



**Swisspearl Group AG, Eternitstrasse 3  
CH-8865 Niederurnen, Switzerland**

17  
DoP: 045/DoP

**EN 12467:2012+A2:2018**

Fibre cement flat sheet  
for internal and external walls and ceilings

NT

Mechanical resistance: A2

Reaction to fire:  $\leq 8$  mm joints: A2-s1, d0

Water impermeability: No water drops

Dimensional variations: Pass

Dangerous substances: NPD

Durability: Pass

# Declaration of Performance

## No. 045/DoP

In accordance with Regulation (EU) No 305/2011 of the European Parliament and of the Council laying down harmonised conditions for the marketing of construction products (CPR EU 305/2011)

1. Unique identification code of the product-type:

### **Fibre-cement flat sheets**

Type, batch or serial number or any other element allowing identification of the construction product as required pursuant to Article 11(4):

### **Swisspearl Plank, Swisspearl Plank Connect, Swisspearl Panel**

2. Intended use or uses of the construction product, in accordance with the applicable harmonised technical specification, as foreseen by the manufacturer:

### **Flat sheets**

### **Internal wall finishes**

### **External wall and ceiling finishes**

3. Name, registered trade name or registered trade mark and contact address of the manufacturer as required pursuant to Article 11(5):

### **Swisspearl Group AG**

**Eternitstrasse 3**

**CH-8865 Niederurnen, Switzerland**

**Email: [info@swisspearl.com](mailto:info@swisspearl.com)**

4. Where applicable, name and contact address of the authorised representative whose mandate covers the tasks specified in Article 12(2):

### **Not applicable**

5. System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V:

### **AVCP System 3 / System 4**

- 6a. Name and identification number of the notified body (in case of the declaration of performance concerning a construction product covered by a harmonised standard):

Manufacturer performed the Initial Type Test according to EN 12467.  
Evaluation report no.: 4-62/ITT/20220228, dated 28th February 2022 and Evaluation Report no. 4-41/ITT/20210611, dated 11th June 2021.

**MPA Bau Hannover**  
**Notified body No. 0764**  
**Nienburger Straße 3,**  
**D-30167 Hannover, Germany**

Notified Body performed reaction to fire and classification according EN 13501-1.  
Classification report no. 211078, dated, 15th March 2021.

- 6b. Name and identification number of the Technical Assessment Body (in case of the declaration of performance concerning a construction product for which a European Technical Assessment has been issued):

**Not applicable**

7. Declared performance:

| Essential characteristics      | Performance                                  | Harmonised technical specification                                                             |
|--------------------------------|----------------------------------------------|------------------------------------------------------------------------------------------------|
| Type of sheets                 | NT                                           | EN 12467:2012+A2:2018<br>Fibre-cement flat sheets<br>Product specification<br>and test methods |
| Intended use category          | A                                            |                                                                                                |
| Class of strength              | 2                                            |                                                                                                |
| Mechanical resistance          | Min. 7 MPa                                   |                                                                                                |
| Apparent density               | $\geq 1200 \text{ kg/m}^3$                   |                                                                                                |
| Reaction to fire               | $\leq 8 \text{ mm joints}$   Class A2-s1, d0 |                                                                                                |
| Water impermeability           | No water drops                               |                                                                                                |
| Water vapour permeability      | Not applicable                               |                                                                                                |
| Dimensional variations         | Level I                                      |                                                                                                |
| Release of dangerous substance | No performance determined                    |                                                                                                |
| Durability against warm water  | $R_L \geq 0,75$                              |                                                                                                |
| Durability against soak/dry    | $R_L \geq 0,75$                              |                                                                                                |
| Durability against freeze-thaw | $R_L \geq 0,75$                              |                                                                                                |
| Durability against heat-rain   | Pass                                         |                                                                                                |

8. Appropriate Technical Documentation and/or Specific Technical Documentation:

**EN 12467:2012+A2:2018**  
**Fibre-cement flat sheets**  
**Product specification and test methods**

The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 7. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 3.

Signed for and on behalf of the manufacturer by:



**Joachim Ebenhoch**

Global Head of Innovation  
Swisspearl Group AG  
Niederurnen, 08.08.2024

**Environmental  
Product  
Declaration**

According to ISO14025+EN15804+A2

This declaration is for:  
**Swisspearl Plank Connect**

Provided by:  
**Swisspearl Group AG**



MRPI® registration:  
**1.1.00912.2025**

Program operator:  
**Stichting MRPI®**  
Publisher:  
**Stichting MRPI®**  
[www.mrpi.nl](http://www.mrpi.nl)

Date of first issue:  
**20-7-2025**  
Date of this issue:  
**20-7-2025**  
Expiry date:  
**20-7-2030**



## COMPANY INFORMATION

Swisspearl Group AG

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## MRPI® REGISTRATION

1.1.00912.2025

## DATE OF THIS ISSUE

20-7-2025

## EXPIRY DATE

20-7-2030

## SCOPE OF DECLARATION

This MRPI®-EPD certificate is verified by Mantijn van Leeuwen, Nibe. The LCA study has been done by Chantal Houben, SGS INTRON. The certificate is based on an LCA-dossier according to ISO14025+EN15804+A2. It is verified according to the 'MRPI®-EPD verification protocol November 2020.v4.0'. EPDs of construction products may not be comparable if they do not comply with EN15804+A2. Declaration of SVHC that are listed on the 'Candidate list of Substances of Very High Concern for authorisation' when content exceeds the limits for registration with ECHA.

## PROGRAM OPERATOR

Stichting MRPI®

Kingsfordweg 151

1043 GR

Amsterdam

## PRODUCT

Swisspearl Plank Connect

## DECLARED UNIT / FUNCTIONAL UNIT

1 Productiveness (m2)

## DESCRIPTION OF PRODUCT

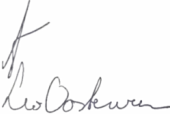
The Plank Connect is a fiber cement façade board using a tongue and groove system for easy application.

## VISUAL PRODUCT



## MORE INFORMATION

<https://www.swisspearl.com/swisspearl-plank-connect>

|                                                                                     |                                                                                                                                              |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Ing. L. L. Oosterveen MSc. MBA<br/>Managing Director MRPI</p>                    | <p>DEMONSTRATION OF VERIFICATION<br/>CEN standard EN15804 serves as the core PCR [1]</p>                                                     |
|  | <p>Independent verification of the declaration and data<br/>according to ISO14025+EN15804+A2<br/>Internal: External: X</p>                   |
|                                                                                     | <p>Third party verifier: Mantijn van Leeuwen, Nibe</p>  |
|                                                                                     | <p>[1] PCR = Product Category Rules</p>                                                                                                      |

## DETAILED PRODUCT DESCRIPTION (PART 1)

Swisspearl Plank Connect is produced by the use of the Hatschek method: the base materials (binder, fibres, etc) are processed into a homogeneous mixture with water and transferred to the vats of the Hatschek machine.

Rotating sieve cylinders in the vats collect a thin layer of solid material and transfer the layer to a rotating felt for dewatering and further on to the accumulating format roller. The format roller is gradually covered by layers of fiber cement. Once the required thickness of the boards is reached, the fiber cement layer, still moist and mouldable, is unwound and taken from the roll. After the pre-curing period, the fibre-cement boards are dried.

The Plank Connect is dried by use of an autoclave machine. Autoclaves create a high pressure, high-temperature environment that accelerates the chemical reactions between the cement and the fibres. This process turns the wet mixture into a hard, durable material. After the drying process the products are ready to be sanded, cut to customised size, painted, edge-sealed, hydrophobated and finished with quality controls and packing processes.

The Plank Connect has a reference service lifetime of 50 years according to the BBSR.

## DETAILED PRODUCT DESCRIPTION (PART 2)

The energy process used in the calculation is listed in the table below.

| Global warming potential (GWP) of 1 kWh energy | Process                                                                         | GWP (kg CO <sub>2</sub> eq) |
|------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------|
| Electricity Thailand                           | Electricity, low voltage {TH}  market for electricity, low voltage   Cut-off, U | 0,787                       |

## SCOPE AND TYPE

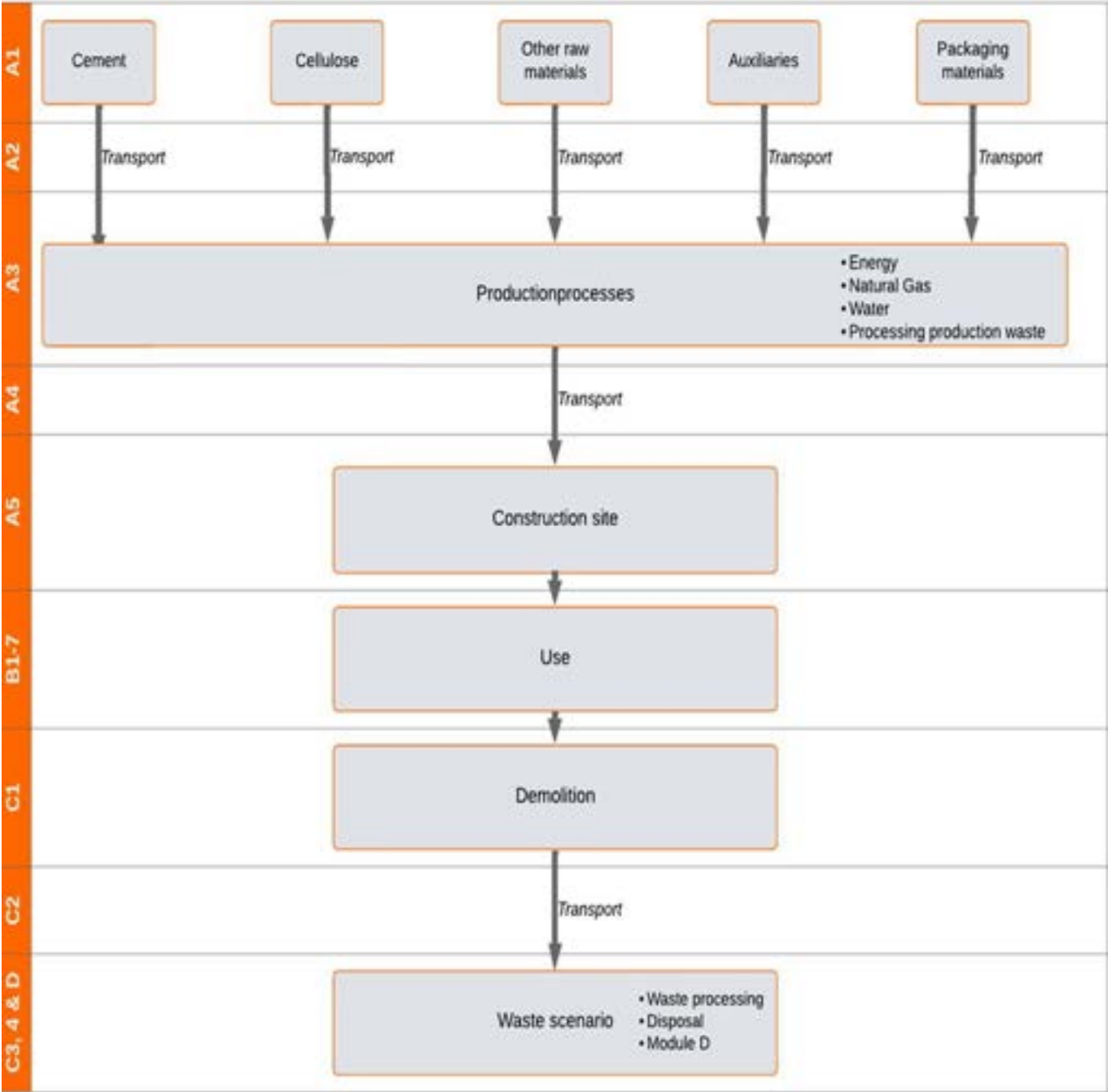
The product was made in Thailand. The calculations were done for the Dutch and are also applicable for the European market. The end-of-life was also calculated for Europe.

The LCA software used in Simapro with the background database Ecoinvent 3.9.1 allocation, cut-off by classification – unit were used. For some basic processes, the SimaPro file of the National Environmental Database version 3.9 were also use. This EPD is a product specific.

| PRODUCT STAGE       |           |               | CONSTRUCTION PROCESS STAGE |          | USE STAGE |             |        |             |               |                        |                       | END OF LIFE STAGE          |           |                  |          | BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES |
|---------------------|-----------|---------------|----------------------------|----------|-----------|-------------|--------|-------------|---------------|------------------------|-----------------------|----------------------------|-----------|------------------|----------|-------------------------------------------------|
| Raw material supply | Transport | Manufacturing | Transport gate to site     | Assembly | Use       | Maintenance | Repair | Replacement | Refurbishment | Operational energy use | Operational water use | De-construction demolition | Transport | Waste processing | Disposal | Reuse - Recovery - Recycling potential          |
| A1                  | A2        | A3            | A4                         | A5       | B1        | B2          | B3     | B4          | B5            | B6                     | B7                    | C1                         | C2        | C3               | C4       | D                                               |
| X                   | X         | X             | X                          | X        | X         | ND          | ND     | ND          | ND            | ND                     | ND                    | X                          | X         | X                | X        | X                                               |

X = Modules Assessed

ND = Not Declared



REPRESENTATIVENESS

The product is only produced at one production site in Thailand. This EPD is representative for 1 m2 of Plank Connect.





