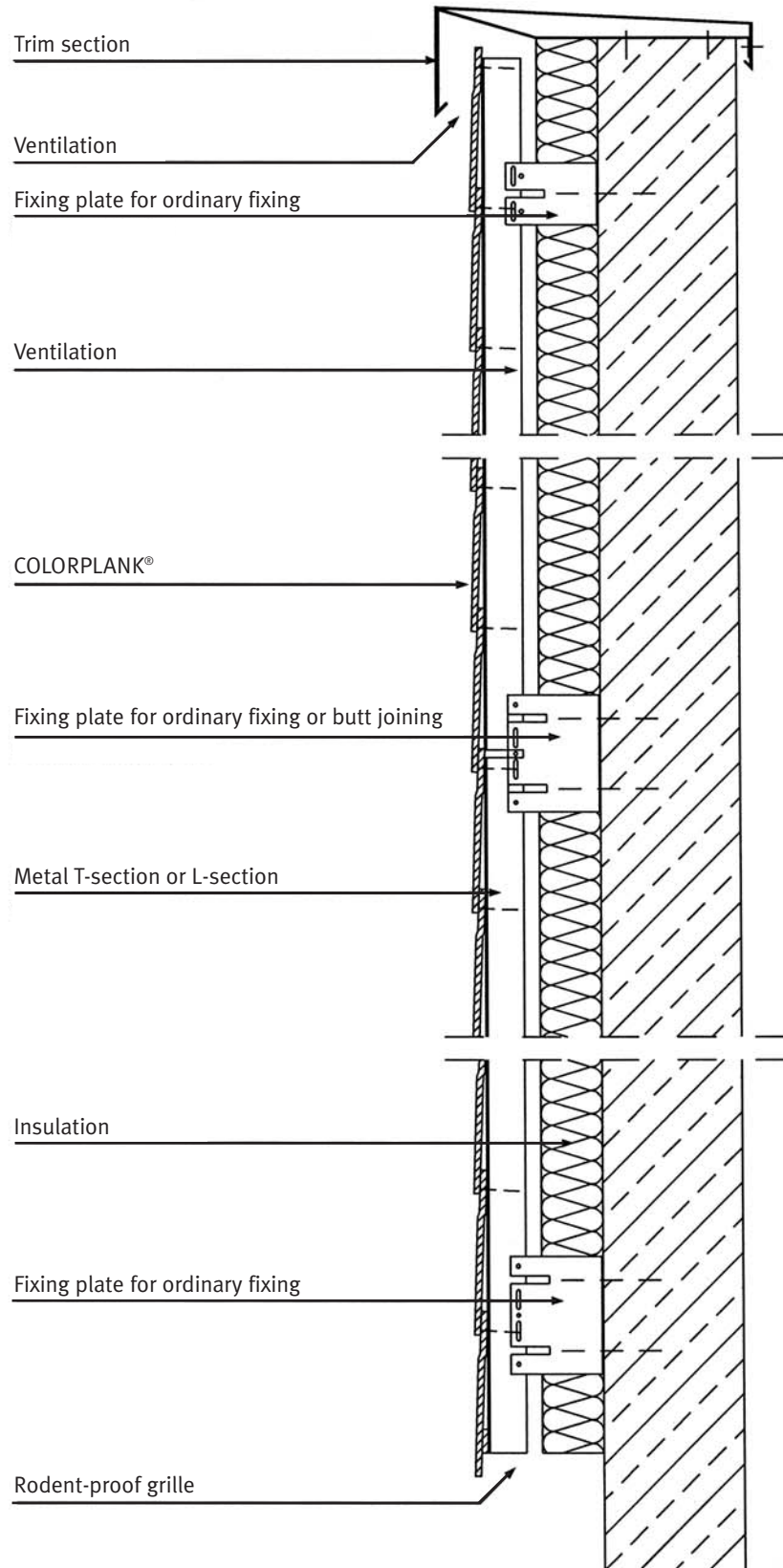


Aluminium section L 50/42.  
The T-section is used for fixing siding elements.



