



AQUAPANEL®

AQUAPANEL®
CEMENT BOARD
UNIVERSAL

Versatility is everything

Build on us.

KNAUF



Exterior and interior constructions

An all-round solution: water-resistant AQUAPANEL® Cement Board Universal delivers efficient, sustainable and flexible building properties for diverse applications.

Walls, ceilings, soffits, vertical fascia, small areas of paneling and ductwork – virtually anywhere you want stable and long-lasting cladding with all the advantages of reliable water resistance, this is the right board. In all direct rendering applications this 100% inorganic cement board delivers performance you can count on. Especially in exterior areas or interior wet rooms, this cost-effective multi-use panel is the ideal solution. It is designed for exceptionally easy handling and time-saving building processes, and can be bent to a radius as tight as 1m in a dry state. Even when meeting the stringent demands of sustainable building, AQUAPANEL® Cement Board Universal measures up.

Performance



Water, mold and mildew resistance



A1 non-combustible



High dimensional stability



EasyEdge® for stronger edges that won't break



Bending radius of up to 1m



Good in acoustic performance

Installation



Weight of only 8.5 kg per m² for easier handling



Easier formatting with score & snap



Numerous applications, outdoors & indoors



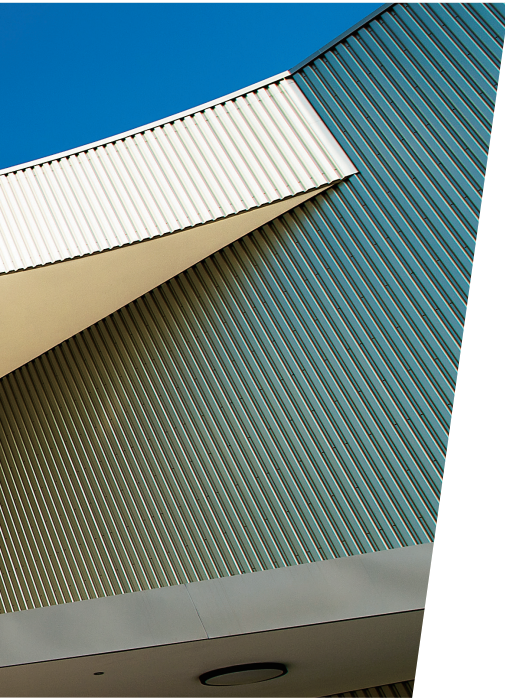
No pre-drilling required



Good loading performance and high impact resistance



Lot of surface finishing options



Specifications of AQUAPANEL® Cement Board Universal 9 mm

Length (mm)	2,400
Width (mm)	1,200
Thickness (mm)	9
Min. bending radius (m)	1
Weight (kg/m ²)	approx. 8.5
Dry bulk density (kg/m ³)	approx. 810
Bending strength (MPa)	> 7
pH-value	12
Building material class according to EN 13501	A1, non-combustible

Method of delivery

Boards/pallet	80 pieces
Surface/pallet	230.4 m ²
Item code	521064

Interior application areas

In interior constructions, AQUAPANEL® Cement Board Universal is the perfect choice for

- › Ceiling applications
- › Walls with render finishes
- › Tile backing

Exterior application areas

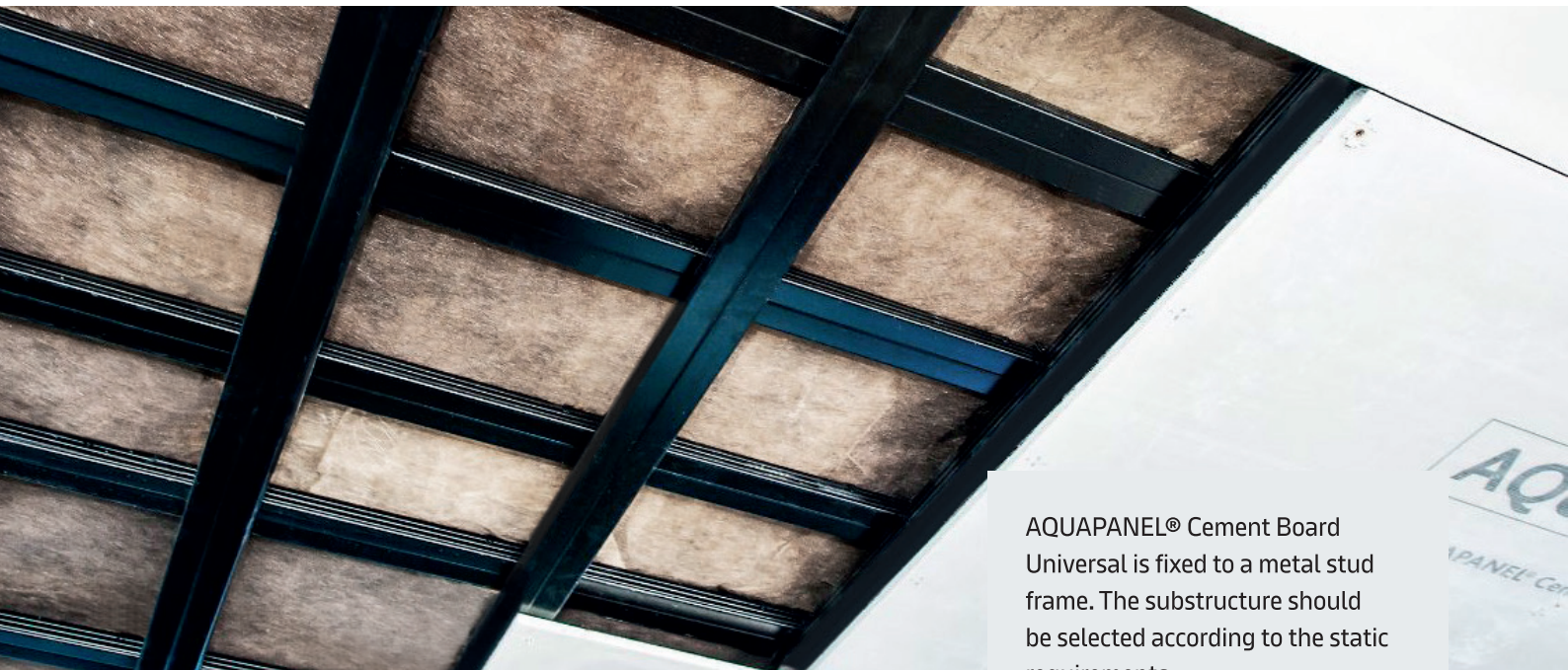
On the other hand, AQUAPANEL® Cement Board Universal also facilitates exterior constructions like