## ENVIRONMENTAL IMPACT per functional unit or declared unit (core indicators A2)

|                       | Unit                    | A1        | A2       | A3        | A1-A3     | A4       | A5       | B1       | B2 | B3 | B4 | B5 | B6 | B7 | C1       | C2       | C3       | C4        | D         |
|-----------------------|-------------------------|-----------|----------|-----------|-----------|----------|----------|----------|----|----|----|----|----|----|----------|----------|----------|-----------|-----------|
| GWP-total             | kg CO2 eq.              | 3,53E+00  | 2,30E-01 | 3,08E+00  | 6,84E+00  | 2,19E+00 | 4,65E-01 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 1,75E-01 | 7,62E-02 | 1,34E+00 | 2,05E-02  | -4,06E-02 |
| GWP-fossil            | kg CO2 eq.              | 4,84E+00  | 2,29E-01 | 3,08E+00  | 8,15E+00  | 2,18E+00 | 4,58E-01 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 1,75E-01 | 7,59E-02 | 1,45E-02 | 7,07E-03  | -4,06E-02 |
| GWP-biogenic          | kg CO2 eq.              | -1,31E+00 | 0,00E+00 | -5,43E-03 | -1,32E+00 | 0,00E+00 | 6,64E-03 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 1,33E+00 | 1,34E-02  | 0,00E+00  |
| GWP-luluc             | kg CO2 eq.              | 1,85E-03  | 4,01E-04 | 4,85E-03  | 7,10E-03  | 2,73E-03 | 2,29E-04 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 1,97E-05 | 2,71E-04 | 3,27E-06 | 1,19E-05  | -4,82E-05 |
| ODP                   | kg CFC11 eq.            | 4,61E-08  | 3,68E-09 | 1,41E-07  | 1,91E-07  | 3,40E-08 | 5,95E-09 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 2,78E-09 | 1,35E-09 | 3,26E-10 | 1,21E-10  | -4,29E-10 |
| AP                    | mol H+ eq.              | 2,55E-02  | 4,82E-03 | 9,21E-03  | 3,96E-02  | 5,57E-02 | 1,29E-03 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 1,62E-03 | 3,63E-04 | 9,14E-05 | 4,56E-05  | -2,79E-04 |
| EP-fresh water        | kg PO4 eq.              | 9,58E-05  | 1,39E-06 | 1,49E-04  | 2,46E-04  | 1,09E-05 | 7,47E-06 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 6,32E-07 | 7,55E-07 | 2,87E-07 | 8,72E-08  | -1,37E-06 |
| EP-marine             | kg N eq.                | 4,42E-03  | 1,25E-03 | 1,73E-03  | 7,40E-03  | 1,41E-02 | 2,67E-04 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 7,51E-04 | 1,38E-04 | 3,87E-05 | 1,88E-05  | -8,35E-05 |
| EP-terrestrial        | mol N eq.               | 4,95E-02  | 1,38E-02 | 1,91E-02  | 8,24E-02  | 1,56E-01 | 2,96E-03 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 8,17E-03 | 1,47E-03 | 4,24E-04 | 2,01E-04  | -9,61E-04 |
| POCP                  | kg NMVOC eq.            | 1,50E-02  | 3,85E-03 | 7,67E-03  | 2,65E-02  | 4,27E-02 | 9,34E-04 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 2,42E-03 | 5,03E-04 | 1,26E-04 | 6,32E-05  | -2,87E-04 |
| ADP-minerals & metals | kg Sb eq.               | 6,43E-05  | 3,95E-07 | 1,24E-05  | 7,72E-05  | 2,92E-06 | 2,34E-06 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 6,11E-08 | 2,38E-07 | 5,87E-08 | 1,48E-08  | -1,98E-07 |
| ADP-fossil            | MJ, net calorific value | 3,52E+01  | 2,97E+00 | 4,19E+01  | 8,01E+01  | 2,75E+01 | 2,56E+00 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 2,29E+00 | 1,09E+00 | 1,98E-01 | 9,53E-02  | -5,01E-01 |
| WDP                   | m3 world eq. Deprived   | 1,16E+00  | 1,04E-02 | 7,15E-01  | 1,89E+00  | 7,91E-02 | 5,75E-02 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 4,94E-03 | 5,94E-03 | 1,09E-03 | -2,83E-03 | -2,41E-02 |

|                       |   |                                                                                     |
|-----------------------|---|-------------------------------------------------------------------------------------|
| GWP-total             | = | Global Warming Potential total                                                      |
| GWP-fossil            | = | Global Warming Potential fossil fuels                                               |
| GWP-biogenic          | = | Global Warming Potential biogenic total                                             |
| GWP-luluc             | = | Global Warming Potential land use and land use change                               |
| ODP                   | = | Depletion potential of the stratospheric ozone layer                                |
| AP                    | = | Acidification Potential, Accumulated Exceedence                                     |
| EP-freshwater         | = | Eutrophication Potential, fraction of nutrients reaching freshwater end compartment |
| EP-marine             | = | Eutrophication Potential, fraction of nutrients reaching marine end compartment     |
| EP-terrestrial        | = | Eutrophication Potential, Accumulated Exceedence                                    |
| POCP                  | = | Formation potential of tropospheric ozone photochemical oxidants                    |
| ADP-minerals & metals | = | Abiotic Depletion Potential for non-fossil resources [1]                            |
| ADP-fossil            | = | Abiotic Depletion for fossil resources potential [1]                                |
| WDP                   | = | Water (user) deprivation potential, deprivation-weighted water consumption [1]      |

### Disclaimer [1]:

- The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.



## ENVIRONMENTAL IMPACT per functional unit or declared unit (additional indicators A2)

| Unit   |                   | A1       | A2       | A3       | A1-A3    | A4       | A5       | B1       | B2 | B3 | B4 | B5 | B6 | B7 | C1       | C2       | C3       | C4       | D         |
|--------|-------------------|----------|----------|----------|----------|----------|----------|----------|----|----|----|----|----|----|----------|----------|----------|----------|-----------|
| PM     | Disease incidence | 2,33E-07 | 1,23E-08 | 4,14E-08 | 2,87E-07 | 8,99E-08 | 1,07E-08 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 4,52E-08 | 7,49E-09 | 2,22E-09 | 4,92E-09 | -5,20E-09 |
| IRP    | kBq U235 eq.      | 4,73E-02 | 8,28E-04 | 1,14E-02 | 5,95E-02 | 6,71E-03 | 1,84E-03 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 4,69E-04 | 4,24E-04 | 2,26E-04 | 4,03E-05 | -1,11E-03 |
| ETP-fw | CTUe              | 1,78E+01 | 1,75E+00 | 7,66E+00 | 2,72E+01 | 1,49E+01 | 9,42E-01 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 1,10E+00 | 8,02E-01 | 6,66E-02 | 6,18E-02 | -1,87E-01 |
| HTP-c  | CTUh              | 3,36E-09 | 1,07E-10 | 9,29E-10 | 4,39E-09 | 9,81E-10 | 1,43E-10 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 5,36E-11 | 4,02E-11 | 4,60E-12 | 9,10E-12 | -3,19E-11 |
| HTP-nc | CTUh              | 7,07E-08 | 1,45E-09 | 2,37E-08 | 9,59E-08 | 1,07E-08 | 3,28E-09 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 3,73E-10 | 8,73E-10 | 9,24E-11 | 2,22E-10 | -4,09E-10 |
| SQP    | -                 | 1,43E+01 | 1,04E+00 | 2,69E+00 | 1,80E+01 | 5,88E+00 | 5,97E-01 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 1,54E-01 | 8,58E-01 | 2,66E-02 | 7,07E-02 | -6,28E-01 |

- PM = Potential incidence of disease due to PM emissions
- IRP = Potential Human exposure efficiency relative to U235 [1]
- ETP-fw = Potential Comparative Toxic Unit for ecosystems [2]
- HTP-c = Potential Comparative Toxic Unit for humans, cancer [2]
- HTP-nc = Potential Comparative Toxic Unit for humans, non-cancer [2]
- SQP = Potential soil quality index [2]

### Disclaimer [1]:

- This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste.

### Disclaimer [2]:

- The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

## OUTPUT FLOWS AND WASTE CATEGORIES per functional unit or declared unit (A1 en A2)

|      | Unit | A1       | A2       | A3       | A1-A3    | A4       | A5       | B1       | B2 | B3 | B4 | B5 | B6 | B7 | C1       | C2       | C3       | C4       | D         |
|------|------|----------|----------|----------|----------|----------|----------|----------|----|----|----|----|----|----|----------|----------|----------|----------|-----------|
| HWD  | kg   | 9,29E-05 | 1,64E-05 | 1,49E-04 | 2,59E-04 | 1,44E-04 | 8,89E-06 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 1,54E-05 | 6,93E-06 | 1,02E-06 | 5,77E-07 | -2,15E-06 |
| NHWD | kg   | 8,55E-01 | 8,05E-02 | 2,22E-01 | 1,16E+00 | 4,11E-01 | 4,15E-02 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 3,28E-03 | 7,18E-02 | 2,97E-02 | 4,70E-03 | -5,65E-03 |
| RWD  | kg   | 3,36E-05 | 4,63E-07 | 7,77E-06 | 4,19E-05 | 3,66E-06 | 1,29E-06 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 2,51E-07 | 2,49E-07 | 1,91E-07 | 2,43E-08 | -7,09E-07 |
| CRU  | kg   | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  |
| MFR  | kg   | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 2,78E-01 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 9,25E+00 | 0,00E+00 | 0,00E+00  |
| MER  | kg   | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  |
| EEE  | MJ   | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 5,20E-01 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  |
| ETE  | MJ   | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 8,96E-01 | 0,00E+00 | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  |

HWD = Hazardous Waste Disposed  
 NHWD = Non Hazardous Waste Disposed  
 RWD = Radioactive Waste Disposed  
 CRU = Components for reuse  
 MFR = Materials for recycling  
 MER = Materials for energy recovery  
 EEE = Exported Electrical Energy  
 ETE = Exported Thermal Energy

## RESOURCE USE per functional unit or declared unit (A1 and A2)

|       | Unit | A1       | A2       | A3       | A1-A3    | A4       | A5       | B1       | B2  | B3  | B4  | B5  | B6  | B7  | C1       | C2       | C3       | C4        | D         |
|-------|------|----------|----------|----------|----------|----------|----------|----------|-----|-----|-----|-----|-----|-----|----------|----------|----------|-----------|-----------|
| PERE  | MJ   | 2,16E+00 | 2,92E-02 | 2,15E+00 | 4,34E+00 | 2,33E-01 | 1,32E-01 | 0,00E+00 | INA | INA | INA | INA | INA | INA | 1,30E-02 | 1,54E-02 | 1,66E-02 | 1,63E-03  | -3,72E-02 |
| PERM  | MJ   | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | INA | INA | INA | INA | INA | INA | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  | 0,00E+00  |
| PERT  | MJ   | 2,16E+00 | 2,92E-02 | 2,15E+00 | 4,34E+00 | 2,33E-01 | 1,32E-01 | 0,00E+00 | INA | INA | INA | INA | INA | INA | 1,30E-02 | 1,54E-02 | 1,66E-02 | 1,63E-03  | -3,72E-02 |
| PENRE | MJ   | 3,52E+01 | 2,98E+00 | 4,19E+01 | 8,01E+01 | 2,75E+01 | 2,56E+00 | 0,00E+00 | INA | INA | INA | INA | INA | INA | 2,29E+00 | 1,09E+00 | 1,98E-01 | 9,54E-02  | -5,01E-01 |
| PENRM | MJ   | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | INA | INA | INA | INA | INA | INA | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  | 0,00E+00  |
| PENRT | MJ   | 3,52E+01 | 2,98E+00 | 4,19E+01 | 8,01E+01 | 2,75E+01 | 2,56E+00 | 0,00E+00 | INA | INA | INA | INA | INA | INA | 2,29E+00 | 1,09E+00 | 1,98E-01 | 9,54E-02  | -5,01E-01 |
| SM    | kg   | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | INA | INA | INA | INA | INA | INA | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  | 0,00E+00  |
| RSF   | MJ   | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | INA | INA | INA | INA | INA | INA | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  | 0,00E+00  |
| NSRF  | MJ   | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | INA | INA | INA | INA | INA | INA | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  | 0,00E+00  |
| FW    | m3   | 3,02E-02 | 4,24E-04 | 1,91E-02 | 4,97E-02 | 3,08E-03 | 1,53E-03 | 0,00E+00 | INA | INA | INA | INA | INA | INA | 1,80E-04 | 2,63E-04 | 5,47E-05 | -5,46E-05 | -1,34E-02 |

|       |   |                                                                                                              |
|-------|---|--------------------------------------------------------------------------------------------------------------|
| PERE  | = | Use of renewable primary energy excluding renewable primary energy used as raw materials                     |
| PERM  | = | Use of renewable primary energy resources used as raw materials                                              |
| PERT  | = | Total use of renewable primary energy resources                                                              |
| PENRE | = | Use of non-renewable primary energy resources excluding non-renewable energy resources used as raw materials |
| PENRM | = | Use of non-renewable primary energy resources used as raw materials                                          |
| PENRT | = | Total use of non-renewable primary energy resources                                                          |
| SM    | = | Use of secondary materials                                                                                   |
| RSF   | = | Use of renewable secondary fuels                                                                             |
| NSRF  | = | Use of non-renewable secondary fuels                                                                         |
| FW    | = | Use of net fresh water                                                                                       |

## BIOGENIC CARBON CONTENT per functional unit or declared unit (A1 and A2)

|       | Unit | A1       | A2 | A3       | A1-A3    | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D  |
|-------|------|----------|----|----------|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| BBCpr | kg C | 3,97E-01 | ND | ND       | 3,97E-01 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BCCpa | kg C | ND       | ND | 1,48E-03 | 1,48E-03 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

|       |   |                                      |
|-------|---|--------------------------------------|
| BCCpr | = | Biogenic carbon content in product   |
| BCCpa | = | Biogenic carbon content in packaging |

## CALCULATION RULES

Primary data at the production location was collected for the base year 2022.

The materials or processes that have been excluded from the study (cut-of rule is well below 1%), are wooden pallets and the waste processing of packaging on incoming materials.

The environmental interventions have been determined using the methods described in the Determination Method. The LCA calculations are performed in accordance with EN 15804:2012+A2:2019. When calculating the energy flows, the fuels and electricity sources used, extraction and transport of the fuels, efficiency of the conversion and distribution of the energy flow are taken into account. The calorific net value (LHV) has also been calculated.

The rules for allocation for multi-input, -output, recycling and reuse processes from the Assessment Method have been followed for all materials. Ecoinvent processes are calculated including the infrastructure processes (capital goods). Ecoinvent processes for landfill are calculated excluding long-term emissions.

## SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION (PART 1)

This calculation of the production includes everything needed to procure the raw materials needed in the production of these products. This includes extraction, treatment, processing, electricity and heat consumption. Wooden pallets were omitted from the final analysis, since it was assumed, they would be reused and have a minimal impact. The transport for the wooden pallets has been added.

Transport of the raw material was done mostly by truck. Some raw materials were partially transported by ship and train. The waste processing of production waste was also taken into account into the calculation.

| Transport | Process                                                                                                            |
|-----------|--------------------------------------------------------------------------------------------------------------------|
| Truck     | Transport, freight, lorry, unspecified {GLO}  market group for transport, freight, lorry, unspecified   Cut-off, U |
| Ship      | Transport, freight, sea, container ship {GLO}  market for transport, freight, sea, container ship   Cut-off, U     |
| Train     | Transport, freight train {GLO}  market group for   Cut-off, U                                                      |

## SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION (PART 2)

Transport to the construction site uses a standard transport as described in the Assessment Method.

The distance to the construction site is calculated from the factory to Utrecht. At the construction site, there is no additional transport included in the model since the fiber cement board have a relatively low weight.

The fiber cement boards are mounted on either a wood or steel construction with the aid of small electrical tools. The estimated energy for the hand tool is very low and is therefore left out of the model. The wood, steel or another construction to install the boards on is not considered, since they can vary significantly and can not be influenced by Swisspearl. Materials for attachment were considered, only if they are added to the product by Swisspearl during production. The Plank Connect is characterized by a tongue and groove system. Waste treatment and transportation of the packaging waste from the construction site to the municipal waste incinerator is included in this module. The distance to the waste treatment facility is assumed to be 50 km.

