



DESIGNPANEL (B1)

- Acoustical panels for screw-fixing
- Suitable as lining for walls and ceilings
- Installed on wood or steel (CD2 or P45-S25)
- 4 tapered edges; jointing required

CONDITIONS OF USE

- For internal fitout of buildings
- To be installed in a closed-off building

STORAGE

The products must be:

- stored indoors clean and dry
- positioned on a level base
- protected from direct moisture
- stored at humidities of less than 70% RH and temperatures of less than 50°C
- protected from impact and shock
- stacked max. 2 pallets on top of each other

Before installation, please ensure that fixtures to primary construction can withstand the load of the ceiling.
Best Practice: Use of clean cotton gloves when handling product tiles will ensure a good result and a ceiling without fingermarks.

RECOMMENDED ACCESSORIES FOR JOINTING AND FIXING

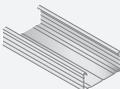
Below accessories are tested and approved for use in connection with Designpanel.

	PRODUCT NAME	SAP NO.	SIZE	Consumption per m ²
	 Screw SN3.5x30	3503	3.5 x 30 mm	20 pcs.
Accessories for jointing and fixing	 Joint Filler - Easy Filler Light	235309	15 l	0.5 l
	 Uniflott Finish	129801	8 kg	≤ 0.1 kg
	 Filling tape	314828		1.5 m
	 Mini Bazooka	181232		
	 Filling knife	73962		