- › Directly applied in steel frame constructions with an OSB as substrate
- › Applied as cladding on a steel or timber substructure, e.g. for renovation projects with concrete or brick and block as substrate
- › Applied for small coverings, e.g. for panelling of beams or duct work, vertical fascia, air-conditioning or similar areas
- › In general, the board is limited in exterior applications to vertical surfaces in low-rise buildings (approx. 12 m)

Features and benefits

Especially in challenging conditions, for example in interior wet rooms, the physical features of AQUAPANEL® Cement Board Universal play out fully. Being made of aggregated Portland cement with a coated glass fibre mesh embedded in back and front surfaces, the panels are completely resistant to mould and mildew and will reliably keep dimensional stability. Thanks to this, the thin and extremely light boards form a highly solid base for ceilings and walls – best suited for bathrooms, showers, kitchen areas and more, but also in many exterior applications.





AQUAPANEL® Cement Board Universal is fixed to a metal stud frame. The substructure should be selected according to the static requirements.

Installation time - wall:
approx. 15 min/m²

(including fixation with screws and joint treatment)

Installation time - ceiling:
approx. 18 min/m²

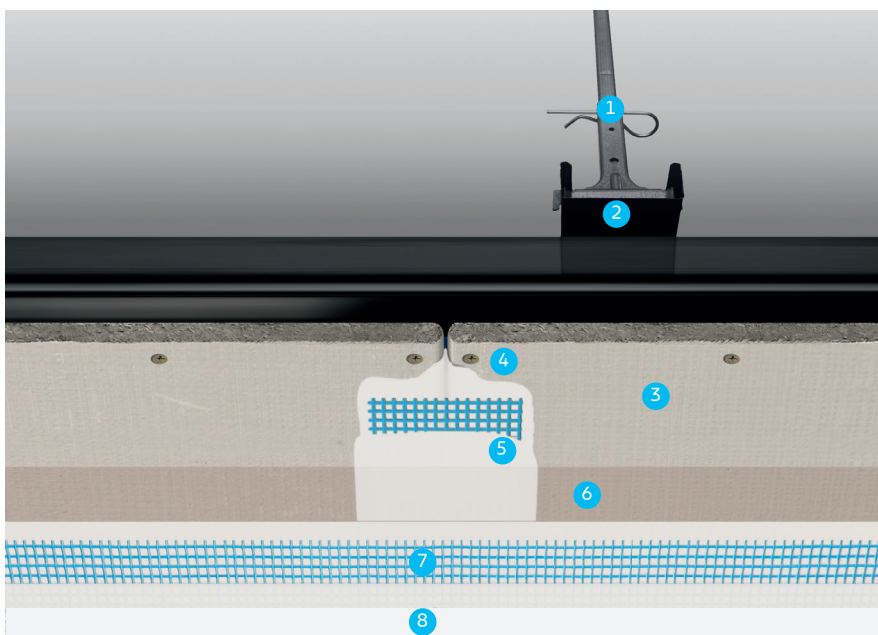
(including fixation with screws and joint treatment)

System solution

A technologically advanced building system that perfectly integrates with the whole range of Knauf products and accessories, AQUAPANEL® Cement Board Universal has been designed to be the ultimate installation solution for wetrooms and other wet or humid areas. Its performance in the wet makes it ideal for both walls and ceilings.

Interior ceilings

Suitable for indoor areas of high humidity including wet rooms.

