

# Profort

The professional fascia  
cladding system

## Technical information

- Simple to fix
- Low maintenance
- PVC Fascia cladding
- Durable
- Colourfast
- 10 year guarantee
- Environment-friendly
- Recyclable
- KOMO product certificate
- Many colours



**Profort®** ↗

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## **1.0 Introduction**

Thank you for your interest in Profort® Wall Cladding. We are convinced that your choice to use Profort® will have the best possible result. It is important, however, that you carefully follow the processing instructions. They clearly explain how Profort® can best be applied. The processing instructions have a KIWA quality mark and a KOMO® product assessment certificate. Brief instructions can be found in all Profort packages.

### **Description**

Profort is made from foamed PVC–UE. The top layer of Profort Massief, Profort Woodgrain and Profort Massief Potdeksel consist of an impact and scratch resistant co-extrusion layer. This layer is fully coloured ensuring that if it is damaged the original colour will be retained. Profort Topline is made with a luxury, colourfast Renolit foil. Profort is environmentally friendly and meets the requirements of the Buildings Decree (the building guidelines) and the Building Materials Decree (prohibition to leach harmful substances).

### **1.1 Designs**

Profort is available in 5 different designs:

#### **Profort Massief Rabat & Profort Woodgrain dubbel Rabat\***

Suitable for horizontal and diagonal applications.

#### **Profort Massief Sponningschroot**

Suitable for horizontal, vertical and diagonal applications

#### **Profort Massief Potdeksel\* (feather - edged)**

Suitable for horizontal and diagonal applications

#### **Profort Topline Rabat\***

Suitable for horizontal and diagonal applications.

\* = To change the "face", it may be advisable not to use the profiles vertically; however this is not a condition.

### **Important**

**Rules of thumb for easy application and the best possible result:**

- **Store Profort dry and on a level surface.**
- **Always check the material for defects before application.**
- **Make sure there is sufficient vertical through-ventilation behind the boards and that there are sufficient fastening points (see chapter 3.6).**
- **Mount the Profort screws finger tight (see chapter 3.7).**
- **Make sure there is sufficient space for expansion (see chapter 3.6).**



### **Other available documentation**

Profort general brochure

Profort selection folder

KOMO product assessment certificate

Samples

[www.fetimprofessional.nl](http://www.fetimprofessional.nl)

[www.FrontsAndFronts.nl](http://www.FrontsAndFronts.nl)

## 2.0 Technical specifications

### 2.1 Profort Wall Cladding has been assessed in accordance with:

BRL 4101 part 1 "Wall cladding systems with panels – General requirements"

BRL 4101 part 6 "Wall cladding with panels – Additional requirements for profiles and panels made from foamed PVC – UE, whether or not provided with a PVC-U upper layer".

Profort is suitable for use as decorative wall cladding in both new and renovated buildings as:

- Wall cladding
- Roof dormers
- Gable ends,
- Roof edges or fascia parts,
- Roof overhangs,
- Sheds
- Garden fencing.

### Conditions for use:

Processing should be in accordance with the instructions in chapter 3 of this technical documentation.

### 2.2 General

Profort made from extruded foamed PVC-UE and provided on one side with a co-extruded PVC-U upper layer.

**Table 1 – Properties:**

<b>Length</b>	Maximum 5.4 metres Tolerance: < + / - 5 mm
<b>Weight:</b> Profort Massief Rabat / Sponningschroot / Dubbel Rabat Profort Topline Rabat	Approx. 7 kg per m <sup>2</sup>
<b>Bending stress:</b> Longitudinal direction Cross direction	Approx. 35 N/mm <sup>2</sup> Approx. 35 N/mm <sup>2</sup>
<b>E-module:</b> Longitudinal direction Cross direction	1650 N/mm <sup>2</sup> 1500 N/mm
<b>Class of the contribution to fire development according to NEN 6065</b>	At least class 2
<b>Processing temperature</b>	> 5°C and < 30°C

### 2.3 Fastening

The profiles are provided with slotted holes (2.7 mm x 15 mm). The fasteners must be placed in such a way that the profiles are fixed in the centre of the length and are able to work freely towards both ends (see drawing 5). **Note: Start assembly from the centre and mount the screws finger tight.**

### 2.4 Bearing structure

The bearing structure may consist of wooden framed rails with a mass of 380 kg/m<sup>3</sup> and at least strength class K17 according to NEN 6770. The wood must be preserved according to assessment criterion BRL 2903 and BRL 2906.

The distance between the fastening rails must not be larger than the values in tables 2 a & b. The thickness of the rails should be at least 20 mm when light colours are used and 28 mm for dark colours and the width should be at least 30 mm.

### 2.5 Fasteners

The Profort profiles must be fastened with the special Profort screw (3.0 x 30 mm).

Screw dimensions:

- Shank diameter 2.2 mm
- Head width 8.1 mm



Note: if a different screw is used than the one recommended, all guarantees and liability will be suspended.

The auxiliary profiles must be fastened with nails or staples (pay attention to the staple depth adjustment to make sure that the plastic does not crack), centre-to-centre 200 mm.

## **3. Application**

### **3.1 Storage**

Profort profiles must be stored indoors on an even surface resting on beams. There must be a distance of 60 cm between the beams to prevent the profiles from deforming. If the parts are still wrapped in the foil, direct sunlight must be avoided. On the building site, the profiles must be covered, for example with tarpaulin.