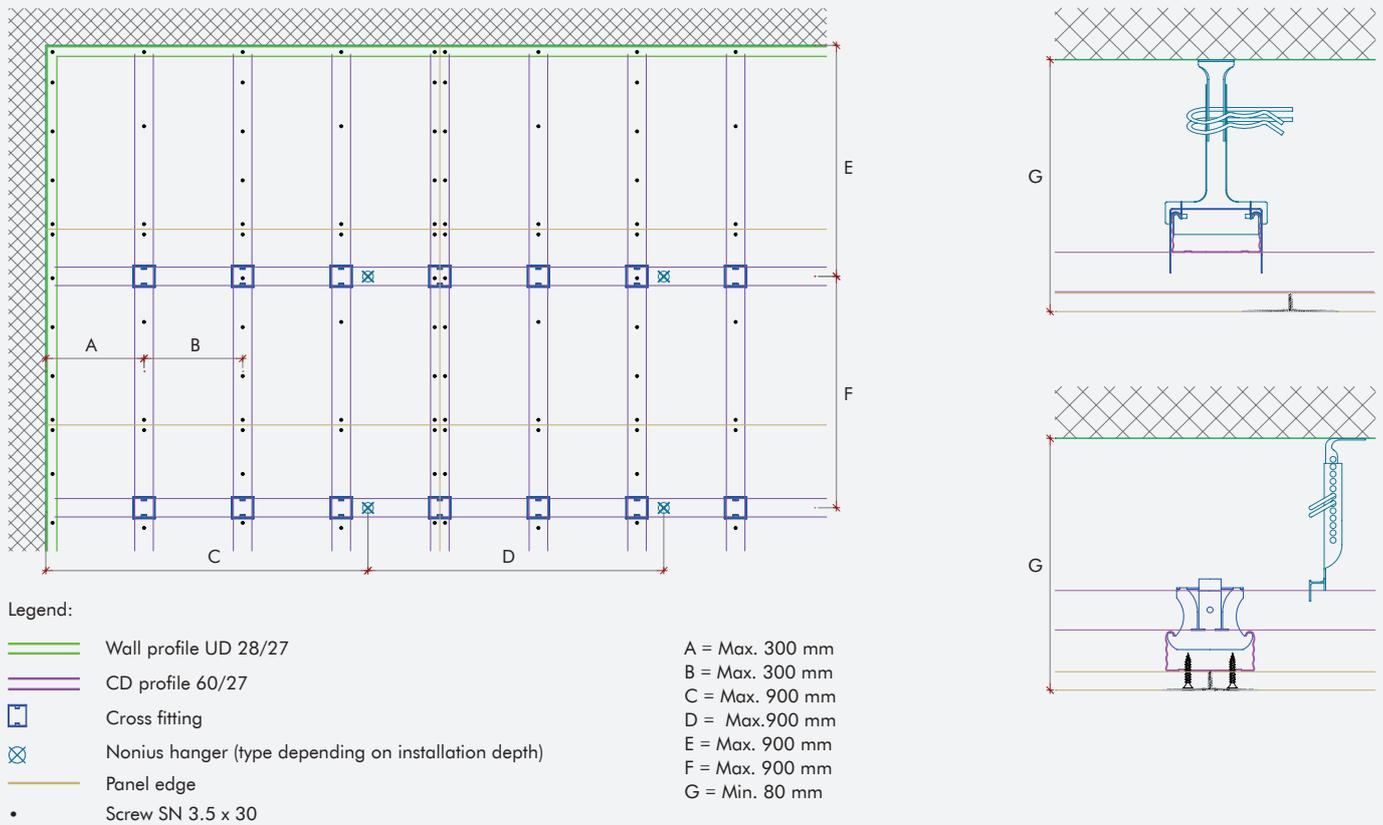
INSTALLATION GUIDE DESIGNPANEL

RECOMMENDED ACCESSORIES FOR STEEL FURRING SYSTEMS

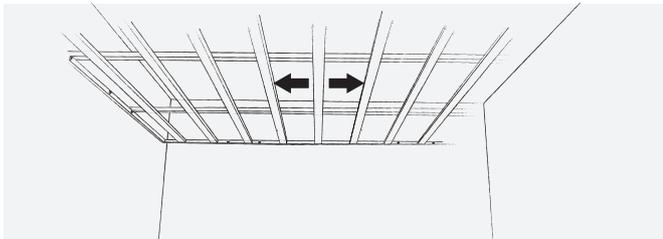
Below accessories are tested and approved for use in connection with Designpanel.

	PRODUCT NAME	SAP NO.	SIZE	Consumption per m ²	
Accessories for CD system - for installation on ceiling	 Primary / secondary CD 60/27-profile	3294	60 x 4000 x 27	4.6 m	
	 Wall angle UD 28/27	181589	28 x 3000 x 27		
	 Length connector CD 60/27	181080	59 x 80 x 28	1.1 pcs.	
	 Cross-fitting	3446		3.3 pcs.	
	 Split pin for hanger	198907		2.6 pcs.	
	 Nonius hanger lower	198904		1.3 pcs.	
	 Nonius hanger upper 85mm Nonius hanger upper 135mm Nonius hanger upper 235mm Nonius hanger upper 340mm Nonius hanger upper 440mm Nonius hanger upper 540mm Nonius hanger upper 640mm Nonius hanger upper 740mm Nonius hanger upper 840mm Nonius hanger upper 940mm	198905 198906 198923 198924 198925 198926 198927 198928 198929 198930	125 - 185 135 - 235 235 - 340 340 - 440 440 - 540 540 - 640 640 - 740 740 - 840 840 - 940 940 - 1040	1.3 pcs.	
	Accessories for P45-S25 system - for installation on ceiling	 MSK 70 Perimeter profile	181029 181030	2500 3600	
		 P45 Primary profile	181684	3600	0.85 m
		 S25/85 Secondary profile	181685	3800	3.6 m
 F/F13 Screw		2017	13	8 pcs.	
For installation on walls	 Z-profile	199089	30 x 45 x 45 x 2300		