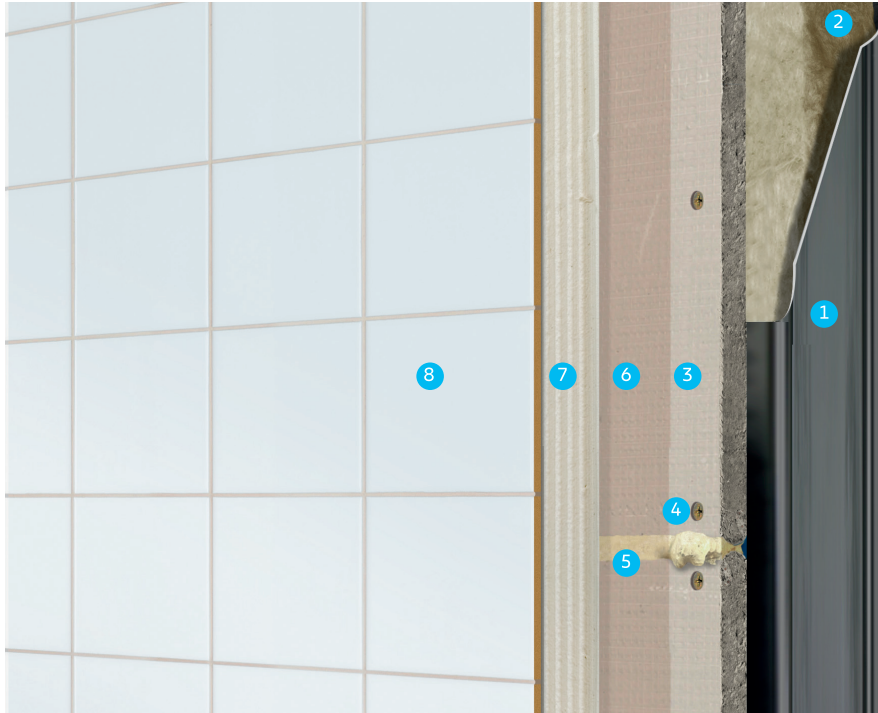


EXAMPLE OF CEILING BUILD-UP

1. Nonius Hanger Bottom
2. Knauf CD60/27 corrosionresistant metal profile
3. AQUAPANEL® Cement Board Universal
4. AQUAPANEL® Maxi Screw
5. AQUAPANEL® Tape (10 cm) embedded in AQUAPANEL® Joint Filler & Skim Coating – white
6. AQUAPANEL® Board Primer
7. AQUAPANEL® Joint Filler & Skim Coating – white and AQUAPANEL® Reinforcing Mesh
8. Paint

Interior walls with tiles

The solid and impact resistant base for tiles, 100% water-resistant.



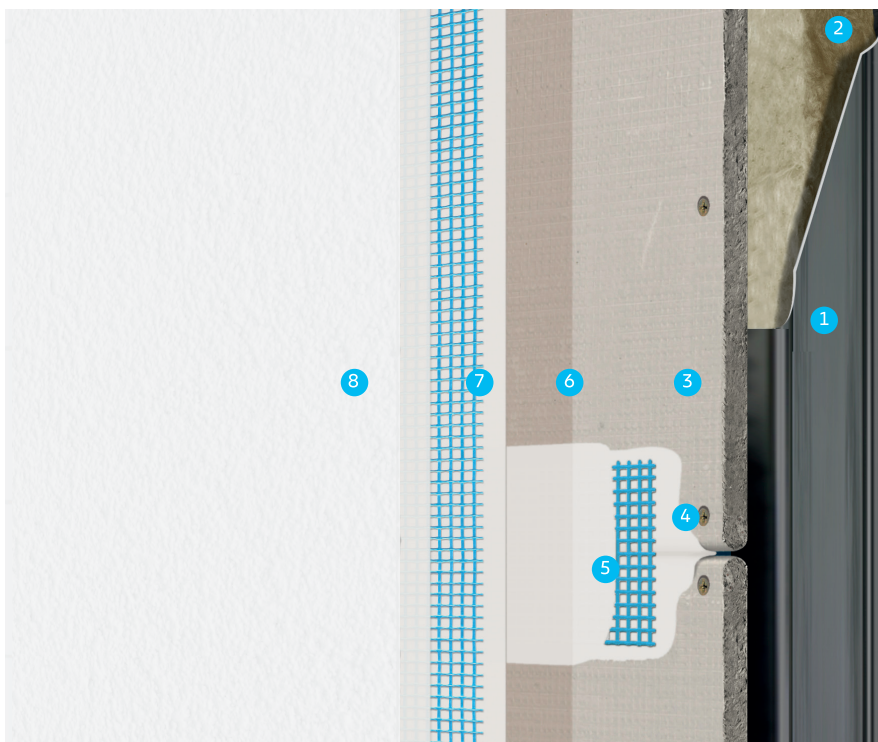
EXAMPLE OF WALL BUILD-UP

1. Knauf CW corrosion-resistant metal profile
2. Knauf insulation materials
3. AQUAPANEL® Cement Board Universal
4. AQUAPANEL® Maxi Screw
5. AQUAPANEL® Joint Adhesive (PU)*
6. AQUAPANEL® Board Primer
7. Flexible tile adhesive
8. Tiles

* The type of joint treatment is independent of the finishing method (also possible: AQUAPANEL® Tape (10 cm) embedded in AQUAPANEL® Joint Filler & Skim Coating – white).

Interior walls with render finish

Extremely light and easy to install, for reliable performance in every room.