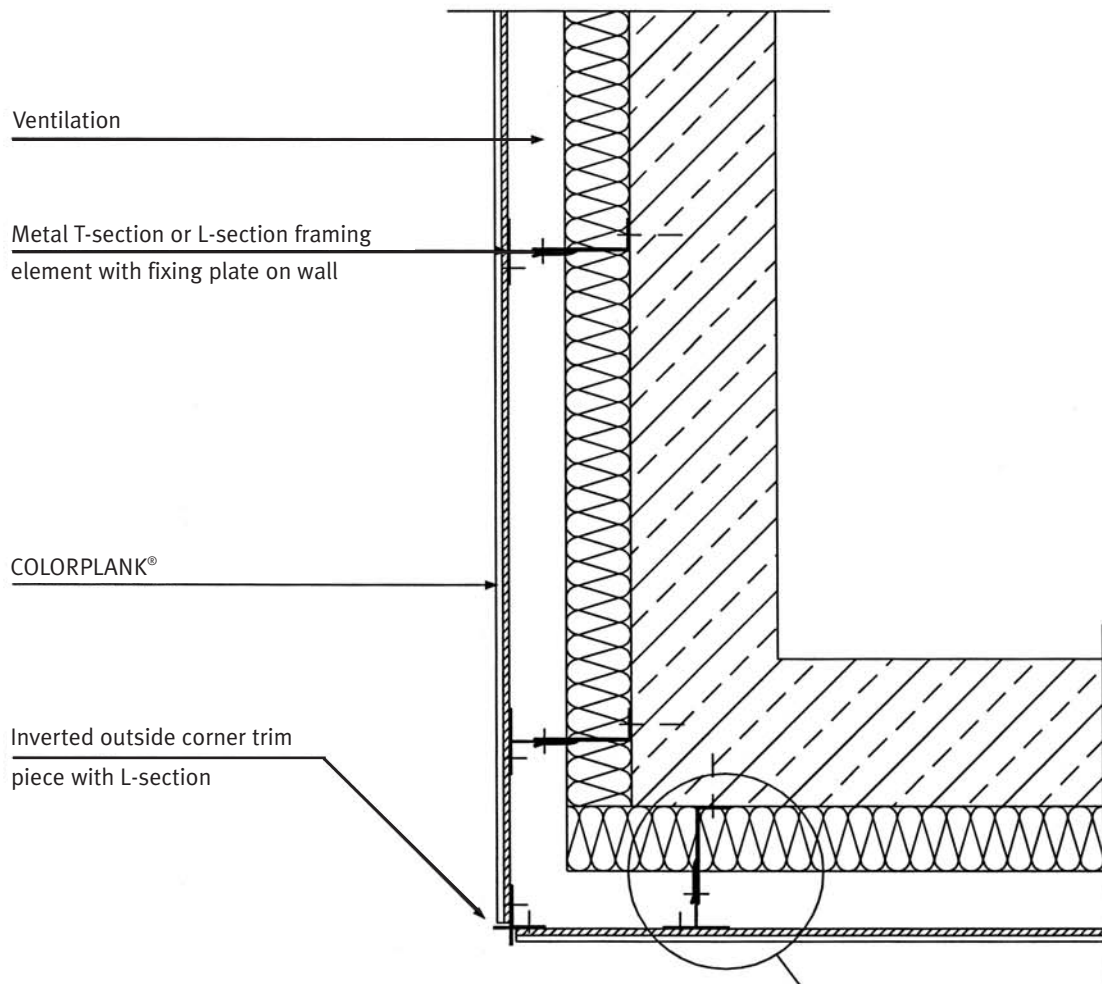
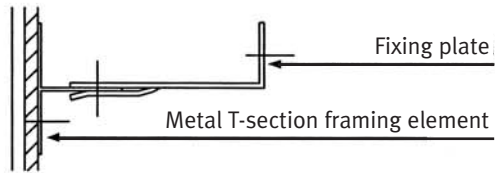
Fixing plate LR 80, aluminium, with clamps  
For ordinary fixing of sections

