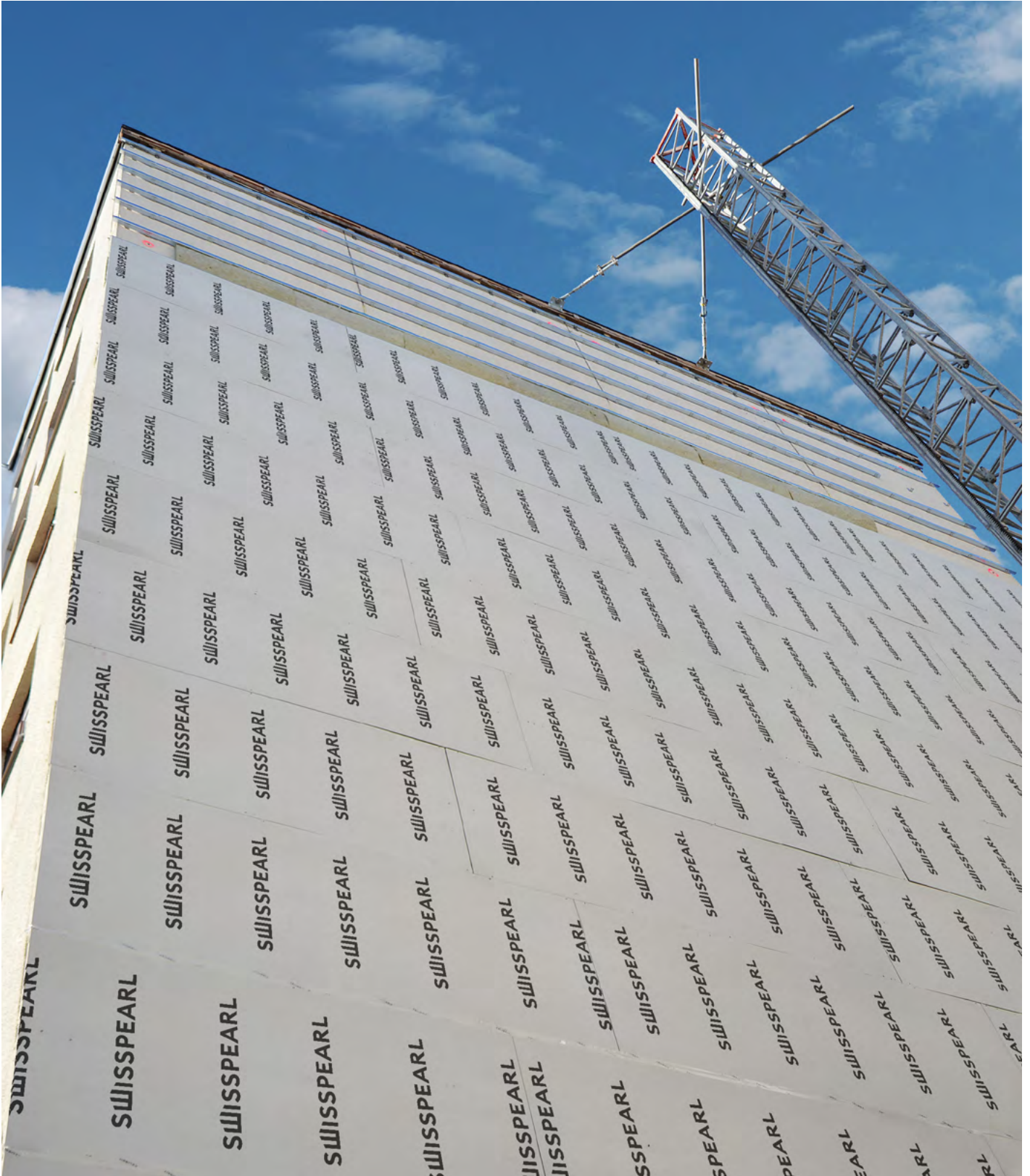


DIM Design & Installation Manual

Windstopper Basic

Windstopper Extreme





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Product Description

Swisspearl Windstopper products are fibre cement based build boards. Fibre cement is a modern building material made from natural and environmentally friendly raw materials. With more than 80 years of experience within the manufacture of fibre cement, Swisspearl ensures a sustainable product which has accumulated all the advantages of fibre cement.

