



# Monolithic acoustic ceiling Installation guidelines OWAplan

OWAconsult collection



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## 1. Assembly tools required

1. Board lift
2. Sharp knife
3. Cordless screwdriver
4. Mixing paddle
5. Trowel
6. Wide spatula
7. Pencil
8. Scale
9. One hand plane
10. Screw pump
11. Airless pump
12. Nozzle 635, nozzle 637, nozzle 641
13. Sanding giraffe
14. Hand grinder
15. Humidity and temperature meter

Link to the processing video: : <https://www.owa.de/de/owaplan/>



Link to the image database: <https://www.media.owa.de/>



## 2. General information on installation

**OWAplan** is a special high-quality ceiling system whose appearance is largely determined by the installation of the grid and plaster system. Installing and covering this ceiling system requires appropriate experience and knowledge in seamless plaster-covered ceilings.

OWA therefore offers a **training course on how to install an OWAplan ceiling**. The training course covers the entire process, from assembling the grid, fitting the mineral boards, taping and jointing, to the various plaster coatings. If the installation of the grid and the mineral boards is not to be carried out by a certified coating company, detailed and extensive step by step instructions must be provided in advance by the responsible technical advisor or OWAplan technician. Training dates need to be arranged in good time with OWA. Contact by telephoning: +49 9373 201-450, -304 or -0. Since this is a certified building product training can only be provided if all system components being used are OWA products.

### Classification of fire behaviour as a building product

OWAplan seamless acoustic plaster ceiling S 7 has been classified as A2-s1,d0 - non-combustible in compliance with EN 13501-1 and is CE marked as a ceiling-KIT. The quantities to be applied as specified in the relevant test report and the system components listed there must be adhered to and applied. If other non-tested system components are used, the system characteristics of the OWAplan<sup>70/90</sup> building product cannot be guaranteed.

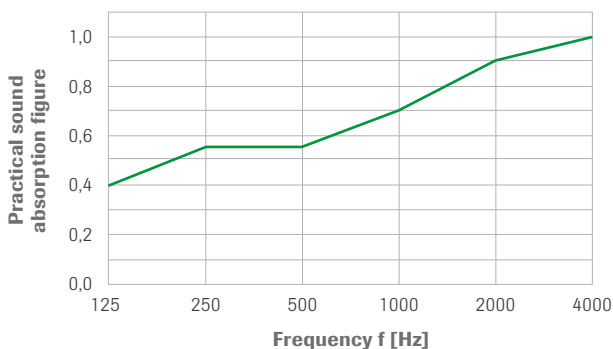
### Labelling in accordance with the Construction Products Regulation (EU-BauPV)

S 7 OWAplan has been tested and labelled in accordance with the Construction Products Regulation no. 305/2011. The requirement for a Declaration of Performance (DoP) is therefore satisfied for the grid, the mineral board and the plaster system. You can find the DoP number on the respective packaging.

### Absorption properties

OWAplan<sup>70</sup> boards, fleece-laminated, size 2400 x 1200 mm, thickness 20 mm

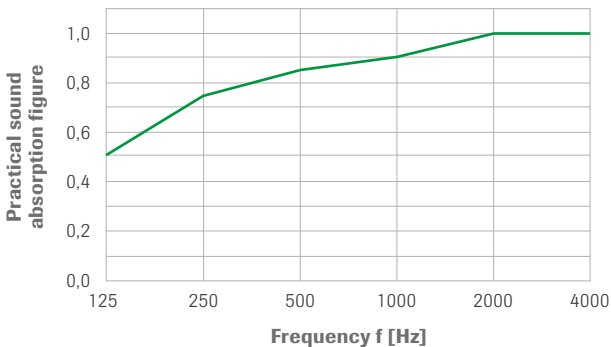
### OWAplan<sup>70</sup>



Freq. [Hz]	Suspension depth E200 $\alpha_p$
125	0.40
250	0.55
500	0.55
1000	0.70
2000	0.90
4000	1.00
<b>NRC</b>	<b>0.70</b>
$\alpha_w$	<b>0.65</b>
<b>SRA</b>	<b>0.80</b>

OWAplan<sup>90</sup> boards, fleece-laminated, size 2400 x 1200 mm, thickness 25 mm

## OWAplan<sup>90</sup>



Freq. [Hz]	Suspension depth E200 $\alpha_p$
125	0.50
250	0.75
500	0.85
1000	0.90
2000	1.00
4000	1.00
<b>NRC</b>	<b>0.90</b>
$\alpha_w$	<b>0.90</b>
<b>SRA</b>	<b>0.95</b>

\* The absorption properties refer to OWAplan S, white and OWAplan XS, white. OWAplan color can lead to a minimal reduction in the absorption properties depending on the colour tone. For further information, please contact our customer service.

## Fixings

Ceilings and roofs:

Connection and fastening elements upper suspension: In order to be able to create a force-fit connection between the ceiling soffit or roof structure and the OWAconstruct suspension system, only approved fixings may be used. For anchorages in solid substrates, the relevant ETA (European technical approval) of the respective fixing must generally be observed in accordance with BS EN 13964.

Steel and solid concrete soffits:

The false ceiling hangers must be installed to the concrete soffit using building code-approved fixings. The fixing manufacturer's instructions must be adhered to. The respective valid approvals or the building code test certificates of the fixing elements (possibly pull-out tests) must be considered.

Roof decking with trapezoidal sheet metal:

Trapezoidal sheet metal roof decking usually has large spans. Due to wind pressure or suction effects, the roof could vibrate via the ceiling suspension, which will cause cracking in a monolithic sub-ceiling. Therefore, we do not recommend direct suspension of a sub-ceiling to trapezoidal sheet metal. A solution could be an independent auxiliary structure fixed to the metal roof. Suitable examples include OWA long-span beams type 6500.

## Handling, transport and storage of the mineral boards

Board boxes should only be transported horizontally by 2 people. Do not place on a corner or edge when setting down. Store in a dry place on a level surface, do not place on damp ground. The boards always lie in the packaging with the visible side facing upwards. There is a cardboard interleaf between each board for protection. The cardboard packaging should be carefully cut open and removed without damaging the board. It is advisable to also cut open the cardboard packaging at the front sides so that the cardboard packaging opens completely. It is always advisable for 2 people to remove each board from the packaging, one at each end, to prevent damage to the board edges, corners or the visible face.

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### 3. Installation requirements

#### 3.1 Requirements prior to installation of the OWAplan ceiling:

If fire safety is a requirement, the maximum spacing for the main tees, nonius hangers and tile screws specified in the test report, and the minimum suspension depth, must be adhered to. Furthermore, installation with a shadow gap is not permissible.

- The area for installation must be dry.
- EN 13964 stipulates site conditions should be  $> +7$  °C. The coating could be applied at a temperature of up to  $+5$  °C.
- Relative humidity must not exceed 70 %.
- System-compatible original construction parts must be used.
- All layout plans including the required fittings must be available prior to commencing work.
- All wall connections are to be executed in a flexible joint design.
- Existing building expansion joints are to be incorporated into the OWAplan ceiling.
- All fittings that may be required must be provided prior to installing the OWAplan boards. This requires coordination with drywall workers, electricians and other participating tradespersons.
- Taping and jointing and plaster coating must be completed by a certified contractor only. The certificate needs to be verified during the tender phase (refer to section 2).
- Higher quality standards regarding surface properties, e.g. using a suspended ceiling in poor daylight or artificial light conditions, must be agreed in advance.
- Artificial lighting directed at the ceiling surface from below or from the side (e.g. spotlights, indirect lighting) is to be avoided. If this is not possible, the ceiling is to be sanded, filled and coated under the lighting conditions prevailing in subsequent use. Such extra quality standards for the surface are to be agreed in advance.

#### 3.2 Requirements during installation of the OWAplan ceiling:

- The installed ceiling system (substructure and OWAplan<sup>70/90</sup> tiles) must be approved by the coating company prior to applying the plaster. Any re-working requested by the coating company must be carried out.
- Observe all specified drying times for the plaster system.
- Additionally suspend all fixtures from the raw ceiling.
- Daily record of room and outdoor temperature, as well as relative humidity during installation.
- If installation work is hindered by external influences for which the contractor is not responsible, or if installation conditions, drying times etc. specified in these installation instructions are deviated from, concerns must be made in writing to the client. (German Construction Contract Procedures (VOB) /B §6)

#### 3.3 Final inspection of the OWAplan ceiling

Final inspection for evenness and surface quality may only be carried out under diffuse light conditions and not under artificial light conditions, e.g. from construction site lighting. It is not always possible to make joints invisible. Minor deviations (within the tolerance limits) may become visible in light coming from the side.

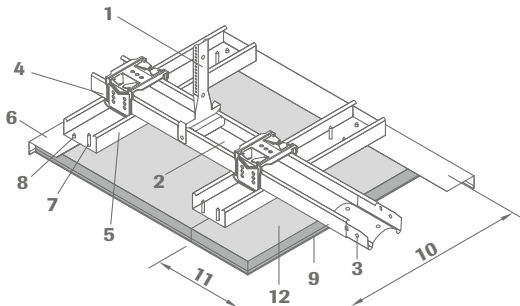
Unusual lighting conditions within the building must be discussed beforehand with an OWAplan specialist.

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## 4. Grid, OWAplan<sup>70</sup>/OWAplan<sup>90</sup> boards and plaster systems

### 4.1 Grid

Only the OWAconstruct profile parts listed below are to be used. The specified grid spacings are to be observed. Any deviations can adversely affect and alter the end look of the OWAplan ceiling.