### **Transport**

During transport, stable, flat pallets should be used with at least the same length as the profiles. To avoid damage to the top layer, the profiles must never be allowed to slide on top or alongside each other.

### **3.3 Processing**

Profort profiles can be processed with normal woodworking tools.

The saw blades are provided with hard metal (wide) cutting edges. When used in temperatures under 5°C special measures should be taken, such as heated storage and a higher ambient temperature. The optimum processing temperature is between 5 and 30°C.

### **3.4 Protective foil**

The protective foil of the visible surface of the Profort Topline must be removed before assembly to be able to visually check the surface.

### **3.5 Linear expansion**

Plastics shrink and expand when the temperature changes. This also applies to the Profort profiles; in normal circumstances 2 mm per meter (linear expansion coefficient: 80-10-6 K-1 ). Allow for this when processing (see drawing 5) by placing the Profort screw in the centre of the groove.

### **3.6 Fastening**

When fastening, always strictly follow the following rules.

#### **Rails:**

- Basic principle: The wall/construction behind must be sufficiently strong and connected to the foundation in such a way that the stability of the structure is assured and that the loads acting upon it are transferred to the foundation.
- Make sure that the rails are properly aligned.
- The rails must always ensure vertical ventilation. If the Profort profiles are used vertically, a so-called double rail must be applied
- Minimum thickness of the rail is 20 mm when light colours are used (such as ivory white, cream and agate grey) and at least 28 mm when dark colours are used (such as blue, green, black) and Profort Woodgrain. These requirements as to rail thickness are important to ensure the correct ventilation behind the parts.
- Minimum width of the rail is 30 mm; where 2 profiles are connected with, for example, a connecting profile or a spline joint, the rail should be wider, because both profiles need to be fastened to the rail and must not hang loose.
- Distance between the rails: centre-to-centre < 600 mm for the light colours and < 400 mm (centre-to-centre) for the dark colours.

**Area of application:**

Provided that the processing requirements are met, Profort can be used for building heights in accordance with table 2 below.

**Table 2a** - maximum permitted building height when using Profort screws and rails centre-to-centre 400 mm

Profort	Wind area I		Wind area II		Wind area III	
	Not built-on	Built-on	Not built-on	Built-on	Not built-on	Built-on
Profile width						
135 mm	3 meters	10 meters	6 meters	13 meters	10 meters	18 meters
270 mm	3 meters	10 meters	6 meters	13 meters	10 meters	18 meters

**Table 2b** - maximum permitted building height when using Profort screws and rails centre-to-centre 600 mm (only with light colours)

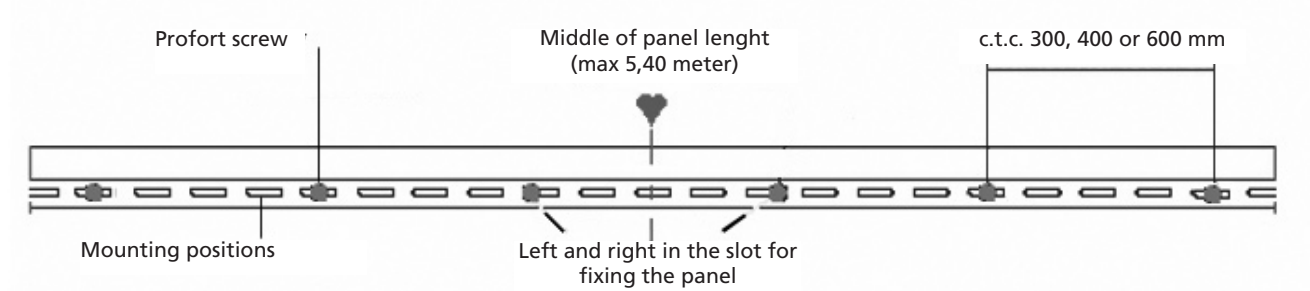
Profort	Wind area I		Wind area II		Wind area III	
	Not built-on	Built-on	Not built-on	Built-on	Not built-on	Built-on
Profile width						
135 mm	-	-	3 meters	10 meters	6 meters	13 meters
270 mm	-	-	3 meters	10 meters	6 meters	13 meters

When used diagonally, the distance of the rails should be changed to 300 or 450 mm to obtain the same values as mentioned in tables 2 a & b.

### 3.7 Fastening the profiles:

- Always make sure that there is sufficient ventilation behind the profiles. Make sure that any insulation and/or foil does not bulge and hamper the ventilation.
- Always make sure there is sufficient room for shrinking and expansion at the ends of the profiles, also when they are used vertically. The auxiliary profiles have sufficient overlap to absorb expansion and shrinking.
- The air behind the panels heated by solar radiation should be allowed to escape through sufficient holes ensuring that the temperature behind the panels does not rise higher than the air temperature outside. The ventilation openings at the top are just as important as those at the bottom.
- If the rails have expanded, apply Alu Startprofil to provide the first panel with sufficient support.
- The Profort screws must be applied finger tight. This will allow the parts to work because screws that are too tight will impede the working of the profiles. Assemble from the centre to the outside!
- The pattern of the screws as shown in drawing 5 must be observed.  
Fix the parts in the centre of the profile length, then apply the other fastening points in the centre of the slot finger tight.
- When applied diagonally or at the bottom of a roof overhang / roof gutter, the fastening distance must not be larger than 300 mm centre-to-centre. Pay attention to this before adjusting the rails.

