KNAUF

AQUAPANEL® Cement Board SkyLite:

A NEW SENSE OF LIGHTNESS

Knauf Ceiling Solutions
with AQUAPANEL® Technology Inside

Knauf Ceiling Solutions with AQUAPANEL® Technology Inside | 06 / 2016

AQUAPANEL®

THE AQUAPANEL® CEMENT BOARD SKYLITE: THE STRONGEST 8 MM PROTECTING AGAINST MOISTURE.

The AQUAPANEL® Cement Board SkyLite is extremely thin with a thickness of just 8 mm and very light at a weight of approx. 10.5 kg/m². Despite its light weight, the cement board makes absolutely no compromises in terms of stability, design or installation.

The AQUAPANEL® Cement Board SkyLite is made from materials that prevent water damage, providing perfect protection from the effects of weather and mildew.

Thanks to its bending radius of ≥ 1 m even unusual ceiling designs with round or organic shapes do not pose a problem.

This cement board also sets new standards in installation in terms of lightness and safety with the right accessories.

The AQUAPANEL® Cement Board SkyLite provides a wealth of new possibilities when it comes to ceiling design. And all with the same board, inside and out.

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Knauf Drylining Solutions with AQUAPANEL® Technology Inside

Knauf drylining solutions with AQUAPANEL® Technology Inside are economical, sustainable and high-performance solutions for drylining construction interiors and exteriors.

The unique cement board consists of a core made of Portland cement with lightweight aggregates and is reinforced with glass-fibre meshes on both sides. AQUAPANEL® Cement Board SkyLite, which is developed specifically for use on ceilings, impresses not only by being 100 percent water-resistant and totally mildew-resistant, but also through its flexibility providing a range of new possibilities when it comes to ceiling design.

In addition to Knauf Ceiling Solutions with AQUAPANEL® Technology Inside, Knauf offers concepts for exterior walls as well as wetroom solutions and floor systems.

LEAVE THE COMPETITION BEHIND WITH QUALITIES THAT LET YOU REACH FOR THE SKY.

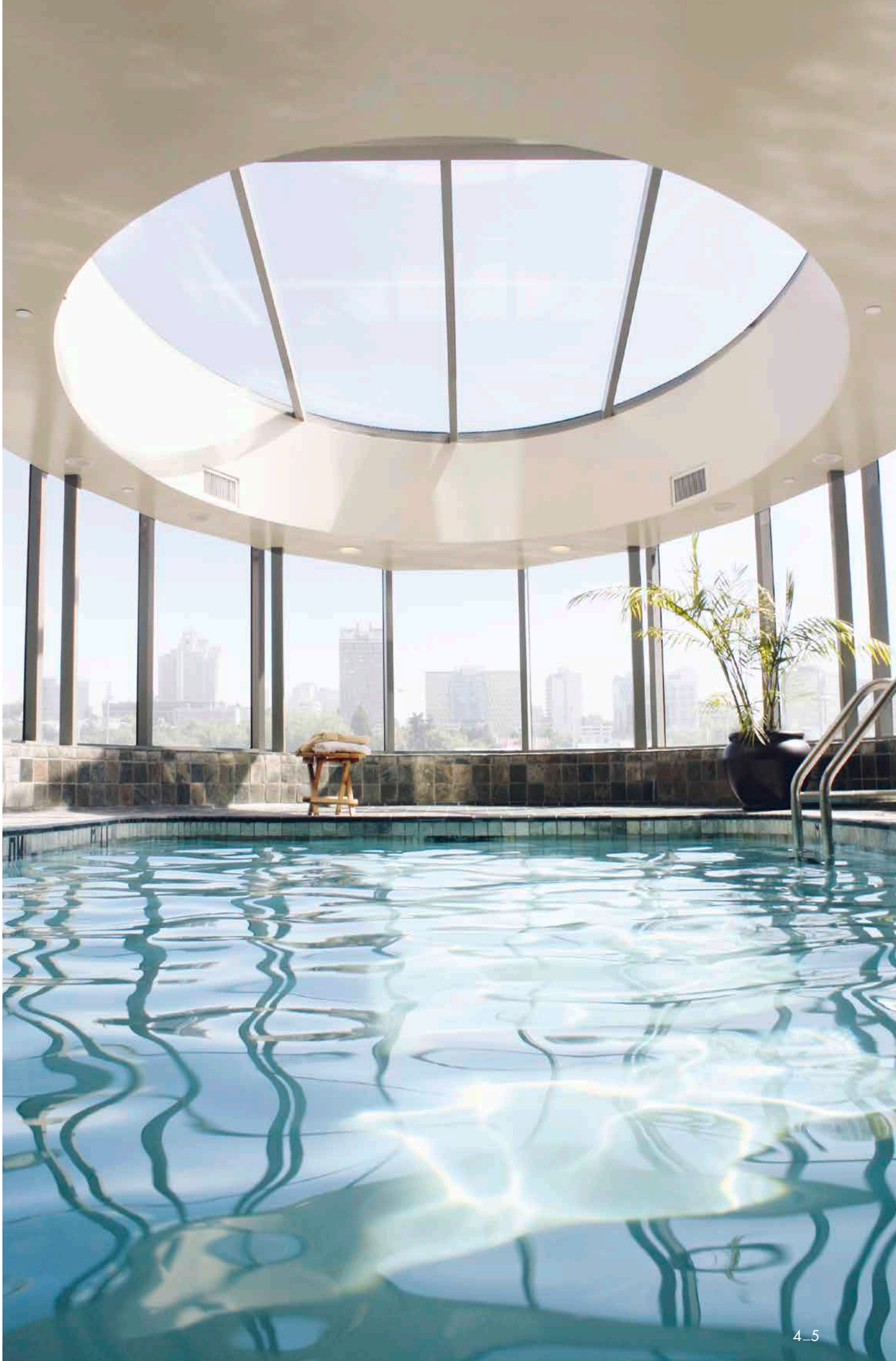
Unique freedom of design

The AQUAPANEL® Cement Board SkyLite enables a bending radius of ≥ 1 m. While other materials allow little flexibility for planners, AQUAPANEL® Cement Board SkyLite allows you almost unlimited freedom in design. For instance, no competitor's product enables you to perform an area of 225 m^2 without visible joints.

The AQUAPANEL® Cement Board SkyLite is extremely hard-wearing in many ways and thanks to its stability retains its shape over a long period of time.

Perfect weather protection

Wherever you are designing ceilings that are exposed to moisture, the AQUAPANEL® Cement Board SkyLite is 100% water-resistant and offers just the kind of all-round protection that is an absolute must in areas exposed to weather and moisture. Even in environments with salty air.



THERE'S NO SUCH THING AS TOO MANY GOOD ARGUMENTS.

Effective mildew protection

Mildew quickly appears on ceilings with consistently high levels of moisture. The AQUAPANEL® Cement Board SkyLite is made exclusively of inorganic materials which prevent mildew from spreading.

Simple installation

The light weight of the AQUAPANEL® Cement Board SkyLite makes overhead work significantly easier. Scoring and snapping is simple, while pre-drilling is no longer necessary. The cement board enables bending radii of up to one metre.

Perfect surface finishing

A range of surface qualities are possible with AQUAPANEL® Cement Board SkyLite, depending on needs and demand. From surfaces that do not need to satisfy any decorative requirements to monolithic surfaces that meet the highest standards in design.

AQUAPANEL® CEMENT BOARD SKYLITE. THE RIGHT DECISION, INSIDE AND OUT.

One board only

The construction of ceilings is now easier than ever before. And the negative effects from moisture and wetness are no longer a problem.

With the AQUAPANEL® Cement Board SkyLite, only 8 mm thick, and its incomparable light weight of approx. 10.5 kg/m², you will achieve something very special: an extraordinary freedom of design for constructing exterior and interior ceilings.