Quality:

- Swisspearl Windstopper products are manufactured in accordance with the quality management system ISO 9001: 2008, environmental management system ISO 14001:2004 and occupational health and safety management system OHSAS 18001:2007.
- Swisspearl complies with the provisions set out in the Construction Products Directive 305/2011.
- Swisspearl Windstopper specifications and classifications comply with EN 12467:2012 + A1 2016 and EN 13501 - 1: +A1 2016.

Swisspearl Windstopper products are special type of build boards that feature, together with the full system, a wind and waterproof membrane for exterior walls. The boards consist of grey cement and limestone filler, reinforced with a specially selected fibre material that can absorb and release moisture without affecting the durability, strength or performance of the board. Swisspearl Windstopper products consist of natural materials and variations may occur in the product colour or other characteristics from board to board.

Swisspearl Windstopper products have a very low vapour transmission resistance enabling moisture from inside the building to pass through. In consequence, insulation can be placed directly against the inner side of the board.

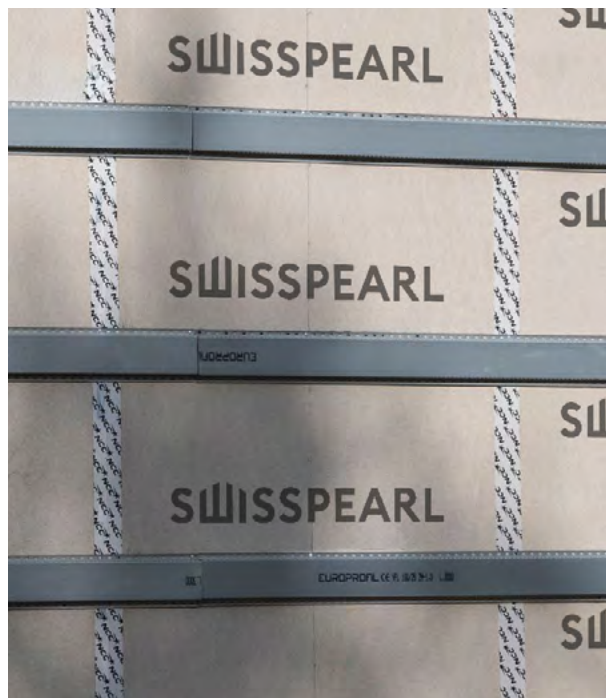
The boards are powerfully resistant towards both rot and fungal growth and can withstand considerable fluctuations in weather and climate conditions. Adding to this, Swisspearl Windstopper products are non-combustible and at 9 mm thickness offer fire protection performance of K₁ 10 and K₂ 10 according to EN 13501-2.

Swisspearl Windstopper Extreme 4.5 mm and 9.0 mm both have a reaction-to-fire classification of A1 according to EN 13501-1. Swisspearl Windstopper Basic 9.0 mm has a reaction-to-fire classification of A2-s1, d0.

Eliminate moisture problems during building

Swisspearl Windstopper is a fibre cement based building material which consists of non-toxic, inorganic raw materials.

This means that they remain unaffected by the presence of moisture during and after installation.



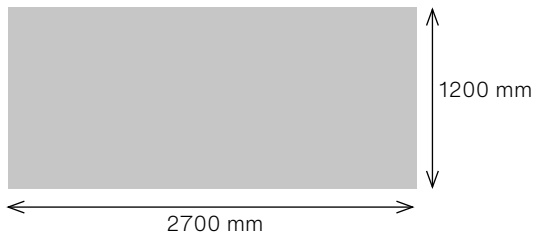
Note! Swisspearl Windstopper products, together with the whole system, consisting also the Swisspearl Windstopper Tape, can be used as the temporary facade for up to 12 months* for Swisspearl Windstopper Extreme, and 6 months for Swisspearl Windstopper Basic. After which the boards must be protected by adequate covering such as a ventilated facade system. The performance of Windstopper Extreme and Basic systems as a temporary facade has been tested and approved by Sintef Norway.

The boards may be installed without using the Swisspearl Windstopper Tape. This does not cause any performance issues related to the durability of the boards, but the wall system may leak water to the inner wall structure in case of heavy rain and wind. The joints are also not fully air tight. In this case the structure is not covered by the Sintef approval.