## Drawing 5

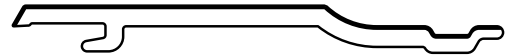


### 3.8 Profile types Profort

Profort is available in the following models:

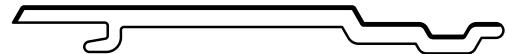
#### Rabbet

Dimensions: 165 x 16 mm (nett size 135 x 16 mm)



#### Rabbet Boarding

Dimensions: 165 x 16 mm (nett size 135 x 16 mm)



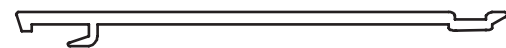
#### Double Rabbet (Woodgrain)

Dimensions: 300 x 16 mm (nett size 270 x 16 mm)



#### Shiplap

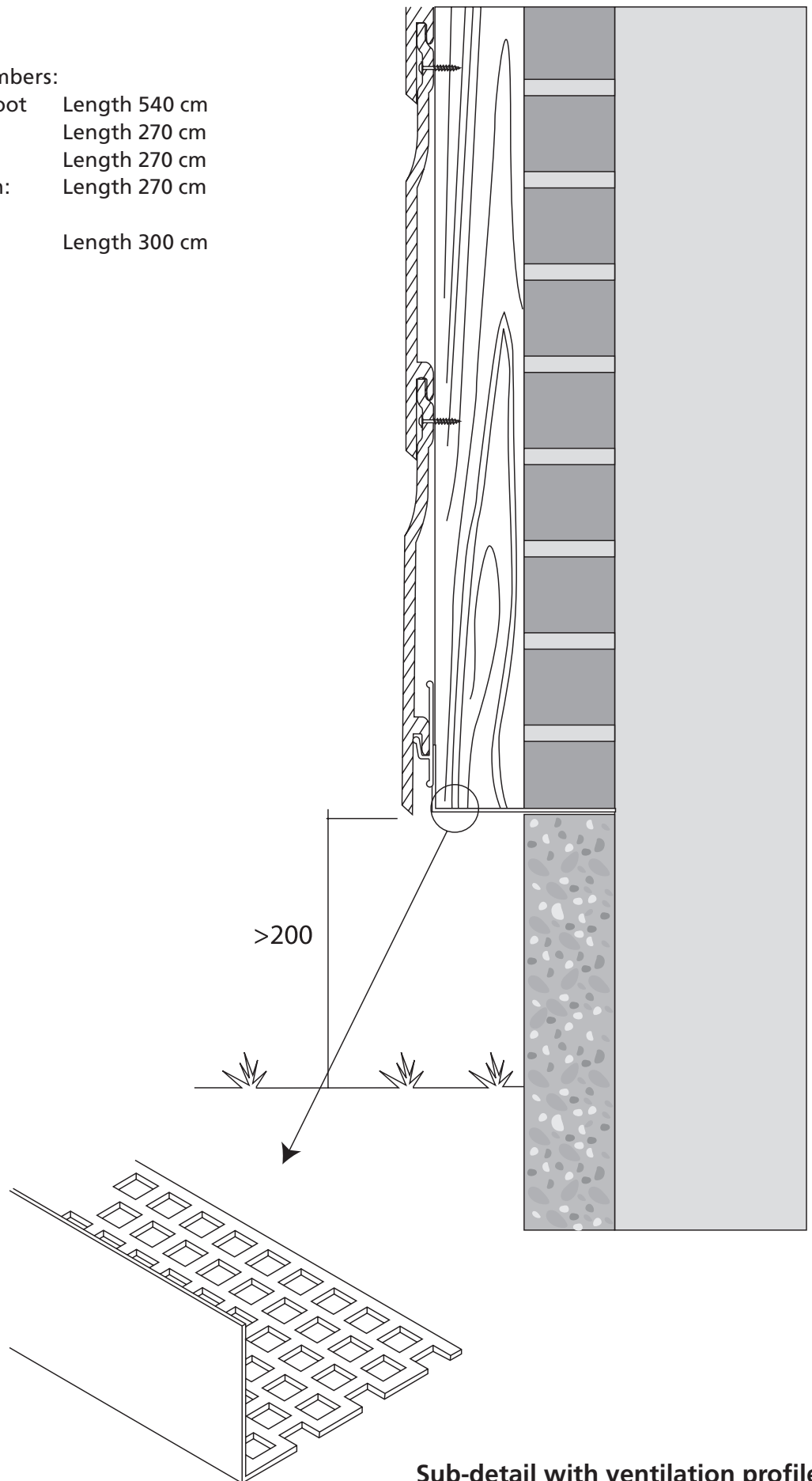
Dimensions: 200 x 16 mm (nett size 170 x 16 mm)