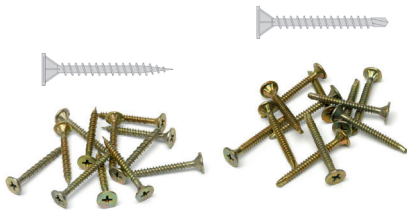
EXAMPLE OF WALL BUILD-UP

1. Knauf CW corrosion-resistant metal profile
2. Knauf insulation materials
3. AQUAPANEL® Cement Board Universal
4. AQUAPANEL® Maxi Screw
5. AQUAPANEL® Tape (10 cm) embedded in AQUAPANEL® Joint Filler & Skim Coating – white*
6. AQUAPANEL® Board Primer
7. AQUAPANEL® Joint Filler & Skim Coating – white and AQUAPANEL® Reinforcing Mesh
8. Paint

* The type of joint treatment is independent of the finishing method (also possible: AQUAPANEL® Joint Adhesive PU).

WIDE RANGE OF ACCESSORIES

Following our comprehensive system approach, AQUAPANEL® Cement Board Universal is part of a complete solution for interior and exterior applications. This gives you the advantages of reliable compatibility of all products as well as having a constant level of highest quality from one supplier. For best results we offer a wide range of matching accessories.



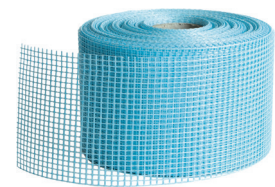
AQUAPANEL® MAXI SCREWS SN25 AND SB25

- › Specially suited for metal frame-works
- › Corrosion-proof coating
- › Length: 25 mm
- › With countersunk head
- › With nail or drill tip
- › SN25 for substructure metal thick-nesses of $0.6 \text{ mm} \leq x \leq 1.0 \text{ mm}$
- › SB25 for substructure metal thick-nesses of $1.0 \text{ mm} < x \leq 2.0 \text{ mm}$



AQUAPANEL® JOINT FILLER & SKIM COATING – WHITE

- › Cement-bound filling material
- › For joint-filling and full-surface skim coating
- › AQUAPANEL® Tape (10 cm) must be embedded on joints
- › AQUAPANEL® Reinforcing Mesh must be embedded on full surface



AQUAPANEL® TAPE (10 CM)

- › Glass fabric joint tape, alkali-resist-ant coating
- › Used to reinforce joints in wall and ceiling applications
- › Width: 100 mm, Length: 20 m
- › Must be embedded in AQUAPANEL® Joint Filler & Skim Coating – white



AQUAPANEL® BOARD PRIMER

- › Synthetic dispersion for priming
- › For maximum adhesion of tiles or plasters
- › Ready-to-use
- › Coverage: approx. $40\text{--}60 \text{ g/m}^2$
- › Dilution: 1:2 with water
- › Drying time: approx. 12 hours



AQUAPANEL® REINFORCING MESH

- › Glass fibre fabric
- › For reinforcing AQUAPANEL® Joint Filler & Skim Coating – white
- › Coverage: approx. 1.1 m^2
- › Width: 100 cm, Length: 50 m
- › Mesh size: $4 \times 4 \text{ mm}$



AQUAPANEL® JOINT ADHESIVE (PU)*

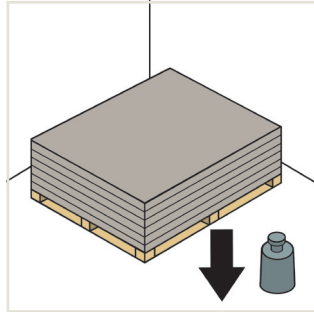
- › Alternative solution for wall applications
- › Reliable bonding of individual AQUAPANEL® Cement Board Indoor panels
- › Coverage: approx. 50 ml/m^2 (approx. 25 ml/m joint)
- › 310 ml/cartridge

* Only suitable for interior walls and not for ceiling applications.

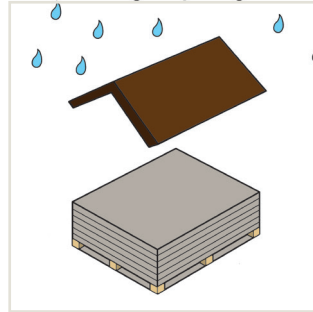
Transporting and storing



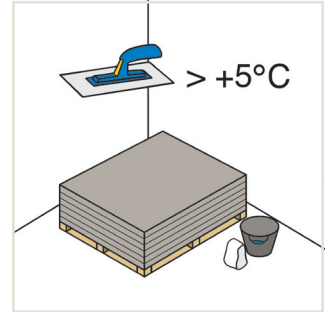
Always carry the boards upright, or use board rollers. Handle with fork lift or crane as palletted goods. Take care not to damage corners and edges when setting the boards down! Place boards down on their long edge before laying them flat.



Use a pallet to support the boards when using mechanical handling equipment. Ensure that the base is strong enough to support the boards.

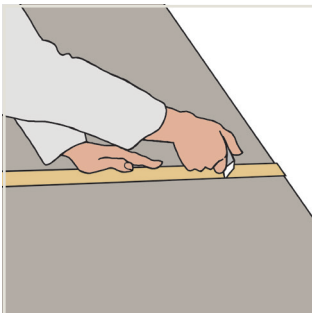


Store boards horizontal and flat. Protect boards from moisture and weathering before they are installed. Boards which have become damp must be dried on both sides on a flat surface prior to fitting.