The standard process from the Assessment Method is used for truck transport. Additionally, according to the Assessment Method there is a loss of 3% of material for pre-fab products on the construction site. This means that extra material must be added to account for the loss of product.

## SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION (PART 3)

An excavator was modeled to demolish and transport the waste on the demolition site from the fiber cement boards. After being demolished on the building site, the material is transported to waste processing. All the material gets processed before getting recycled or landfilled.

| End of life scenario | Percentage | Transport distance (km) | Process                                                                                                                                                  |
|----------------------|------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Waste processing     | 1          | 50                      | 0270-reC&Breken, per kg steenachtig (o.b.v. SBK Breken steenachtig MRPI) - NMDv3.9                                                                       |
| Landfill             | 0,01       | 100                     | Waste cement-fibre slab {RoW}  market for waste cement-fibre slab   Cut-off, U                                                                           |
| Recycling            | 0,99       | 0                       | 0271-reD&Module D, grind, per kg NETTO geleverd granulaat/grind (vermeden: Gravel, round {RoW}  gravel and sand quarry operation   Cut-off, U) - NMDv3.9 |

## DECLARATION OF SVHC

The product does not contain any substances of very high concern (SVHC) at concentrations greater than 0.1% of the product mass, in accordance with Regulation (EC) No. 1907/2006 (REACH), as of 20-07-2025

## REFERENCES

Nationale Milieudatabase, "Bepalingsmethode Milieuprestatie Bouwwerken", December 2024

Nationale Milieudatabase, "NMD-Toetsingsprotocol opname data in de nationale milieudatabase", versie 1.2 december 2024

EN 15804 (incl. A1:2013 and A2:2019), "Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products"

ISO 14040, "Environmental management - Environmental management -- Life cycle assessment - Principles and framework", ISO14040:2006

ISO 14044, "Environmental management - Life cycle assessment - Requirements and guidelines", ISO14044:2006

International Organization for Standardization, ISO/DIS 21930, "Sustainability in building construction – Environmental declaration of building products", ISO/DIS 21930:2007

International Organization for Standardization, ISO/TR 14025, "Environmental labels and declarations – Type III environmental declarations", ISO/TR 14025:2000

SGS INTRON report: A161820/R20251234, June 2025



**SWISSPEARL**

# Swisspearl Plank





Housing estate at the marina, Sweden







## Content

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Add a natural look.  
Add the strength  
of fibre cement.  
Add personality.



Swisspearl Plank is inspired by nature's own design – and created to keep your building safe from wear and tear, heat and cold.

Swisspearl Plank is now available as both traditional lap planks and the new tongue and groove click system.

The product series combines the natural wooden look with high-level durability, giving your building protection against natural elements.

Made from resilient, low-maintenance fibre cement, Swisspearl Plank is the clever, beautiful and long-lasting alternative to wood.

Made from natural materials, our planks are literally designed to last you a lifetime.



3

**The natural choice  
– with exceptional durability**

Swisspearl Plank and Swisspearl Plank Connect are made from fibre cement, designed with typical Scandinavian thoroughness and an eye for detail, are built to last. They withstand everything from searing sunshine to blizzards and torrential rain. And all of this, with virtually no maintenance.

Fibre cement is a natural product made of cement, water, minerals and fibre – and it is changing the way we design and build facades around the world thanks to its long-lasting, expressive qualities.

Every Swisspearl Plank is designed to be:

- Durable – resilient to moisture, dirt and wear-and-tear
- Fire-safe – protecting people and assets
- Low-maintenance and hassle-free
- Surface-treated for resistance to mould and fungi



# The ventilated facade

Swisspearl Plank not only adds personality and quality, it is the perfect match for a ventilated facade.

A ventilated facade helps minimise temperature variations in the wall throughout the year. Sunlight and heat are reflected away from the building in the summertime, and insulation behind the facade reduces heat loss at lower temperatures. At the same time, the natural ventilation passing through the structure minimises condensation.

## Additional benefits

The ventilated facade has a range of additional benefits:

- Protects the underlying structure from weather conditions
- Drainage of rain water away from the structure
- Low weight facade enables energy-efficient design
- Thin wall structure resulting in more living space
- Flexibility in design with horizontal or vertical joints and board-orientation
- Low maintenance
- Long lifespan





## **Warranty**

For more details about our Swisspearl warranty, please refer to your local Swisspearl website.

## **DIM – Design and Installation manual**

Please download the latest version of the Swisspearl Plank Connect or Swisspearl Plank Original DIM -Design and Installation Manuals at [swisspearl.com](https://www.swisspearl.com)

# Swisspearl Plank shields you from nature. Naturally.

Swisspearl Plank is the obvious choice for a classic facade solution. Inspired by nature's own design, you can choose between a wide range of colours with textured surface – all while enjoying the benefits of the strong fibre cement material.



With Swisspearl as a partner, you are guaranteed excellence in every step of the process: from a complete portfolio of solutions and accessories to a leading 15-year warranty. And from the quality of the paint layer and backside coating to how the protective foil is wrapped around the finished product.

A classic choice with benefits that will meet your expectations now and in the future.

### **Long-lasting natural look**

Swisspearl Plank facade solutions offer the best of both worlds: a truly authentic natural wood look, combined with stability, resistance to the nature's elements and a long lifespan with an absolute minimum of maintenance.

*"Natural wood must be refreshed every five to eight years to maintain its colour, whereas Swisspearl Plank Original does not require re-painting. Once the facade is fixed, the long-lasting boards will not change appearance — even in rough weather conditions. This is a considerable advantage."*

At Swisspearl, we continue to innovate so that building residents can enjoy the above benefits and contractors and carpenters can take pride in the quality of their work.

### **No way in for moisture**

In these Swisspearl products, every single square millimetre of the fibre cement is coated so that moisture simply does not have a chance to find a way in, which helps to avoid deterioration and discolouration.

### **Unwavering appearance**

Swisspearl Plank will not warp, deform, rot or discolour. No periodic repainting needed as they will exhibit the same natural properties that made owners or architects choose Swisspearl products in the first place.

### **Inspired by natural design**

The plank boards get a pigmented primer in the same colour as the top coat to give a deep finish. The end result is a product that looks like natural wood with grooves and patterns in a high degree of variation, just as in wood.



# Breathing new life into existing buildings

There are many reasons why Swisspearl Plank is frequently used when renovating houses or in urban regeneration projects.

## **Easy to work with**

For a start, they are easy to work with – for both the DIY enthusiasts and the professionals. Surprisingly light-weight given their robust, durable nature, they are an obvious alternative to wood or composite material claddings, giving additional protection to the house while bringing a touch of long-lasting elegance. To further minimise potential hassle during installation, we offer plenty of accessories from various aluminium profiles and trims to screws (in matching colours), paint and even tools.





### **Alternative to wood**

Swisspearl Plank is ideal for replacing high-maintenance wood as an alternative solution. As a weatherboard for example, or in soffits, gables, dormer windows, fascia boards, hanging eaves, garages, or as balcony skirting.

### **Energy efficiency**

Energy efficiency is another area in which renovation with Swisspearl can make a difference. By using Swisspearl Plank as cladding on top of an existing brick wall, it becomes possible to introduce an extra layer of insulation between the two surfaces thereby reducing the energy bill.



Surface: Textured

## **Designed to mix-and-match – the new old trend**

Combining different building materials has been a part of building traditions for centuries. The trend has developed continuously through the years and so have the materials and underlying reasons behind the combinations. Today, the combination of materials can be chosen for several reasons, it can merely be an aesthetic choice, an economical choice or a way to meet market standards of energy efficiency or sustainability which has gained ground in the last decade.



Swisspearl Plank, with its versatile application and design options, is the ideal product for renovation of older houses. Swisspearl Plank can be used to complement older brickwork, a modern render or glass facade.

## **Blending in while standing out**

Architects design with Swisspearl Plank not only because it is visually attractive and combines perfectly with other cladding materials but also because of its technical performance and ease of installation. They are available with an authentic-looking textured finish.

The matte coating applied as protection results in a very natural, wood-like appearance. Additionally, there are 13 standard colours for Swisspearl Plank Original and 9 standard colours for Swisspearl Plank Connect. With such a wide range of design possibilities to choose from, it becomes possible to achieve precisely the kind of results that will leave homeowners talking about their home with pride for years to come. Whether people are looking for a modern look, a functional fix or an added touch of classic elegance, we have a solution that fits for every requirement.





# PLANK CONNECT

---

Combining natural beauty with lasting durability and minimal maintenance. Allowing with its tongue & groove an elegant, concealed installation. Ensuring a strong and durable connection.





# PLANK CONNECT

---



Swisspearl Plank Connect is a facade system consisting of tongue and groove planks and stainless steel clips. The planks are fire, mold, and fungi resistant fibre-cement planks. The Swisspearl Plank Connect clips allow for easy hidden fixing of the planks and guarantees a strong and long-lasting connection. In general we have a 15-years warranty on these products.



## Technical data

### Panels

The panel is coloured through in grey.

Coating: Opaque

Surface: Textured

### Panel format

**Swisspearl Plank Connect:**

Maximum usable format 210 x 3000 mm,  
panel thickness 11 mm (visible width 200 mm).

### Colours

**Textured surface:**

9 standard colours.

### Mounting

Invisible mounting system with connection clips.

### Technical data

Detailed information can be found in the

"DIM Design and Installation Manual – Swisspearl Plank Connect on Wood".





Inspiration, Swisspearl

Surface: Textured



CP 010  
Agate Grey



CP 040  
Granite Grey



CP 050  
Bark Brown



CP 150  
Anthracite Grey



CP 180  
Signal Black



CP 210  
Pure White



CP 370  
Oxide Red



CP 410  
Light Brown



CP 480  
Dark Brown

# Swisspearl Plank Connect – long-lasting beauty. Naturally.

Swisspearl Plank Connect is the obvious choice for a modern facade solution. It is the high-quality, low-maintenance solution delivered with an eye for detail.

## **As easy to install as it is to maintain**

The Tongue & Groove system guarantees a smooth one-click installation. This strong and durable fibre cement cladding outperforms wooden alternatives. The straight contemporary profile and weather resistant coating all around are in a class of their own.

Every plank is developed to exceed expectations in every way: easy application, high-end aesthetics, fire safety and low maintenance.

Swisspearl Plank Connect is truly nature's design, connected with all the modern benefits.



Inspiration, Swisspearl



### **An ideal solution for your holiday home**

When choosing Swisspearl Plank for your holiday home, the natural appearance and the durable nature of the Swisspearl Plank will offer you a unique appearance that naturally blends in with the surrounding area meanwhile withstanding the exposure of the rough weather, and most importantly, the limited maintenance needed will give you more time to spend with your family.

17



Surface: Textured

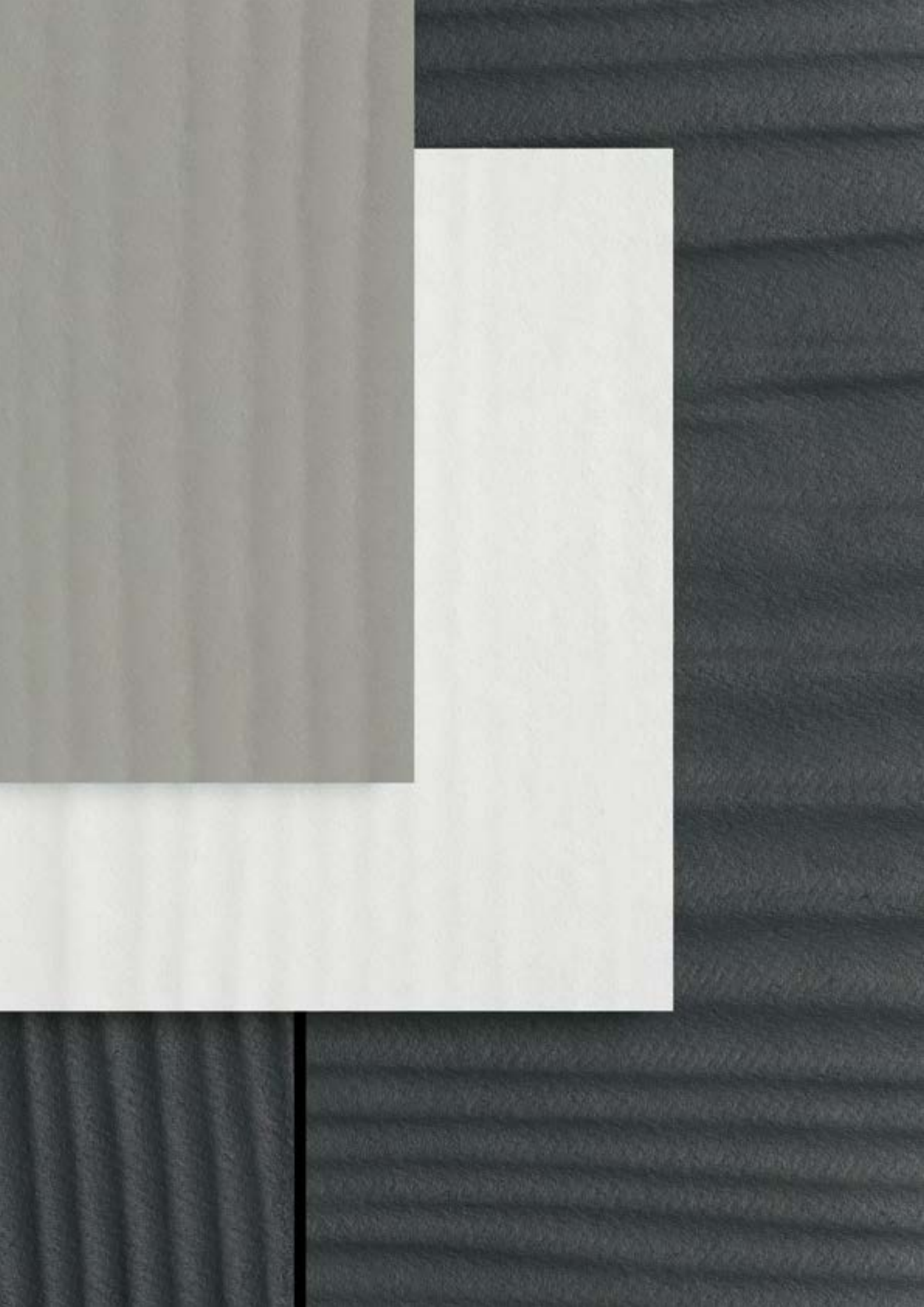
# PLANK ORIGINAL

---

Natural aesthetics, durability, low maintenance.

Its textured surface create an authentic appearance,  
no matter the weather conditions.







# PLANK ORIGINAL

---



Swisspearl Plank is the ideal solution to replace the use of high-maintenance wood on your facade. It can be installed like any wooden facade alternatives. Because of the excellent properties of fibre cement, it does not rot, crack, warp or require repainting. In general we have a 15-years warranty on these products.