**Figure 17 Cross sectional view of siding with insulation  
Metal framing on masonry wall**



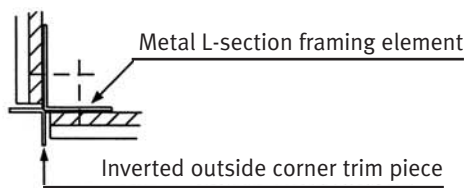
### Figure 18 Salient angle Metal framing on masonry wall

#### Detail of metal framing

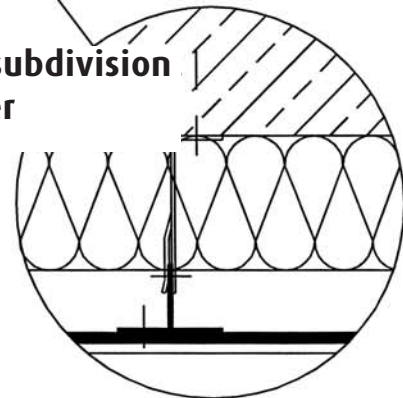


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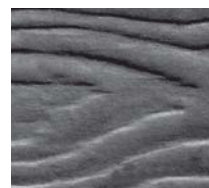
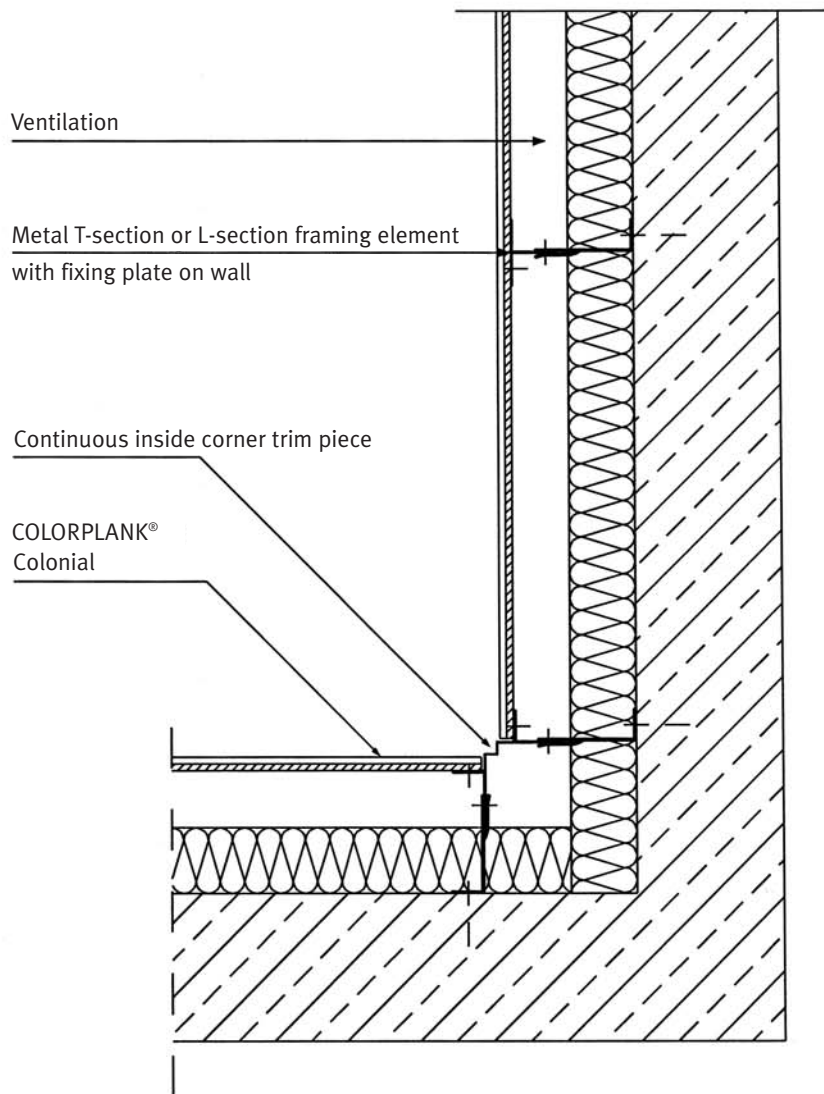
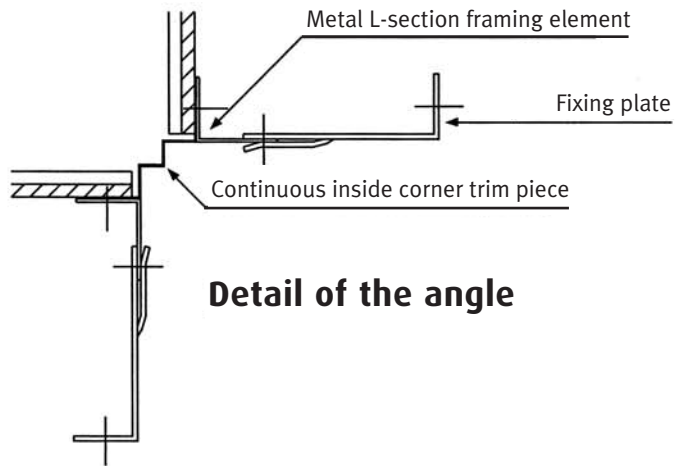
#### Detail of the angle