*Cannot be used as a permanent facade sheet in accordance to the guidelines provided by Swisspearl on swisspearl.com.

Dimensions

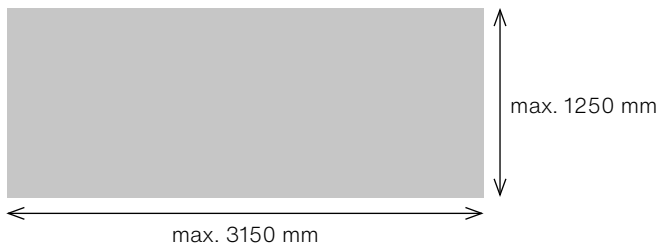
Standard sizes



Standard sizes

Contact local Swisspearl sales for information about standard sizes.

Project sales



Dimensions	Windstopper Extreme		Windstopper Basic
Thickness mm	4.5	9.0	9.0
Weight kg / m ²	7.7	13.5	13.7

Accessories

Screws and Nails

Wooden sub-construction	Contact local Swisspearl sales for information about selecting screws.	
	Large head nails (min. 8 mm head) 2.5 x 32-38 mm Hot dip galvanized	Note! To ensure rain tightness, use of nails with smaller head diameter than 8 mm requires covering by Swisspearl tape.
	Staples 13 x 38-50 Hot dip galvanized	Note! K ₁ 10 and K ₂ 10 fire protection classification is not valid with staples.
Steel sub-construction	Contact local Swisspearl sales for information about selecting screws.	

Accessories



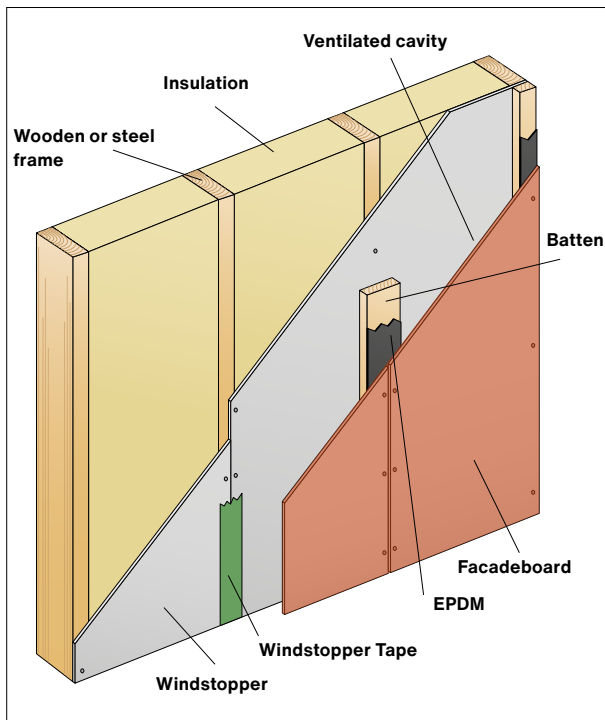
Windstopper Tape
50 mm x 25 m



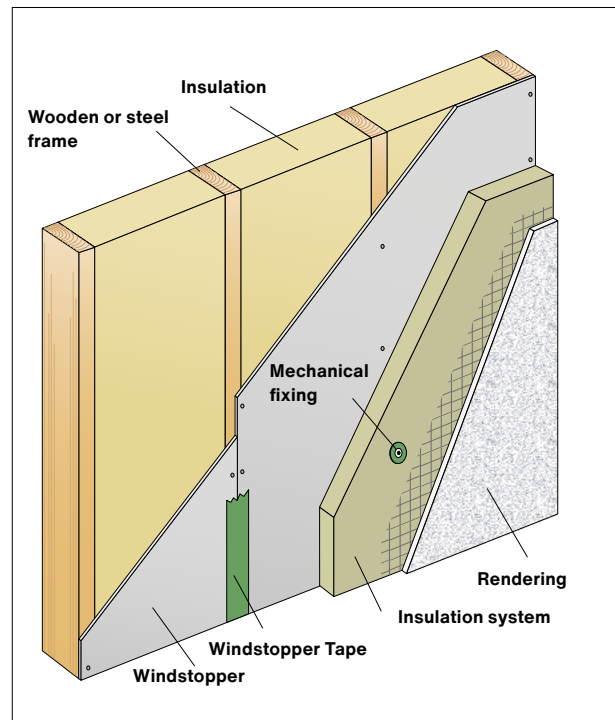
Swisspearl scratch knife
(For Windstopper Extreme 4.5 mm and Windstopper Basic 9 mm)

Applications

Windstopper construction with a ventilated facade system.