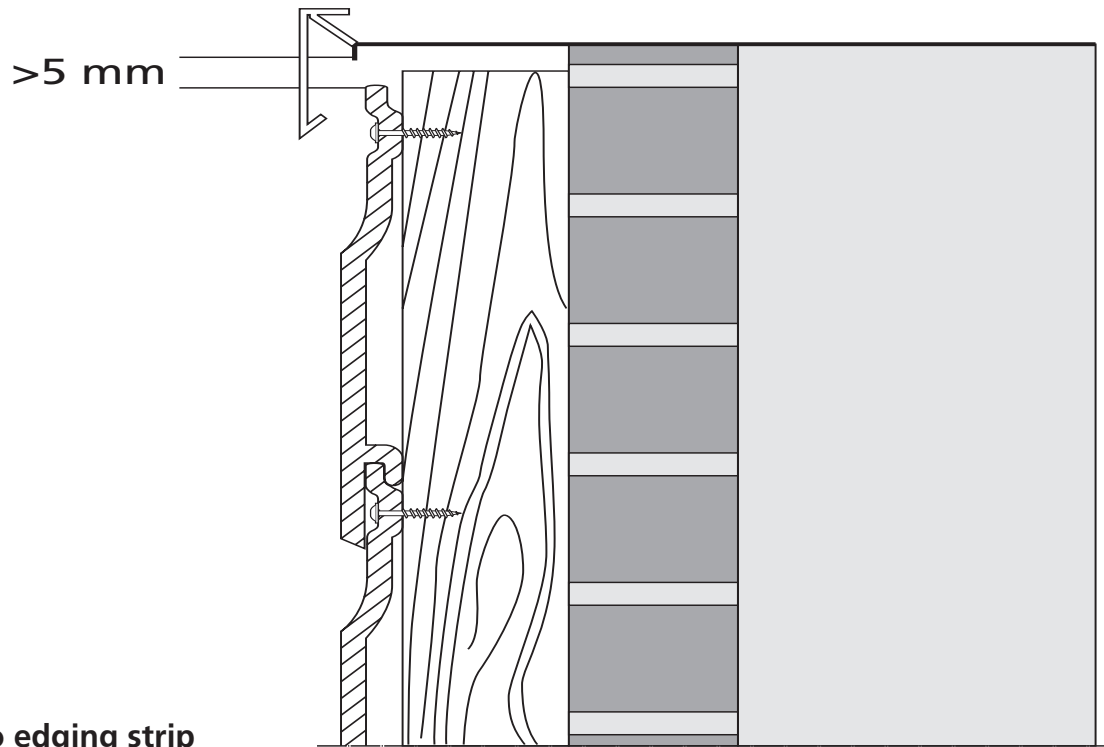


## 4. Drawings

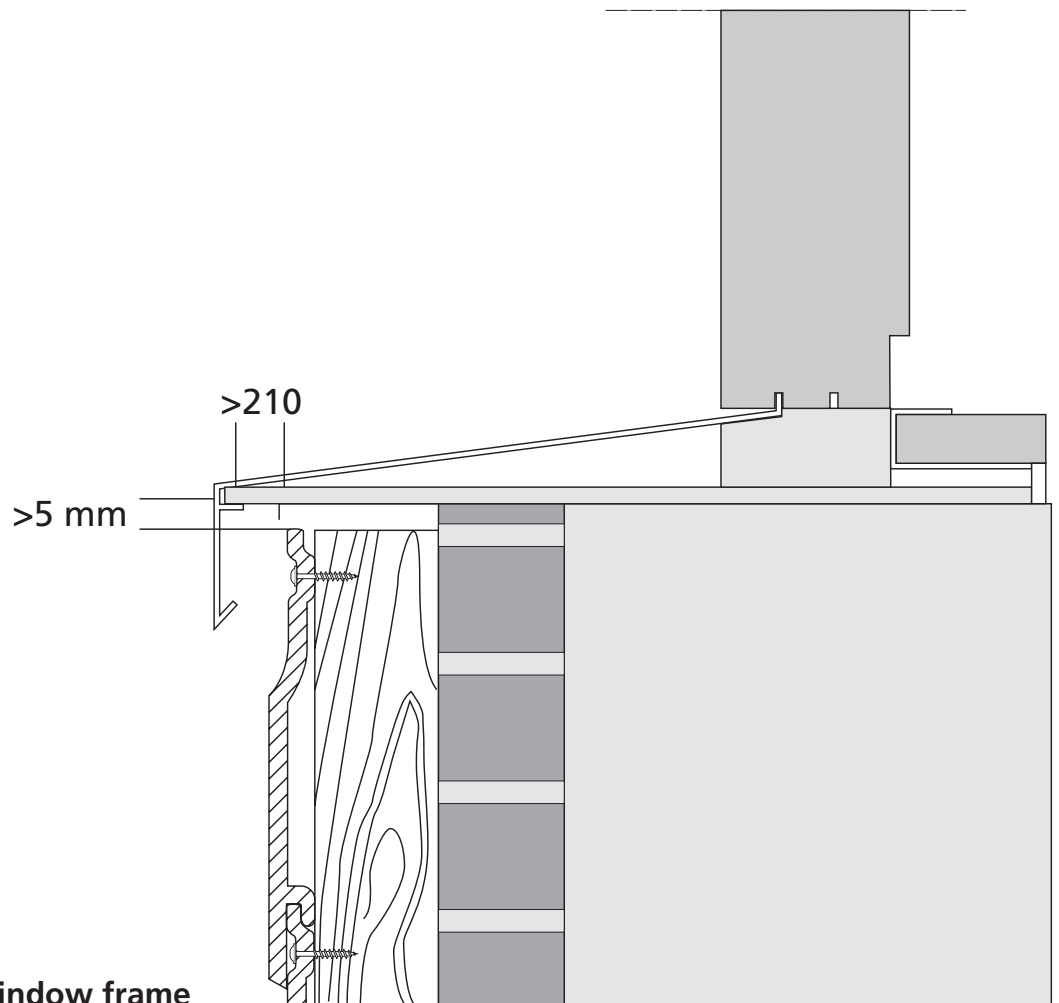
Explanation of the numbers:

Rabat / Sporningschroot	Length 540 cm
2-part corner section:	Length 270 cm
2-part end section:	Length 270 cm
2-part coupling section:	Length 270 cm
Rails	
Alu start section:	Length 300 cm



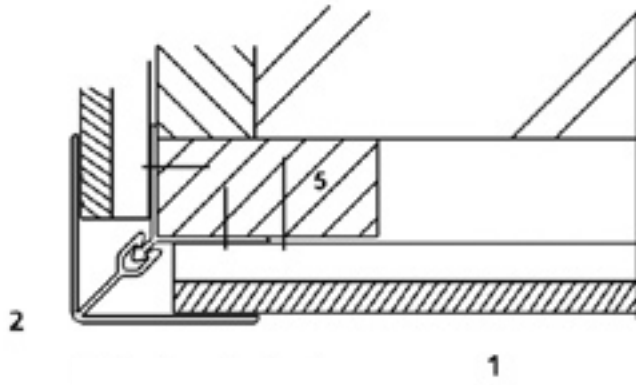


**Connection to edging strip**

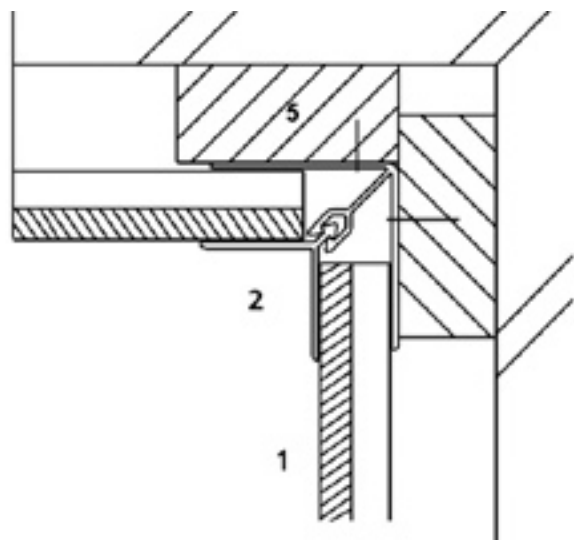


**Connection to window frame**

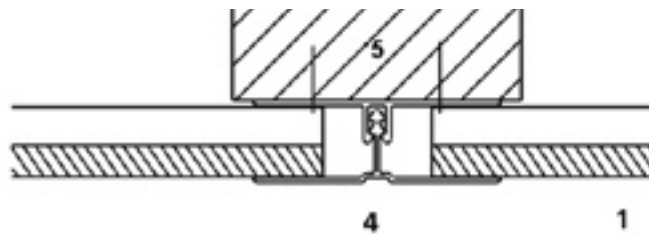
Outside corner solutions



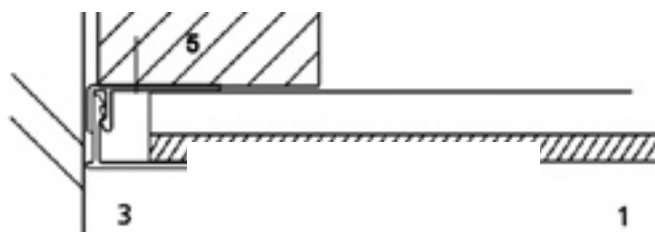
Inside corner solutions



Connection



Side finish



## **5.0 Maintenance**

Depending on the environment in which they are used (woody or industrially polluted), the Profort profiles can be cleaned with a normal household cleaning product.

Abrasives and cleaning products with alkaline components must not be used.  
Solvents such as white spirit, thinner, turpentine must never be used.

Cleaning with a high pressure cleaner is not recommended because it will cause the material to attract dirt more quickly.

### **Profort cleaning and freshening**

<b>Products*</b>	<b>Profort cleaning*</b>	<b>Profort freshening*</b>
HG garden Furniture power cleaner	works well	-
Valma plasticine transparent car wax for plastics	-	works well
Hot-air gun 600°C tested with Steinel HL1910E 2000W	-	works well
Verf Sigma Sigmetal Zinccoat Satin synthetic primer and finish, mix according to colour	-	for touching up damaged spots
Do not use HG synthetic garden furniture renewal; it leaves residue behind in structure		

\* this overview is in accordance with the current state of technology

NB: Always first test on a piece that is not immediately in sight!

## **6.0 Performance**

### **6.1 PERFORMANCE WITH RESPECT TO SAFETY GENERAL STRENGTH: BB-SECTION 2.1**

#### **6.1.1. Strength and stability of Profort profiles and of the certified fastening systems; Buildings Decree (BB) art.2.1**

Strength and stability of the Profort profiles and of the certified fastening systems are sufficient to resist any fundamental load combinations that may occur according to NEN 6702 without collapsing for a reference period of 15 years.

#### **Areas of application**

1. Static calculations of the wall cladding system must be performed according to NEN 6702 considering the following points:
  - the strength analysis of the wall panels is performed by or on behalf of the producer, or in accordance with his written instructions;
  - the loads that apply to the loading case "Fire" need not be considered;

The certified wall cladding systems are classified in safety class 1 according to NEN 6702;  
The representative values and the material factor  $Y_m$  for the bearing structure are taken from the applicable TGB norm;  
For Profort profiles and fasteners a material factor  $Y_m$  of 2.0 applies.