- 1 Nonius hanger lower part no. 2001, spacing ≤ 1000 mm
- 2 Supporting grid CD profile 60/27 no. 2003, spacing ≤ 1000 mm
- 3 Profile connector no. 2005
- 4 Cross connector no. 2004
- 5 Tile grid CD profile 60/27 no. 2003, spacing ≤ 400 mm
- 6 Wall angle no. 51/22 resp. no. 51/27
- 7 Tile screw no. 2019, spacing ≤ 300 mm resp. 400 mm
- 8 Self-tapping screw no. 2024
- 9 Plaster coating
- 10 Board width
- 11 Board length
- 12 OWAplan ceiling board

### 4.2 OWAplan<sup>70</sup>/OWAplan<sup>90</sup> boards

The OWAplan<sup>70/90</sup> mineral boards are laminated with glass fibre fleece on the visible side by the manufacturer. Before installation, the fleece must be removed from around the perimeter of the board. The fleece-free edge, approx. 30 mm, must be created on site using a single-handed plane. This will later determine the width that is filled with OWAplan Filler. The boards are fixed to the CD profile construction with special screws and butt-jointed tightly. Apply OWAplan Tape over the joint within the fleece-free edge before filling. Filling the board joint gaps creates a flat, homogeneous, airtight ceiling surface (for further information see section 5.6, page 15).

Board edges:	K3 <span style="border: 1px solid red; padding: 2px;">3</span>
Building material class:	A2-s1,d0 in accordance with EN 13501-1
Board sizes:	OWAplan <sup>70</sup> : 2400 x 1200 x 20 mm, 2.88 m <sup>2</sup> OWAplan <sup>90</sup> : 2400 x 1200 x 25 mm, 2.88 m <sup>2</sup>
Visible board side:	fleece-laminated, white
Weight::	OWAplan <sup>70</sup> : 5.0 kg/m <sup>2</sup> OWAplan <sup>90</sup> : 4.5 kg/m <sup>2</sup>

### 4.3 Plaster systems

#### 4.3.1 OWAplan S plaster system, white

OWAplan Tape, textile tape

OWAplan Filler

OWAplan S, acoustic plaster, white, paste, fine structure, 0.5 mm grain thickness, applied with a screw pump

#### 4.3.2 OWAplan XS plaster system, white

OWAplan Tape, textile tape

OWAplan Filler

OWAplan XS, acoustic plaster, white, powder, very fine structure, 0.2 mm grain thickness, applied with an airless pump



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### 4.3.3 OWAplan color plaster system

OWAplan Tape, textile tape

OWAplan Filler, joint filler

OWAplan color, coloured acoustic plaster, RAL/NCS-1950 colour shades, paste, very fine structure, 0.2 mm grain thickness, applied with a screw or airless pump

### 4.4 System-compatible components and accessories

- Comfort access flap no. 8031/9, 340 x 340 mm (external dimension) for 20 mm OWAplan<sup>70</sup> boards, excl. OWAplan board
  - Comfort access flap no. 8031/10, 540 x 540 mm (external dimension) for 20 mm OWAplan<sup>70</sup> boards, excl. OWAplan board
  - Comfort access flap no. 8031/11, 340 x 340 mm (external dimension) for 25 mm OWAplan<sup>90</sup> boards, excl. OWAplan board
  - Comfort access flap no. 8031/12, 540 x 540 mm (external dimension) for 25 mm OWAplan<sup>90</sup> boards, excl. OWAplan board
  - Nonius hanger no. 17/81 + extension no. 16/... for comfort access flap, 2 pcs /4 pcs per access flap.
  - Mounting frame no. 8069/6 (two-part), for the installation of downlights. The frame is placed on the CD profile of the tile grid and can be moved or positioned during installation (refer to section 5.4).
  - The OWAplan<sup>70/90</sup> mineral board must be cut to the size of the inspection hatch on site. Using the one-handed plane, a circumferential fleece-free edge of approx. 30 mm is to be made before the tile is glued with adhesive no. 99/24 into the lid of the inspection flap.
  - A fleece-free edge of approx. 30 mm must also be created on the ceiling cut-out adjoining the inspection flap using the one-handed plane on site.
  - Before filling, a fabric tape (OWAplan Tape) is to be applied to the fleece-free edge on site (both for the ceiling cut-out adjoining the inspection hatch and for the ceiling tile located in the lid of the inspection hatch).
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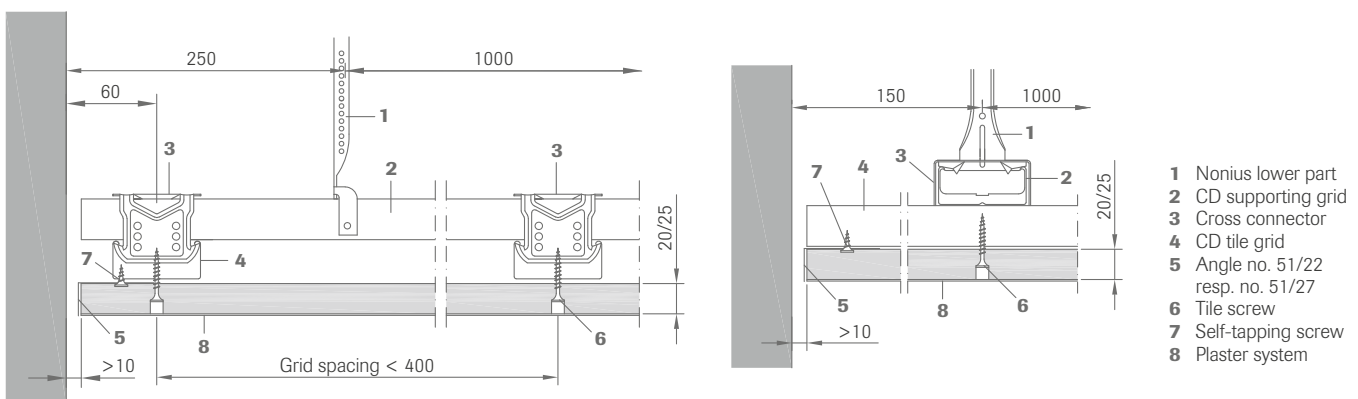
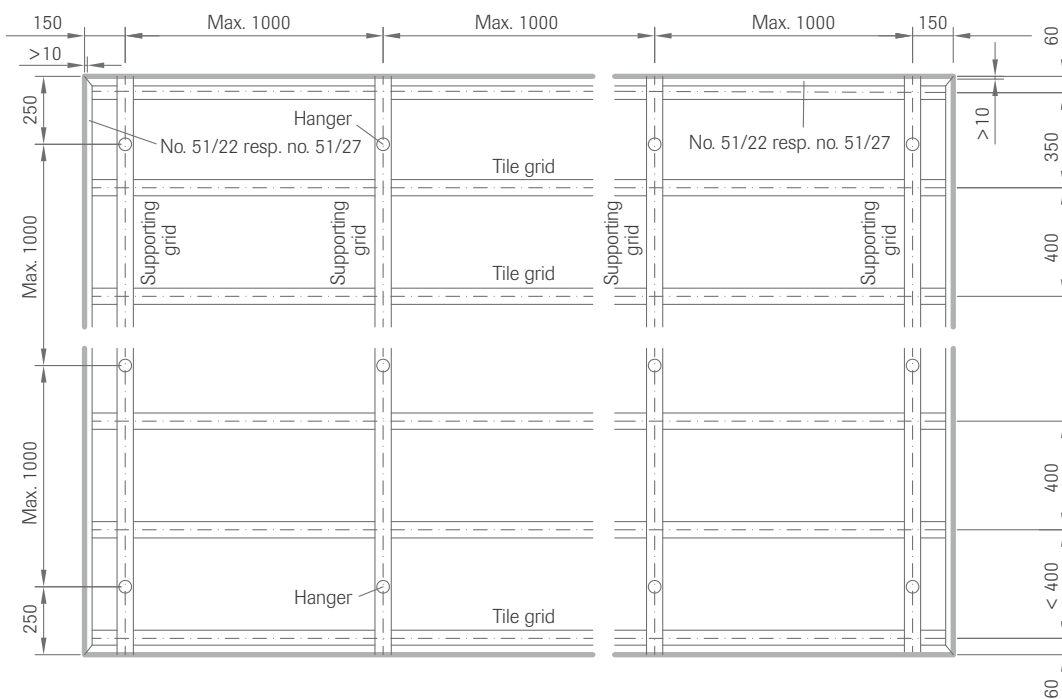
## 5. Installation of the grid without fire resistance

During installation, ensure that the support grid is mounted parallel to the incidence of daylight. Installation with CD profiles (no. 2003) and Nonius hangers (no. 2001, no. 16/..., no. 76) with a max. grid spacing of 1000 mm for the CD profiles. The first and last CD profiles are to be installed with a max. grid spacing of 150 mm from the wall. The entire construction must be made level. The max. grid spacing of Nonius hangers from the wall is 250 mm. The max. grid spacing of the Nonius hangers to each other is 1000 mm. The CD profiles are connected using profile connectors (no. 2005).

(To meet fire protection requirements, the max. grid spacing between CD profiles and hangers, as well as the minimum suspension depths must comply with the valid test certificate – refer to section 6 of these installation guidelines.)

For fire resistance see page 20

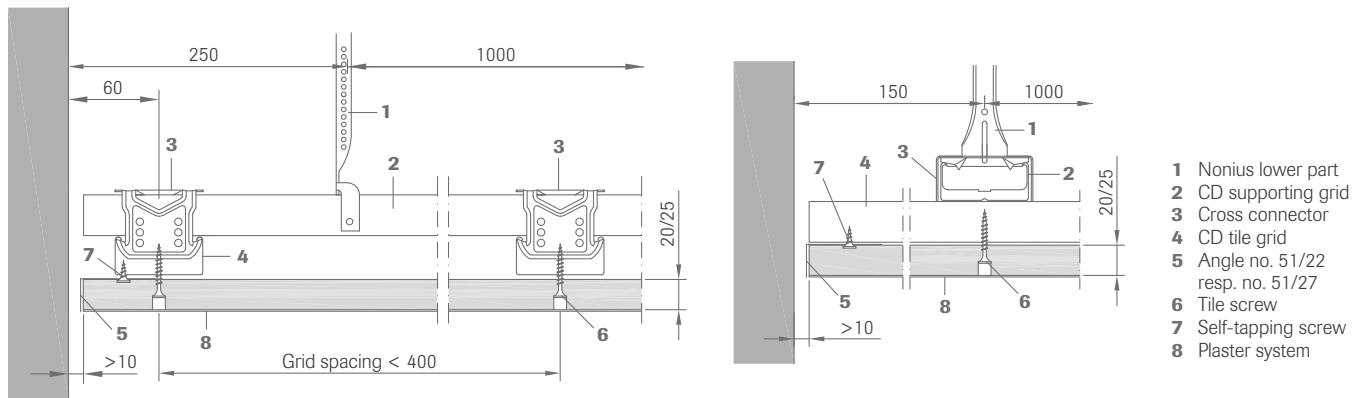
### 5.1 Plan view of substructure



Installation with CD profiles (no. 2003) at max. grid spacing of 400 mm. The first and last CD profiles are to be installed with a max. grid spacing of 60 mm from the wall. Attachment to supporting grid using cross connector (no. 2004). The cross connector is first hooked under one side of the CD profile so that both lugs engage in the curved edge of the CD profile. The connector is only then clicked into the opposite bent edge of the CD profile. The CD profiles are connected using profile connectors (no. 2005).