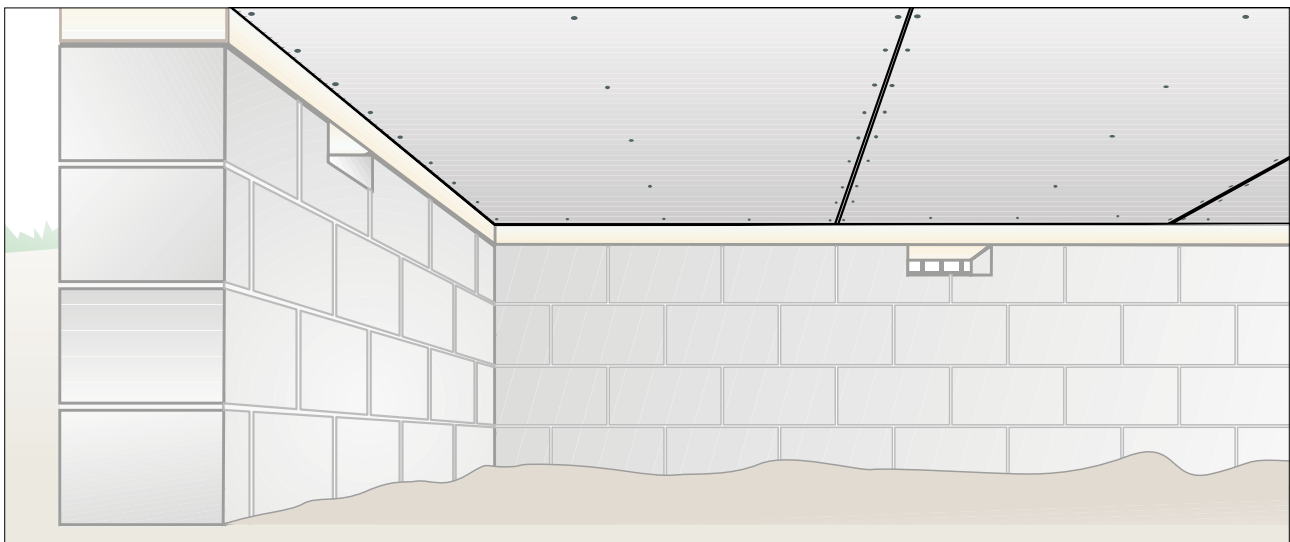


Windstopper construction with a wall insulation system.