Bending radius

Min. bending radius for full board (m)	1

Material properties	SkyLite (8 mm) ETA-13/0608
Dry bulk density (kg/m³)	approx. 1,230
Bending strength (MPa)	approx. 10.9
pH value	12
E-Modulus (N/mm²)	approx. 1,750
Thermal conductivity (W/mK)	0.36
Thermal expansion ($10^{-6}K^{-1}$)	7
Water vapour diffusion coefficient μ (-)	40
Length variation 65 %–85 % humidity (mm/m)	0.38
Thickness variation 65 %–85 % humidity (%)	0.3
Building class material according to EN 13501	A1, non-flammable

Dimensions (W x L x T)	Item code	EAN
900 mm x 1,200 mm x 8 mm	433850	4260021862797
900 mm x 1,250 mm x 8 mm	433855	4260021862803
1,200 mm x 900 mm x 8 mm	467521	4260021862964
1,200 mm x 2,400 mm x 8 mm	515191	4260021863237
1,250 mm x 900 mm x 8 mm	539287	4260021863695


AQUAPANEL

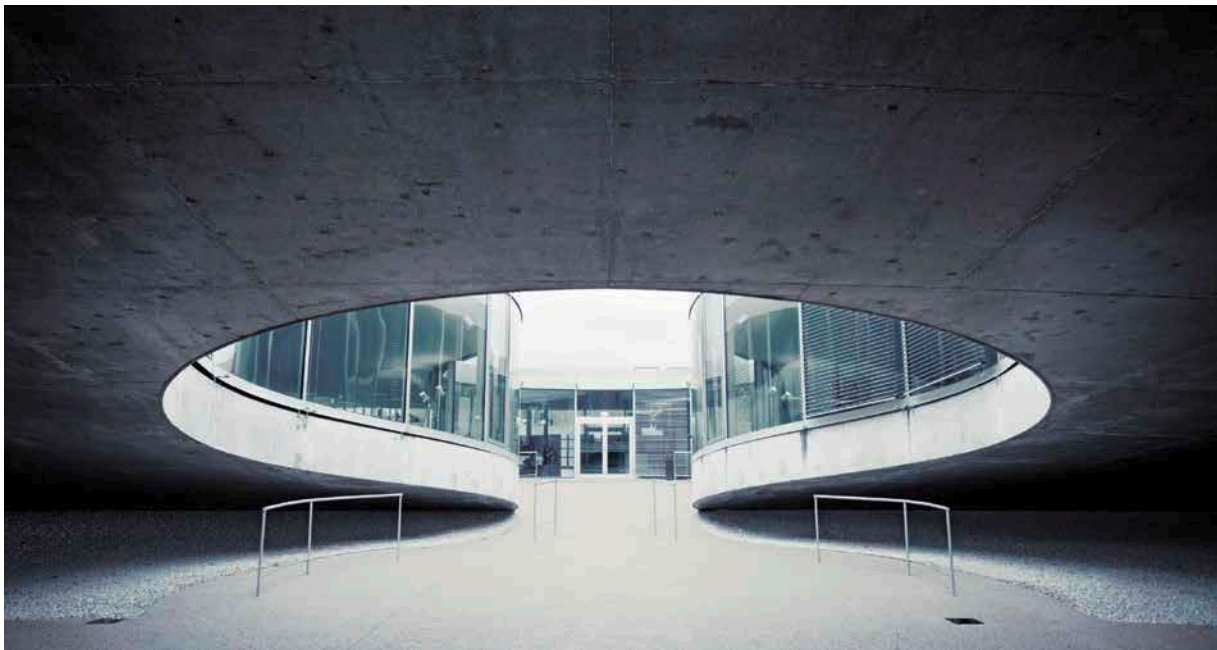
AQUAPANEL® CEMENT BOARD SKYLITE FOR EXTERIOR CEILINGS.

With AQUAPANEL® Cement Board SkyLite, exterior ceilings are optimally protected against all types of weather effects, regardless of their location. With conventional products, there is always a risk of damage, particularly in soffits around the closing edge exposed to weather conditions. This is completely out of the question with AQUAPANEL® Cement Board SkyLite, since it is manufactured completely from inorganic materials.

Arcade walkways and underpasses

relatively protected

It is also a safer option to choose AQUAPANEL® Cement Board SkyLite in relatively sheltered exterior areas, such as arcades. This not only removes any risk of mildew forming right from the start, but also makes it much easier to implement completely new designs.



Benefits exterior ceilings

- Simple and quick installation
- Low weight
- Resistant to moisture and driving rain
- Durable and mildew-resistant
- Stable and robust, even in wind loads of up to 1.5 kN/m²
- Creative design opportunities thanks to a bending radius of ≥ 1 m
- Spectacular ceilings thanks to expansion joints that are only needed every 15 m and enable a 225 m² closed area without a visible joint

not directly exposed to weather

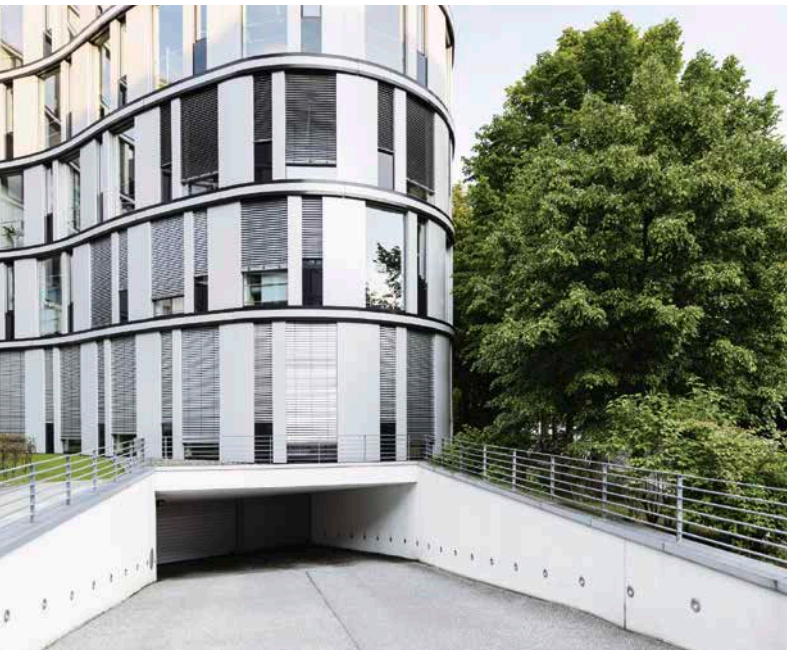
Soffits and driveway passages

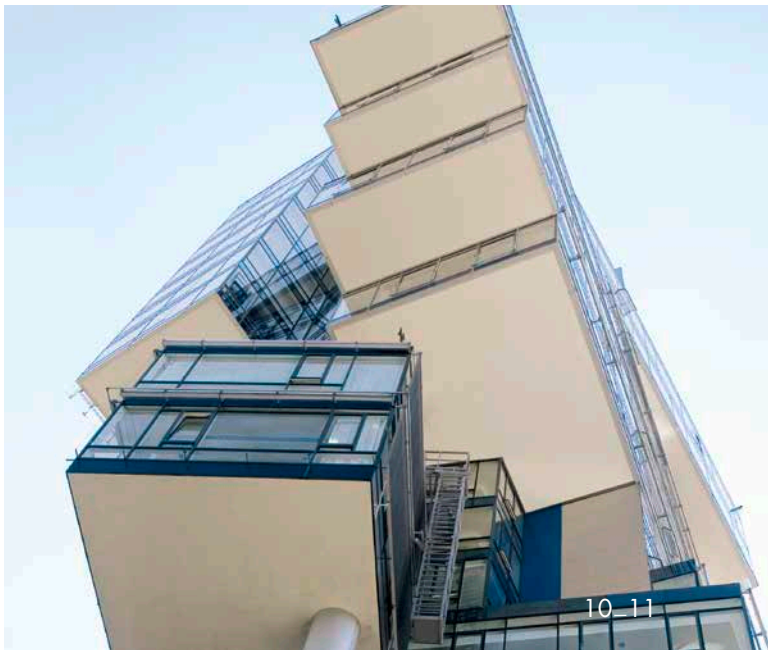
For ceilings not directly exposed to the weather, it makes a great deal of sense to use AQUAPANEL® Cement Board SkyLite for safety and installation purposes. This eliminates any risk of moisture or mildew spreading due to exceptional occurrences right from the start.

highly exposed to weather

Exterior ceilings up to 25 m

For exterior ceilings to a height of up to 25 m, there is no alternative to AQUAPANEL® Cement Board SkyLite. This ensures that driving rain does not cause any lasting damage. For objects with larger ceiling surfaces, the simplified installation also saves time and the freedom of design makes striking and creative ideas possible. For ceilings higher than 25 m and those exposed to extreme wind loads, special applications are available.