CEILING LAYOUT FOR CD2 SYSTEM

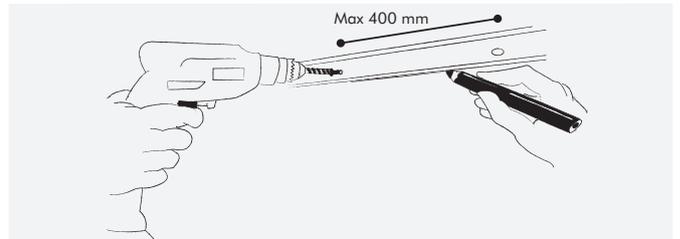


INSTALLATION OF CD2 SYSTEM



CEILING LAYOUT

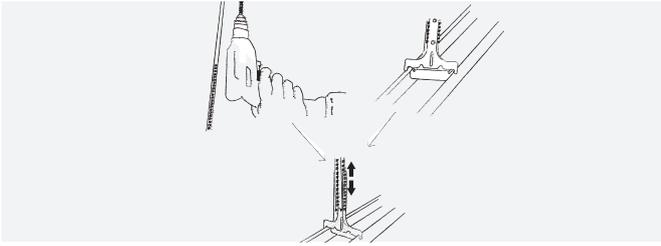
- Divide the ceiling surface from the centre of the room or in accordance with existing loft plans.
- The furrings should usually run across the longitudinal direction of the element with a C-C distance of 300 mm. This will ensure that the end edges are fully supported. Ensure full furring support at short edge joints for longitudinal furrings (e.g. steel band).
- Please note that expansion joints must be installed in both directions at an interval of maximum 15 metres when working with large ceiling surfaces. Please see detail drawings on knaufdanoline.com.
- Where conditions indicate an increased risk of movement in a building, this must be taken into account by reducing the distance between expansion joints.



INSTALLING THE WALL PROFILE

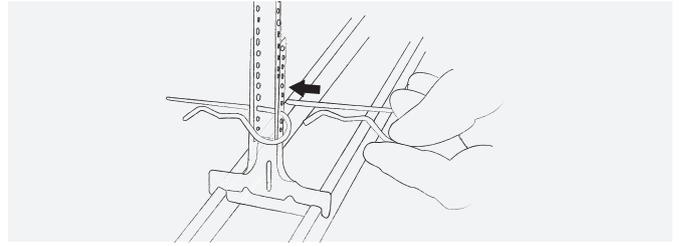
- Mark out.
- Install the wall profile UD 28/27. Choose the method of fixing in accordance with the substrate.

INSTALLATION GUIDE DESIGNPANEL AS CEILING LINING



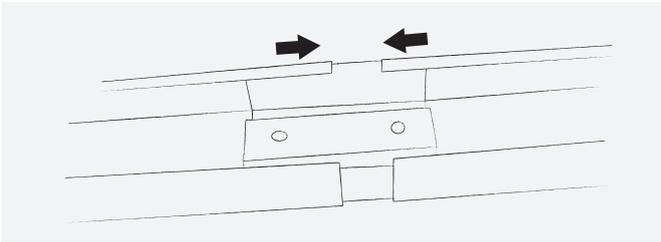
HANGERS

- Secure the upper part to the construction above it at 900 mm c/c. Choose the fixings in accordance with the substrate.
- Secure the lower part to the primary profile.



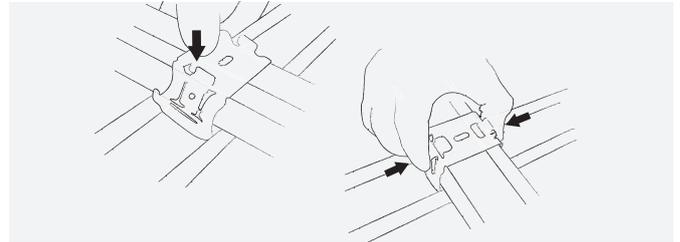
PRIMARY PROFILES

- Connect the two parts of the hangers with two split pins, one immediately above the other.