## Technical data

### Panels

The panel is coloured through in grey.

Coating: Opaque

Surface: Textured

### Panel format

Swisspearl Plank Original:

Maximum usable format 180 x 3600 mm,  
panel thickness 8 mm.

### Colours

Textured surface:

13 standard colours.

### Mounting

Visible on wooden substructure:

Installation on wood with invisible fixing top Plank or  
with visible screws bottom plank with painted screws.

### Technical data

Detailed information can be found in the "DIM Design  
and Installation Manual – Swisspearl Plank Original".

### Warranty

15 years



Inspiration, Swisspearl

Surface: Textured



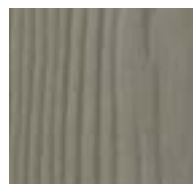
CP 010  
Agate Grey



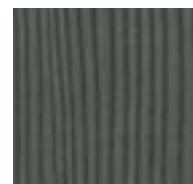
CP 030  
Pebble Grey



CP 040  
Granite Grey



CP 050  
Bark Brown



CP 080  
Basalt Grey



CP 150  
Anthracite Grey



CP 180  
Signal Black



CP 210  
Pure White



CP 280  
Silk Grey



CP 370  
Oxide Red



CP 380  
Red Brown



CP 410  
Light Brown



CP 480  
Dark Brown

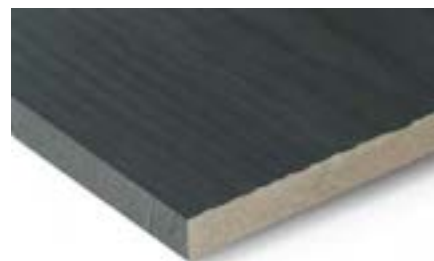
Tagholmen, Aalborg, Denmark

# Swisspearl Plank Original – for an authentic facade

An authentic wood facade or a maintenance-free building is a frequent dilemma when it comes to industrial construction. In the Danish business park Tagholmen, however, the dilemma has been solved using the product Swisspearl Plank Original that combines a wooden aesthetic with a low-maintenance fibre cement material.

Located in the north of Denmark, the business park Tagholmen is strategically located near fjord, city and airport. In time, Tagholmen will consist of nine buildings creating a professional community for industrial technology companies. When the first 700 square metre structure was erected back in 2017, the builder was looking for a business environment with an inviting atmosphere:

“The owner of the property, who runs an industrial software company, was looking for a professional office space with a warm and welcoming atmosphere. Drawing inspiration from rustic industrial structures around the Holmen area in Copenhagen, we suggested an architectural design of Tagholmen. Besides the aesthetics, the level of maintenance was also important to the client because it is a commercial property”,



Surface: Textured



Tagholmen Business



says architect Claus Egerland from the Danish architectural firm Tegnestuen 3D and continues:

“To find the best possible solution, we consulted Swisspearl who suggested Swisspearl Plank Original. The Swisspearl Plank Original proved to be the perfect solution combining the look of a traditional wooden facade with the modern and practical function of fibre cement. The deep black colour of the facade boards highlighted the warm vibe of traditional Danish cottages at the same time giving it a strong industrial expression”.

Fixed in a traditional wooden pattern with overlapping planks, Tagholmen’s new facade leaves a vibrant and natural expression of natural wood. Before the construction of Tagholmen, Claus Egerland had only previously seen the facade material used for smaller constructions, e.g. cottages.

“I saw a great hidden potential in Swisspearl Plank Original and wanted to use it on a bigger scale – and the result was extremely satisfying”, Claus Egerland concludes.









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**swisspearl.com**

# DIM Design & Installation Manual

Swisspearl Plank Connect on Wood





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# Swisspearl

## Swisspearl

Swisspearl is one of the leading European manufacturers of multi-capability fibre cement building products. Our products and solutions add exciting new design opportunities for moulding attractive, durable settings for people's lives. But Swisspearl is more than mere products. We also help make all kinds of design and construction projects easier as well as more profitable, inspiring and effective. And for us, all construction also involves building relations with people, making your day better, and helping you make the day better for others.

## Product Information

Swisspearl fibre cement is a modern building material made from natural and environmentally friendly raw materials. The technology has been developed by Swisspearl, having more than 90 years of experience within the manufacture of fibre cement. Our wide experience ensures a sustainable product which has accumulated all the advantages of fibre cement. The facade range can be used in all self-ventilated light weight facade constructions.

Featuring properties such as non-combustibility, sound and weather insulation as well as high impact strength, Swisspearl fibre cement boards are the ideal facade material.

## Quality

Swisspearl Plank Connect product specifications and classifications comply with EN 12467:2012+A2:2018 Fibre-cement flat sheets and 13501-1:2007+A1:2009 Fire classification of construction products and building elements.

## Swisspearl Plank Connect range

- is manufactured in accordance with the quality management system ISO 9001:2015
- complies with the provisions set out in the Construction Products Regulation (EU) No. 305/2011

## Colour resistance on painted surfaces

The colour and gloss of Swisspearl Plank Connect is little affected by the weather, and the boards will retain the colour and glossiness for a long time.

## Warranty

Warranty conditions are available on request from your local Swisspearl office.

## Disclaimer

The information contained in this publication and otherwise supplied to users of Swisspearl products is based on Swisspearl's general experience, best knowledge and belief. However, due to factors which fall beyond Swisspearl's knowledge and control, which can affect the use of the products, no warranty is given, express or implied with respect to fitness for particular purpose or otherwise. Swisspearl's policy is one of continuous improvement. Swisspearl therefore reserves the right to alter specifications at any time and without notice. Colours and textures may vary according to light and weather conditions. Owing to this and limitations of the printing process, colours in this brochure may vary.

Please, ensure that you have the latest version of this publication by checking that the publication date corresponds with the downloadable version from our website. In case of doubt, please contact your local Swisspearl representative.



# The self-ventilating facade

A self-ventilating facade is a construction which helps minimize temperature variations in the wall throughout the year. Sunlight and heat are reflected away in the summertime, and insulation behind the facade boards reduces heat loss in lower temperatures.

At the same time, the natural ventilation passing through the construction minimizes condensation. The self-ventilating facade has additional features and benefits.

The most important benefit is the protection of the underlying construction against weather, wind and moisture. Some moisture passes through the facade, but it is limited to a level that can either be drained away or eliminated by natural ventilation.

The drainage feature of the system works when rainwater or moisture penetrates through the gaps in the facade. The moisture runs down either the reverse of the facade boards, the windstopper, or the insulation. There should be ventilation openings at the base of the structure and above doors and windows. These openings will also help drain the water away from the construction.

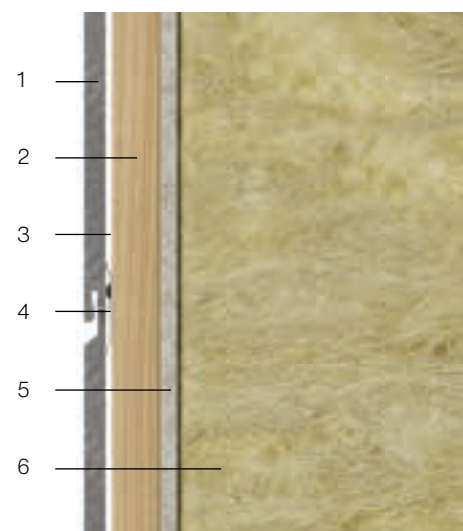
The natural ventilation works by means of a chimney effect. The air enters at the bottom of the structure and on its way up through the facade takes moisture through the ventilation openings at the top of the structure or at window or door openings.

Swisspearl recommends increasing the ventilation area behind the Plank boards when installing Plank boards on taller buildings. In the table below, it is showing the recommended minimum ventilation cavities behind the Plank.

| Cladding height | min. gravity |
|-----------------|--------------|
| <6 m            | 20 mm        |
| 6-30 m          | 30 mm        |
| >30 m           | 40 mm        |

## Wood structure

1. Swisspearl Plank Connect
2. Wooden batten
3. Ventilated area
4. Swisspearl Plank Connect Clip
5. Swisspearl Windstopper
6. Wall structure



# The self-ventilating facade

## Ventilated Openings



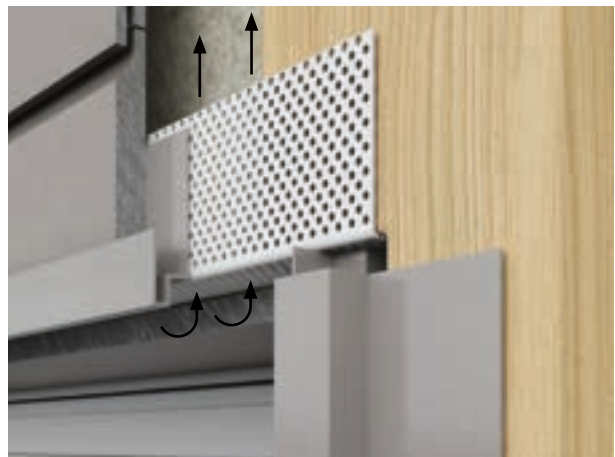
Air is pulled into the construction through an opening at the base of the facade, and it must be ensured that unobstructed ventilation is possible throughout the facade's height. There should be a ventilation gap of minimum 15mm, or equivalent 150cm<sup>2</sup> per meter. If perforated profiles are used, a ventilation area opening of minimum 150cm<sup>2</sup> per meter is required. The opening at the base is also used to drain moisture that has entered the facade.



The passage of air must be maintained at the top of the facade whether it abuts to a roof or other structure. Just as at the base, there must be a ventilation gap of minimum 15mm or 150cm<sup>2</sup> per meter.



A horizontal ventilation opening of minimum 10mm or equivalent to 150cm<sup>2</sup> per meter should be maintained beneath windows or other openings where a sill is used. This ventilation gap is usually formed between the top edge of the facade boards and the bottom edge of the sill. It is recommended that the sill projects a minimum of 30mm beyond the front of the facade. This ensures that the water running from the sill does not enter the structure.

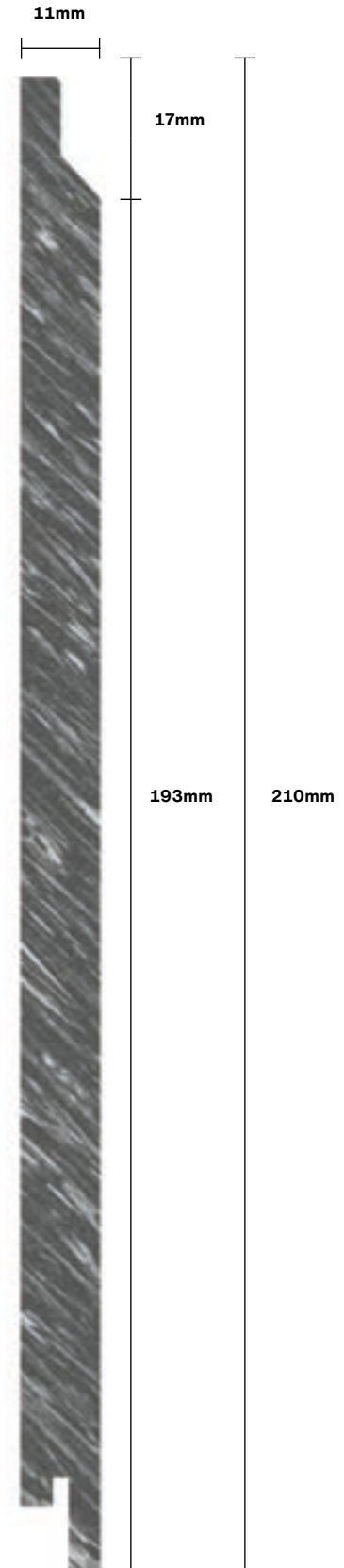


A horizontal free ventilation opening must be maintained above windows and doors as well. This ventilation gap must be at least 15mm wide. If steel, aluminium or plastic perforated profiles are used, a ventilation area opening of minimum 150cm<sup>2</sup> per meter is required. The opening at the base is also used to drain moisture that has entered the facade.

# Swisspearl Plank Connect

Swisspearl Plank is now available in both a lap and a tongue and groove version. To distinguish the two Swisspearl has named the lap-version Swisspearl Plank Original. In this installation manual we will only focus on the tongue and groove version which is called Swisspearl Plank Connect.

Swisspearl Plank Connect is a system including Swisspearl Plank Connect Clips that allow for easy hidden fixing of the planks.





# Swisspearl Plank Connect

## Horizontal installation

Swisspearl Plank Connect is mounted horizontally on vertical wooden battens. The planks do not overlap but fit together through a tongue and groove connection and a clip attached to the wooden substrate. More information about the installation can be found on the next pages.



## Different installations Patterns

It is possible to install Swisspearl Plank Connect with a stack bond (1) which gives a very straight and modern look. In addition, the stretcher bond (2) is a very popular option. Next to that it is also possible to shift joints (3). Independent of the pattern the plank ends may be placed against each other.



## Vertical installation

Swisspearl Plank Connect can also be mounted vertically on horizontal wooden battens. Ventilation is foreseen behind the horizontal battens. More information about the installation can be found further in this manual.



## Wide range of accessories

Swisspearl offers all profiles and fixing materials to complete your facade. More info can be found on the following pages.





# Product



## Swisspearl Plank Connect – Textured surface – Properties

Length: 3000mm

Full width: 210mm

Visible width: 200mm

Thickness: 11,2mm

Weight pcs: 10kg

Surface: Textured

Coverage per square metre 1,67 pcs

Fixings per square metre 10 pcs/m<sup>2</sup>

# Accessories



## Swisspearl Plank Connect Clip

Size: 47x48mm

A2 stainless steel



## Swisspearl Plank Connect Screw

SCR-W 4.2x30mm

A2 stainless steel



## Swisspearl Plank Connect Screw 40mm

SCR-W 4.2x40mm

A2 stainless steel



## Swisspearl Plank Acrylic Paint 0.5L

100% Acrylic Latex paint available in all colours



## Swisspearl Plank Circular Blade

Fibre cement blade for circular saw  
Ø160x2.2x20mm



## Swisspearl Facade Screw wood

SCR-W 4.5x41mm  
A2 stainless steel

# Cutting and Sealing

When fibre cement is cut, dust is created. This dust may contain crystalline silica which can pose a health risk. To ensure adequate ventilation, always work outdoors and use cutting tools that minimize dust. Or use a HEPA filter vacuum attachment for power saws equipped with a Swisspearl Circular Saw Blade to reduce exposure. Never use water when cutting.

If ventilation is not adequate to limit exposure, wear a disposable respirator or air purifying cartridge respirator fitted with a Class P2 filter (European EN 143 standard). Cut the product by using a polycrystalline diamond-tipped blade. To reduce exposure to dust we recommend using Swisspearl Circular Saw Blade.