AQUAPANEL® CEMENT BOARD SKYLITE FOR INTERIOR CEILINGS.

Be it shower rooms, swimming pools, saunas or bathrooms, in every interior area where wetness and humidity are prone to spread extensively, AQUAPANEL® Cement Board SkyLite belongs on the ceiling. This is not just because water has absolutely no effect on it. Mildew also has no chance of spreading. AQUAPANEL® Cement Board SkyLite enables the implementation of creative architectural solutions which cannot be accomplished with other products. And in terms of installation, there is nothing simpler for overhead work than the 8 mm thick cement board.

Temperatures of up to 70° C

Wellness oases create a particularly high strain due to concentrated damp with increased temperatures.

The AQUAPANEL® Cement Board SkyLite, with its physical properties, is the ideal solution for this type of environment.

Sprayed water and splashing water

Ceilings in bathrooms or public showers are exposed to high levels of damp through water vapour as well as direct splashing water. AQUAPANEL® Cement Board SkyLite is the perfect solution in this case, as the cement board is 100% water-resistant and mildew-resistant.

Benefits in wet room areas

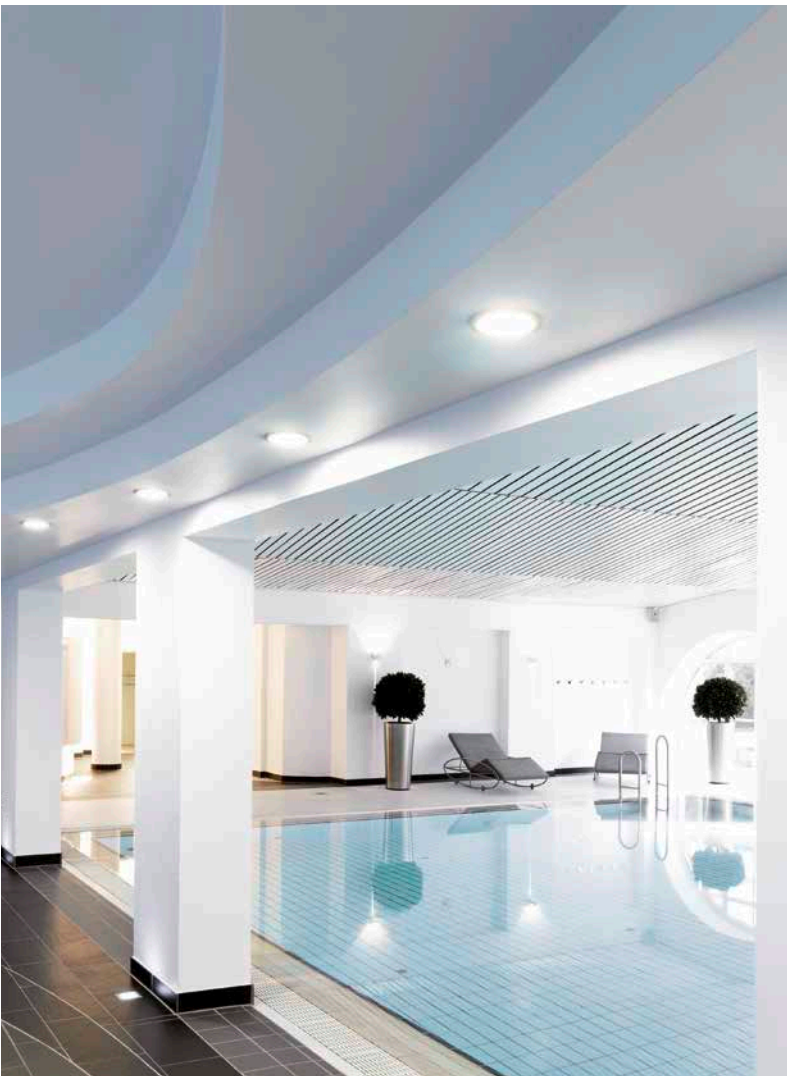
- Simple and quick installation
- Low weight
- Moisture-resistant
- Durable and mildew-resistant
- Highly stable and resistant
- Creative design opportunities thanks to low bending radius

Physical strain

AQUAPANEL® Cement Board SkyLite ensures permanently robust ceilings that keep their shape in all wet areas and interior spaces, thanks to its material qualities.

Immaculate appearance

From surfaces with low demands to the most elaborate ceilings. With AQUAPANEL® Cement Board SkyLite, every surface finish quality can be achieved without difficulty.

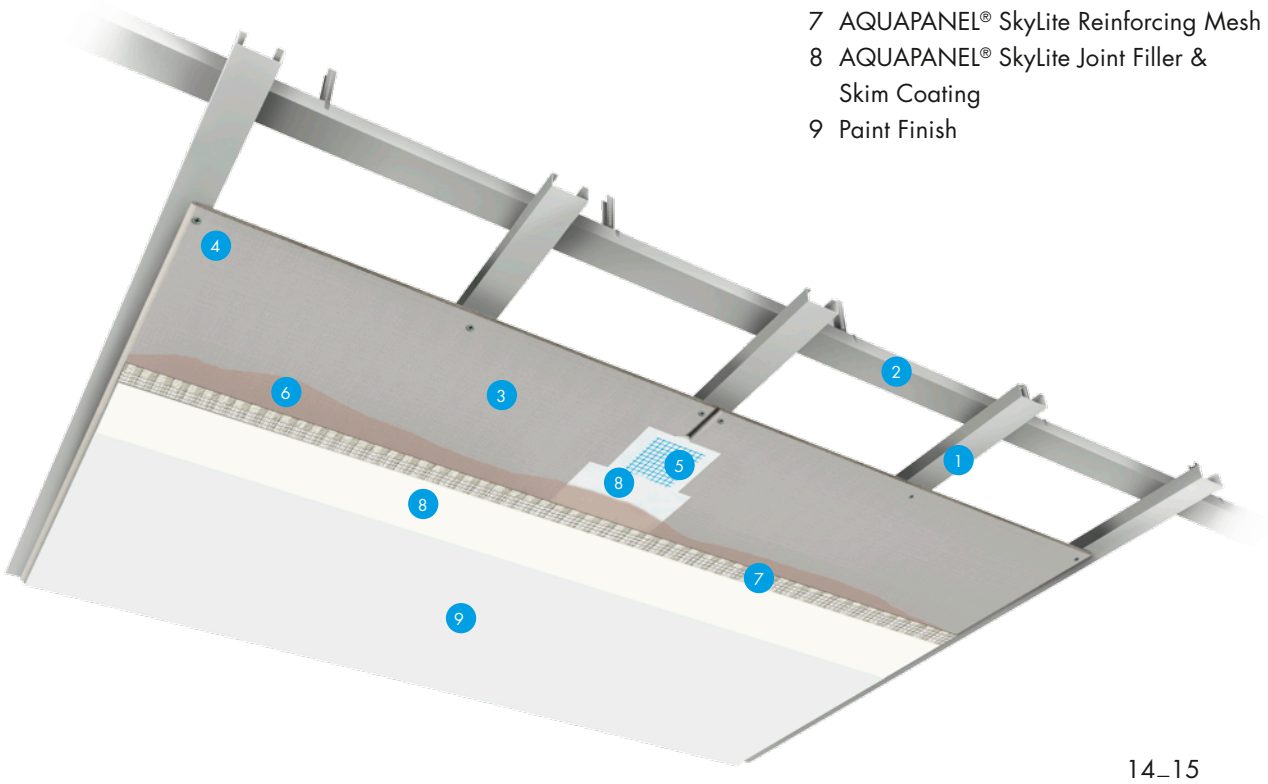


THE LIGHTWEIGHT SYSTEM THAT PREPARES YOU FOR EVERY TYPE OF CEILING.