JOINING CD-PROFILES

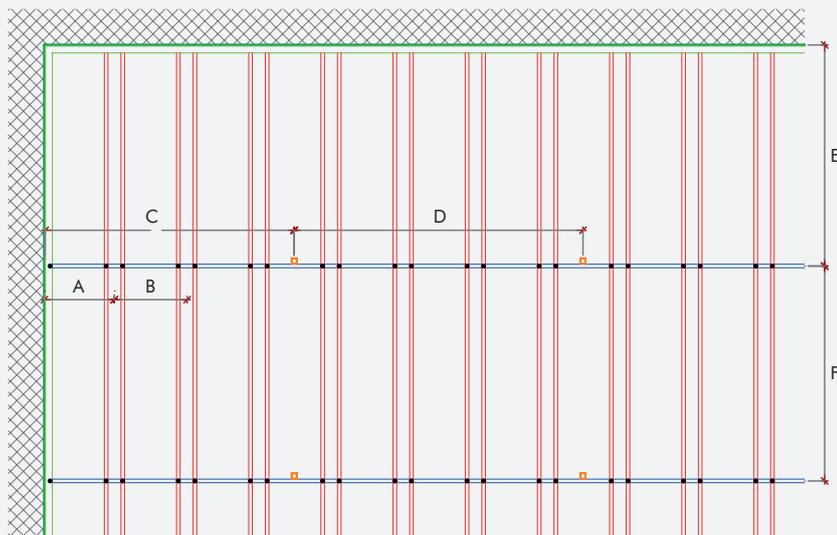
- Join the CD profiles with the help of length connectors.



SECONDARY PROFILES

- Place a cross fitting on the primary profile.
- Press the underlying secondary profile into it.
- Adjust the locations of the secondary profiles and lock the cross fitting.

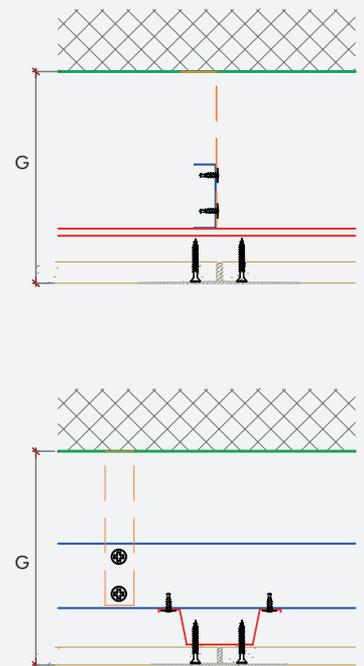
CEILING LAYOUT FOR P45-S25



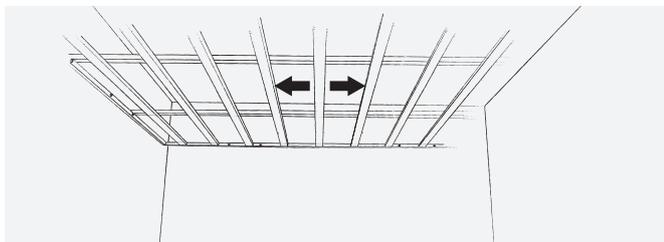
Legend:

-  Primary profile P45
-  Secondary profile S25/85
-  Perimeter profile MSK 70
-  Screw (F/F 13)
-  Hanger (not Knauf Danoline)

- A = Max. 300 mm
- B = Max. 300 mm
- C = Max. 1200 mm
- D = Max. 1200 mm
- E = Max. 1200 mm
- F = Max. 1200 mm
- G = Min. 80 mm