## 5.2 Installation of angle profile (no. 51/22 resp. no. 51/27)

Angle profile no. 51/22 for 20 mm OWAplan<sup>70</sup> boards and angle profile no. 51/27 for 25 mm OWAplan<sup>90</sup> boards can be screwed to the grid CD profiles to create a shadow gap wall junction. The angle profile no. 51/22 is fixed with self-tapping screws no. 2024 at a centre distance of max. 400 mm to the CD profiles. Angle profile spacing  $\geq 10$  mm from the wall.



For fire protection, shadow gaps are not permitted. See section 3.1 of this installation guide.

## 5.3 Comfort access flaps no. 8031/9, no. 8031/10, no. 8031/11 and no. 8031/12

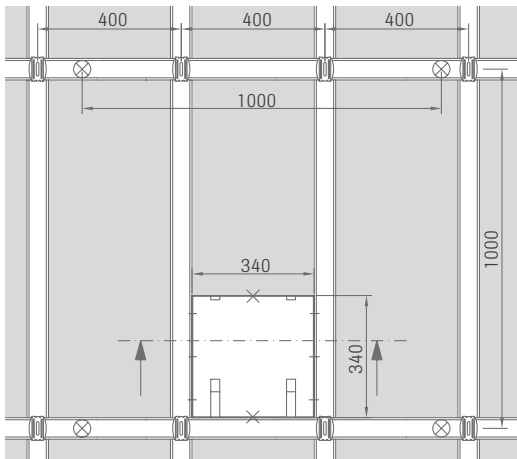
When installing a seamless OWAplan ceiling, access flaps are usually required.

**No. 8031/9 (340 x 340 mm) for 20 mm OWAplan<sup>70</sup> boards, excl. OWAplan board**  
**No. 8031/10 (540 x 540 mm) for 20 mm OWAplan<sup>70</sup> boards, excl. OWAplan board**  
**No. 8031/11 (340 x 340 mm) for 25 mm OWAplan<sup>90</sup> boards, excl. OWAplan board**  
**No. 8031/12 (540 x 540 mm) for 25 mm OWAplan<sup>90</sup> boards, excl. OWAplan board**  
 Hangers required, see section 4.4

### The following points need to be considered:

- The exact location of the access board needs to be aligned to the grid of the suspended ceiling.
- The Nonius hangers must be installed according to the size and weight of the planned access flaps (see ceiling plan).
- The size of the ceiling opening must match the exterior dimension of the access flap to be installed.
- The access flaps need to be installed prior to board installation.
- When using access flap no. 8031/10 resp. no. 8031/12, the CD profile around the hatch needs to be removed. Two CD profiles (length = 1000 mm) also need to be installed and suspended from the raw ceiling (see ceiling plan 540 x 540 mm).
- The OWAplan<sup>70/90</sup> mineral board must be cut to the size of the inspection hatch on site. Using the one-handed plane, create a circumferential fleece-free edge of approx. 30 mm around the tile before gluing with adhesive no. 99/24 into the lid of the inspection flap.
- Using the one-handed plane, create a fleece-free edge of approx. 30 mm around the perimeter of the cut-out before installing the inspection hatch.
- Before filling, OWAplan Tape must be applied within the fleece-free edge (both for the ceiling cut-out adjoining the inspection hatch and for the ceiling tile located in the lid of the inspection hatch).

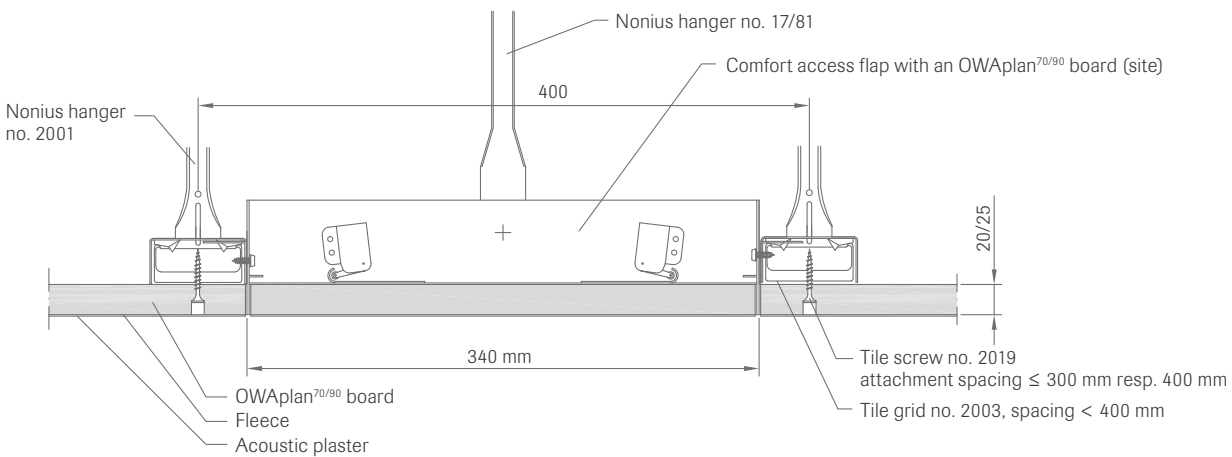
### Ceiling plan, access flap 340 x 340 mm:



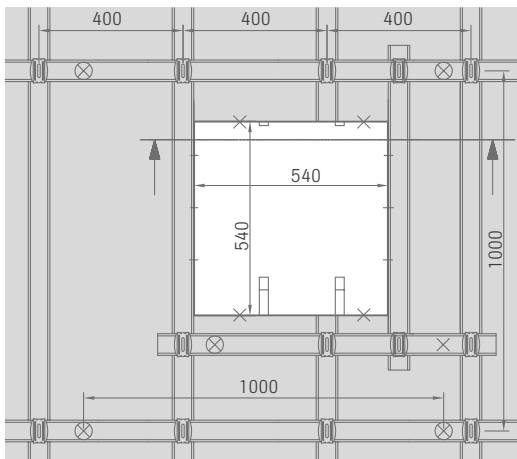
× = 2 additional hangers no. 17/81  
+ extension no. 16/...  
+ safety pin no. 76 (x 2)

⊗ = Nonius hanger no. 2001

### Cross-section of access flap no. 8031/9 resp. no. 8031/11:



### Ceiling plan, access flap 540 x 540 mm:

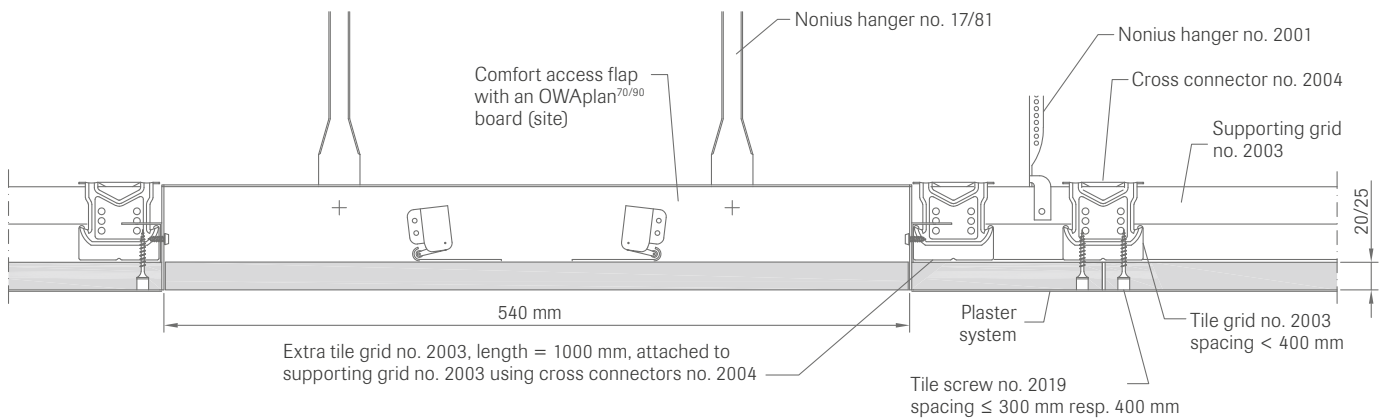


Additional supporting grid no. 2003, length = 1000 mm,  
attached to tile grid no. 2003 using cross connectors no. 2004

× = 4 additional hangers no. 17/81  
+ extension no. 16/...  
+ safety pin no. 76 (x 2)

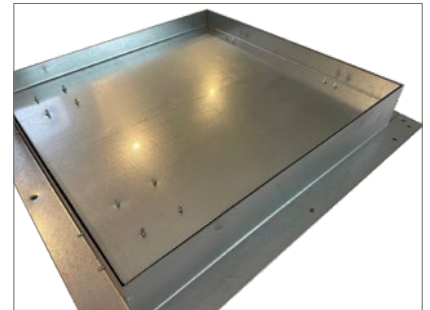
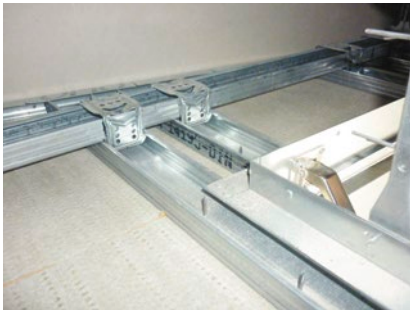
⊗ = Nonius hanger no. 2001

When installing access panel no. 8031/10 or 8031/12 (540 x 540 mm), a change must be made. Cut the primary CD profile and install additional profiles and Nonius hangers no. 2001 according to the drawing.