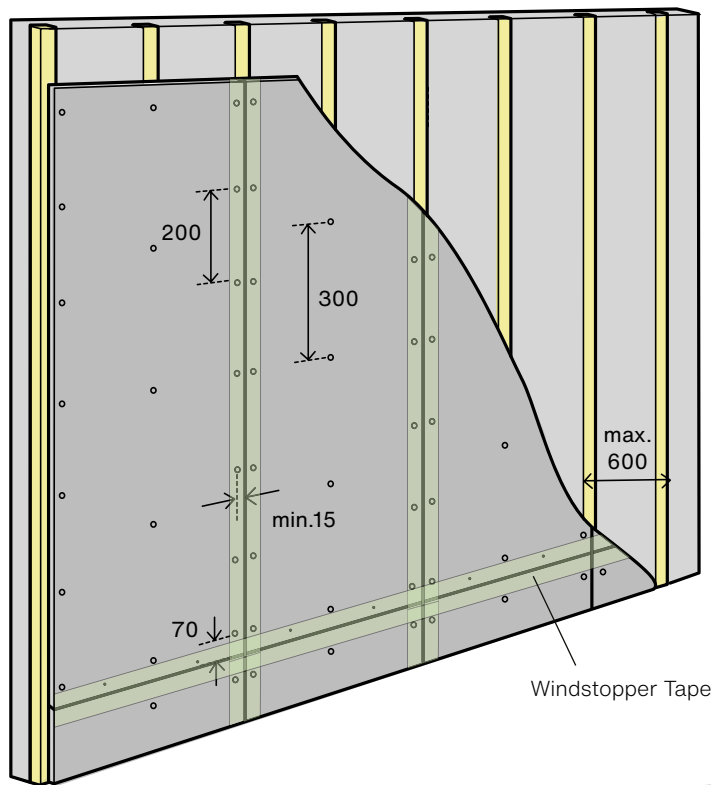
Cavity foundation ceiling

Swisspearl Windstopper Extreme is to be used. Max support distance 600 mm. Fixing distance max 200 mm.



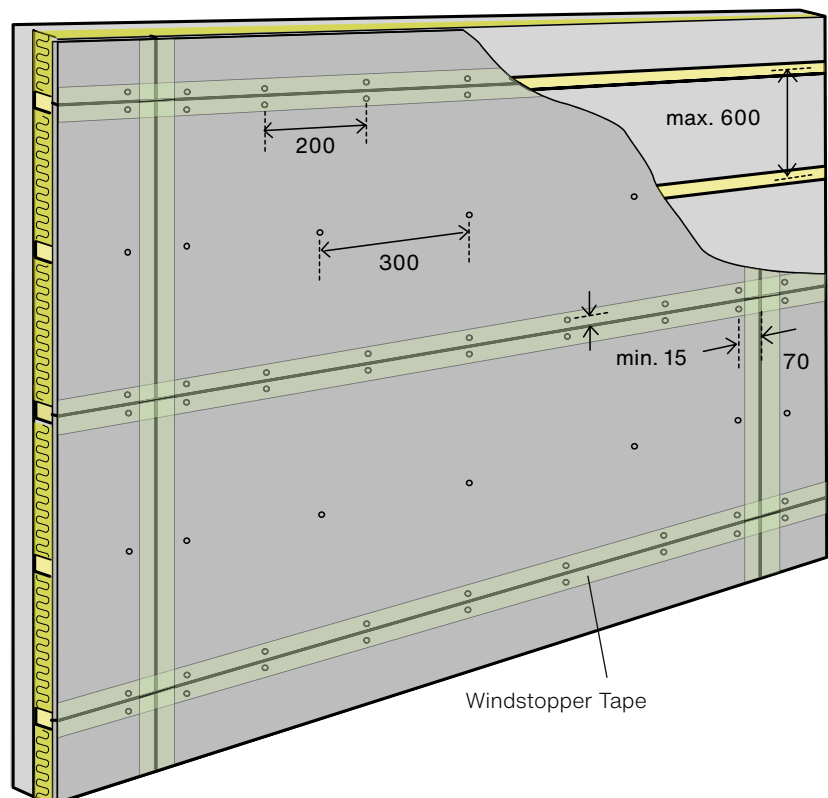
Fixing Details 9 mm

Swisspearl Windstopper boards can be fixed to wooden or steel sub-constructions. The boards can be screwed or nailed directly in place - no pre-drilling is needed. Ensure that the boards are installed under dry conditions.



Vertical supports

Fix Swisspearl Windstopper boards using butt joints over vertical supports. Seal all joints using Swisspearl Windstopper Tape.