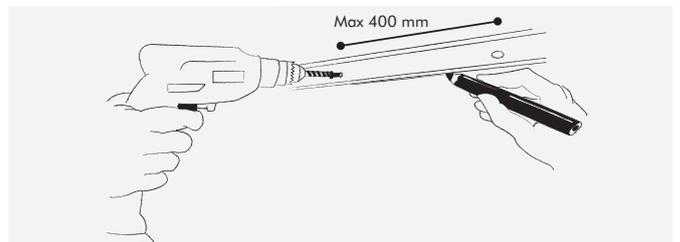


INSTALLATION OF P45-S25



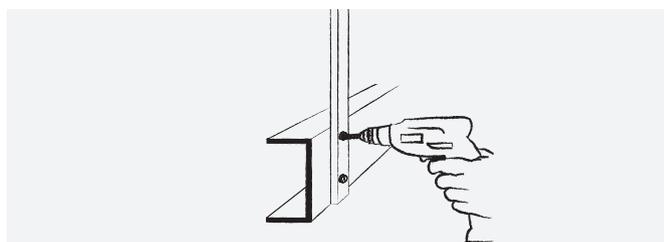
CEILING LAYOUT

- Divide the ceiling surface from the centre of the room or according to the existing ceiling plans.
- The furrings should usually run across the longitudinal direction of the element with a C-C distance of 300 mm. This will ensure that the end edges are fully supported. Ensure full furring support at short edge joints for longitudinal furrings (e.g. steel band).
- Please note that expansion joints must be established on extensive ceiling surfaces at max.intervals of 15 metres in both directions.
- Where conditions indicate an increased risk of movement in a building, this must be taken into account by reducing the distance between expansion joints.



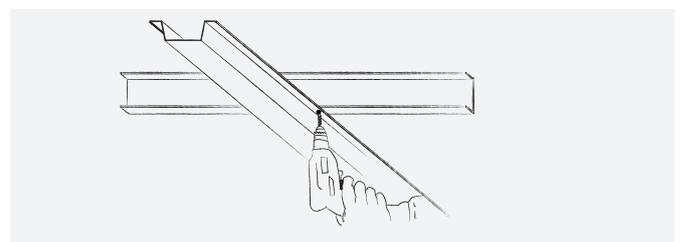
INSTALLING THE WALL PROFILE

- Mark out.
- Install the wall profile MSK70. Choose the method of fixing in accordance with the substrate.



PRIMARY PROFILES/HANGERS

- Install primary profiles every 1200 mm centres (max).
- Using rigid or strap hangers. Connect hangers to primary profile with 2 screws (F/F 13).

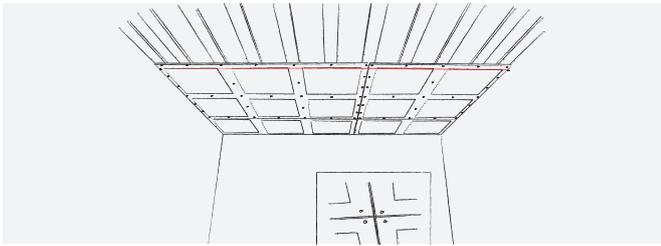


SECONDARY PROFILES

- Fix the secondary profiles to the primary profiles at every 300 mm. Use 2 screws (F/F 13) in each connection.