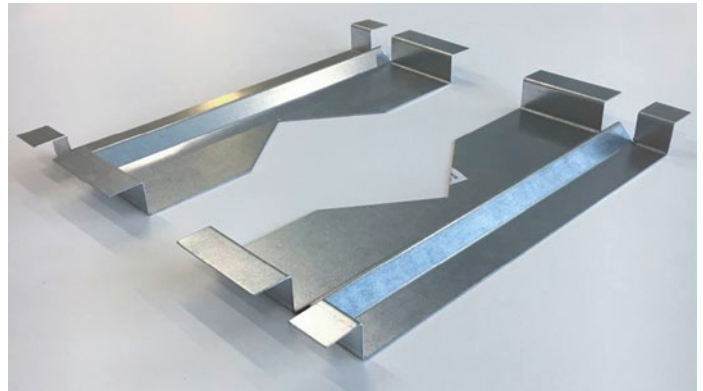
**Cross-section of access flap no. 8031/10 resp. no. 8031/12:**


The access flap is inserted sideways into the opening and then aligned and fixed in place onto the CD profiles using six screws. Fine adjustment can be made at the hinge fasteners and the locking mechanism by unscrewing the Phillips screws and vertically sliding along the slot hole. The inspection flap must be assembled by the customer and incorporate the OWAplan board sprayed with the plaster system coating according to manufacturer's instructions. After coating, the flap needs to be opened, cleaned, and made accessible.

The flap is **opened** by pressing upwards on the side of the access part and immediately lowering it. The flap is **closed** by lightly pressing it. An audible click triggers the closing mechanism. We strongly recommend opening and closing the hatch only with clean installation gloves.



## 5.4 Mounting frame for fittings up to 2.5 kg



When installing downlights, mounting frame no. 8069/6 (two-part) is to be used. One mounting frame is required for each downlight. The frames must be placed with their edges on the CD profiles. Spacing between the frames depends on the diameter of the chosen downlight.

Ensure that the clamping device of the downlight later rests on the frame and that the mounting frame does not project beyond the edge of the hole. The opening for the downlight can be created with radius cutter no. 99/16. The size is to be adapted to the diameter of the downlight. Install before mounting the board!

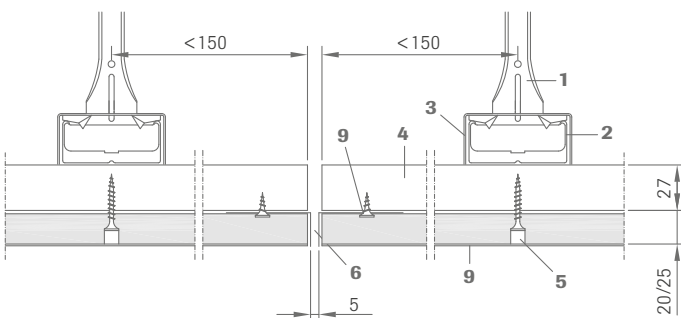
It is possible to use the mounting frame for rectangular or square installations. In this case please turn the Turn the frame by 180° and install it so that the clamping device rests on the mounting frame.

Downlights each weighing 250 g - 2.5 kg require installation with a frame. Downlights weighing more than 2.5 kg each require additional suspension from the soffit.

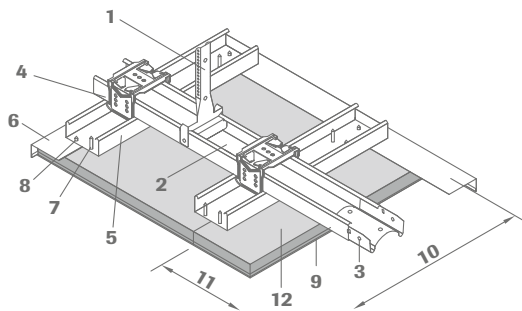
Electrical wiring is to be carried out before sealing the ceiling. Cables are to be kept to the length required. Light functioning is to be checked prior to installation because later modifications will not be possible.

If there are fire protection requirements, all components must be equipped with fire boxes - please refer to section 6 of these installation guidelines.

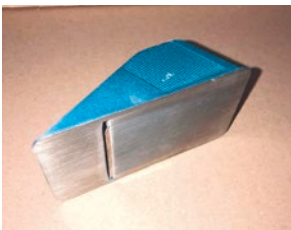
## 5.5 Expansion gaps



## 5.6 Installation of the OWAplan<sup>70/90</sup> boards



- 1 Nonius hanger lower part no. 2001, spacing  $\leq 1000$  mm
- 2 Supporting grid CD profile 60/27 no. 2003, spacing  $\leq 1000$  mm
- 3 Profile connector no. 2005
- 4 Cross connector no. 2004
- 5 Tile grid CD profile 60/27 no. 2003, spacing  $\leq 400$  mm
- 6 Wall angle no. 51/22 resp. no. 51/27
- 7 Tile screw no. 2019, spacing  $\leq 300$  mm resp. 400 mm
- 8 Self-tapping screw no. 2024
- 9 Plaster coating
- 10 Board width
- 11 Board length
- 12 OWAplan ceiling board

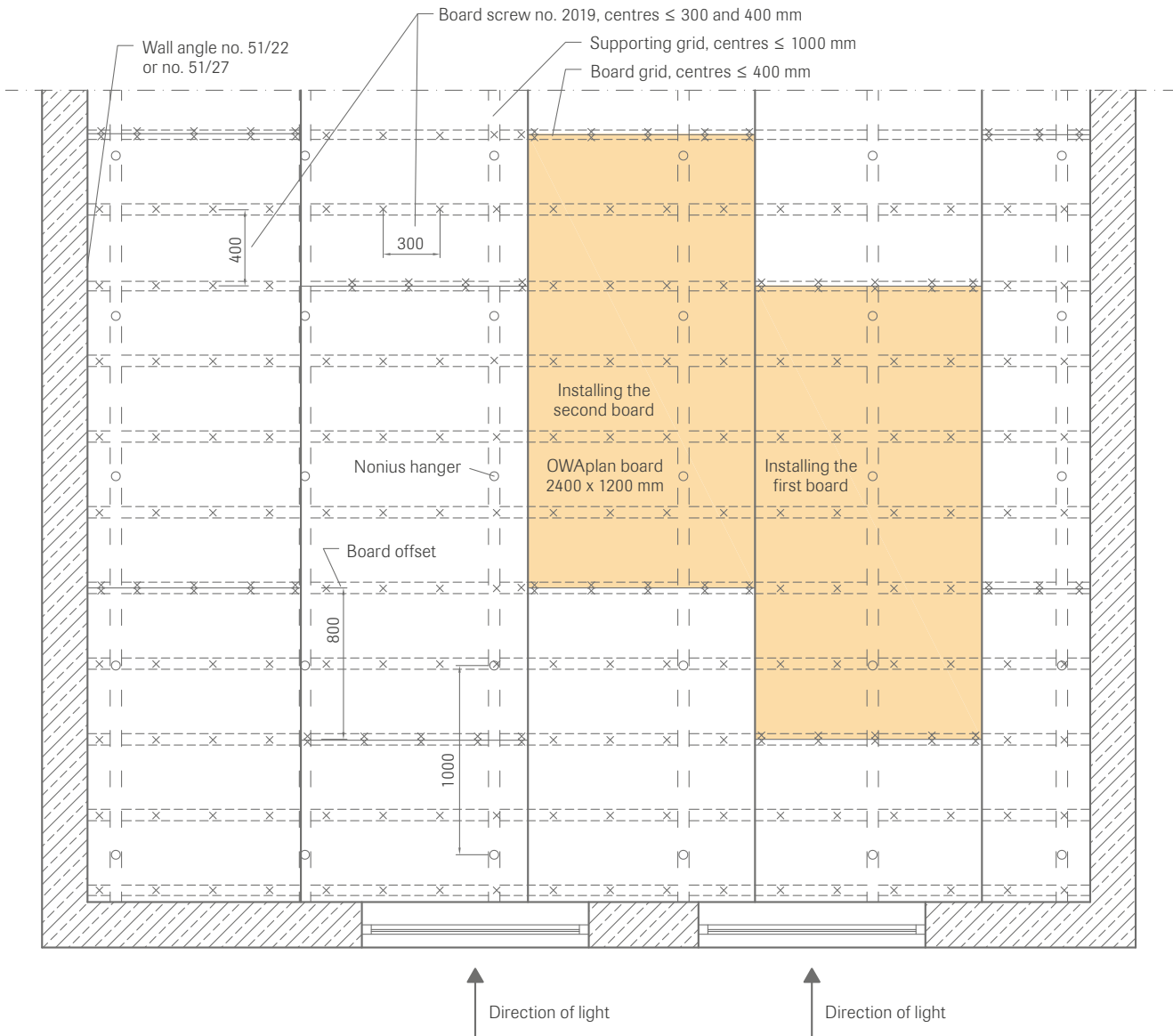


Before installing the OWAplan<sup>70/90</sup> boards, a circumferential fleece-free edge of approx. 30 mm width and maximum 1-2 mm depth must be created on site for each board with the aid of a one-hand plane. The boards must be installed using a board lift. Important: Pressure points caused by the board lift must be avoided. Position the boards directly onto the profiles and screw them tightly to create a firm connection with the substructure. The screws (no. 2019) must be countersunk at least 5-8 mm deep into the panel at a maximum center distance of 300 mm. When screwing to the CD profiles, always work from the center of the panel outwards.