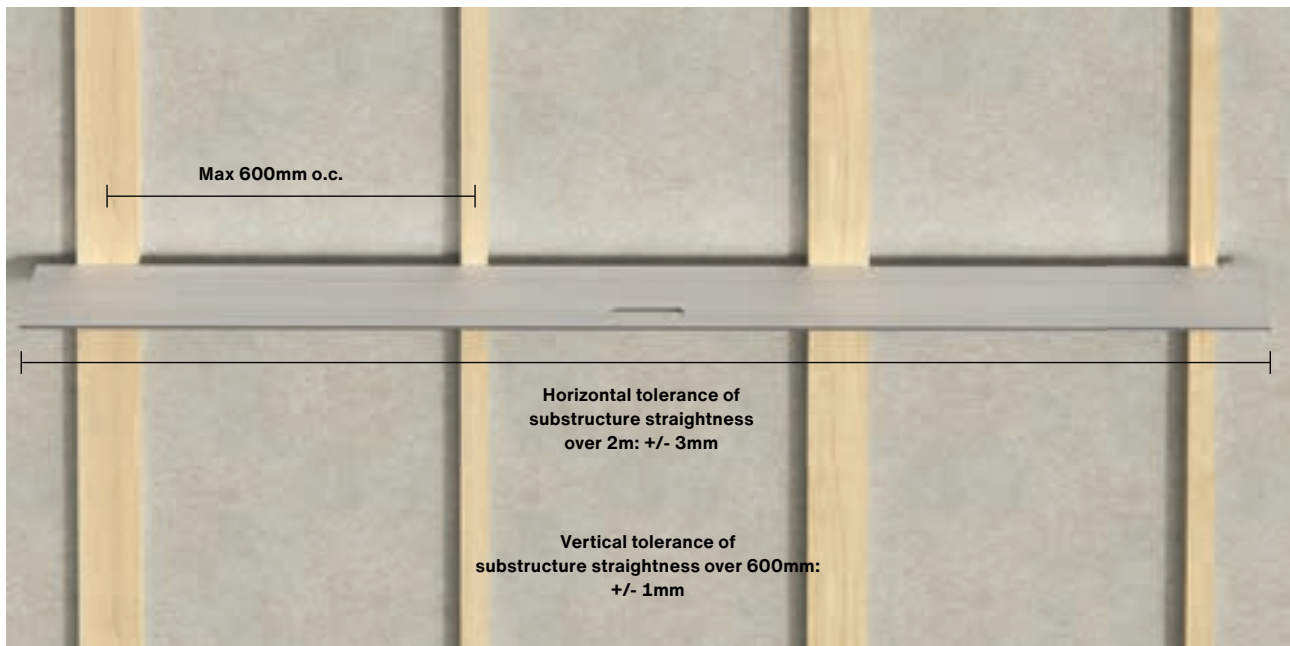
When making cut-outs use a Jigsaw with a carbide blade for fibre cement. As an alternative for small tasks, use a rough woodcutting blade.

In order to protect the edges from chipping, the direction of travel of the blade must be taken into account before deciding on whether to cut the boards on the front or reverse. Take care to remove dust from the surface after installation as leftover cement particles can leave permanent marks.

All on-site cuts with regards to Swisspearl Plank Connect must be resealed with 100 % acrylic latex paint before installing. Only Swisspearl Plank Acrylic Paint must be used for resealing.



# Substructure



Straightness of substructure

## Fastening substructure

Anchorage of the substructure on the load-bearing wall must follow all local standards and regulations. Before installing the substructure on the load-bearing wall, it should be checked by the installer to ensure that it is straight and the substructure can be mounted safely.

Make sure to choose the correct anchorage system for the substructure suitable for the material. Always install the anchoring according to the manufacturer of the system/ screw/bolt used.

Use the correct corrosion resistance according to the environment of the building's location.

Wind load calculations on how the substructure should be fixed to the load-bearing wall should be considered. This calculation will normally be done by a project/construction engineer.

## Wood quality for substructure

Make sure that the quality of the wood used for the substructure follows country specific standards and regulations.

## Horizontal Installed Plank Connect

Treated or untreated wood can be used for the substructure. If untreated wood are used then it is recommend to use a flat EPDM.

Thickness: min. 20mm

Width at joints: min. 75mm

Width at middle batten: min. 45mm

## Vertical Installed Plank Connect

Treated or untreated wood can be used for the vertical substructure. Treated wood should be used for the horizontal substructure.

Thickness: depending on distances between vertical battens. 38mm battens is recommend at a distances of OC 600mm. Width first batten and battens over openings: min. 75mm Width other horizontal battens: min. 45mm

## Straightness of substructure

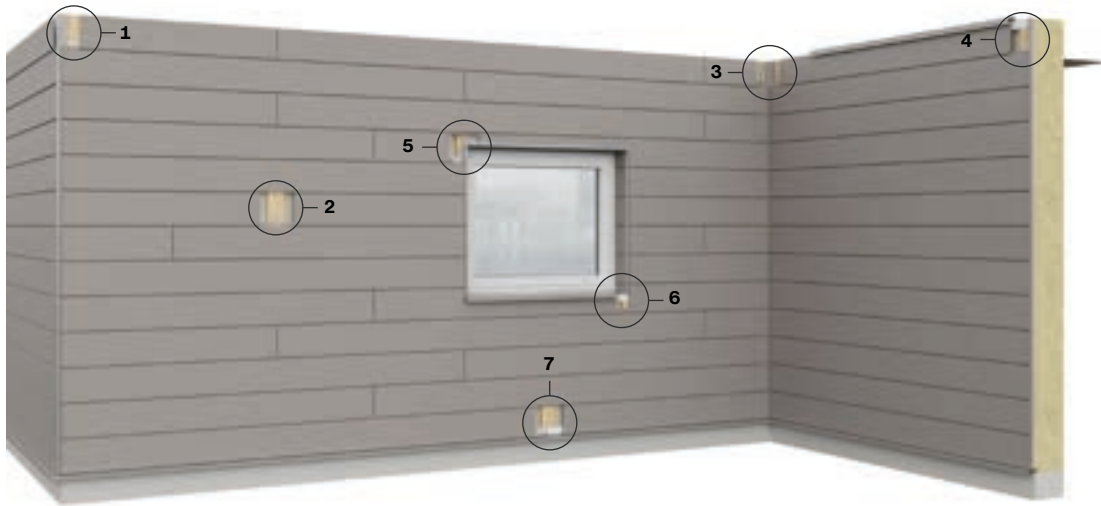
The horizontal tolerance of straightness for the substructure is +/- 3.0mm measured with 2 meter straight edge.

The vertical tolerance of straightness for the substructure is +/- 1mm over 600mm measured with straight edge.



# Swisspearl Plank Connect Profiles

## Horizontal Installation



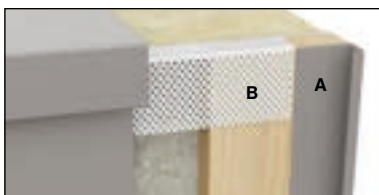
**Picture 1**  
Swisspearl External Corner Profile Small



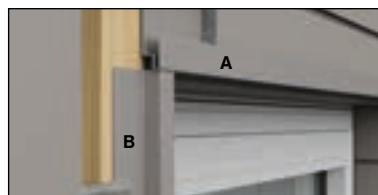
**Picture 2**  
Swisspearl Plank Connect Clips



**Picture 3**  
Swisspearl Internal Corner Profile



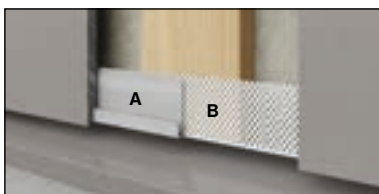
**Picture 4**  
A. Swisspearl Plank Connect End Profile  
B. Swisspearl Ventilated Profile



**Picture 5**  
A. Swisspearl Plank Connect Window Profile  
B. Swisspearl External Corner Profile Small



**Picture 6**  
Swisspearl Ventilated Profile



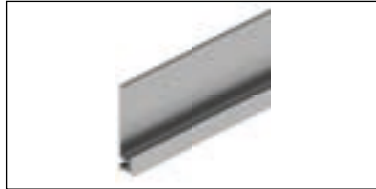
**Picture 7**  
A. Swisspearl Plank Connect Start Profile  
B. Swisspearl Ventilated Profile

# Swisspearl Plank Connect Profiles

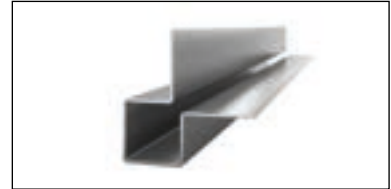
## Horizontal Installation

**Swisspearl Plank Connect Window**

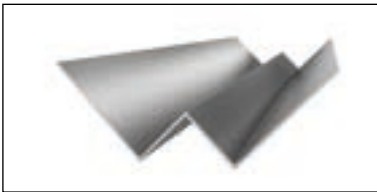
Profile Extruded Aluminium  
Thickness 1.1mm  
Length 3000mm

**Swisspearl Plank Connect Start Profile**

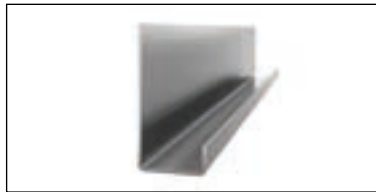
Extruded Aluminium  
Thickness 1.1mm  
Length 3000mm

**Swisspearl External Corner Profile**

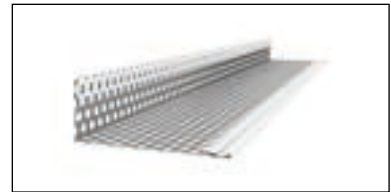
Small Painted Aluminium  
Thickness 1.0mm  
Length 3000mm

**Swisspearl Internal Corner Profile**

Painted Aluminium  
Thickness 1.0mm  
Length 3000mm

**Swisspearl Plank Connect End Profile**

Painted Aluminium  
Thickness 1.0mm  
Length 3000mm

**Swisspearl Ventilated Profile**

Perforated steel  
Thickness 0.6mm  
Length 3000mm

# Installation

## Horizontal



### Installing Swisspearl Plank Connect on timber frame

Max. support distance: 600mm o.c.

Max. distance between 2 Swisspearl Plank Connect Clips: 600mm o.c.

The distance to terrain from the bottom edge of the facade board should be a minimum of 150mm (1). The distance to flat roofs, balconies and other horizontal structures where the water can drain away can be a minimum of 50mm.

The following screws can be used:



### Swisspearl Plank Connect Screw

for fixing the Swisspearl Plank Connect Clips on wood, SCR-W 4.2x30mm / 4.2x40mm

### Swisspearl Facade Screw

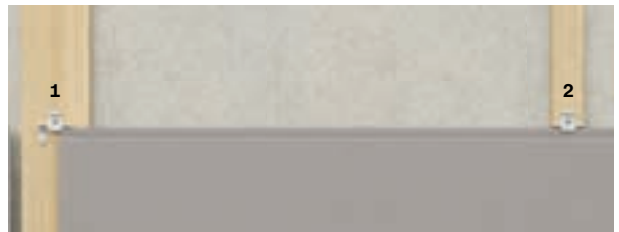
for visible fixing of Swisspearl Plank Connect on wood, SCR-W 4.5x41mm.

# Installation

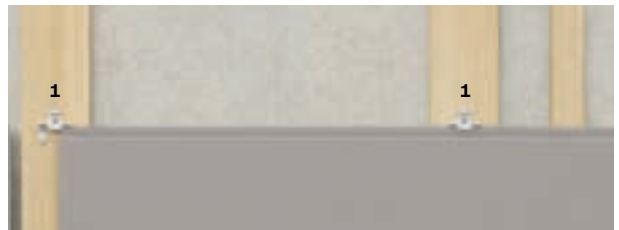
## Horizontal

### Width of support battens in relation to pattern

All joints should be supported with a Swisspearl Plank Connect Clip on a wooden batten of min. 75mm (1).  
Between the ends of the planks all Swisspearl Plank Connect Clips can be fixed on min. 45mm wide battens (2).



As some designs have irregular joints it is recommended to always use a batten of min. 75mm (1) to make sure all joints are supported.



### Requirements for Increased Impact Resistance

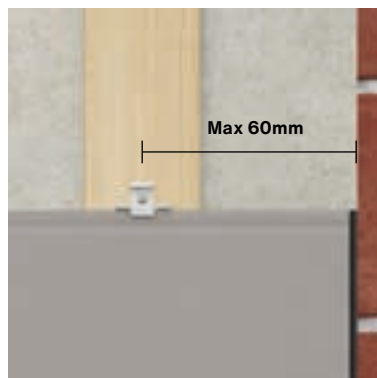
If Swisspearl Plank Connect is to be used in areas where increased impact resistance is required, two clips must be installed per joint.

Battens at the joints must have a minimum width of 95 mm to ensure that screws are not placed too close to the edge of the wood.

Clips must be installed at a distance of 5 mm from the end edge of the Plank Connect.



The edge distance measured from the center of the clip to the end of the plank must not exceed 60mm.