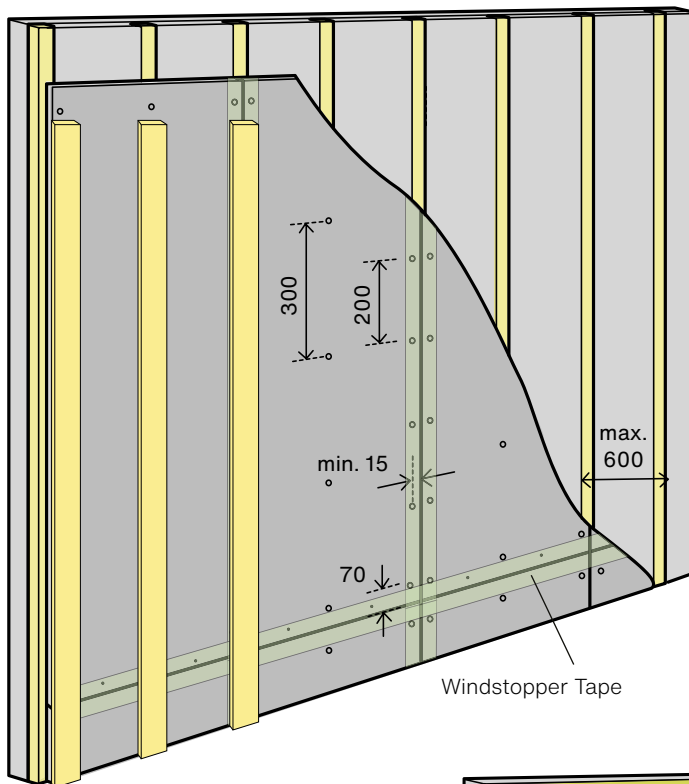


Horizontal supports

Fix Swisspearl Windstopper boards using butt joints over horizontal supports. Seal all joints using Swisspearl Windstopper Tape.

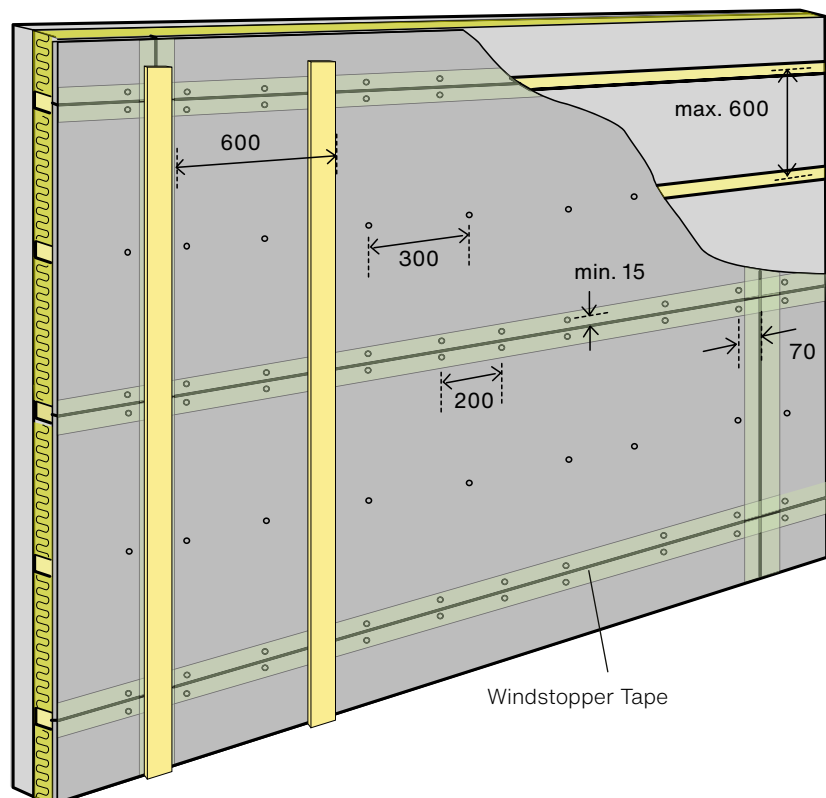
Fixing Details 4.5 mm

Swisspearl Windstopper Extreme 4.5 mm boards can be used as a temporary facade for up to 12 months. Before leaving the Windstopper boards as a temporary facade, permanent wooden battens, steel or aluminium profiles must be installed on the boards. This ensures adequate wall strength in case of high wind.



Vertical supports

Fix Swisspearl Windstopper boards using butt joints over vertical supports. Seal all joints using Swisspearl Windstopper Tape.