The boards should be staggered with an offset of at least 800 mm. The longitudinal edges of the boards should always be installed in the direction of daylight incidence (main direction).

Required auxiliary lines with pencil or similar on the fleece is not allowed. These can no longer be removed after completion and will later show on the plaster surface. The use of a laser is recommended.

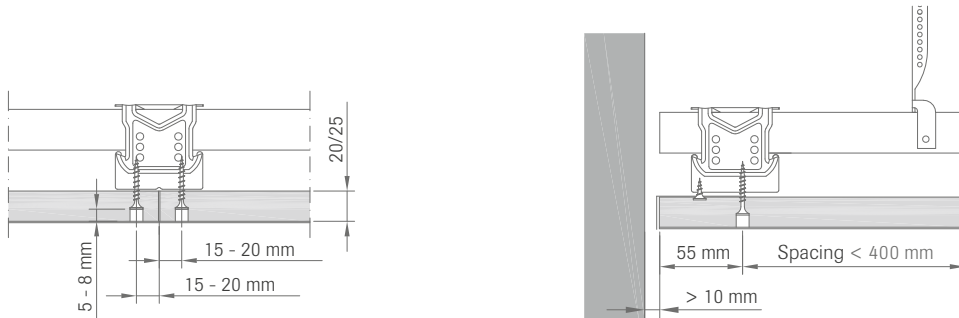
During installation, the unit tables 1-3 according to DIN 18202 Tolerances in Structural Engineering must be observed.





### 5.7 Fixing points of the plate

Insert board screws, no. 2019, at 300 mm centers. The screw head should penetrate approx. 5-8 mm into the board. At board butt joints, the screw should be approx. 15-20 mm from the joint. At the wall perimeter, the screw should be 55 mm from the edge profile.



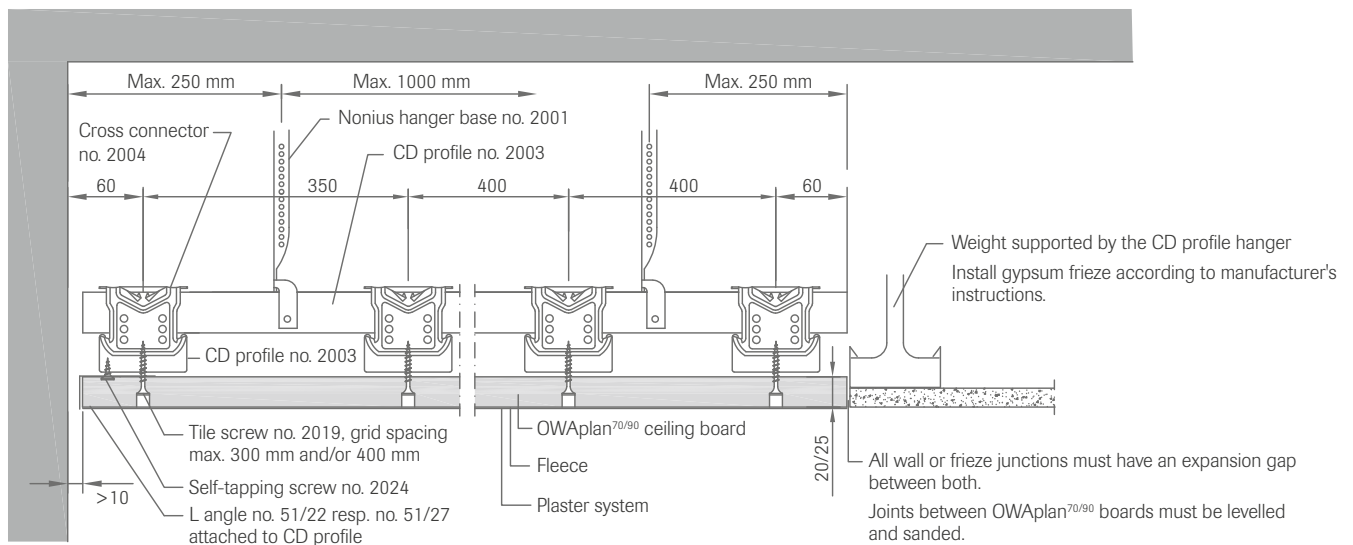
**Tip**



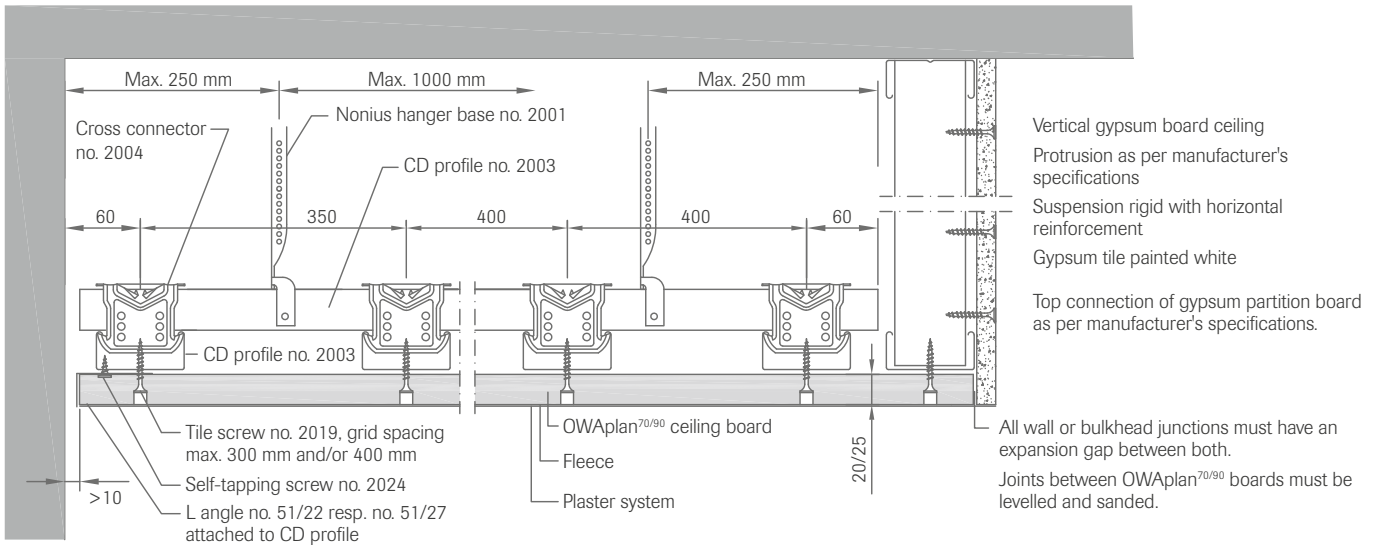
Using a helmet to support boards during installation may produce indentations which will be visible later. This is therefore to be avoided. The boards need to be treated with great care.

### 5.8 Connection to wall, gypsum frieze, bulkhead and folded gypsum

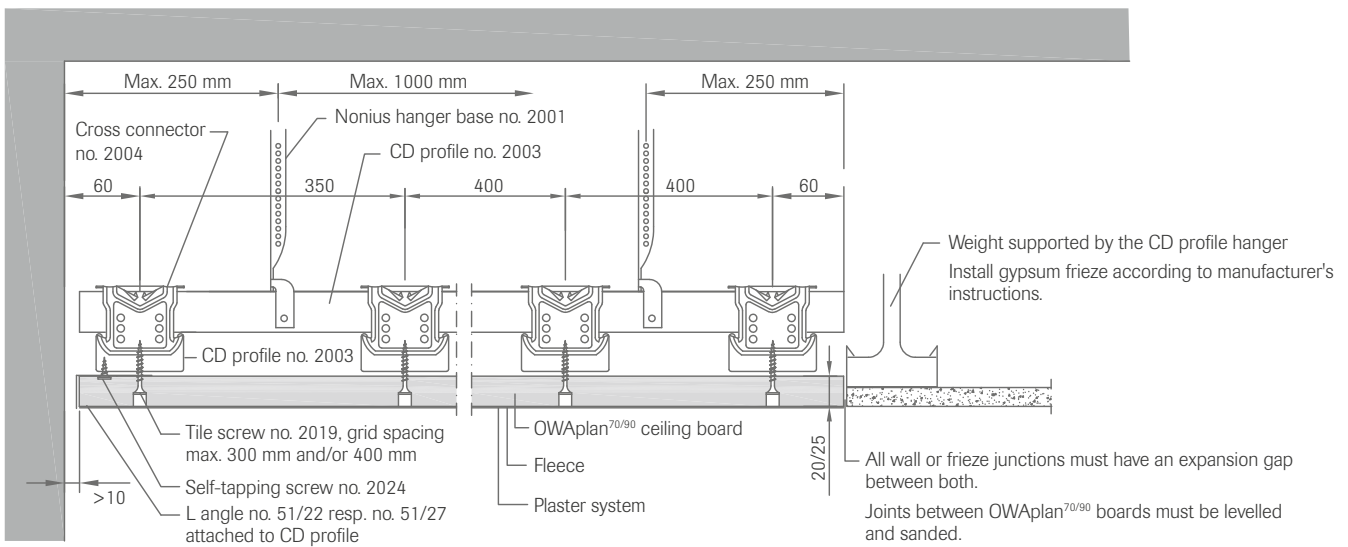
**Connecting S 7 OWAplan to gypsum frieze:**