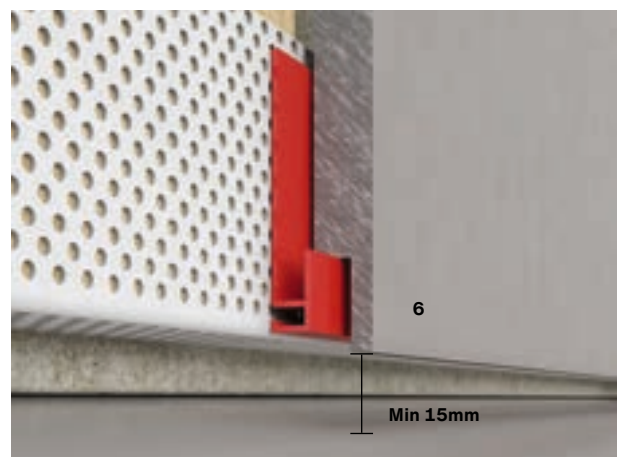
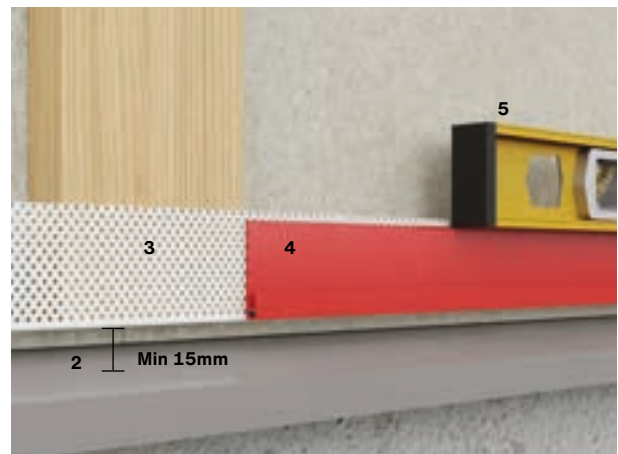
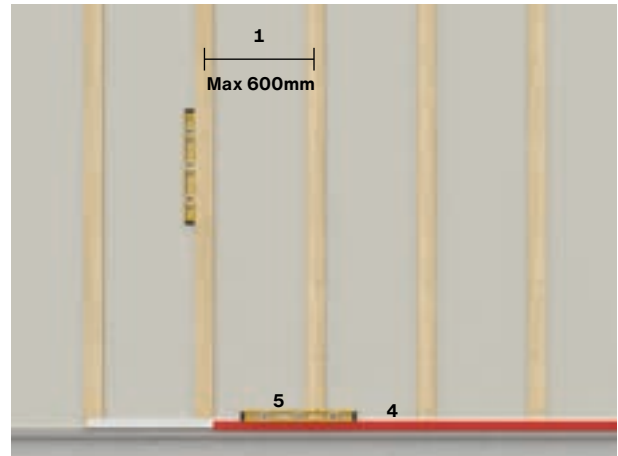


# Installation

## Horizontal

### Step 1: Support battens and Start Profile

1. Install battens with maximum 600mm on center. Make sure that the battens are levelled out. Chose a mounting solution for the battens which is suitable for fixing the battens to the wall.
2. Leave 15mm space between the structure below and the battens. This is both for ventilation and to prevent the wooden battens from standing in water.
3. Install Swisspearl Ventilated Profile, to close the structure behind Swisspearl Plank Connect and to prevent small animals like mice from entering behind the planks.
4. Install Swisspearl Plank Connect Start Profile. Pre-drill with a Ø4mm drill before fixing the profile with the Swisspearl Plank Connect Screw.
5. Make sure the Swisspearl Plank Connect Start Profile is levelled before fastening it. This is important as it will affect the rest of the installation if not done correctly.
6. Use a Swisspearl Plank Connect to determine the correct fixing height for the Swisspearl Plank Connect Start Profile. The minimum distance between the bottom side of the plank and the structure below is 10mm.



# Installation

## Horizontal

### Step 2: External and Internal Corner Profiles

Before Swisspearl Plank Connect can be installed the subconstruction needs to be in place.

Install the profiles with flathead nails through Ø4mm pre-drilled holes.

Make sure the profiles are levelled.

Align all profiles correctly by making sure that there is an equal distance between profiles at the top and the bottom of the facade.

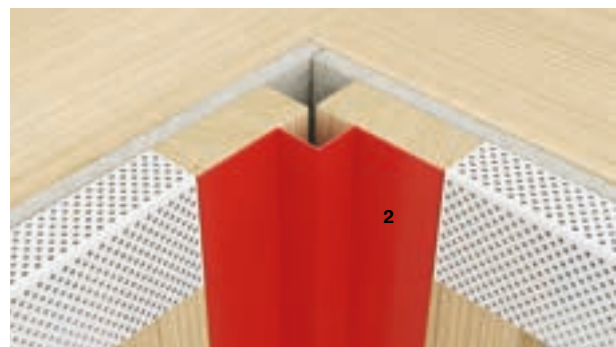
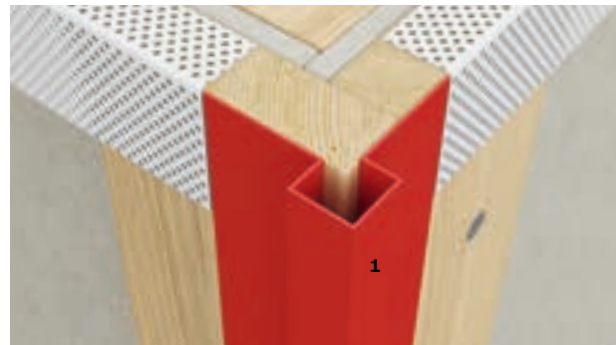
#### 1. Swisspearl External Corner Profile

Create a fixed corner with two 100mm battens. This enables both the fixing of the profile and of the clips.

#### 2. Swisspearl Internal Corner Profile

The profile is installed on two battens with a width of 100mm. When installing the battens they should not be pushed all the way in the corner. This is to make sure that the screw for the clip does not get too close to the edge.

3. When installing Swisspearl Connect Planks next to other building materials, it is an aesthetical advantage to use the Swisspearl Plank Connect End Profile.





# Installation

## Horizontal

### Step 3: Openings like windows and doors

When installing the subconstruction for Swisspearl Plank Connect at windows and other openings it is important that it is made correct so air can move freely vertically.

For that reason, no horizontal battens or similar should be installed over or under windows and other types of openings.



Only install vertical battens with a maximum of 600mm on center.

It can be an advantage to use wider battens next to windows and openings as otherwise the Swisspearl Plank Connect Clips might be mounted too close to the edge of the batten.



Install the Swisspearl Ventilated profiles on top and below the openings.

It can be an advantage to install extra supporting battens above the window so that it is easier to install the profiles (1).

Also, below the window it can be an advantage as the extra battens will give extra support (2).



# Installation

## Horizontal

### Step 4: Openings, side profiles and sill

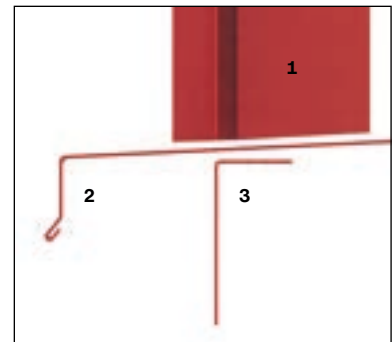
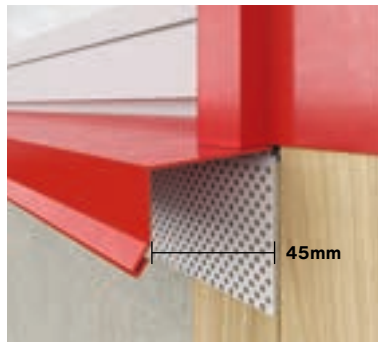
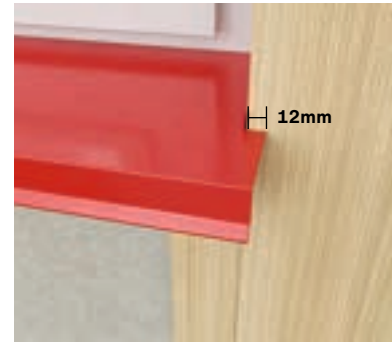
#### Windowsill

When installing profiles around windows, start by installing the windowsill. The windowsill should slope slightly away from the window. The windowsill must protrude at least 30mm beyond the front of the facade.

Use the profiles on the sides of the window to determine the correct length of the windowsill. In our example the Swisspearl External Corner Profile Small is used. The window sill should be made 12mm wider than the window opening. It is needed to make cut-outs on both ends of the windowsill to make it fit between the window reveals. This recess can vary and it can be an advantage to bend it upwards so that water cannot penetrate the construction. Make sure to use a sealant to close the gap entirely. Cut the Swisspearl Exterior Corner Profile in the same angle as the windowsill so that it almost touches the window profile and water flows away from the facade.



Windowsill



1. Swisspearl Exterior Corner Profile Small
2. Windowsill
3. Swisspearl Ventilated Profile

#### Top of the window

In the top of the window a special cut out is needed. Cut the Swisspearl External Corner Profile in order to allow the Swisspearl Plank Connect Window Profile to pass. The window profile should stop at the end of the corner profile.



Top of the window



# Installation

## Horizontal

### Step 5: Installation of Swisspearl Plank Connect

Start installing the planks onto the Swisspearl Plank Connect Start Profile. Level the planks.

Make sure to check every 5th row whether the planks are still levelled.

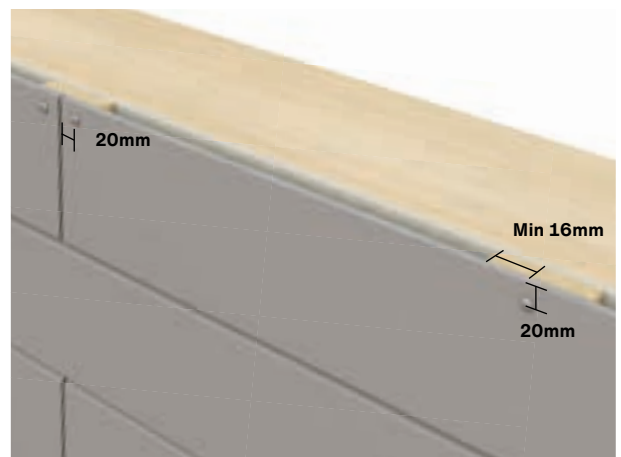
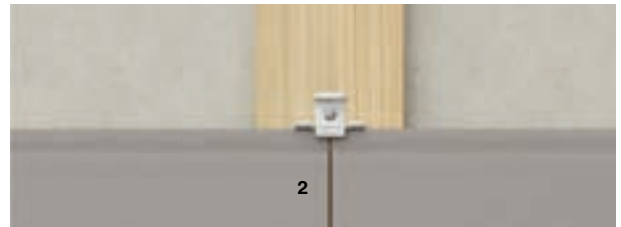
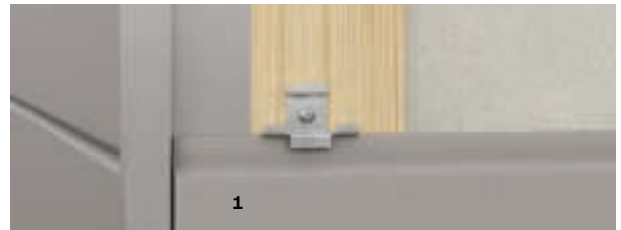
Whenever possible it should be avoided to install the Swisspearl Plank Connect Clips on top of a profile as this would add extra thickness. Leave a 5mm joint (1) between plank and profiles.

Swisspearl Plank Connect can be installed with butt-joints or with a joint (2) of max. 5mm. When applying open joints it is recommended to use EPDM on the battens.

Facades with a width of more than 20 meters might require, depending on openings in the facade, either a joint of 2-3mm between all plank ends or the planks can be installed butt-joined in combination with a field demarcation joint of 5mm that is applied every 20m.

If Swisspearl Plank Connect is required to withstand impact from ball play or other types of mechanical impact, two clips (3) must be used at each joint to ensure sufficient strength. The clips must be installed with a minimum distance of 5 mm from the end edge of the Plank Connect.

Planks below roof trims or windowsills can be fixed with Swisspearl Plank Connect Clips above the plank. In most cases these planks have to be cut to size and then they must be fixed with visible Swisspearl Facade Screws. It is required to pre-drill the plank with a Ø5mm drill. Fixing should not be closer than 20mm from plank edges and should never be less than 16mm from timber batten edges.



# Installation

## Horizontal

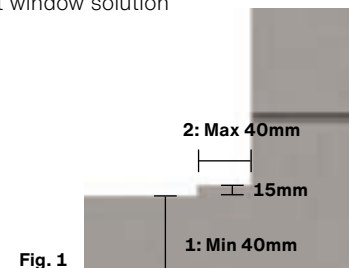
### Step 6: Installation of Swisspearl Plank Connect around window openings

Cut out the planks according to the size of the window.

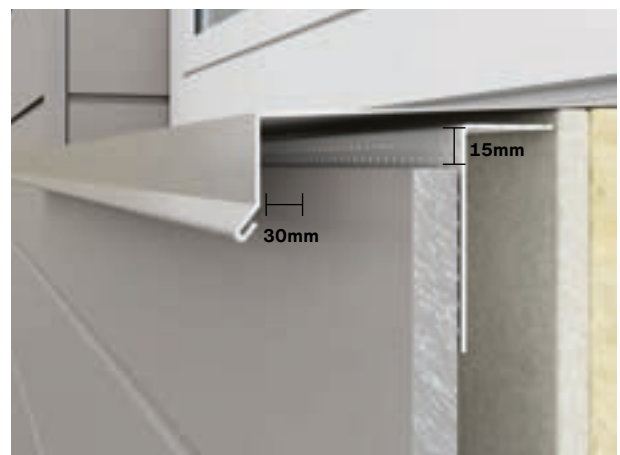
Swisspearl recommends to foresee joints at both ends of the window in case the remaining height of the Swisspearl Plank Connect drops below 40mm (1). In this way the risk of cracks or breaking is avoided. To make the air gap under the windows less visible it is possible to make the 40mm (2) at the ends of the windowsill 15mm higher. This way you will still have the ventilation area but it will be less visible.



Swisspearl Plank Connect window solution



A horizontal ventilation opening of minimum 10mm or equivalent to 150cm<sup>2</sup> per meter should be maintained beneath windows or other openings where a sill is used. This ventilation gap is usually formed between the top edge of the facade boards and the bottom edge of the sill. It is recommended that the sill projects a minimum of 30mm beyond the front of the facade. This ensures that the water running from the sill does not enter nor drips onto the structure.



# Installation

## Horizontal



### Step 7: Window reveals

Install the Swisspearl Plank Connect End Profile (1) near the window frame.

Start at the windowsill with a piece of Swisspearl Plank Connect that follows the angle of the windowsill as well as the joint of the planks installed on the front side of the facade.

Slide the first plank into the Swisspearl Plank Connect End Profile and fix this piece with a Swisspearl Facade Screw 4.5x41mm on the batten. Pre-drill the plank with a Ø5mm drill. Fixing should not be closer than 20mm from plank edges and should never be less than 16mm from timber batten edges.

Install the Swisspearl Plank Connect Clips as a next step and continue installing the planks.

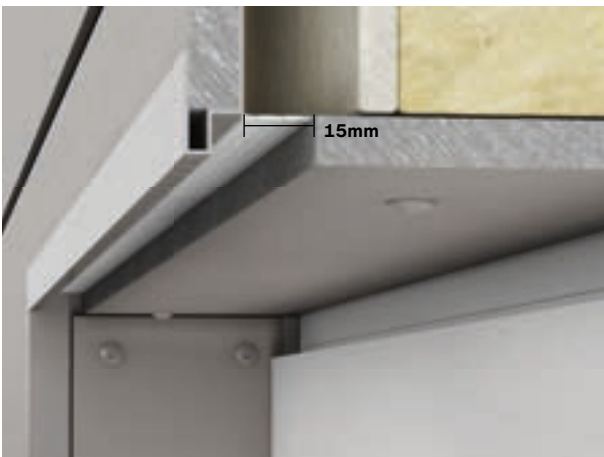
The last piece also has to be cut to size and fixed with a Swisspearl Facade Screw 4.5x41mm. Pre-drill the plank with a Ø5mm drill.

### Top of the window

At the top of the window a Swisspearl Plank Connect can be installed with a Swisspearl Facade Screw 4.5x41mm. Pre-drill the plank with a Ø5mm drill. Fixing should not be closer than 20mm from plank edges and should never be less than 16mm from timber batten edges.

A Swisspearl Plank Connect End Profile can also be installed against the window.