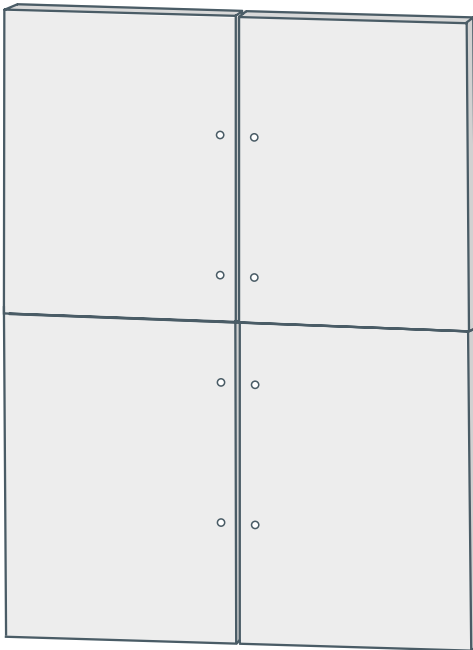
Horizontal supports

Fix Swisspearl Windstopper boards using butt joints over horizontal supports. Seal all joints using Swisspearl Windstopper Tape.

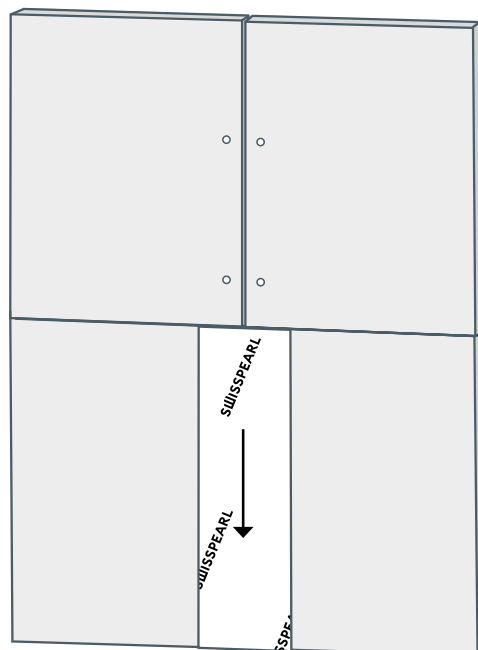
Joint Details

In order to get a wind and rain tight system, all joints need to be covered with Swisspearl Windstopper Tape.

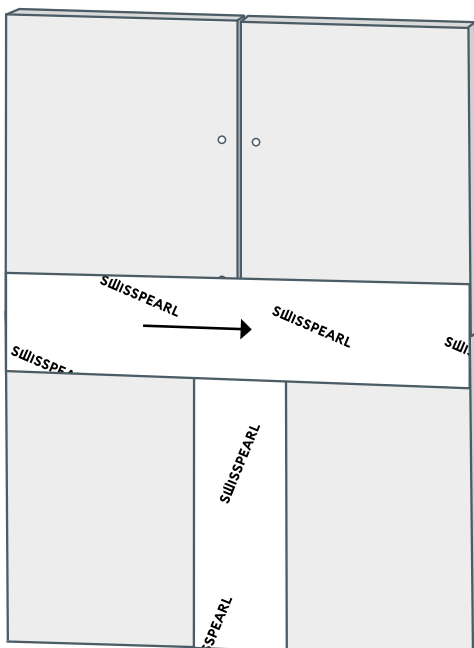
Step 1



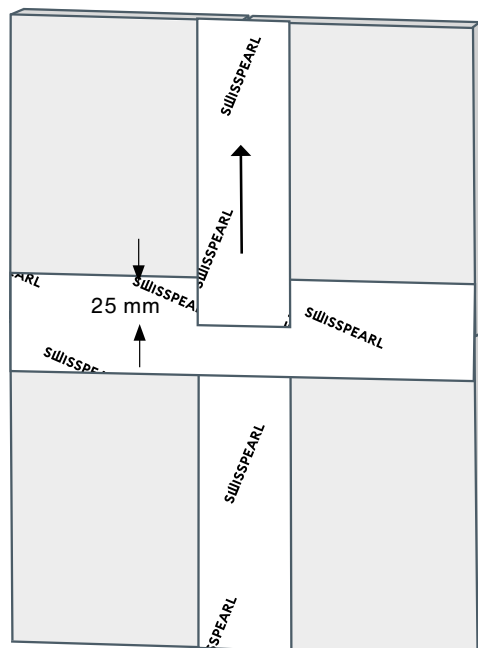
Step 2



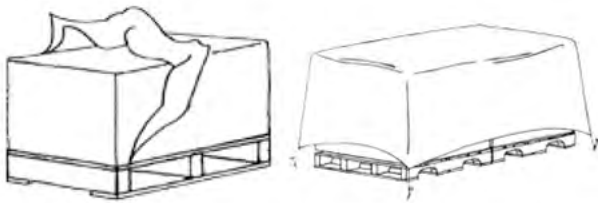
Step 3



Step 4



Storing, Handling and Processing



Storing and handling

Swisspearl products are delivered with plastic protection cover on the pallet. If undamaged, the plastic cover protects against weather conditions during transportation. The pallets should be kept under a roof or covered by a tarpaulin leaving the possibility of ventilation around the boards.