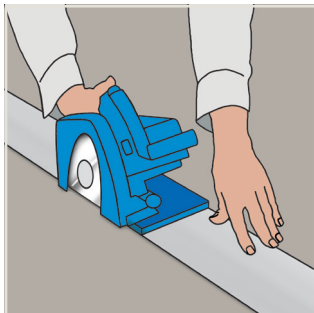


Before installing, condition the boards to the ambient temperature and humidity. The ambient air and component temperatures may not be below +5°C. Do not apply joint fillers, skim coat or finishing materials in temperatures less than +5°C.

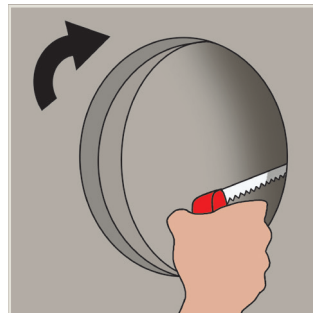
Formatting



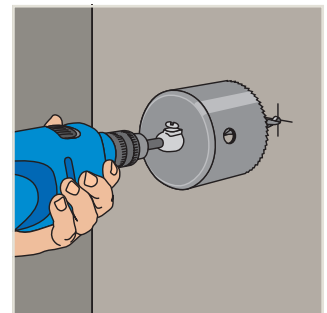
Mark the desired shape or opening on the board with pencil and ruler. Use a knife to score the board on one side along the line so that the mesh is cut. Snap the scored edge and cut the mesh on the rear side. Smooth any rough areas caused by scoring with a rasp.



For sharp-edged cuts, for example, exterior edges, use a hand-held circular saw with a dust extractor or a pendulum jigsaw. Use of a carbide or diamond-tipped saw blade is recommended.



To make cut-outs for wiring and pipes, use a jigsaw or keyhole saw. The diameter of the opening should be approximately 10 mm greater than the diameter of the pipe. The remaining gap can be closed with a cuff, suitable sealant or sealing strip.



Installation of interior walls

Note

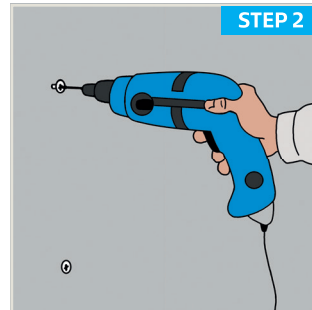
The following requirements and limitations must be considered for the application of AQUAPANEL® Cement Board Universal on interior walls:

- › The maximum wall height permitted is 2,750 mm.
- › The tile weight is limited to a maximum of 30 kg/m² wall.
- › The stud spacing shall not exceed 400 mm.



Create substructure and align the board

Set studs at a maximum 400 mm for horizontal and vertical installation. Align the first AQUAPANEL® Cement Board Universal along the profiles using a water level.

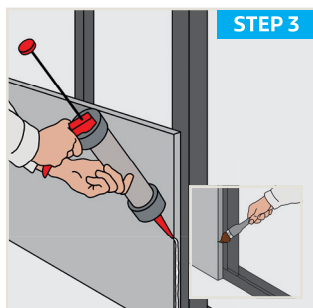
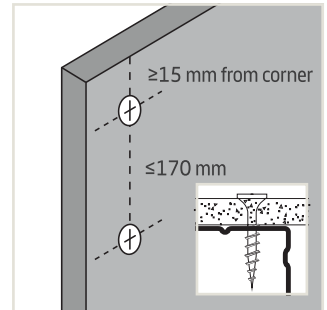


Fastening with screws

Fasten AQUAPANEL® Cement Board Universal to the framework with AQUAPANEL® Maxi Screws. First fasten the screws into the centre of the cement boards; then work towards the ends and the edges. During installation, make sure the boards are resting on the framework.

Screw spacing ≤ 170 mm, Distance from edge ≥ 15 mm

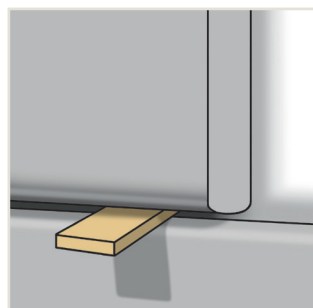
It is not recommended to set the screws flush with the board surface, but slightly leave the screw head above the surface.



Preparation for joint treatment

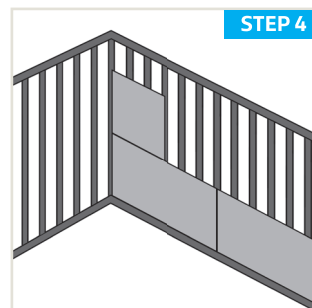
Option 1: AQUAPANEL® Joint Adhesive (PU)

In order to ensure good connection with AQUAPANEL® Joint Adhesive (PU), clean the edges of the board using, for example, a wet brush. Apply AQUAPANEL® Joint Adhesive (PU) before the next board is placed.