A horizontal free ventilation opening must be maintained above windows and doors. This ventilation gap must be at least 15mm wide.



# Installation

## Horizontal

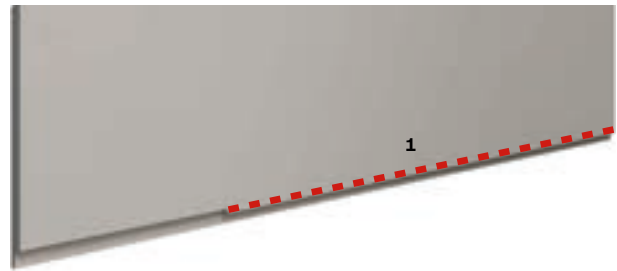
### Step 8: Repair of broken or cracked planks

In case of broken or cracked planks near a roof trim it is recommended to take off all planks in order to replace the affected plank.

Broken or cracked planks in lower parts of the facade can be removed individually. Cut out the existing plank without damaging the already installed planks and clips.

The new plank can be installed easily by cutting of the rear tongue at the bottom of the plank (1). In this way one can slide in the plank and push it in from beneath.

To make sure the plank stays in place and in order to avoid flapping because of the wind, the plank should be fastened with a glue system (2) that is approved to be used together with fibre cement. The glue should be applied on the areas indicated in red. Make sure the board remains in place until the adhesive has cured.



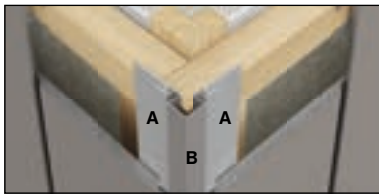
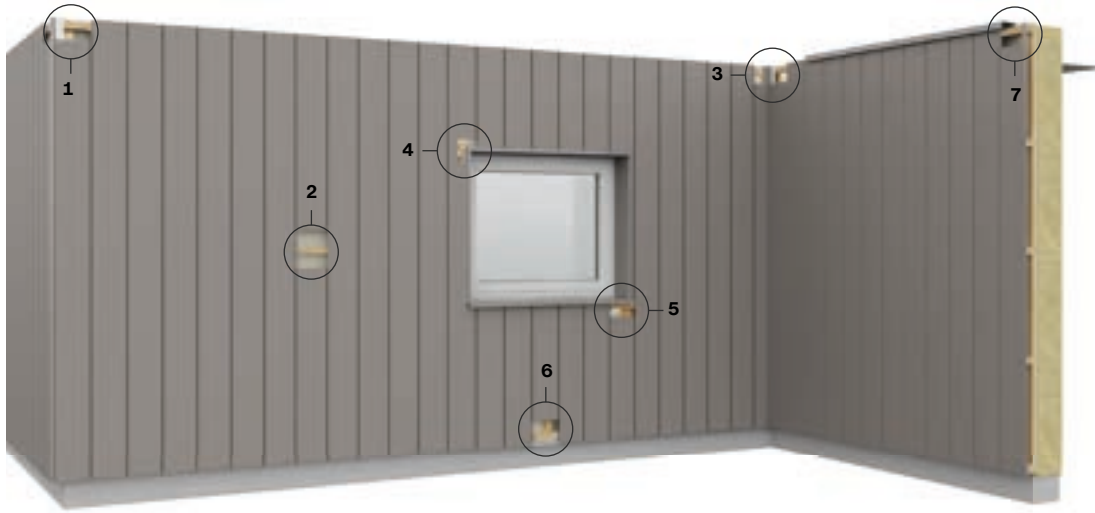
**Remark:** the backside of Swisspearl Plank Connect is shown here





# Installation

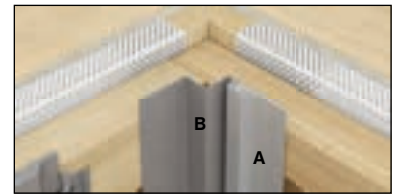
## Vertical



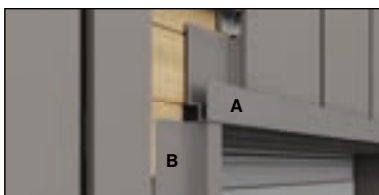
**Picture 1**  
A. Swisspearl Plank Connect Startprofile  
B. Swisspearl External Corner Small



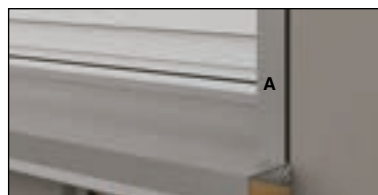
**Picture 2**  
Swisspearl Connect clip



**Picture 3**  
A. Swisspearl Plank Connect Startprofile  
B. Swisspearl Internal Corner



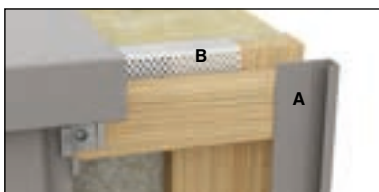
**Picture 4**  
A. Swisspearl Plank Connect Window Profile  
B. Swisspearl External Corner Profile



**Picture 5**  
Swisspearl External Corner Profile



**Picture 6**  
Swisspearl Plank Connect Vertical Start Profile



**Picture 7**  
A. Swisspearl Plank Connect End Profile  
B. Swisspearl Ventilated Profile

# Installation

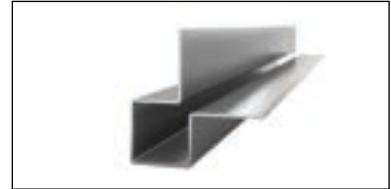
## Vertical

**Swisspearl Plank Connect Window Profile**

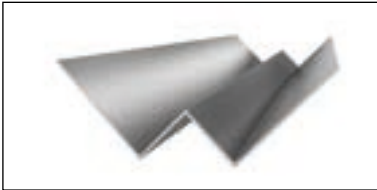
Extruded Aluminium  
Thickness 1,1mm  
Length 3000mm

**Swisspearl Plank Connect Start Profile**

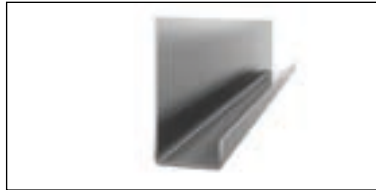
Extruded Aluminium  
Thickness 1,1mm  
Length 3000mm

**Swisspearl External Corner small**

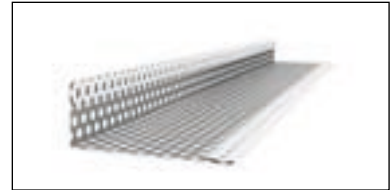
Painted Aluminium  
Thickness 1.0mm  
Length 3000mm

**Swisspearl Internal Corner Profile**

Painted Aluminium  
Thickness 1.0mm  
Length 3000mm

**Swisspearl Plank Connect End Profile**

Painted Aluminium  
Thickness 1.0mm  
Length 3000mm

**Swisspearl Ventilated Profile**

Perforated Steel  
Thickness 0.6mm  
Length 3000mm

**Swisspearl Plank Connect Vertical Start Profile**

Extruded Aluminium  
Thickness 1.1mm  
Length 3000mm

# Installation

## Vertical



### Installing Swisspearl Plank Connect on timber frame

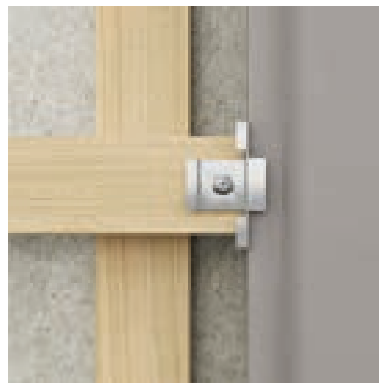
Max horizontal support distances:  
600mm o.c

In this manual a default intermediate distance of 600mm between the vertical battens is used. This distance can be increased after consulting with a static engineer that also evaluates the size of the battens.

Max distance between centres of  
2 clips: 600mm o.c

The distance to terrain from the bottom edge of the facade board should be a minimum of 150mm (1). The distance to flat roofs, balconies and other horizontal structures where the water can drain away can be a minimum of 50mm.

Never install more Swisspearl Plank on-top each other when installing them vertically. If more rows are needed then there has to be used a Swisspearl Plank Connect Vertical Start Profile for each new row.



The following screws can be used for this solution:



#### Swisspearl Plank Connect Screw

for fixing the clips on wood, SCR-W 4.2x30mm or SCR-W 4.2x40mm.

#### Swisspearl Facade Screw

for visible fixing of Swisspearl Plank Connect on wood, SCR-W 4.5x41mm.

# Installation

## Vertical

### Step 1: Support battens and Start Profile

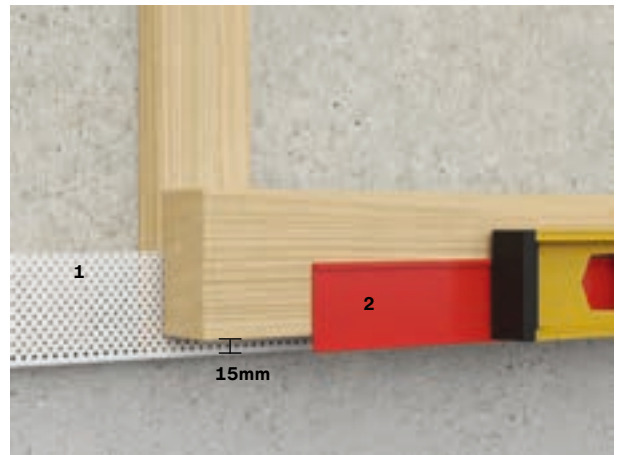
Begin by installing the vertical battens on the wall. Next, install the horizontal battens onto the vertical battens. Utilize treated battens for the horizontal layer. The first batten at the bottom of the structure should have a minimum width of 75mm. Ensure that the first battens are leveled.

After that the Swisspearl Ventilated Profile (1) has to be put in place. The bottom horizontal batten should be fixed min. 15mm higher than the end of the vertical battens.

Align all battens correctly by making sure that there is an equal distance between battens at the top and at the bottom of the facade.



Fix the Swisspearl Plank Connect Vertical Start Profile (2) with Swisspearl Plank Connect Screws and level it well as this is the basis for a nice end result. It is recommended to have the bottom edge of the profile 15mm below the horizontal batten so that the Swisspearl Ventilated Profile (1) is hidden behind the start profile.



The edge distance measured from the center of the clip to the end of the plank must not exceed 60mm.



# Installation

## Vertical

### Step 2: External and Internal Corner Profiles

After installing the subconstruction the Swisspearl External Corner Profiles (1) and Swisspearl Internal Corner Profiles (2) should be installed.

Swisspearl Ventilated Profiles (3) should be installed horizontally on the vertical timber battens.

Create a fixed corner with two 100mm horizontal battens. This is valid for both internal and external corners and enables both the fixing of the profile and of the clips.

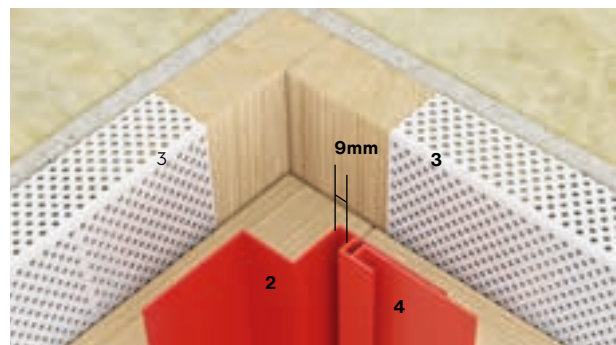
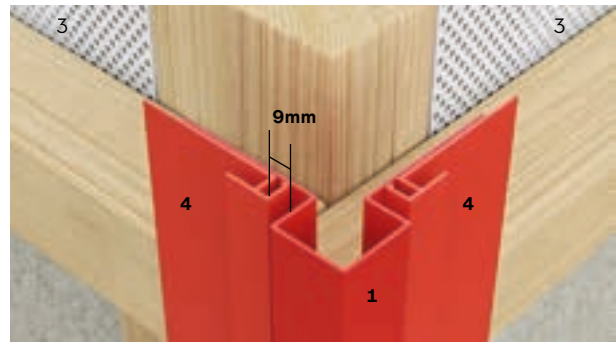
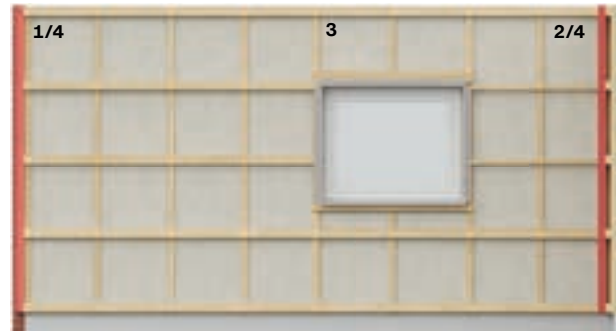
The horizontal battens should connect with the ventilation profiles.

Install the corner profiles on the horizontal battens. The profiles are fixed with flat head nails, mounted in pre-drilled holes of Ø4mm. Make sure the corner profiles are levelled before installing the Swisspearl Plank Connect Start Profiles (4).

When using Swisspearl Plank Connect for vertical installation, it can be installed from right to left or from left to right. In the picture to the right, the planks are installed from the corner outward in different directions, making it possible to use two starter profiles and no visible screws. However, at the opposite end, it will not be possible to use a starter profile. Here, the planks must be fastened with visible facade screws instead.

The Swisspearl Plank Connect Start Profile should be installed with Swisspearl Plank Connect Screws. Make sure there is a 9mm joint between the start profile and the corner profile.

When installing Swisspearl Plank Connect next to other building materials it is an esthetical advantage to use the Swisspearl Plank Connect End Profile (5).



# Installation

## Vertical

### Step 3: Openings, side profiles and sill

#### Windowsill

When installing profiles around windows, start by installing the windowsill. The windowsill should slope slightly away from the window. The windowsill must protrude at least 30mm beyond the front of the facade.

Use the profiles on the sides of the window to determine the correct length of the windowsill. In our example the Swisspearl Exterior Corner Profile Small is used. The window sill should be made 12mm wider than the window opening. It is needed to make cutouts on both ends of the window-sill to make it fit between the window reveals. This recess can vary and it can be an advantage to bend it upwards so that water cannot penetrate the construction. Make sure to use a sealant to close the gap entirely.