Swisspearl flat boards should be stored on a flat and dry level surface on pallets or sleepers with max 500 mm distance. **Note!** Max 3 pallets in a stack. The boards must be **lifted** off the pallet and **not drawn** over the next board, as this may cause scratches and damages on the surface.

Processing

Safety

As for all other building materials, safety precautions must be taken into account and local laws and regulations must be observed. Cutting and drilling are subject to dust development, and proper precautions must be taken by using appropriate dust extraction equipment. Dust from fibre cement boards is characterised as mineral dust and a prolonged exposure to this may cause lung disease.

Cleaning of neighbouring areas

Alkaline leaching from cement bonded materials (dust from cutting or drilling holes in concrete basic wall, etc.) is prone to damage glass and other materials. Therefore, frequent cleaning during and after the construction period is needed.

Behaviour in wet conditions

Since the boards are made of Portland cement, they may turn darker in colour when exposed to rain. This is a natural behaviour of any cement based product, and it does not affect the integrity or longterm durability of the board. The original colour is restored as soon as the boards dry up. The boards will also slightly expand when getting wet and might therefore show bending between the supports. This does not affect the system performance, and the boards will shrink to their original form when drying up. These reactions will gradually reduce as the cement based matrix reacts with carbon dioxide from the atmosphere. This so-called carbonation thereby reduces water penetration.

Storing, Handling and Processing

Cutting

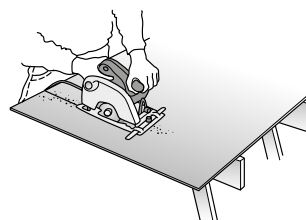
Cutting to size may be done with normal slow or fast running hand tools or stationary equipment. When using fast running tools, dust exhaustion must be employed. All Swisspearl boards may be cut with a circular saw or a jigsaw equipped with a diamond tipped blade. Sharp edges are made with fast running diamond tipped tools.

Swisspearl Windstopper Extreme 4.5 mm and Swisspearl Windstopper Basic 9 mm can be cut using Swisspearl Scratch Knife and the score & snap method. It is enough to score the board from one side for the snap.

Note! The periphery speed of the circular saw should be 40-50 m/s. Cutting depth 10-15 mm beyond the board.

Fast running electrical equipment

Hand held circular saws leave a fine and sharp edge on the boards and provide fine dust. Due to the speed of the blade the dust is dispersed over a larger area. Therefore, it is necessary to establish sufficient exhaustion and if needed the operator should carry personal safety equipment.



Slow running electrical equipment

Normally, slow moving electrical machinery develops heavy dust or chips. Cutting quality depends on the specific tool applied.

Operation parameters for Swisspearl saw blades

Saw blade Ø mm	Ø 160	Ø 190	Ø 216	Ø 250	Ø 300
Thickness mm	2.4 mm	2.4 mm	2.6 mm	2.6 mm	2.8 mm
Hole size mm	20 mm	30 mm	30 mm	30 mm	30 mm
Rpm	4800	4000	3500	3000	2800

Alternative equipment

Tool	Model	Saw blade
Festool	AXT 50 LA	TF56, 170 x 2.0 x 30 mm

Operation parameters for stationary circular saw

Saw blade Ø mm	150	230	250	260	300	350
Rpm	3800	2500	2300	2200	1900	1650

General Information

Service

If you have any questions, our dedicated employees are ready to assist you with advice and guidance. Please visit our website to ensure that this document is the newest version.

Warranty

Warranty conditions can be commissioned at your local Swisspearl representative.

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, because of factors that fall beyond Swisspearl's knowledge and control, which can affect the use of the products, no warranty is given or implied with respect to such information.

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, any colours in this document may vary.

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