**Connecting S 7 OWAplan to gypsum bulkhead:**

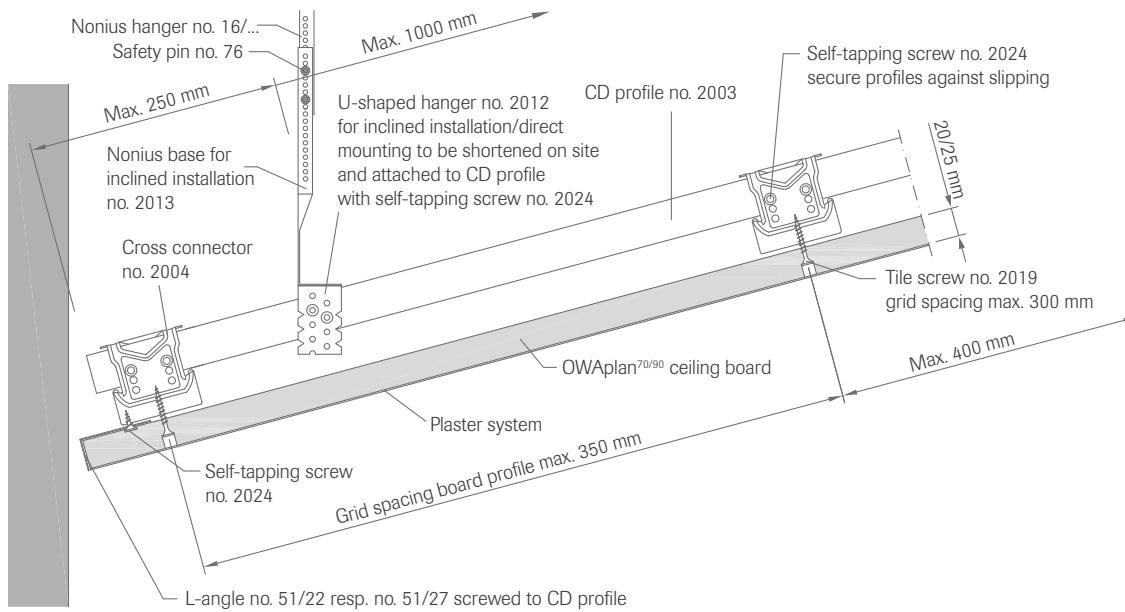


**Connecting S 7 OWAplan to folded gypsum:**



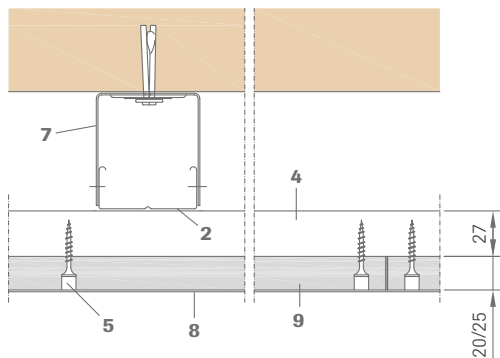
## 5.9 Bevelled installation

### Bevelled installation longitudinal section:



## 5.10 Direct fixing

Minimum suspension depth approx. 80 - 90 mm from the raw ceiling



- 1 Nonius hanger lower part no. 2001, spacing  $\leq$  1000 mm
- 2 Supporting grid CD profile 60/27 no. 2003, spacing  $\leq$  1000 mm
- 3 Cross connector no. 2004
- 4 Tile grid CD profile 60/27 no. 2003, spacing  $\leq$  400 mm
- 5 Tile screw no. 2019, spacing  $\leq$  300 mm resp. 400 mm
- 6 Wall angle no. 51/22 resp. no. 51/27
- 7 U-shaped hanger no. 2012 for inclined installation/direct mounting, to be shortened on site, spacing  $\leq$  1000 mm
- 8 Plaster coating
- 9 OWAplan ceiling board

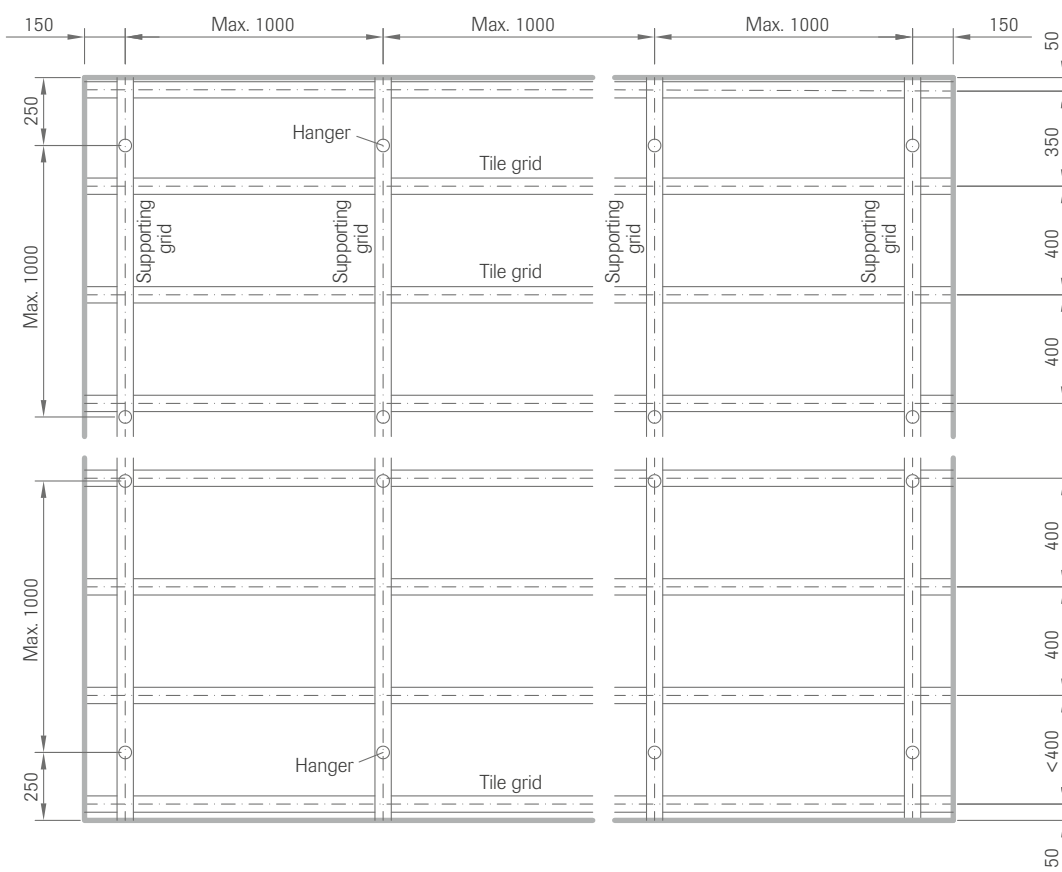
## 6. Fire resistant

### Installing fire resistant ceiling REI 60 under steel beam floors acc. to EN 13501-2

Only OWAconstruct profile parts listed below are to be used. Specifications and grid spacings in the test certificate are to be observed.

#### 6.1 Grid and grid spacing for fire resistant installation

- minimum suspension depth  $\geq 250$  mm
- Nonius hanger no. 2001 – max. grid spacing = 1000 mm, maximum grid spacing from the outer boundary = 250 mm
- CD profile no. 2003 (supporting grid), 60 x 27 x 0.6 mm – max. grid spacing = 1000 mm, maximum grid spacing from the outer boundary = 150 mm
- CD profile no. 2003 (tile grid), 60 x 27 x 0.6 mm – max. grid spacing = 400 mm, maximum grid spacing from the outer boundary = 50 mm
- cross connector no. 2004
- profile connector no. 2005
- tile screws no. 2019 – max. grid spacing = 150 mm and/or 400 mm
- For a butt joint junction at a wall, **without** angle profile no. 51/22 resp. no. 51/27, the maximum permissible expansion gap is  $\leq 3$ mm.



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## 6.2 Installation instructions for fire resistant version

The installation of the fire resistant version of the ceiling must be carried out according to the test certificate.

### 6.2.1 Suspension depth

Minimum suspension depth  $\geq 250$  mm

### 6.2.2 Tile screw spacing

For the fire safety, the spacing between the tile screws no. 2019 is reduced to max. 150 mm or 400 mm.

### 6.2.3 Wall connection

To meet fire protection requirements, open shadow gaps are not permitted. The boards must be butt-jointed to the outer boundary **without** angle profile.

### 6.2.4 Components

All components – e.g. integrated light fixtures, downlights, inspection hatches, etc. – must be equipped on the rear with OWA fire boxes. Installation in accordance with test certificate.

OWA fire boxes are made from 15 mm MINOWA® fire protection boards, kit no. 00082673, and must be assembled on site ([see leaflet 9501 e](#)).

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## 7. Material requirements and system components for your planning

### Weights per m<sup>2</sup> (recommended values):

tile dimensions in mm, grid weight approx. 2.5 kg/m<sup>2</sup>, approx. 5 kg/m<sup>2</sup> for OWAplan<sup>70</sup> boards and approx. 4.5 kg/m<sup>2</sup> for OWAplan<sup>90</sup> boards

### 7.1 Material requirements per m<sup>2</sup>

No.	Description	2400 x 1200 x 20 mm
		2400 x 1200 x 25 mm
2001	Nonius hanger lower part	1 pce
16/...	Nonius hanger upper part	1 pce
76	Safety pin	2 pcs
2012	U-shaped hanger for inclined installation/direct mounting	1 pce
2013	Nonius base for inclined installation	1 pce
2003	CD profile	3.5 m
2004	Cross connector	2.5 pcs
2005	Profile connector	0.9 pcs
2019*1	Tile screw	15 pcs   26 pieces for the fire safety version
2024	Self-tapping screw	2.5 pcs/m, not applicable for fire protection
51/22	Angle profile for 20 mm OWAplan <sup>70</sup> boards	Dependent on project, not applicable for fire protection
51/27	Angle profile for 25 mm OWAplan <sup>90</sup> boards	Dependent on project, not applicable for fire protection
51/22-0	Curved angle profile in m for 20 mm OWAplan <sup>70</sup> boards	Dependent on project, not applicable for fire protection
51/22-0	Angle profile column semi-circles up to Ø = 1500 mm, as a piece, for 20 mm OWAplan <sup>70</sup> boards	Dependent on project, not applicable for fire protection
51/27-0	Curved angle profile in m for 25 mm OWAplan <sup>90</sup> boards	Dependent on project, not applicable for fire protection
51/27-0	Angle profile column semi-circles up to Ø = 1500 mm, as a piece, for 25 mm OWAplan <sup>90</sup> boards	Dependent on project, not applicable for fire protection
8069/6	Mounting frame	Dependent on project
8031/9*2	Access flap 340 x 340 mm + no. 17/81 for 20 mm OWAplan <sup>70</sup> boards	Dependent on project
8031/10*2	Access flap 540 x 540 mm + no. 17/81 for 20 mm OWAplan <sup>70</sup> boards	Dependent on project
8031/11*2	Access flap 340 x 340 mm + no. 17/81 for 25 mm OWAplan <sup>90</sup> boards	Dependent on project
8031/12*2	Access flap 540 x 540 mm + no. 17/81 for 25 mm OWAplan <sup>90</sup> boards	Dependent on project
99/24	Glue for inspection hatch	Dependent on project

\*1 The number of tile screws is an average value. The number of screws varies depending on the section of the ceiling concerned. For example, more screws are required for areas with board joints compared to areas without joints.