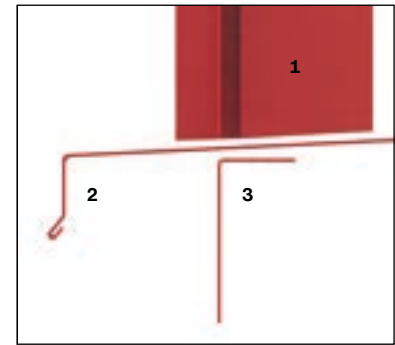
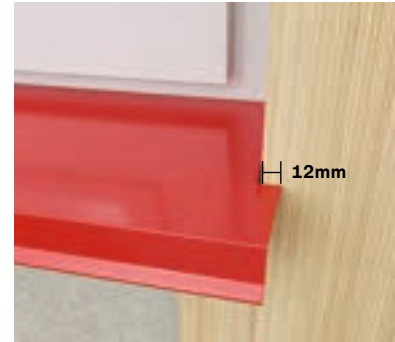
Cut the Swisspearl Exterior Corner Profile in the same angle as the windowsill so that it almost touches the window profile and water flows away from the facade.

#### Top of the window

In the top of the window a special cut out is needed. Cut the Swisspearl External Corner Profile in order to allow the Swisspearl Plank Connect Window Profile to pass. The window profile should stop at the end of the corner profile.



Windowsill



1. Swisspearl Exterior Corner Profile Small
2. Windowsill
3. Swisspearl Ventilated Profile



Upper side





# Installation

## Vertical

### Step 4: Installation of Swisspearl Plank Connect

Start installing the Swisspearl Plank Connect onto the Swisspearl Plank Connect Vertical Start Profile. Level the planks. Install the planks with 1 Swisspearl Plank Connect Screw per Swisspearl Plank Connect Clip.

In the case of windows or other openings, it may be necessary to install an additional batten or one that is wider than the 75mm used at the bottom during installation. This is done to ensure that the Swisspearl Plank Connect clip is not mounted on the edge of the Swisspearl Plank Connect Window Profile. The clip must not be mounted over this profile

When possible, it should be avoided to install the clip on top of a profile.

Fixing should never be less than 16mm from timber batten edges.

The last Swisspearl Plank Connect needs to be installed with a visible screw. Pre-drill the plank with a Ø5mm drill and apply a min. edge distance of 20mm. A joint of 5mm needs to be foreseen between the plank and the Swisspearl Internal Corner Profile.

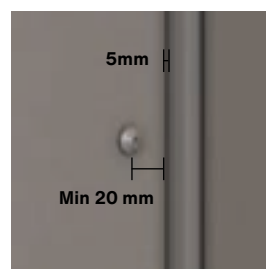
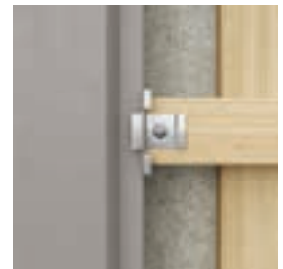


Fig. 1

# Installation

## Vertical

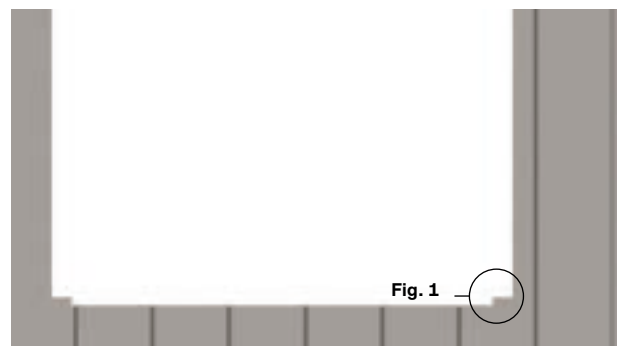
### Step 5: Installation of Swisspearl Plank Connect around window openings

Cut out the Swisspearl Plank Connect so that they fit perfectly against windows and doors. Take also the shape of the windowsill into account. A 5mm joint must be foreseen between profiles and planks.

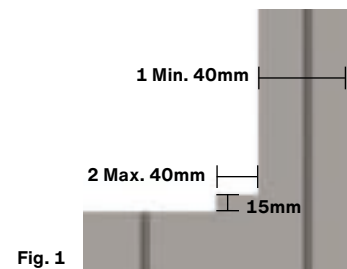
Swisspearl recommends to foresee joints at both ends of the window in case the remaining height of the Swisspearl Plank Connect drops below 40mm (1). In this way the risk of cracking or breaking is avoided.

To make the air gap under the windows less visible it is possible to make the 40mm (2) at the ends of the window-sill 15mm higher. This way you will still have the ventilation area and it will be less visible.

The Swisspearl Plank Connect Clip can be fixed with one of the 3 foreseen holes.



Swisspearl Plank Connect window solution



A horizontal ventilation opening of minimum 10mm or equivalent to 150cm<sup>2</sup> per meter should be maintained beneath windows or other openings where a sill is used. This ventilation gap is usually formed between the top edge of the facade boards and the bottom edge of the sill. It is recommended that the sill projects a minimum of 30mm beyond the front of the facade. This ensures that the water running from the sill does not enter nor drips onto the structure.



# Installation

## Vertical

### Step 6: Window reveals

Install the Swisspearl Plank Connect between the Swisspearl Exterior Corner Profile (1) and the window.

Planks at window reveals must be fixed with visible fixings. Pre-drill the plank with a Ø5mm drill. Fixing should not be closer than 20mm from plank edges and corners and should never be less than 16mm from timber batten edges.

Cut the bottom side of the plank in the same angle as the windowsill and leave a 5mm joint between plank and windowsill.

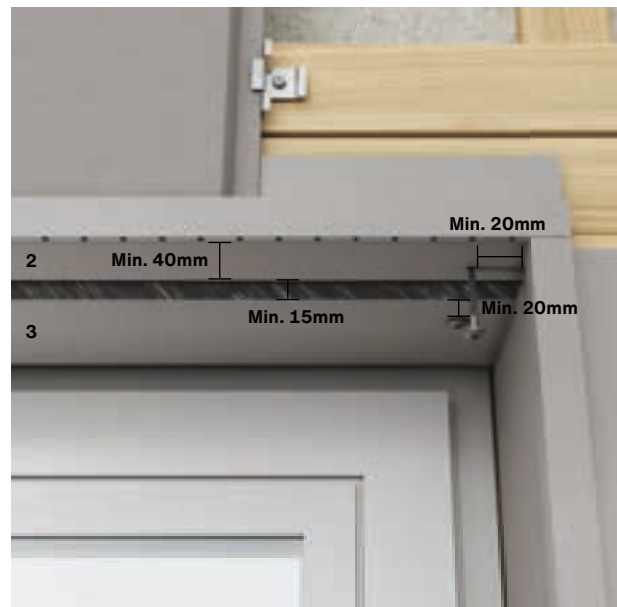


Start from the side opposite to the window (2) by installing a piece of a plank equal to the width of the vertical batten above but not less than 40mm wide. Remove the tongue and groove of the plank to allow ventilation inlet above the window.

Do the same with the next plank (3). There must be a gap of 15mm between the two planks to allow for proper ventilation.

Pre-drill the plank with a Ø5mm drill. Fixing should not be closer than 20mm from plank edges and corners and should never be less than 16mm from timber batten edges.

The vertical planks are placed into the horizontal Swisspearl Plank Connect Window Profile. To ensure that the Swisspearl Planks are held securely, Swisspearl Plank Connect clips must also be installed above openings. These clips are mounted with a small gap to the horizontal profile. This entails either using a wider batten or installing two horizontal battens over openings.





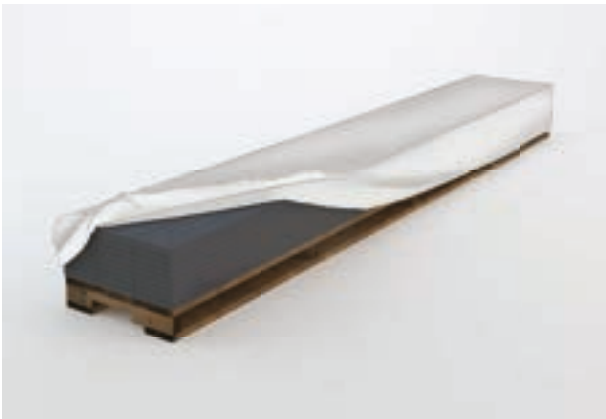
# Storing and Handling



Store the pallets on a dry and level surface.



A maximum of 4 panel or 4 plank pallets can be stored on top of each other.



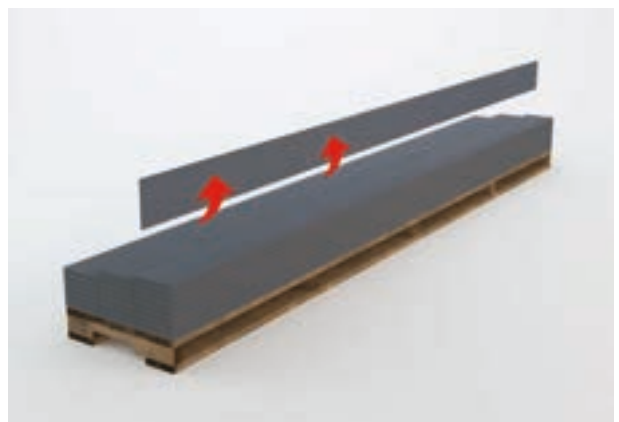
The original packaging may have sustained damage from transportation. Remove the plastic packaging immediately upon delivery at the building site, to avoid risk of efflorescence.



**Important:** Store materials under a dry and well-ventilated tarpaulin. If the product becomes damp, it should be placed on its vertical edge to allow rapid drying. Never install wet products.



If storing on site for more than 2-3 weeks, the products should be kept under a roof. A maximum of 4 pallets can be stored on top of each other.



Do not drag products from the pallet, as it may leave permanent scratch marks. Lift the product by its narrow edge as it may break if handled incorrectly.

# Health and Safety

## **Avoid breathing silica dust**

As with all other building materials, adherence to local building rules and regulations when working with Swisspearl products is required. Working with crystalline silica containing products should be conducted in well-ventilated conditions by use of simple and effective precautions.

When cutting, grinding or drilling, respirable crystalline silica is released. Breathing large amounts of dust may cause irritation to respiratory functions, eyes and/or skin.

Therefore wear personal protection equipment (Safety goggles, safety suit and a respiratory mask - P2 marked) See safety data sheet for full information. Ensure adequate ventilation at workstation. Remove dust after installation with water to suppress airborne dust particles.



# Care & Maintenance

## On-site

### Cleaning of boards after cutting and drilling

It is important to immediately remove dust caused by cutting and drilling from the front and rear of the boards with a soft brush/duster or a vacuum cleaner, as it otherwise might damage the boards. Ensure that the boards are properly cleaned before installation, and if necessary use clean water or water with a mild detergent and a soft sponge or brush to remove dirt and dust from the surface. Thereafter, wipe the boards with a damp cloth. It may also be necessary to wash the surface after installation if the building site conditions have been unfavourable. This is done with lots of clean water or water with a mild detergent and a soft sponge or brush and finally wiping the boards with a damp cloth.

### Removal of calcium-based residues

Calcium carbonate residue may occasionally be seen on the board surface. This can be difficult to remove with water or even with detergents because it does not dissolve in water. For cleaning purposes 10% acetic acid ( $\text{CH}_3\text{COOH}$ ) solution is used to dissolve the calcium compounds.

**Note!** Carefully observe safety precautions (MSDS) when working with acetic acid. R-phrase R36/R38 is valid: "Irritating to eyes, respiratory system and skin". Use proper clothing, nitrile rubber gloves, eye protection goggles and approved respirator (filter A, E or A/E).

Carry out the mixing outdoors. Apply the diluted 10% acetic acid solution evenly with a spray can to the surface of the stained board. Leave it to react for a few minutes. Do not allow the solution to dry, but rinse with lots of clean water. Repeat the process if necessary and rinse with water afterwards.

**Note!** Do not execute the cleaning process with acetic acid in direct sunlight or on hot surfaces. This might create permanent stains.

### Cleaning of neighbouring areas

Windows and glass in particular but also other adjacent areas must be kept clean during the facade board installation and if necessary protected with plastic film. Alkaline leaching from cement bonded materials (dust from cutting or drilling holes in structural concrete, etc.) is prone to damaging glass and other materials. Therefore, frequent cleaning during and after the construction period is needed.

### Surface damages and scratches

Damages and scratches should be avoided by lifting the boards off the pallet and handling them carefully during installation. Scratches might leave white streaks on the surface which will turn dark when exposed to rain, because the board absorbs water through the scratch.

# Care & Maintenance

## After installation

### Annual Inspection

Normally Swisspearl facade boards do not require any maintenance. Weathering may however influence the appearance of the facade. Therefore, an annual inspection of the ventilation gaps, joints and fixings is a good idea.

Detection and repair of possible damage ensures a prolonged lifespan for the facade.

### Cleaning

Swisspearl facade can be cleaned with cold or lukewarm water if necessary with the addition of a mild household cleaning agent not containing solvents. Always start from below with well-defined areas. Rinse with plenty of clean water until the facade is perfectly clean. Before cleaning full scale, it is recommended to test the chosen cleaning method on a smaller area to ensure it works and does not damage the board surface.

### High-Pressure Cleaning

Warning! High Pressure Cleaning is a severe treatment for fibre cement facade. Exaggerated or wrong use of a high pressure cleaner may damage the surface. Therefore, High Pressure Cleaning is not recommended.

### Moss & algae

Moss and algae growth can be removed with common agents available on the market. Care should be taken to ensure that the cleaning agent does not cause damage to the surface of the Swisspearl facade boards.

Confirm the compatibility of your cleaning agent with your cleaning agent supplier, and ensure it is applied according to the supplier's instructions. It is advised that before conducting a large-scale application a test is carried out on a small, inconspicuous area to ensure that the cleaning agent has no effect on the colour of Swisspearl facade boards.

### Efflorescence

Efflorescence is a naturally occurring, white, powdery deposit that can appear on cement-based building materials (including bricks, cement walls, grout, and fibre cement). It is the result of a process in which moisture draws salt crystals to the surface, evaporates, and leaves a chalky substance behind. Efflorescence occurs when all three of the following conditions exist:

1. Water-soluble salts are present in the building material.
2. There is enough moisture in the wall to turn the salts into a soluble solution.
3. There is a path for the soluble salts to get to the surface.

Efflorescence may also be a sign of water ingress behind the facade. Make certain that all openings are properly covered and there is no water intrusion due to over-driven nails. While some efflorescence may weather away naturally on its own, it is best to take steps to treat it.

Efflorescence can be removed with household white vinegar and water. For most cases of efflorescence, Step 1 - 3 works well. But for substantial deposits of efflorescence go to Step 4.

For best results, follow these cleaning instructions:

1. Protect areas that are not to be cleaned. Rinse all plants and vegetation around the facade with water before and after application of the vinegar.
2. Generously coat the entire surface area with vinegar. Allow the solution to sit on the surface for 10 minutes.
3. Rinse the treated area thoroughly with water from the top down and allow the area to air dry.
4. For extra tough efflorescence:  
Use a 10% acetic acid solution and apply to affected area with a cotton cloth. A light scrubbing with the cotton cloth may be required. After about 20 seconds rinse with water.



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