AQUAPANEL® Cement Board SkyLite is more than just an innovative cement board. It is part of the Knauf Ceiling Solutions with AQUAPANEL® Technology Inside which are fully and technically compatible with Knauf support and base profiles, joint fillers, tapes and board primer. For greater safety and the highest standards in design, construction, cost-effectiveness and durability.

A Knauf Ceiling Solution sample

1 Knauf CD 60/27/06 (Supporting Profile, corrosion-protected)
2 Knauf CD 60/27/06 (Base Profile, corrosion-protected)
3 AQUAPANEL® Cement Board SkyLite
4 AQUAPANEL® Maxi Screws SN 25
5 AQUAPANEL® Tape (10 cm)
6 AQUAPANEL® Board Primer
7 AQUAPANEL® SkyLite Reinforcing Mesh
8 AQUAPANEL® SkyLite Joint Filler & Skim Coating
9 Paint Finish



WHERE EVERYTHING COMES TOGETHER. AND FITS PERFECTLY.

AQUAPANEL® Cement Board SkyLite

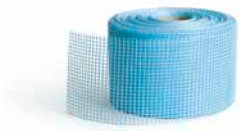
- made of Portland cement and additives
- strengthened with mesh fabric on both sides
- ends cut and edges strengthened with EasyEdge™
- 900 x 1,200 x 8 mm, 900 x 1,250 x 8 mm, 1,200 x 900 x 8 mm, 1,200 mm x 2,400 mm x 8 mm or 1,250 mm x 900 mm x 8 mm (W x L x T)

AQUAPANEL® Maxi Screws SN 25

- specially for fastening AQUAPANEL® Cement Boards
- for simple panelling
- with highly effective corrosion protection
- 25 mm length
- 1,000 pieces per carton

AQUAPANEL® Tape (10 cm)

- glass-fibre mesh with alkali-resistant coating
- to reinforce the joints
- 0.1 m x 50 m per roll or 0.1 m x 20 m per roll



AQUAPANEL® SkyLite Reinforcing Mesh

- alkali-resistant glass-fibre mesh
- for complete cover reinforcement in exterior areas
- 1 m x 50 m per roll

AQUAPANEL® Board Primer

- ready-to-use synthetic emulsion
- for priming AQUAPANEL® Cement Boards
- 15 kg per tub or 2.5 kg per tub

AQUAPANEL® SkyLite Joint Filler & Skim Coating

- cement-bound surfacer
- for joint treatment and full-surface filling of AQUAPANEL® Cement Board SkyLite
- 15 kg per bag

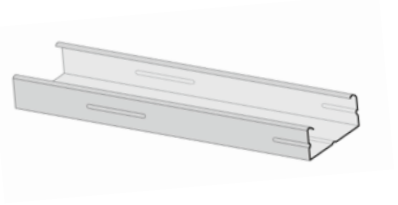
AQUAPANEL® Q4 Finish

- ready-to-use skim coat
- for high-quality, smooth surfaces
- only for interior use, not suitable for areas subjected to water spray
- 20 kg per tub

Profiles

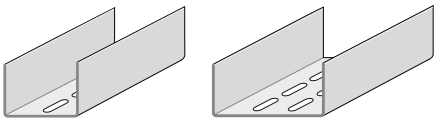
CD 60/27/06

- ceiling substructure interiors and exteriors
- can be used as both a base profile and support profile for a ceiling suspension
- corrosion-resistant
- fastened via cross-connector



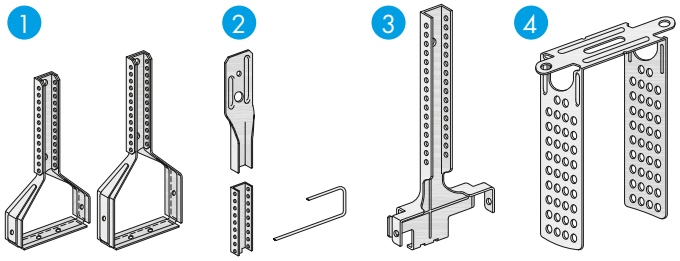
UA profiles and angles

- for the ceiling substructure



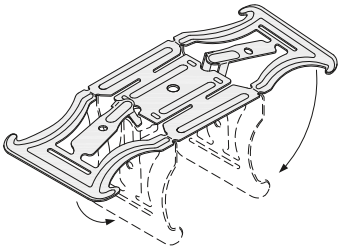
Suspending brackets

1 Nonius bracket
2 Nonius hanger – upper part with splint
3 Nonius hanger – lower part
4 direct hanger

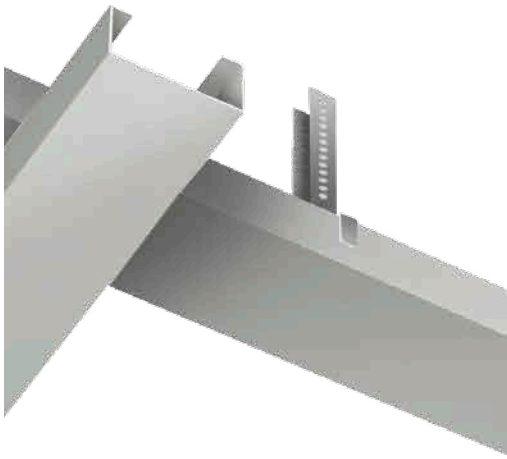


Connectors

- cross-connector
- for connecting base and support profiles

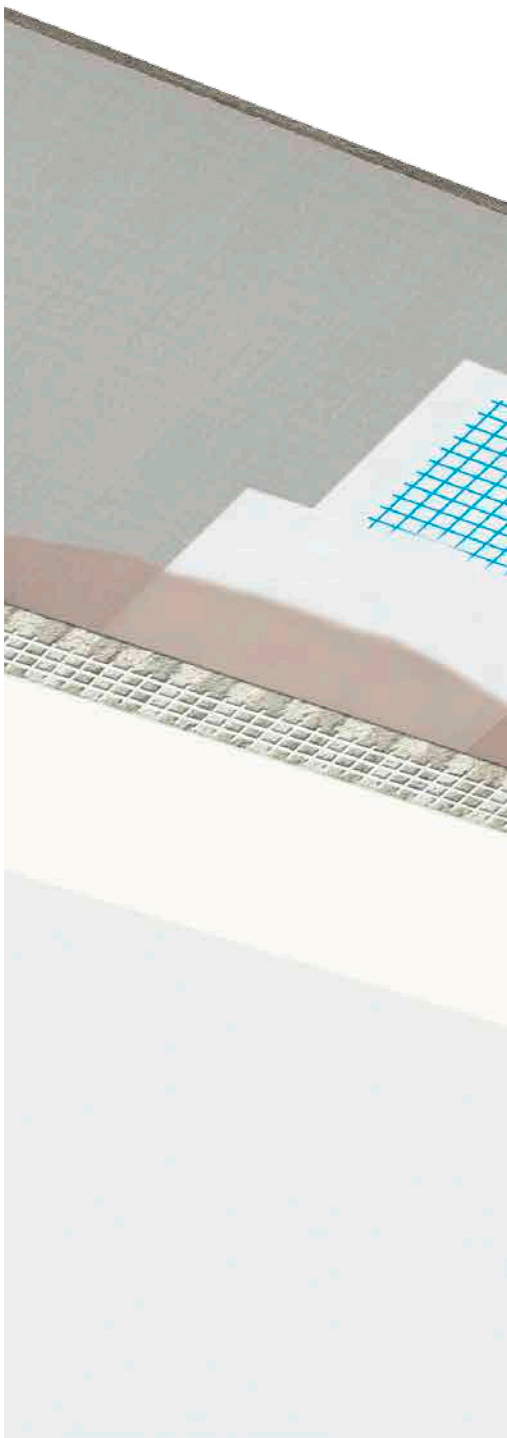


CEILING INSTALLATION DONE EASILY.