Option 2: AQUAPANEL® Joint filler & Skim Coating - white and AQUAPANEL® Tape (10 cm)

As preparation for joint treatment with AQUAPANEL® Joint Filler & Skim Coating – white, leave a gap of 3-5 mm between boards using a suitable spacer.

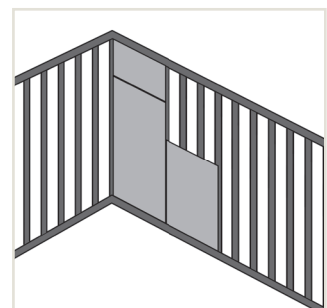


Place next board

Option 1:

Horizontal installation

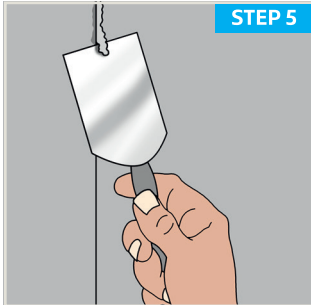
When installing the next AQUAPANEL® Cement Board Universal, ensure that the boards are correctly aligned horizontally and vertically. When fitting subsequent rows of boards, ensure that the vertical joints are offset by a minimum of one stud cavity.



Option 2:

Vertical installation

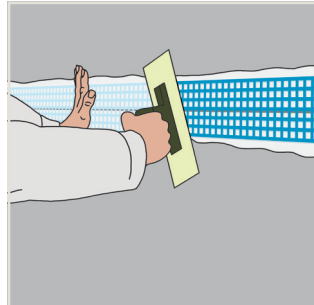
Depending on the room height, additional boards must be placed vertically. In this case make sure they are aligned correctly and the added board height is at least 400 mm.



Joint treatment

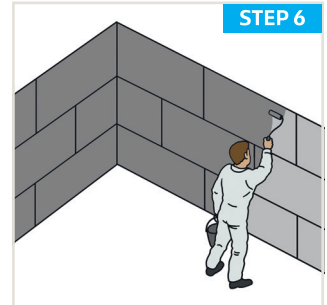
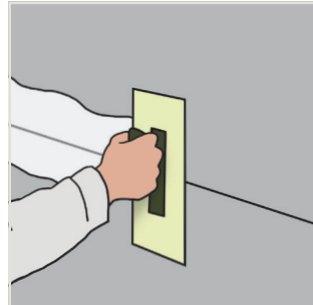
Option 1: AQUAPANEL® Joint Adhesive (PU)

The hardened AQUAPANEL® Joint Adhesive (PU) can be scraped off next day. The joints between the walls, ceiling and floor require permanent elastic sealing in dry areas. Expansion joints should be at minimum of 7.5 (7.2) m intervals.



Option 2: AQUAPANEL® Joint Filler & Skim Coating – white and AQUAPANEL® Tape (10 cm)

All joints should be filled with AQUAPANEL® Joint Filler & Skim Coating – white, and then embed AQUAPANEL® Tape (10 cm) centred over all joints. Apply a thin layer of AQUAPANEL® Joint Filler & Skim Coating – white to cover the tape. Expansion joints should be at a minimum of 15 m intervals.



Priming

AQUAPANEL® Cement Board Universal must be primed before tiling or finishing, using AQUAPANEL® Board Primer (primer/water 1:2).



Finishing

Option 1: Tiling

For ceramic tile coverings, (tile dimensions ≤ 300 mm x 300 mm), use a flexible adhesive when placing tiles. The tile adhesive must – as a minimum – meet the requirements of class C2 according to EN 12004. Tile weight: 30 kg/m² (for bigger tile sizes and heavier tiles, further measures apply).

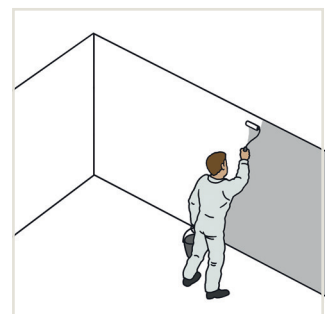
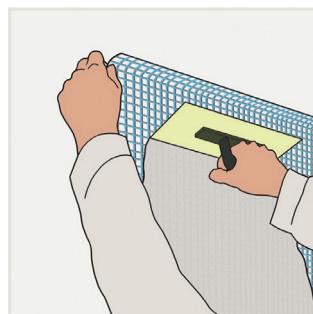


Option 2: Skim Coating and Paint

AQUAPANEL® Cement Board Universal can be prepared for painting by applying AQUAPANEL® Joint Filler & Skim Coating – white to the full surface (minimum coating depth 4 mm).

AQUAPANEL® Reinforcing Mesh must be applied and embedded in AQUAPANEL® Joint Filler & Skim Coating – white. To achieve a finish level of Q2 apply another thin layer of AQUAPANEL® Joint Filler & Skim Coating – white and smooth out the full surface. When dry, the surface can be painted.

Most common painting systems can be used. These include waterbased emulsions, matt enamels, polymer resin paints, and epoxybased enamels.