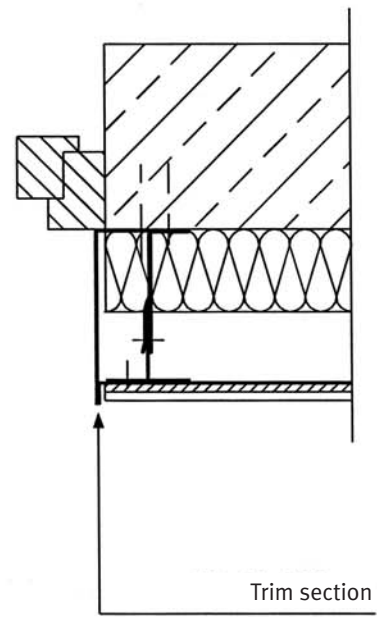
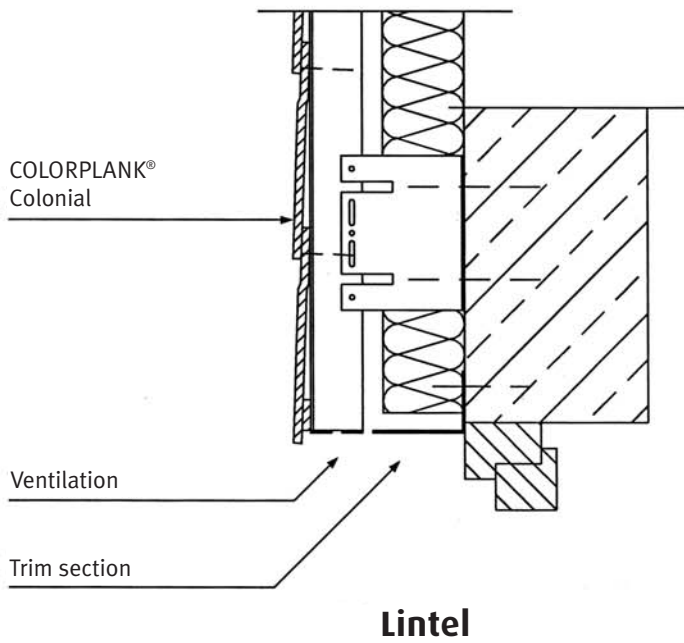
#### Detail of subdivision of air layer