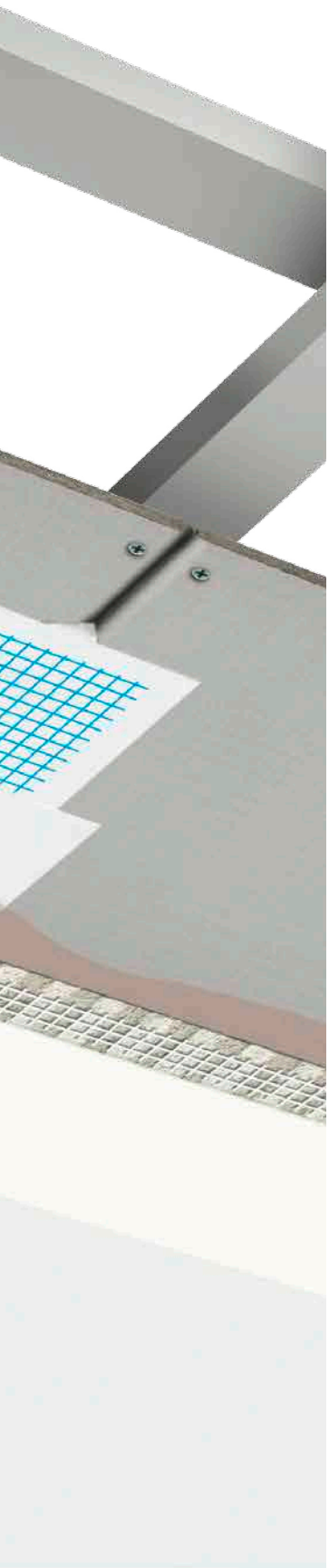
Substructure

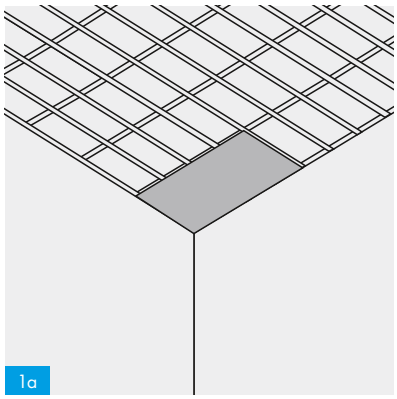
The ceiling construction suspensions should be made compression-resistant and, if required, ensured against buckling in individual cases through adequate construction measures. The anchoring of the suspensions to the primary construction should be ensured through a sufficient number of appropriate anchoring methods and adapted for the relevant substrate. Anchoring methods approved by building regulations should be followed.



Expansion joints

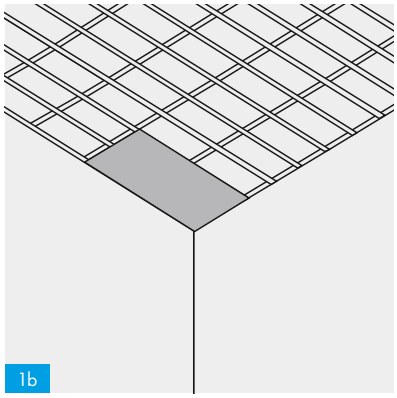
Expansion joints should be used in the ceiling design, where necessary. Expansion joints should be set at least every 15 m, meaning a maximum jointless surface area of 15 m x 15 m. Special ceiling designs, such as highly angled ceiling surfaces, can require a closer layout of joints in specific cases.



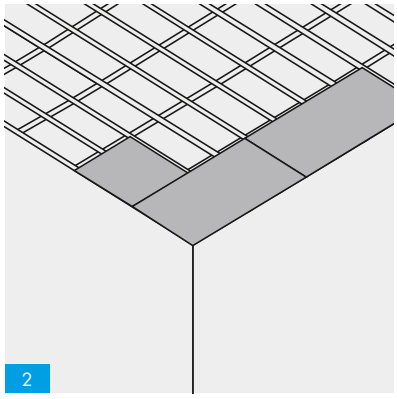


1 AQUAPANEL® Cement Board SkyLite is aligned parallel or perpendicular to the support profiles in the ceiling area.

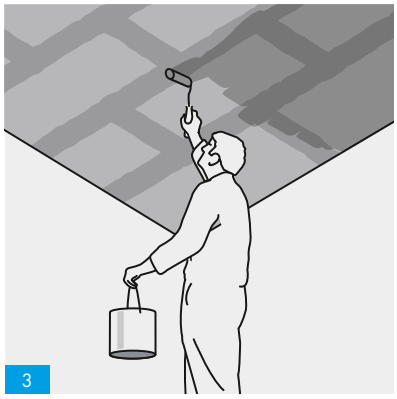
1a In a perpendicular installation, the cement board is fastened to the substructure using 25 AQUAPANEL® Maxi Screws per m². The support profiles are spaced at a maximum of 312.5 mm (300 mm).



1b In a parallel installation (only interiors), the cement board is fastened to the substructure by using 18 AQUAPANEL® Maxi Screws per m². The support profiles are spaced at a maximum of 450 mm. Where necessary, the AQUAPANEL® Rustproofed Screws should be used for fastening the boards to a wooden substructure.



2 The boards are attached, staggered with a joint width of 3 – 5 mm. Cross-joints are not permitted. After installation, treat all joints with AQUAPANEL® SkyLite Joint Filler & Skim Coating and the AQUAPANEL® Tape (10 cm). All screw heads are also filled.



3 The entire surface is primed with AQUAPANEL® Board Primer (primer / water ratio 1 : 2). In order to achieve a Q1 Finish (for interior applications), no further surface coating is needed.

A FINISH IN A CLASS OF ITS OWN.

Depending on the needs and requirements, a wide range of surface qualities can be achieved with AQUAPANEL® Cement Board SkyLite. This begins with simple surfaces without any particular aesthetic or application demands and continues with immaculate, monolithic surfaces with a smooth or shiny appearance.

Exterior applications

To finish, cover the entire surface with AQUAPANEL® SkyLite Joint Filler & Skim Coating to a thickness of 4 mm and carefully embed AQUAPANEL® SkyLite Reinforcing Mesh. Add an additional layer of AQUAPANEL® SkyLite Joint Filler & Skim Coating until the AQUAPANEL® SkyLite Reinforcing Mesh is completely covered.

Further finish options are possible.

Interior applications

Q1 Finish	Basic coating for surfaces without any particular visual or decorative demands.	Once the entire surface is primed with AQUAPANEL® Board Primer, no further surface coating is needed in order to achieve a Q1 Finish.
Q2 Finish	The coating meets the typical requirements for ceiling surfaces. The aim is to match the joint area, fastening methods, corners and connections of the board surfaces. No joint ridges should remain visible[1].	To achieve a finish level of Q2, a Q1 level must first be reached. Cover the entire surface with AQUAPANEL® SkyLite Joint Filler & Skim Coating to a thickness of about 2 – 3 mm. Smooth out imperfections and trowel marks.
Q3 Finish	The coating meets higher quality requirements for flatness[2].	To achieve a finish level of Q3, first reach Q2 level and then apply another thin layer (1 – 2 mm) of AQUAPANEL® Skylite Joint Filler & Skim Coating and smooth out the full surface. Once dry, sand down the entire surface with fine sandpaper (grain 120 or finer).
Q4 Finish	For the highest requirements for surface flatness[3,4].	For a finish level of Q4, first reach a Q3 level and then apply a light coating of AQUAPANEL® Q4 Finish to the entire surface. Smooth out imperfections making sure to remove any unevenness. Sand down the entire surface with fine sandpaper (grain 120 or finer).

Further finish options are possible.

1
Q2 surfaces are suitable for medium to coarsely structured wall coverings, such as woodchip wallpaper (grain RM or RG according to BFS data sheet no. 05 / 01), for coatings (matt, filling coats, e.g. dispersion coatings) and for decorative skim coat (particle size / largest particle > 1 mm). In the case of AQUAPANEL® quality grade 2, degradations (particularly in side light) may occur.

2
Q3 surfaces are suitable for finely structured wall coverings, for matt and finely structured coats or coatings and for decorative skim coats < 1 mm grain size. Degradations (e. g. in side light) may also occur in the case of AQUAPANEL® quality grade 3.

3
Surface treatment in AQUAPANEL® quality grade 4 meets the highest standards based on the the classifications listed here. It minimises marks on the board surface and joints. Certain types of shading may occur, however. Smoothing work that appears as totally even and shadow-free even under the effects of side light is not feasible.