Installation of INTERIOR ceilings

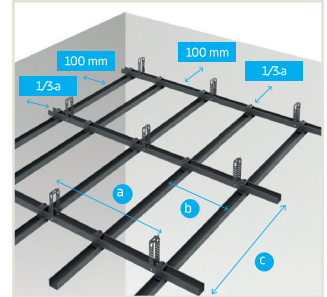
Note

The following requirements and limitations must be considered for the application of AQUAPANEL® Cement Board Universal on interior ceilings:

- › In interior ceiling applications AQUAPANEL® Cement Board Universal is used as a substrate for a suitable plaster or paint finish.
- › The stud spacing shall not exceed 300 mm.

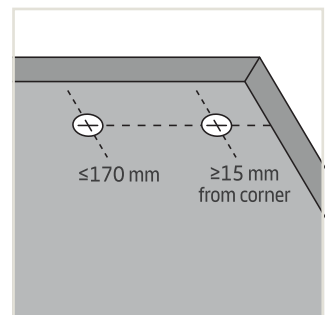
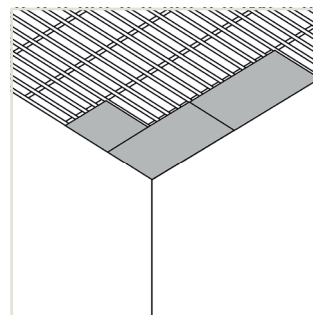
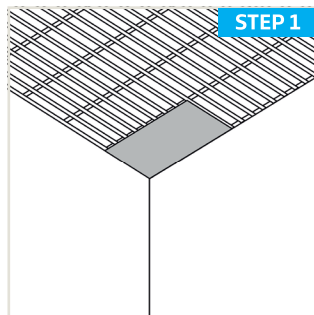
Metal substructure

The framework of suspended ceilings is constructed in accordance with EN 13964. Built-in units such as lamps and ventilation extractors may load the framework in terms of its bearing capability. Large loads must be attached to separate suspensions. Suspended ceilings with fire protection requirements may not be stressed with extra loads. In rooms with continuous high humidity levels, such as commercial kitchens, swimming pools, saunas or chemical laboratories, it is necessary to provide improved corrosion protection for the metal framework. Fasten the hanger of the framework with suitable, building authority-approved ceiling pins. We recommend that expansion joints are included at maximum 15 m intervals. Align with the expansion joints in the background if practical.



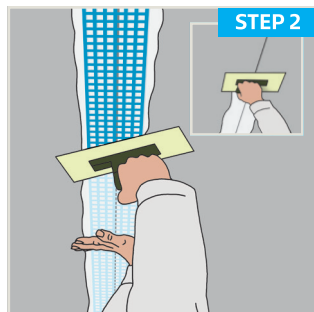
Interior

- a. Spacing hangers ≤ 750 mm
- b. Spacing of support profiles = 300 mm
- c. Spacing of base profiles ≤ 1000 mm



Fixing

Align the first AQUAPANEL® Cement Board Universal carefully, perpendicular to the supporting profile. Screw the boards to the framework using AQUAPANEL® Maxi Screws (material requirement 28 pcs/m²; screw spacing ≤ 170 mm; distance from edge ≥ 15 mm). Leave a gap between joints of at least 3–4 mm. Make sure all joints are staggered.



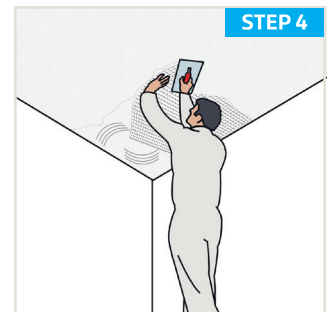
Joint treatment

After installation, joints should be filled in with AQUAPANEL® Joint Filler & Skim Coating – white, with 10 cm AQUAPANEL® Tape embedded into the filler. Fill all screw heads.