2. Connections, fasteners and anchorages must be designed in accordance with the method described in chapter 2 (Technical Specifications).
3. The fastening distance should be determined on a case to case basis in accordance with the fastening system opted for (see the instructions in chapter 2).
4. Extra provisions must be made when suspending heavy objects and when used in places that are mechanically more liable to stress.

#### **RESTRICTION TO SITUATIONS ARISING THAT CONSTITUTE A FIRE HAZARD; BB SECTION 2.11**

##### **6.1.2. Non-combustibility of the Profort profiles; BB art. 2.81**

The non-combustibility has not been determined. Provisions must be made at or near fireplaces and/or in the vicinity of facilities for the discharge of smoke, in such a way that the conditions in article 2.82 and 2.84 of the Buildings Decree are met.

#### **RESTRICTION TO THE DEVELOPMENT OF FIRE; BB SECTION 2.12**

##### **6.1.3. Contribution to the development of fire of the Profort profiles; BB art. 2.91**

The profiles with a thickness of  $> 5$  mm and a weight of  $> 4$  kg/m<sup>2</sup> are of class 2 of the contribution to the development of fire according to NEN 6065.

#### **RESTRICTION TO THE FIRE SPREAD; BB SECTION 2.13**

##### **6.1.4. WBDO; Buildings Decree art. 2.103**

Profort profiles do not have fire-resisting properties with regard to the spread of fire through surrounding walls and doors and with respect to the spread of fire.

#### **RESTRICTION REGARDING THE DEVELOPMENT OF SMOKE; BB SECTION 2.15**

##### **6.1.5. Smoke density; BB art. 2.125**

The smoke density of single panels is smaller than the aforementioned requirements of 10 m<sup>1</sup>.

#### **Application conditions**

1. Where conditions such as 'non-combustibility' need to be met, Profort profiles must not be used as such.
2. An exterior wall of a building must consist of combinations of building materials which at least comply with class 4 regarding the spread of fire on the condition that the side with its back to the escape route should at least be up to class 2.
3. Walls of residential buildings with more than two floors up to 2.5 m above the adjoining grounds must consist on the outside of combinations of building materials that at least comply with class 1 of the contribution to the spread of fire.
4. Walls of buildings not intended for residential purposes must from a height of 13 m above the adjoining grounds consist on the outside of combinations of building materials that at least comply with class 2 of the contribution to the spread of fire.
5. (Combinations) of materials of walls lower than 1.5 m from the ground surface must at least belong up to class 4 of the contribution to the spread of fire.
6. (Wooden) bearing structures and, if used, insulation materials must be assessed for fire safety on a case by case basis.

## **Guarantee conditions \***

### **Profort wall cladding with 10 years manufacturer's guarantee**

Profort panels that develop defects within 10 years and have been assembled in Central or Northern Europe (north of 48° north latitude up to 1800m above sea level) and for which it can be established that they have been stored and processed in accordance with the Profort processing instructions; and for which it can also be established that these defects may have adverse effects on the constructional application will at the discretion of Fetim Professional be replaced free of charge or the invoice value will be refunded.

Defects include: manufacturing defects, other mechanical defects and delamination of the Renolit foil and the basic material in the case of Profort Topline. If the defect occurs after assembly, compensation is also paid during the first five years of the guarantee period, up to maximum of € 2,500 per event per end user, plus the labour costs for the replacement

During the sixth to the tenth year of the guarantee period the net value of the Profort profiles will be compensated or the invoiced value refunded. As to the colourfastness, we can inform you that changes in the weather may cause minor colour changes depending on the colour used. NB: The maximum decolouration according to KOMO standards of BRL 4101 parts 1 and 6.

### **Procedure**

Any defects found must be notified by registered post, within 10 days after detection, accompanied by a copy of the project information to Fetim Professional.

Any other form of notification or enclosing incomplete information will not be honoured. Defects or complaints with respect to Profort or Profort Topline as a result of work by third parties cannot be honoured by Fetim Professional.

Fetim Professional reserves the right to inspect at all times the complaint in its original appearance without the intervention of third parties.

If the claim under the guarantee is honoured, and the panels are to be redelivered, the ownership of the Profort profiles to be replaced will return to Fetim Professional. The time of redelivery of new Profort profiles may only be determined by Fetim Professional.

No rights can be derived from this.

### **Exclusions**

This guarantee does not relate to any damage resulting from incompetent processing and assembly, mechanical damage, poor maintenance and environment, or any other factors outside the direct sphere of influence of Fetim Professional. The responsibility only applies to the product liability and the directions which Fetim Professional lays down in writing with respect to processing and assembly. Fetim Professional is therefore not responsible for any damage that you or third parties could suffer or have actually suffered either directly or indirectly due to any defect of the product supplied by Fetim Professional.