4
AQUAPANEL® Q4 Finish can only be used in interior areas.

WHAT YOU CAN EXPECT FOR EVERY SQUARE METRE.

Calculation base for Knauf Ceiling Solutions with AQUAPANEL® Technology Inside

Panelling and coating

Material requirements	Unit	Requirements / m²
AQUAPANEL® Cement Board SkyLite, single-ply	m²	1
AQUAPANEL® Maxi Screw	pcs.	25 for profile spacing 300 / 312.5 18 for profile spacing 450
AQUAPANEL® Tape (10 cm)	m	2.1
AQUAPANEL® Board Primer	g	approx. 40 – 60
AQUAPANEL® SkyLite Joint Filler & Skim Coating (joint treatment)	kg	0.36
AQUAPANEL® SkyLite Joint Filler & Skim Coating (full surface coating)	kg	exterior 2.1 (coat thickness 4 mm) interior 1.6 (coat thickness 3 mm)
AQUAPANEL® SkyLite Reinforcing Mesh	m²	1.1
AQUAPANEL® Q4 Finish	kg / mm coat thickness	1.7

AQUAPANEL® SkyLite Joint Filler & Skim Coating

Installation time	per m² (manual)	per m² (automatic)
Installation of AQUAPANEL® Cement Board SkyLite including screws, AQUAPANEL® SkyLite Joint Filler & Skim Coating and AQUAPANEL® Tape (10 cm)	18 minutes	
AQUAPANEL® Board Primer	1 minute	
AQUAPANEL® SkyLite Joint Filler & Skim Coating	11 – 15 minutes (full surface application)	6 – 7 minutes (full surface application)
AQUAPANEL® SkyLite Reinforcing Mesh	4 – 5 minutes	
AQUAPANEL® Q4 Finish	8 – 9 minutes	


ADAC

PERFECTLY THOUGHT THROUGH.

Exterior

Spacing of base and support profile and suspension points

	Ceiling weight	Suspending brackets	max. Spacing (mm)*
AQUAPANEL® Cement Board SkyLite (1 x 8 mm)	approx. 14.5 kg / m²	0.4 kN	a 750 b 312.5 (300) c 1,000

* The specified spacings are maximum values. If the spacing is adjusted object specifically, ceilings can be designed for wind loads of up to 1.5 kN/m². Applicable building regulations should be taken into consideration. A verification of stability may be required.

Interior

Spacing of base and support profile and suspension points

	Ceiling weight	Suspending brackets	Installation direction	Spacing (mm) installation direction crossways	Spacing (mm) installation direction lengthways
AQUAPANEL® Cement Board SkyLite (1 x 8 mm)	approx. 14.5 kg / m²	0.4 kN	crossways/ lengthways	a 750 b 312.5 (300) c 1,000	a 750 b 450 c 1,000

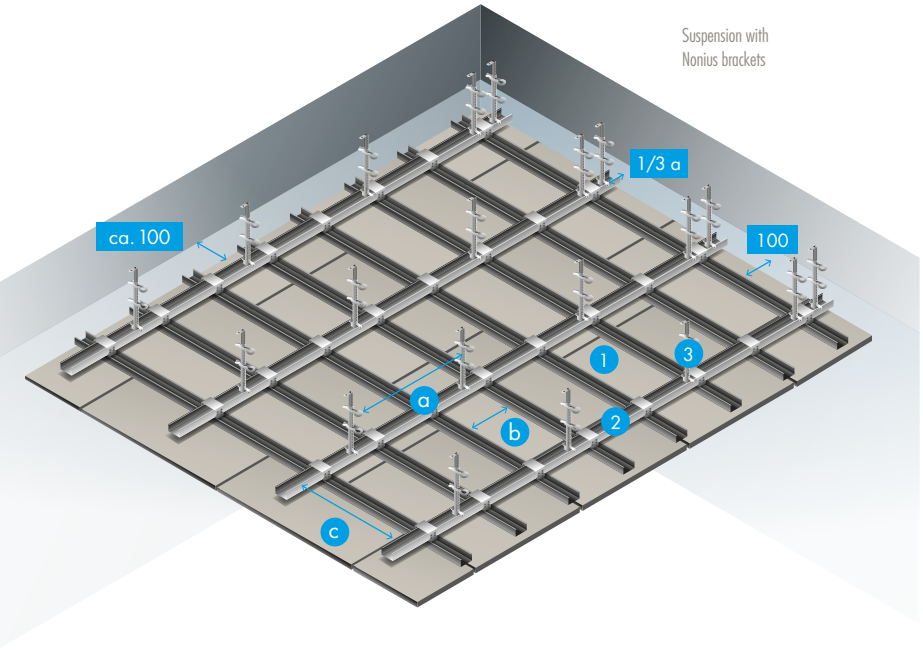
Exterior ceilings metal substructure

Abbreviations

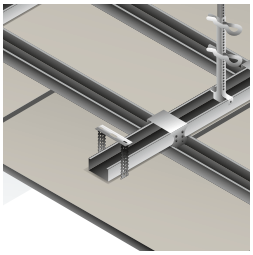
a Spacing of hangers (mm)
b Spacing (mm) of support profiles (C-ceiling profile 60/27/06)
c Spacing (mm) of base profiles

Material description

1 AQUAPANEL® Cement Board SkyLite
2 C-ceiling profile
3 Knauf Nonius bracket with safety clips or universal bracket



Suspension with Nonius brackets



Alternative suspension with universal brackets

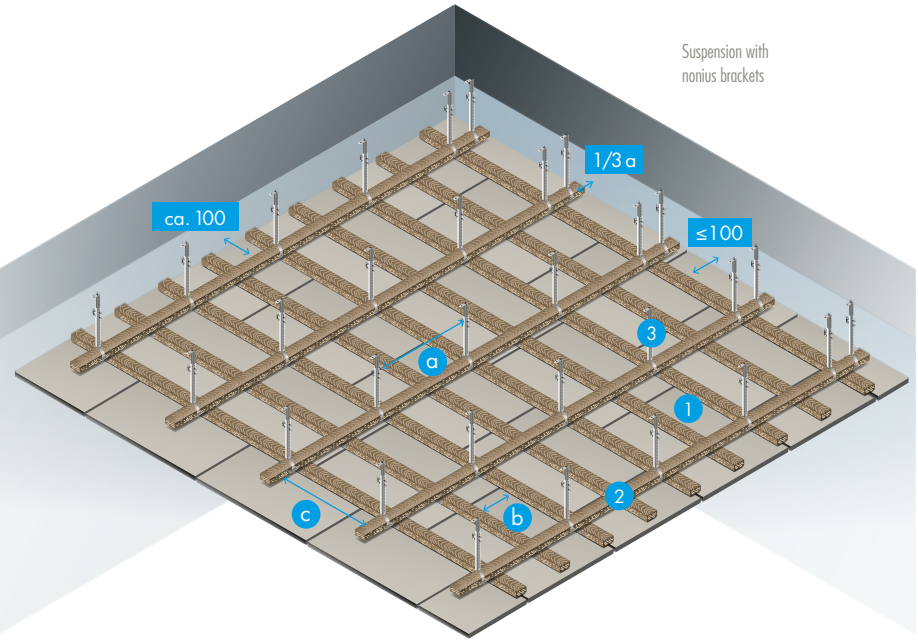
Exterior ceilings wooden substructure*

Abbreviations

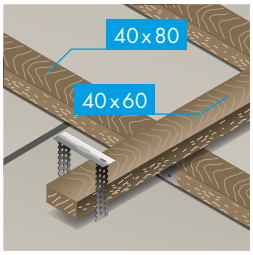
a Spacing of hangers (mm)
b Spacing of support battens 40/80 (mm)
c Spacing of main battens 40/60 (mm)

Material description

1 AQUAPANEL® Cement Board SkyLite
2 Support and main battens
3 Knauf Nonius bracket with safety clips or universal bracket



Suspension with nonius brackets



Alternative suspension with universal brackets

* AQUAPANEL® Rustproofed Screws SN 40 are recommended for the use with wooden substructure.

IMPORTANT POINTS TO CONSIDER REGARDING STABILITY AND CONSTRUCTION.