\*2 All inspection hatches excluding OWAplan board. The OWAplan<sup>70/90</sup> mineral board must be trimmed to the size of the inspection flap on site and glued in with adhesive no. 99/24.

## 7.2 Material specifications

	OWAplan <sup>70</sup>	OWAplan <sup>70</sup>	OWAplan <sup>90</sup>	OWAplan <sup>90</sup>	OWAplan 2016 Tape. textile tape
Part No.	00085565	00085566	00085562	00085563	00084276
Width	1200 mm	1200 mm	1200 mm	1200 mm	48 mm wide
Length	2400 mm	2400 mm	2400 mm	2400 mm	90 m
Thickness	20 mm	20 mm	25 mm	25 mm	
Edge SK/LK	3	3	3	3	
Weight per board	16.13 kg	16.13 kg	12.67 kg	12.67 kg	
Weight per m <sup>2</sup>	5.6 kg	5.6 kg	4.4 kg	4.4 kg	
Weight per sales unit	80.64 kg	564.48 kg	50.69 kg	405.44 kg	
m <sup>2</sup> per board	2.88 m <sup>2</sup>	2.88 m <sup>2</sup>	2.88 m <sup>2</sup>	2.88 m <sup>2</sup>	
Quantity per sales unit	5	35	4	32	
Boards per pallet		35		32	
Material type	Mineral fibre	Mineral fibre	Mineral fibre	Mineral fibre	Fabric tape
NRC value	0.70	0.70	0.90	0.90	
$\alpha_w$ value	0.65	0.65	0.90	0.90	
Building material class	A2-s1.d0 to BS EN 13501-1	A2-s1.d0 to BS EN 13501-1	A2-s1.d0 to BS EN 13501-1	A2-s1.d0 to BS EN 13501-1	
Board surface	fleece laminated. white	fleece laminated. white	fleece laminated. white	fleece laminated. white	
Storage	dry	dry	dry	dry	
Delivery category	X on request	X on request	X on request	X on request	
Site condition	> +7° C	> +7° C	> +7° C	> +7° C	
Relative humidity	max. 70 %	max. 70 %	max. 70 %	max. 70 %	
Minimum slope height to the soffit	80-90 mm	80-90 mm	80-90 mm	80-90 mm	
Minimum slope height to the soffit for fire resistance	≥ 250 mm	≥ 250 mm	≥ 250 mm	≥ 250 mm	
Butt joint stagger	min. 800 mm	min. 800 mm	min. 800 mm	min. 800 mm	
Fleece free edge	30 mm	30 mm	30 mm	30 mm	
Countersunk screws	approx 5-8 mm	approx 5-8 mm	approx 5-8 mm	approx 5-8 mm	
Screw spacing L	≤ 400 mm	≤ 400 mm	≤ 400 mm	≤ 400 mm	
Screw spacing B	≤ 300 mm	≤ 300 mm	≤ 300 mm	≤ 300 mm	
Screws per board	35 no.	35 no.	35 no.	35 no.	
Screws per m <sup>2</sup>	13 no.	13 no.	13 no.	13 no.	
Screws per m <sup>2</sup> (for fire resistance)	26 no.	26 no.	26 no.	26 no.	
Primary CD profile centres	≤ 1000 mm	≤ 1000 mm	≤ 1000 mm	≤ 1000 mm	
Board CD profile centres	≤ 400 mm	≤ 400 mm	≤ 400 mm	≤ 400 mm	
Hanger centres	≤ 1000 mm	≤ 1000 mm	≤ 1000 mm	≤ 1000 mm	
Material weight for UK/m <sup>2</sup> (2.5 kg)	5.0 kg	5.0 kg	4.5 kg	4.5 kg	

## 7.3 Material needed per plaster system

### OWAplan S plaster system, white

Coating with screw pump for a fine texture

No.	Description	Container sizes	Range per VPE	Material required* <sup>3</sup> per m <sup>2</sup>
2015	OWAplan Filler* <sup>1</sup> , joint filler	7.5 kg bucket of powder corresponds to 12.5 kg mixed on site	Approx. 55 - 65 m <sup>2</sup> (mixed)	Approx. 0.20 kg
2016	OWAplan Tape, textile tape, wide 48 mm	90 m roll	Approx. 70 m <sup>2</sup>	Approx. 1.3 m
2017	OWAplan S, Acoustic Coating, white, similar to RAL 9003, paste	15 kg bucket	Approx. 7 - 10 m <sup>2</sup> * <sup>3</sup>	Approx. 2.0 kg * <sup>3</sup>

### OWAplan XS plaster system, white

Coating with Airless pump for a very fine texture

No.	Description	Container sizes	Range per VPE	Material required* <sup>3</sup> per m <sup>2</sup>
2015	OWAplan Filler* <sup>1</sup> , joint filler, powder	7.5 kg bucket of powder corresponds to 12.5 kg mixed on site	Approx. 55 - 65 m <sup>2</sup> (mixed)	Approx. 0.20 kg
2016	OWAplan Tape, textile tape, wide 48 mm	90 m roll	Approx. 70 m <sup>2</sup>	Approx. 1.3 m
2018	OWAplan XS* <sup>2</sup> , Finest Acoustic Coating, white, similar to RAL 9016, powder	7.5 kg bucket of powder corresponds to 12.2 kg mixed on site	Approx. 10 - 13 m <sup>2</sup> * <sup>3</sup> (mixed)	Approx. 1.1 kg * <sup>3</sup>

### OWAplan color plaster system

Coating with screw pump for a fine texture

No.	Description	Container sizes	Range per VPE	Material required* <sup>3</sup> per m <sup>2</sup>
2015	OWAplan Filler* <sup>1</sup> , joint filler, powder	7.5 kg bucket of powder corresponds to 12.5 kg mixed on site	Approx. 55 - 65 m <sup>2</sup> (mixed)	Approx. 0.20 kg
2016	OWAplan Tape, textile tape, wide 48 mm	90 m roll	Approx. 70 m <sup>2</sup>	Approx. 1.3 m
2025	OWAplan color, Colored Acoustic Coating, RAL/NCS colour on request, wet material	15 kg bucket	Approx. 7 m <sup>2</sup> * <sup>3</sup>	Approx. 2.1 kg * <sup>3</sup>

### OWAplan color plaster system

Coating with Airless pump for a very fine texture

No.	Description	Container sizes	Range per VPE	Material required* <sup>3</sup> per m <sup>2</sup>
2015	OWAplan Filler* <sup>1</sup> , joint filler, powder	7.5 kg bucket of powder corresponds to 12.5 kg mixed on site	Approx. 55 - 65 m <sup>2</sup> (mixed)	Approx. 0.20 kg
2016	OWAplan Tape, textile tape, wide 48 mm	90 m roll	Approx. 70 m <sup>2</sup>	Approx. 1.3 m
2025	OWAplan color, Colored Acoustic Coating, RAL/NCS colour on request, paste	15 kg bucket	Approx. 10 m <sup>2</sup> * <sup>3</sup>	Approx. 1.5 kg * <sup>3</sup>

\*<sup>1</sup> Mixing ratio for OWAplan Filler: 5 l water to 7.5 kg powder

\*<sup>2</sup> Mixing ratio for OWAplan XS: 4.7 l water to 7.5 kg powder

\*<sup>3</sup> Incl. Overspray



## 8. Application instructions

### 8.1 OWAplan S, white plaster system



OWAplan S, Acoustic Coating, white, for spraying with screw pump onto OWAplan ceiling board

Paste material, grain size 0.5 mm, shelf life: 18 months if kept cool and frost-free

#### 8.1.1 Site checks

Before applying, note the following:

- According to EN 13964, the site conditions must not be  $< +7\text{ °C}$  and  $> 70\%$  humidity.
- During the application and drying phase, the ambient or substrate temperature must not fall below  $+5\text{ °C}$  and or rise above  $+30\text{ °C}$ .
- Excessive filled surfaces can reduce the absorption properties of the ceiling boards.
- Any existing, coarse unevenness in the ceiling surface must be re-sanded with a long-neck sander, fine unevenness with a hand sander.

#### 8.1.2 Filling and sanding joints

Apply OWAplan Tape (number 2016) to the board butt joints. Then apply the first layer of OWAplan Filler (number 2015) to the 60 mm fleece free joints. The screw head holes must also be filled. Drying time approx. 4 hours depending on room climate. Subsequently, apply a second layer of filler so the surface is flat. Maximum filler width 90 mm.

When dry, sand the ceiling surface (min 18 hours drying time depending on the room climate). We recommend using a sanding giraffe with suction and 150 or 180 grit sandpaper.

#### 8.1.3 Applying OWAplan S plaster

Stir OWAplan S plaster (paste) with a mixing paddle. The plaster must be applied with a screw pump. Spray on the first coat of OWAplan S plaster and allow to dry for at least 12 hours. Spray the second coat and allow to dry (min. 4 hours - depending on room temperature and relative humidity). Then apply a third and final coat.