\* Guarantee conditions as stated on the back of the Certificate of Guarantee

## List of documents used\*

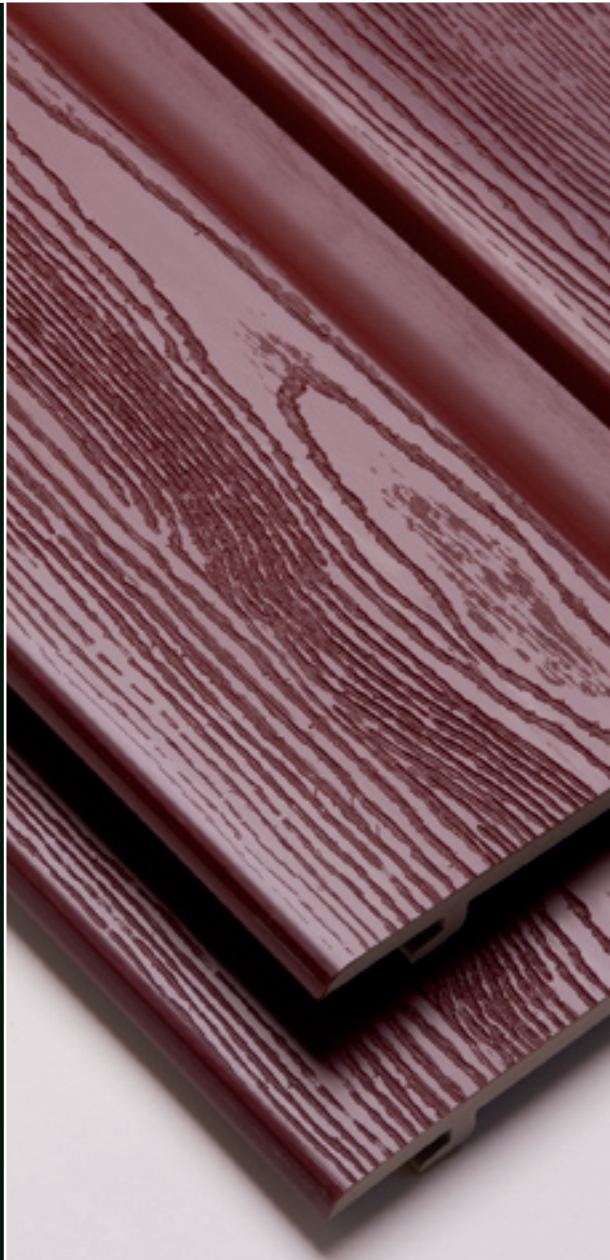
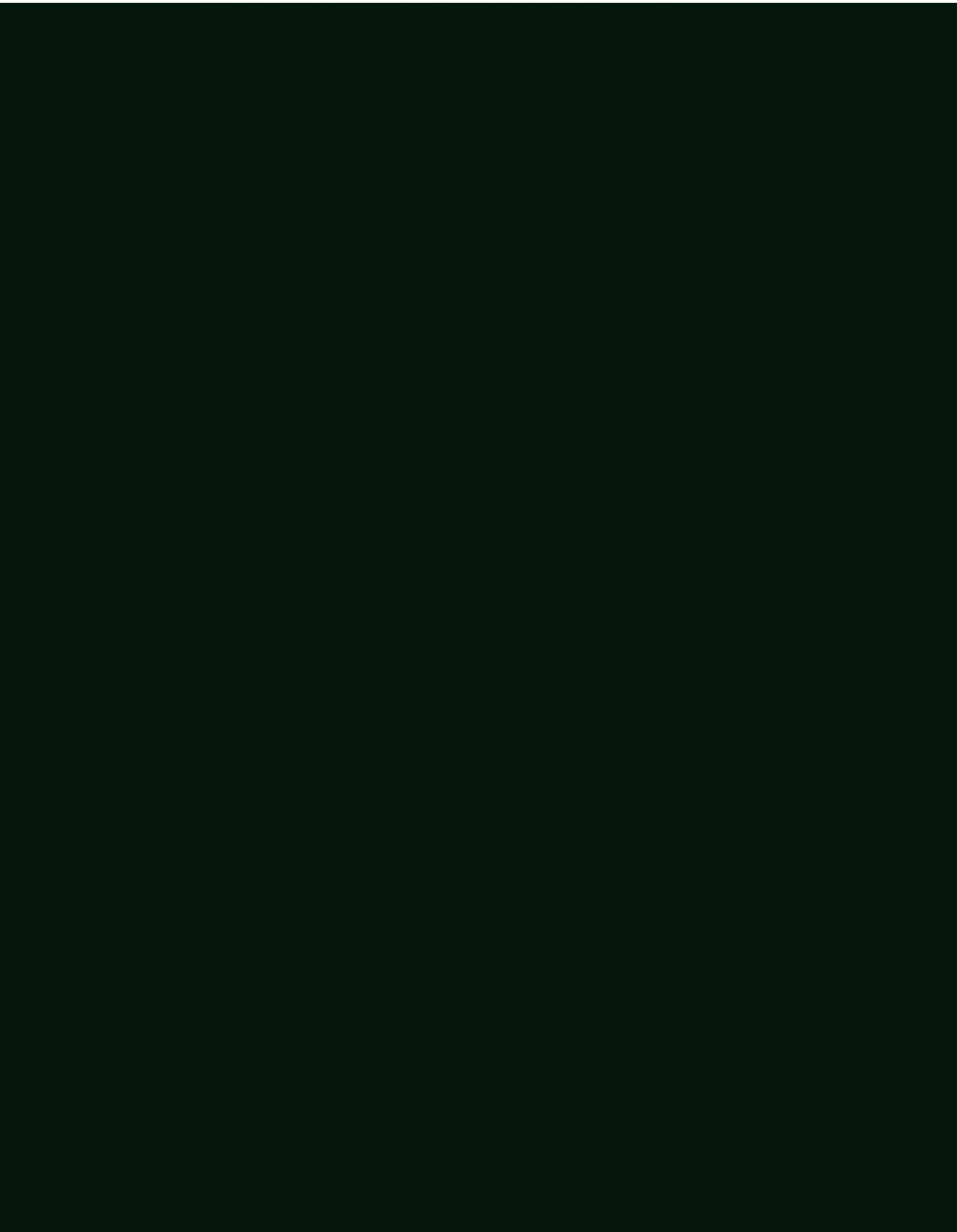
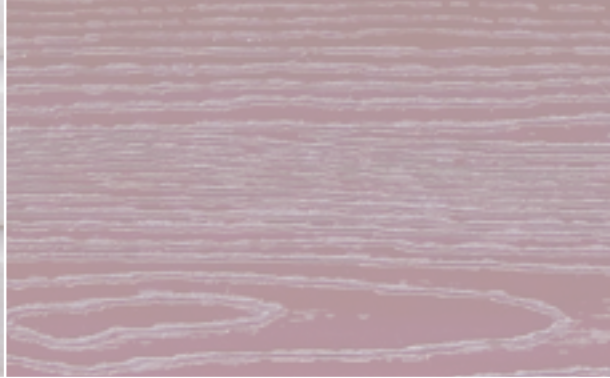
- NEN 1068:2001 Thermal insulation of buildings – Calculation methods including change sheet NEN 1068:2001/A4:2005
- NEN 2686:1998 Air permeability of buildings – measuring method
- NEN 2778:1991 Damp proofing in buildings – calculation methods including change sheet NEN 2778:1991/A3:2004
- NEN 5077:2006 Sound insulation in buildings – Calculation methods for the quantities for sound insulation of external divisions, airborne sound insulation, impact noise insulation, noise levels caused by installations and reverberation time
- NEN 5461:1999 Quality requirements for wood (KVH 2000) – Sawn wood and roundwood – General part including change sheet NEN 5461:1999/A1:2004
- NEN 6062:1991 Determination of the fire safety of smoke discharge facilities including change sheet NEN 6062:1991/A1:1997
- NEN 6064:1991 Determination of the incombustibility of building materials, including change sheet NEN 6064:1991/A2:2001
- NEN 6065:1991 Determination of the contribution of flame spread of a (combination of) building materials, including change sheet NEN 6065:1991/A1:1997
- NEN 6066:1991 Determination of the smoke production in the event of burning (combinations of) building materials, including change sheet NEN 6066:1991/A1:1997
- NEN 6068:2004 Determination of the resistance to the spread of fire through surrounding walls and floors and spread of fire between rooms including change sheet NEN 6068:2004/A2:2005
- NEN 6700:2005 Technical principles for building constructions - TGB 1990 – General basic requirements
- NEN 6702:2001 Technical principles for building constructions -TGB 1990- loads and deformations, including change sheet NEN 6702:2001/A1:2005
- NEN 6760:2001 Technical principles for building constructions - TGB 1990 – Wooden constructions- Basic requirements – Requirements and calculation methods, including change sheet NEN 6760:2001/C1:2002
- NPR 2878:1991 External divisions of buildings – Simplified calculation method for inside surface temperature factor
- BRL 2301:2004 Softwood