Stability

Actions

The stability of the ceiling system must be verified for each specific building project. National standards apply to design loads.

The following loads must be considered:

- Dead weight of the suspended ceiling (surface layer, supporting structure, fitted components)
- Wind load (if necessary, consider the internal pressure on back-ventilated surface layer) according to DIN 1991-1-4
- Snow and ice loads according to DIN EN 1991-1-3
- Forced actions
- Accidental actions according to DIN EN 1991-1-7

Horizontal loads arising from the suspended surface layer at an angle of inclination to the horizontal must be considered in the design analysis.

The stability of the supporting structure and its attachment to the building must be verified in each case.

Design Analysis

The user must provide a building-specific structural engineering report in all cases to verify the load-bearing capacity and functionality of the supporting structure. The report must include the actions, combination of actions and deformation behaviour.

The load-bearing capacity and attachment of the supporting structure or suspension system must be verified for each building project.

The verification must include all building components, connections and connecting elements in the supporting structure and their attachment to the supporting structural part. A suitable design analysis method must be applied, depending on the type of supporting structure. Proof of fitness for use is shown by a deformation limit of max. f=l/500.

Supporting structures made of metal

The load-bearing capacity of the metal supporting structure must be verified according to the DIN EN 1993 series of standards.

Thin-walled metal profiles may be used according to DIN EN 14195, provided that their suitability (profile rigidity, load-bearing capacity of connections) within the system (profiles, connecting elements, hangers) is verified according to DIN 18168-2 or DIN EN 13964.

Only rigid suspension systems may be used with a minimum load-bearing capacity of 0.25 kN per hanger (equivalent to Load Class II according to DIN 18168-2) or better.

The functional test of the suspension system selected must comply with DIN EN 13964, Appendix G (Determination of durability under dynamic tensile and compressive loads, e.g. resulting from wind).

The stability of the suspending brackets under pressure load must be demonstrated for each individual object.

Corrosion protection on metal supporting structures must be selected specifically for each building project, depending on the installation situation. The provisions stipulated in DIN EN 13964, Table 7 and 8 apply, whereby the coating thickness of the zinc electroplating must be at least 7 µm.

Wooden supporting structures

The load-carrying capacity of the wooden supporting structure must be verified according to DIN EN 1995-1-1 in conjunction with DIN 1052. Service Class 2 according to DIN EN 1995-1-1 must apply in conjunction with DIN 1052.

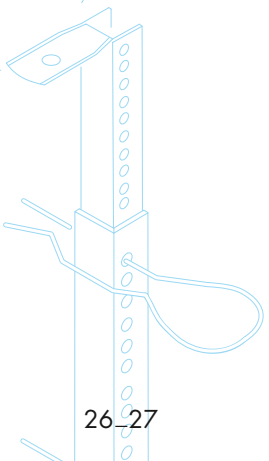
Attachment to the substrate

Only fixing materials suitable for the substrate and the acting loads may be used, and their suitability must be verified, e.g. by general building inspectorate approval or a European Technical Approval (ETA).

Design Conditions

Damaged panels may not be installed. Expansion joints must be located at least every 15 m. The maximum permitted ceiling area without expansions joints is 15 m x 15 m.

A weather protection (e.g. flush-mounted with a paint coating or a surface system comprising flush- and surface-mounted components) has to be fitted to the cement-bound plaster boards AQUAPANEL® Cement Board SkyLite.



IMPORTANT POINTS TO CONSIDER REGARDING CORROSION PROTECTION.

Corrosion protection according to DIN EN 13964

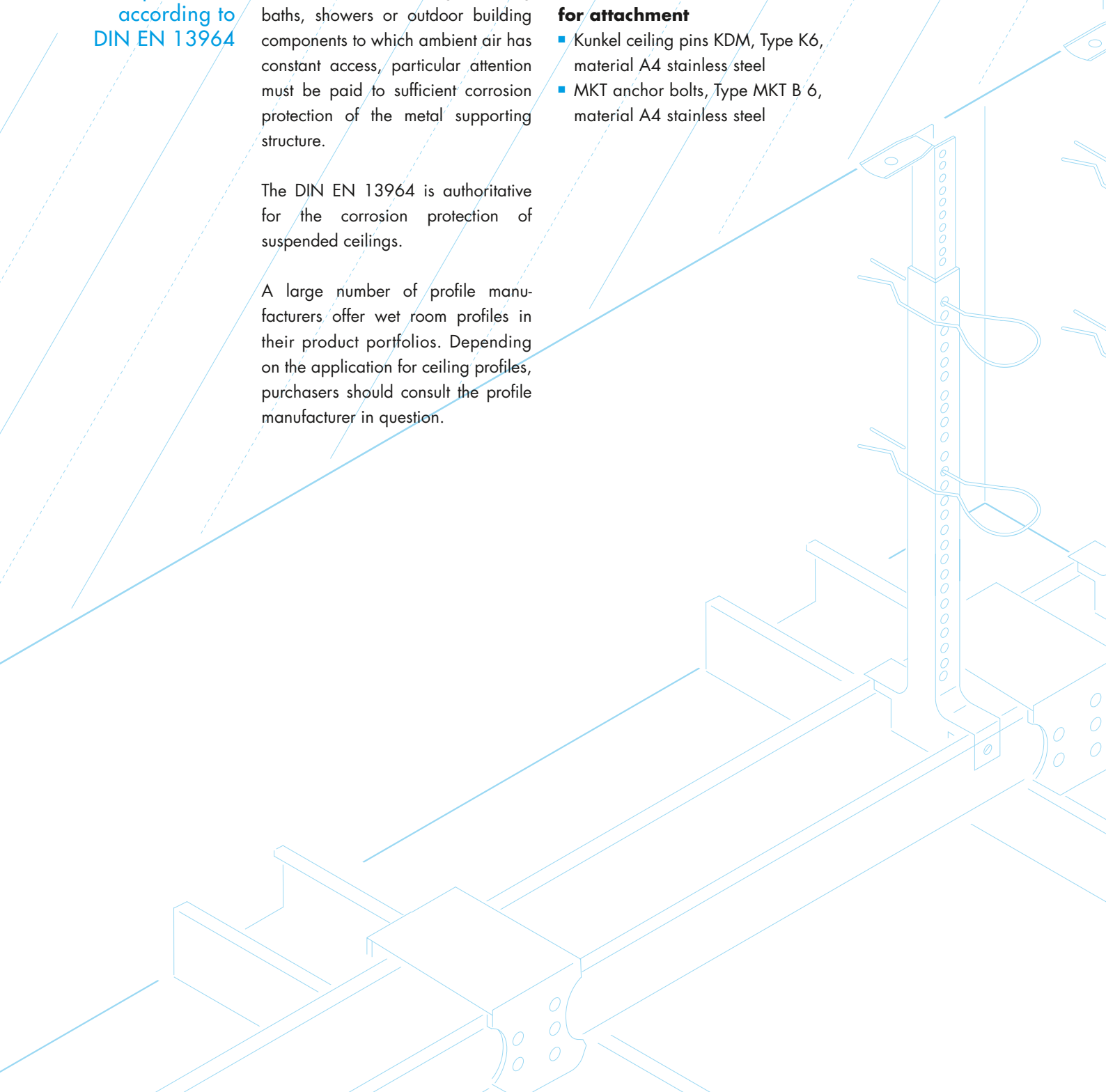
In moisture-laden zones, e.g. swimming baths, showers or outdoor building components to which ambient air has constant access, particular attention must be paid to sufficient corrosion protection of the metal supporting structure.

The DIN EN 13964 is authoritative for the corrosion protection of suspended ceilings.

A large number of profile manufacturers offer wet room profiles in their product portfolios. Depending on the application for ceiling profiles, purchasers should consult the profile manufacturer in question.

Recommendations for attachment

- Kunkel ceiling pins KDM, Type K6, material A4 stainless steel
- MKT anchor bolts, Type MKT B 6, material A4 stainless steel



DIN EN 13964, Tab. 7 Exposure classes

Class A
Building components generally exposed to varying relative humidity up to 70 % and varying temperatures up to 25 °C but without corrosive pollutants.