**Figure 19 Re-entrant angle  
Metal framing on masonry wall**

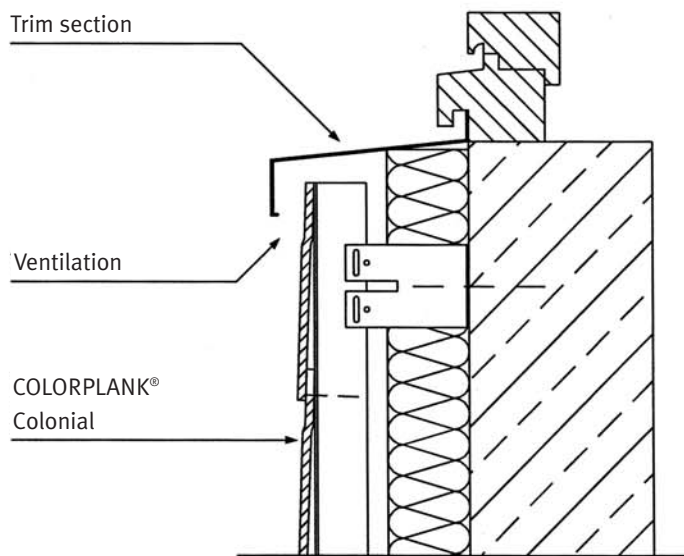


**Figure 20 Sectional view of joinery  
Metal framing on masonry wall**



**The joinery is to be installed in compliance with the DTUs in force**

**Bearing surface**



## Summary technical information sheet

Range of section shapes	CLASSIC	COLONIAL
<b>Composition</b>	40 to 45% cement, 45 to 50% silica, 8 to 10% cellulose fibres, 3 to 6% tow	
<b>Board</b>	Single board	Board with groove on top part
<b>Appearance</b>	Wood textured	
<b>Paint finish</b>	Acrylic primer on all the faces Acrylic paint on the visible faces	
<b>Colours</b>	Standard colours Colours made as requested depending on quantities	
<b>Dimensions</b>	Length 3660 mm Width 210 mm, effective width 180 mm (Other widths available upon request for Classic) Thickness 8 mm	
<b>Installation</b>	By overlap horizontally and vertically	By overlap horizontally
<b>Fixing</b>	By nailing or screwing every 600 mm (horizontal installation) or 400 mm (vertical installation) on timber framing element; by hidden screwing every 600 mm (horizontal installation) on metal framing element	
<b>Effective surface per board</b>	0.66 m <sup>2</sup>	
<b>Effective surface per pallet</b>	230 boards = 151.5 m <sup>2</sup>	
<b>Weight per surface area</b>	12.6 kg/m <sup>2</sup>	
<b>Density</b>	1350 kg/m <sup>3</sup>	
<b>Guarantee and certifications</b>	Ten year guarantee SMABTP No. 285425V Fire reaction rating M1 No. D040541-CEMAT/1 Fire rating A2-s1, d0 No. RA04-0153 according to European Standard NF EN 13501-1 CSTB Technical Assessment No. 2/04-1079 reVETIR rating r <sub>2</sub> e <sub>2</sub> V <sub>3</sub> E <sub>3</sub> T <sub>2</sub> I <sub>4</sub> R <sub>4</sub> (horizontal installation) and r <sub>2</sub> e <sub>2</sub> V <sub>1</sub> E <sub>3</sub> T <sub>3</sub> I <sub>4</sub> R <sub>4</sub> (vertical installation) Absence of asbestos – Report No. 99/312	
<b>Strength and resistance tests</b>	CSTB tests for resistance to the effects of wind and outside impacts	
<b>Servicing</b>	Servicing strictly minimised, using water and a non-abrasive detergent. Clean very dirty surfaces with a soft nylon brush and a water hose at a pressure less than 3 bars.	