Buildings Decree 2003: Buildings Decree Bulletins of Acts, Orders and Decrees (Stb) 2003 Stb. 2001, 410; Stb. 2002, 203, 516, 518; Stb. 2005, 1, 368, 417,528  
Stb. 2006, 148 and the Ministerial Regulations Government Gazette (Stcrt). 2002, 241, Stcrt. 2003, 101 and Stcrt 2005,163 and 249  
Building Materials Decree soil and surface water protection Stb. 1995, 567, 614; Stb. 1997, 525, 686; Stb. 2000, 352, Stb. 2002, 203, 516 and 582 en Stb.2005, 610 and the Ministerial Regulations Stcrt. 1998, 20, 203; Stcrt. 1999, 126; Stcrt. 2000, 66, 210; Stcrt. 2004, 40, 68, 209, 217 and Stcrt 2005,163.

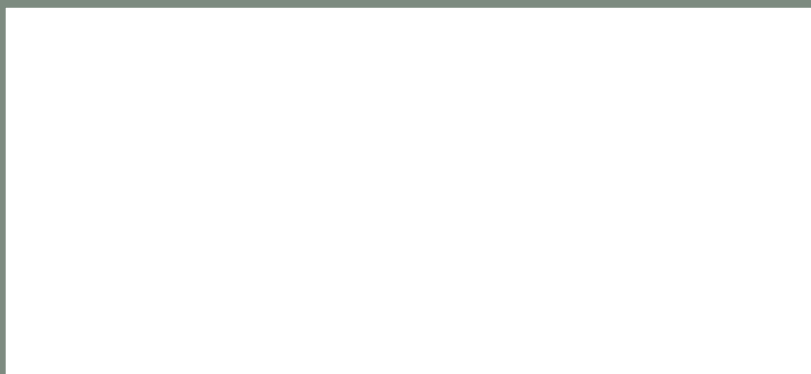
\* For the correct version of the aforementioned norms, please refer to the latest change sheet of BRL 4101-1 en 4101-6.







Your Profort point of sale:



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