Class B
Building components frequently exposed to varying relative humidity up to 90 % and varying temperature up to 30 °C but without corrosive pollutants.

Class C
Building components exposed to an atmosphere with a level of humidity higher than 90 % and accompanied by a risk of condensation.

Class D
More severe than the above.

Extract from DIN EN 13964, Tab. 8 Corrosion protection classes

Class B
Products with a continuously hot-dip metal coating Z100, ZA095 or AZ100 according to prEN 10327.

Products with electroplated zinc coating flat according to EN 10152 with or without an additional organic coating, as follows:
ZE25 / 25 + 40 µm per face,
ZE50 / 50 + 20 µm per face or
ZE100 / 100 without organic coating.

Continuously organic coated (coil-coated) products of corrosion protection (interior) category CPI2 for the exposed side according to EN 10169-3 (e. g. coating system ZE15 / 15-HDP25-2T-CPI2).

Class C
Products with a continuously hot-dip metal coating Z100, ZA095 or AZ100 according to prEN 10327 with additional organic coating of 20 µm per face.

Products with electroplated zinc coating flat according to EN 10152 with additional organic coating as follows:
ZE25 / 25 + 60 µm per face,
ZE100 / 100 + 40 µm per face.

Class D
Special measures depending on use and corrosion action. Minimum corrosion protection according to Class C. Additional measures as required.

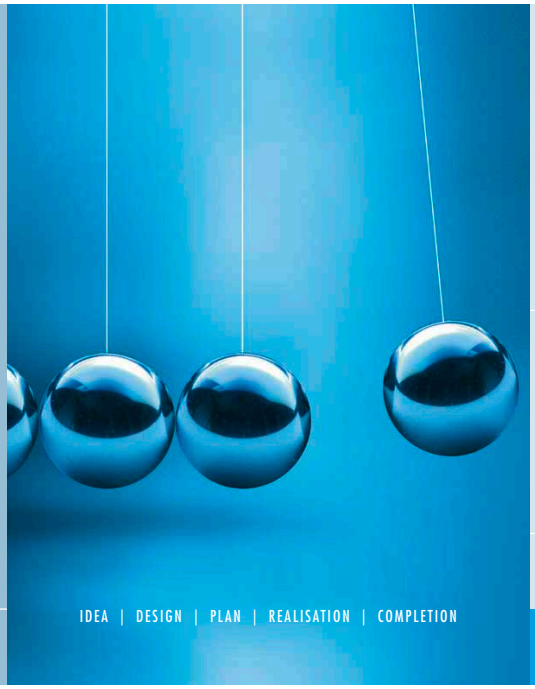
EXTERIOR CEILINGS WITH METAL SUBSTRUCTURE.

Position	Number / ME	Specification of services	Individual price	Total price
1	_____ m²	Ceiling panelling in compliance with ETA-13 / 0608 with cement-bound boards free of cellulose fibre, building material class A1, non-combustible according DIN 13501, single-layer panelling. Product AQUAPANEL® Cement Board SkyLite according to ETA-13 / 0608		
2	_____ m²	Raw ceiling of: _____ installation height: _____ mm height above floor: _____ m		
3	_____ m²	Metal substructure based on DIN EN 13964 of at least 0.6 mm galvanised, corrosion-protected steel profiles. ■ Suspensions with compression-resistant vernier / universal brackets / threaded rods with spacing a = _____ mm ■ Base profile _____ with spacing c = _____ mm ■ Support profile: CD 60 x 27 mm with spacing b = 312.5 mm / 300 mm depending on board dimensions The spacing should be selected according to the stability verifications. Corrosion protection according to DIN EN 13964, table 7 + 8, minimum corrosion protection Class C*. Suspension height: _____ mm Fix the substructure to the existing raw ceiling with approved fasteners, e.g. Kunkel ceiling pins, type KDM stainless steel A4, MKT ceiling bolts B 6-da, stainless steel or fischer nail anchor FNA II, stainless steel.		
4	_____ m²	Insulating layer on request: Insulation thickness: _____ mm Heat conductivity group: _____ Fire behaviour: _____ Brand, Knauf insulation type: _____ supply as cavity insulation and install joint-tight.		
5	_____ m²	Install single-layer panelling from: Fit single-layer AQUAPANEL® Cement Board SkyLite (cement-bound mineral board, non-combustible (A1), free of cellulose fibre) in groups with 3 – 5 mm board spacing, avoiding cross-joints. Fasten the AQUAPANEL® Cement Board SkyLite to the substructure with AQUAPANEL® Maxi Screws SN 25 (requirements: 25 per board with board size 900 x 1,250 mm). In the case of cuttings, remain ≥ 15 mm from the edge of the board, with screw spacing of ≤ 220 mm.		
6	_____ m²	Fill board joints and screw heads with AQUAPANEL® SkyLite Joint Filler & Skim Coating. Insert AQUAPANEL® Tape (10 cm) in the joint area.		
7	_____ m²	Prime boards with AQUAPANEL® Board Primer (coverage approx. 40 – 60 g / m²).		
8	_____ m²	Apply on the whole ceiling surface AQUAPANEL® SkyLite Joint Filler & Skim Coating, d = 4 mm and embed AQUAPANEL® SkyLite Reinforcing Mesh. The mesh should overlap by 10 cm around the edges.		

INTERIOR CEILINGS WITH METAL SUBSTRUCTURE.

Position	Quantity/UOM	Specification of services	Individual price	Total price
1	_____ m²	Ceiling panelling with cement-bound boards, single-layer panelling. Product AQUAPANEL® Cement Board SkyLite		
2	_____ m²	Raw ceiling of: _____ installation height: _____ mm height above floor: _____ m		
3	_____ m²	Metal substructure based on DIN EN 13964 of at least 0.6 mm galvanised, corrosion-protected steel profiles: ■ Suspensions with compression-resistant vernier / universal brackets / threaded rods with spacing a = 750 mm ■ Spacing of base profile: CD 60 x 27 mm, c = 1,000 mm ■ Spacing of support profile: CD 60 x 27 mm, crossways = 300 mm or lengthways = 450 mm Corrosion protection according to DIN EN 13964, table 7 + 8, minimum corrosion protection Class C*. Fix the substructure to the existing raw ceiling with appropriate fasteners. In wet rooms, e.g. Kunkel ceiling pins, type KDM, material 1.4529, MKT ceiling bolts B 6-da, material 1.4529 or fischer nail anchor FNA II, material 1.4529 for interior areas, wet rooms and indoor swimming pools.		
4	_____ m²	Install single-layer panelling: Fit single-layer AQUAPANEL® Cement Board SkyLite (cement-bound mineral board, non-combustible (A1), free of cellulose fibre) in groups with 3 – 5 mm board spacing, avoiding cross-joints. Fasten the AQUAPANEL® Cement Board SkyLite to the substructure with AQUAPANEL® Maxi Screws SN 25. In the case of cuttings, remain ≥ 15 mm from the edge of the board, with screw spacing of longitudinal arrangement ≤ 250 cm / transverse arrangement ≤ 220 cm.		
5	_____ m²	Fill board joints and screw heads with AQUAPANEL® SkyLite Joint Filler & Skim Coating. Embed AQUAPANEL® Tape (10 cm) in the joint area.		
6	_____ m²	Prime boards with AQUAPANEL® Board Primer (coverage approx. 40 – 60 g / m²).		
7	_____ m²	Apply on the whole ceiling surface AQUAPANEL® SkyLite Joint Filler & Skim Coating, d = 3 mm.		
8	_____ m²	Additional position: Apply AQUAPANEL® Q4 Finish over the entire rendered surface as a scratch coat. Sand surface (120 grit or finer) after drying (approx one day / mm coat thickness). Apply colour coat with paint substrate (e. g. Kobau reinforcement).		

Carry out all work according to manufacturer guidelines.
Depending on the area of usage, discussions should be held with the relevant profile manufacturer.
* DIN 13964, Table 7 + 8



AQUAPANEL®

AQUAPANEL® is a technologically advanced building system. Because it's a system, it involves clear step-by-step process from design idea to project completion. AQUAPANEL® panels, accessories and services work in unison – you can be certain that your project will all come together as planned.

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