Recommended spraying distance to the ceiling approx. 70 cm. Smaller distances result in a cloudy and coarser spray pattern. Larger distances result in a finer spray pattern, but also entail a higher material loss.

#### 8.1.4 Application quantity

Approx.  $1.2\text{ kg/m}^2$  target application quantity (after three coats) must be adhered to in order to meet the acoustic values. (Material consumption approx.  $2.0\text{ kg/m}^2$  incl. overspray).

### 8.1.5 OWAplan S, white plaster applicator

The equipment required to apply our OWAplan S plaster is a **screw pump system**. The **delivery rate** must be between **4 and 8 litres per minute**. The STROBOT 305 RSD is recommended.

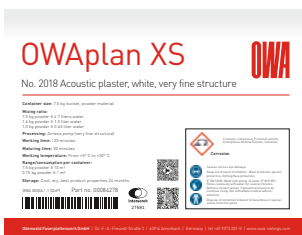
In addition, a **compressor** is required which has a **flow rate of at least 455 litres per minute** and achieves a pressure of **10 bar**. Since the pressure is not constant during the coating process, the flow rate is decisive. The STROCOMP 865 is recommended.

The **diameter of the spray gun nozzle** should be **4 - 5 mm**. The smaller the diameter, the finer the plaster finish, but there is greater risk of nozzle blockage with a smaller nozzle.



Plaster	Pressure (compressor)	Flow rate (compressor)	Flow rate (screw pump)	Nozzle (diameter)
OWAplan S	≈ 10 bar	min. 455 l/min	4 - 8 l/min	5 mm

### 8.2 OWAplan XS, white plaster system



OWAplan XS, Finest Acoustic Coating, for spraying onto OWAplan ceiling boards using the airless method

White, powder material, grain size approx. 0.2 mm, shelf life: 24 months if kept cool, dry and frost-free

#### 8.2.1 Description for coating

Before applying, note the following:

- According to EN 13964, the site conditions must not be < +7 °C and > 70 % humidity.
- During the application and drying phase, the ambient or substrate temperature must not fall below +5 °C and or rise above +30 °C.
- Excessive filled surfaces can reduce the absorption properties of the ceiling boards.
- Any existing, coarse unevenness in the ceiling surface must be re-sanded with a long-neck sander, fine unevenness with a hand sander.

## 8.2.2 Filling and sanding joints

Apply OWAplan Tape (number 2016) to the board butt joints. Then apply the first layer of OWAplan Filler (number 2015) to the 60 mm fleece free joints. The screw head holes must also be filled. Drying time approx. 4 hours depending on room climate. Subsequently, apply a second layer of filler so the surface is flat. Maximum filler width 90 mm.

When dry, sand the ceiling surface (min 18 hours drying time depending on the room climate). We recommend using a sanding giraffe with suction and 150 or 180 grit sandpaper.

## 8.2.3 Applying OWAplan XS plaster

Mix OWAplan XS plaster (powder) in a clean bucket with clean, cold water using a mixing paddle. Stir the plaster again after 5 minutes and allow to expand for a further 30 minutes.

The plaster must be applied with an airless pump.

Spray on the first coat of OWAplan XS plaster and allow to dry for at least 12 hours. Spray the second coat and allow to dry (min. 4 hours - depending on room temperature and relative humidity). Then apply a third and final coat.

Recommended spraying distance to the ceiling approx. 70 cm. Smaller distances result in a cloudy and coarser spray pattern. Larger distances result in a finer spray pattern, but also entail a higher material loss.

## 8.2.4 Application quantity

Approx. 1.0 kg/m<sup>2</sup> target application quantity (after three coats) must be adhered to in order to meet the acoustic values. (Material consumption approx. 1.1 kg/m<sup>2</sup> incl. overspray).

## 8.2.5 Plaster applicator for OWAplan XS, white

The equipment required to apply our OWAplan XS plaster is an **airless pump system**. It must be able to build up a pressure of **at least 200 bar**. For a homogeneous surface the pressure should be reduced accordingly in small rooms.

We recommend the **Graco Mark X** with the **Graco TexSpray Heavy Duty** spray gun and the **637 nozzle**. For a finer texture we recommend the **635 nozzle**.



Plaster	Pressure (Airless pump)	Nozzle	Recommended Airless pump	Recommended pistol
OWAplan XS	≈200 bar	635 / 637	Graco MARK X	Graco TexSpray HeavyDuty

## 8.3 OWAplan color plaster system



OWAplan color, Colored Acoustic Coating, for airless spraying or with screw pump depending on the desired texture on OWAplan ceiling board. The colors available are according to RAL or NCS1950 color chart.

### 8.3.1 OWAplan color plaster system materials

RAL/NCS 1950 colors on request, paste, grain size approx. 0.2 mm, shelf life: 18 months if kept cool, dry and frost-free.

### 8.3.2 Description of the coating

Before applying, please note that:

- According to EN 13964, the site conditions must not be  $< +7\text{ °C}$  and  $> 70\%$  humidity.
- During the application and drying phase, the ambient or substrate temperature must not fall below  $+5\text{ °C}$  and or rise above  $+30\text{ °C}$ .
- Large surface areas filled with filler will reduce the absorption properties of the ceiling board.
- Any existing, coarse unevenness in the ceiling surface must be re-sanded with a long-neck sander, fine unevenness with a hand sander.

### 8.3.3 Filling and sanding joints

Apply OWAplan Tape (number 2016) to the board butt joints. Then apply the first layer of OWAplan Filler (number 2015) to the 60 mm fleece free joints. The screw head holes must also be filled. Drying time approx. 4 hours depending on room climate. Subsequently, apply a second layer of filler so the surface is flat. Maximum filler width 90 mm.

When dry, sand the ceiling surface (min 18 hours drying time depending on the room climate). We recommend using a sanding giraffe with suction and 150 or 180 grit sandpaper.

### 8.3.4 Applying OWAplan color plaster

OWAplan color plaster can be applied with a screw pump or an airless pump.

#### 1. Applying with a screw pump:

Stir OWAplan color plaster (paste) with a mixing paddle. Spray on the first coat of OWAplan color plaster and allow to dry for at least 12 hours. Apply a second coat and allow to dry (at least 4 hours - depending on room temperature and relative humidity). Then apply a third coat. Recommended spraying distance to the ceiling approx. 70 cm. Smaller distances result in a cloudy and coarser spray pattern. Larger distances result in a finer spray pattern, but also entail a higher material loss.

Depending on the color shade, the number of coats may differ. Darker shades are sprayed in a total of 4 coats, whereas a total of 3 coats is sufficient for lighter shades.

## 2. Application using the airless pump:

Stir OWAplan color plaster (paste) with a mixing paddle. Spray on the first coat of OWAplan color plaster and allow to dry for at least 12 hours. Apply a second coat and allow to dry (at least 4 hours - depending on room temperature and relative humidity). Then apply a third coat. Recommended spraying distance to the ceiling approx. 70 cm. Smaller distances result in a cloudy and coarser spray pattern. Larger distances result in a finer spray pattern, but also entail a higher material loss.

Depending on the color shade, the number of coats may differ. Darker shades are sprayed in a total of 4 coats, whereas a total of 3 coats is sufficient for lighter shades.

### Airless pump:

An airless pump with a build up pressure of at least 200 bar is recommended. In small rooms, the pressure should be reduced accordingly in order to be able to spray a homogeneous surface. We recommend the Graco Mark X with the Graco TexSpray Heavy Duty spray gun and the 637 nozzle. For a finer structure we recommend the 635 nozzle.

## 8.3.5 Application quantity/weight OWAplan color on ceiling board

### When applying with a screw pump:

Approx. 1.2 kg/m<sup>2</sup> target application quantity (after three coats) must be adhered to in order to meet the acoustic values. (Material consumption approx. 2.0 kg/m<sup>2</sup> incl. overspray).

### When applying with an airless pump:

Approx. 1.0 kg/m<sup>2</sup> target application quantity (after three coats) must be adhered to in order to meet the acoustic values. (Material consumption approx. 1.1 kg/m<sup>2</sup> incl. overspray).

## 8.3.6 Plaster applicator for OWAplan color

Depending on the desired surface finish, different applicators can be used. For a fine texture use a screw pump. For an extra fine structure, we recommend using an airless pump with nozzle 641.



## 9. System components for your planning

Designation	Unit	Width	Length	Thickness	Item number	Internal number	Sales unit	Quantity per pallet	Quantity per m <sup>2</sup>
Plate screw		4.2 mm	35 mm	12 mm	77182	2019	500		
Filler	7.5 kg bucket				84275	2015	1		
Tape		48 mm	30 m		84276	2016	1		
S plaster	15 kg bucket				84277	2017	1	32	
XS plaster	7.5 kg bucket				84278	2018	1	32	
Color plaster	15 kg bucket					2025	1	32	
Sheet metal screw		4.2 mm	13 mm		85458	2024	100		
OWAPlan <sup>90</sup>		1200 mm	2400 mm	25 mm	85562		4		
OWAPlan <sup>90</sup>		1200 mm	2400 mm	25 mm	85563		1	32	
OWAPlan <sup>70</sup>		1200 mm	2400 mm	20 mm	85565		5		
OWAPlan <sup>70</sup>		1200 mm	2400 mm	20 mm	85566		1	35	
Inspection flap	540 mm	540 mm	540 mm		78284	8031/10	1		
Inspection flap		340 mm	340 mm		80907	8031/11	1		
Inspection flap		540 mm	540 mm		80908	8031/12	1		
Inspection flap		340 mm	340 mm		78283	8031/9	1		
Mounting frame 2-piece					55544	8069/6	1		
Adhesive paste	310 ml				56803	99/24	1		
Vernier extension	100 mm				1061	16/100	100		
CD profile galvanized			4000 mm		65615	2003			
Cross connector galvanized					65616	2004	100		
Longitudinal connector galvanized 100 mm					65617	2005	100		
Safety pin galvanized for vernier hanger						76	100		
Vernier hanger galvanized						2001	100		
Wall profile white			3000 mm			51/27	10		





Certified Management Systems

### Product warranties

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