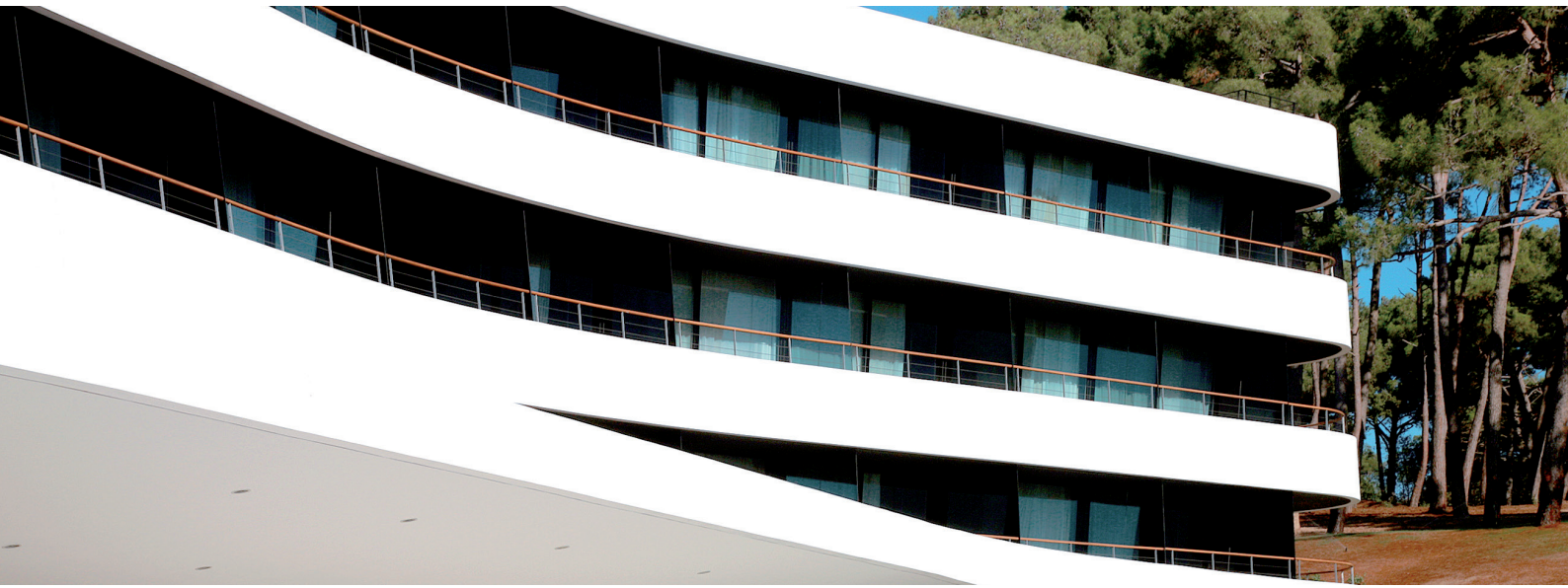
Priming

Prime the surface over using AQUAPANEL® Board Primer (primer/water 1:2).



Surface finishing

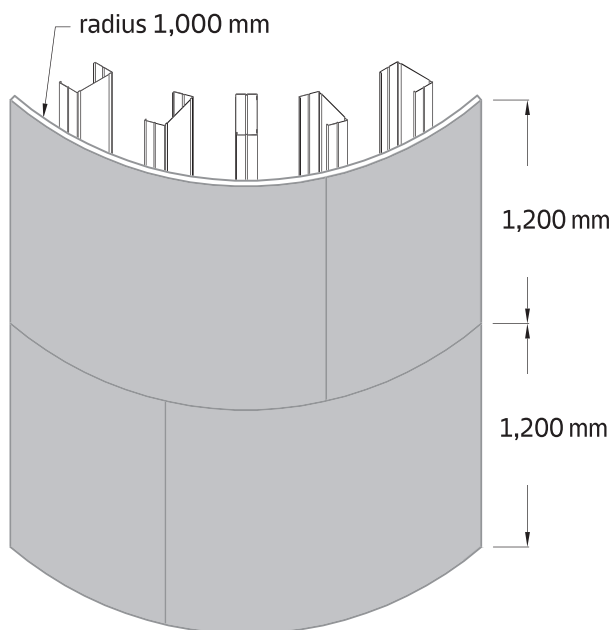
Use AQUAPANEL® Joint Filler & Skim Coating – white to coat the boards to at least 4 mm depth all over, and embed the AQUAPANEL® Reinforcing Mesh.



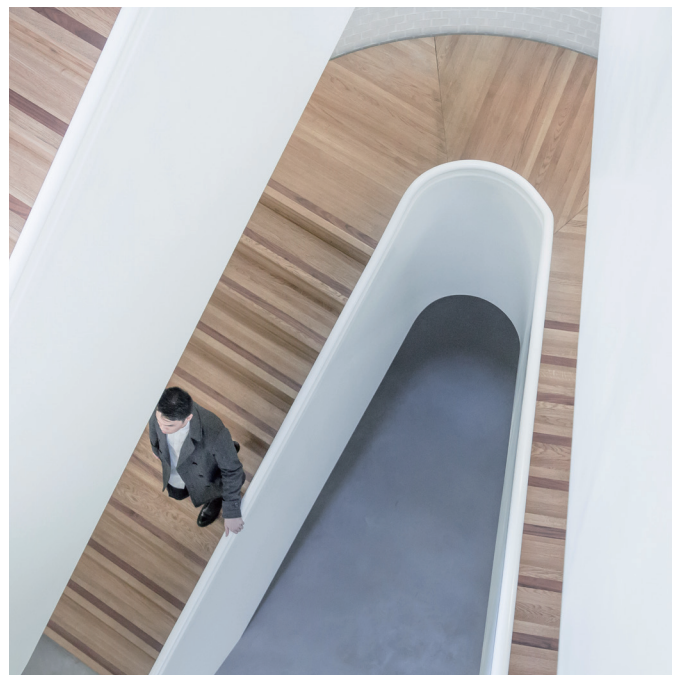
APPLYING AQUAPANEL® CEMENT BOARD UNIVERSAL TO CURVED CONSTRUCTIONS

For everything from arches to rounded walls, AQUAPANEL® Cement Board Universal provides unlimited design flexibility and ease. With a full-board bending radius of 1 m, while retaining robustness and resistance, it opens up more options for tackling wet and humid environments.

For installation, use metal shears to cut and fit the UW profile to the desired radius, and crimp the CW profile to the perforated UW profile. Before installation, bend the panel – the fine cracks that appear on the surface will not cause any loss of performance. Max. stud spacing ≤ 300 mm (external radius).



Design with full board for $r \geq 1,000$ mm





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