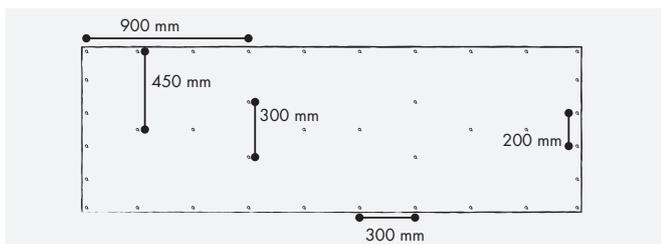
INSTALLATION GUIDE DESIGNPANEL AS CEILING LINING

FIXING PANELS AND JOINTING

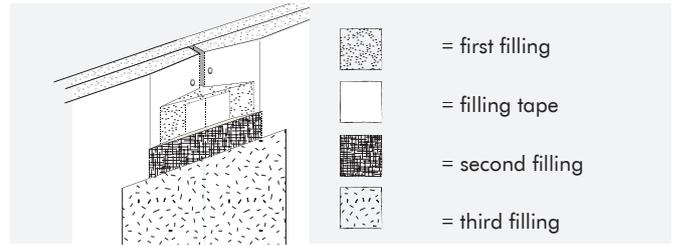


INSTALLATION

- Install the first row of panels with the help of string.
- For distances, please refer to the ceiling layout on previous pages. Screws must be fixed 10 mm from the long panel edge and 15 mm from the end panel edge.
- Panel length and width have a tolerance of ± 4 mm. When installing, take into account the location of perforation fields to ensure they are flush in both directions. This can mean that there can be up to 4 mm gap between panel edges.
- The panels are supplied undersized and must be installed at distances of up to 4 mm from each other to ensure that it is possible to insert filler all the way up between the edges of the panels.
- Cut the elements to size from the front with a fine-toothed saw.
- Designpanel should always be installed with tapered edge to tapered edge (same applies for friezes). We recommend using Plan-4 board for friezes.
- If joints with cut edges cannot be avoided, match cut edge to cut edge. We recommend sanding and priming cut edges before installation. Always maintain a gap between the panel edges for a 3-5 mm joint filler.
- Apply Knauf Uniflott (without paper strips) as filler.
- Alternatively, the perforated Designpanel boards can run right to the wall, using filler to fill the perforated holes when an unperforated surface is required. In such instances, the perforated holes should be sprayed first with deep primer and then filled with Knauf Uniflott, before finishing with Knauf Uniflott Finish.

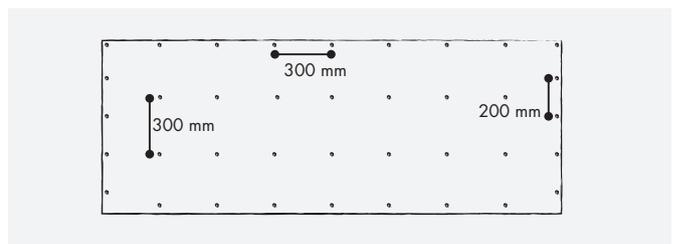


SCREW DISTANCES 900 X 2700

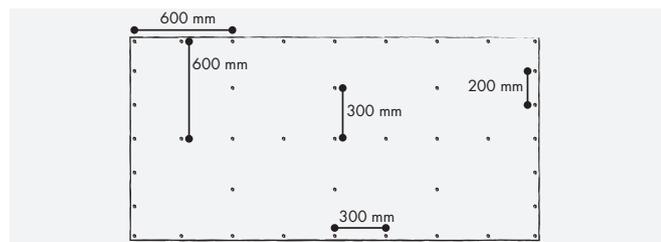


FILLING

- Apply the first layer of filler (Easy Filler Light). Ensure that it is pressed firmly between the panel edges if there is a gap between them.
- Avoid filler in the perforated holes (can be masked with a sensitive masking tape, but check that the tape can be removed without damaging the cardboard surface before starting).
- Apply filler tape to the wet filler.
- The first filling and application of filler tape can be carried out in a single, very simple operation by using a Mini Bazooka.
- Allow the filler to dry. Make sure that the filler is completely dry before sanding. Sand with fine sandpaper. Be careful not to damage the cardboard surface.
- Apply the second layer of filler (Easy Filler Light).
- Allow the filler to dry. Make sure that the filler is completely dry before sanding. Sand with fine sandpaper. Be careful not to damage the cardboard surface.
- Apply the third layer of filler (Easy Filler Light). Make sure that the filler is completely dry before sanding. Sand with fine sandpaper until the joint is completely smooth. Be careful not to damage the cardboard surface.



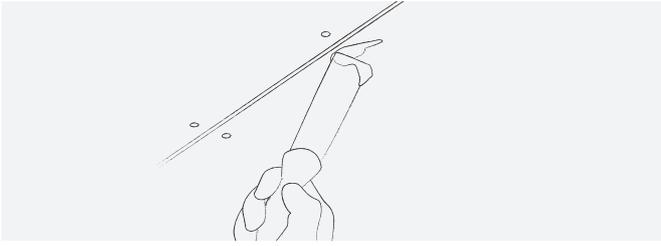
SCREW DISTANCES 900 X 2400 (TANGENT)



SCREW DISTANCES 1200 X 2400.

INSTALLATION GUIDE DESIGNPANEL AS CEILING LINING

FILLING AND PAINTING

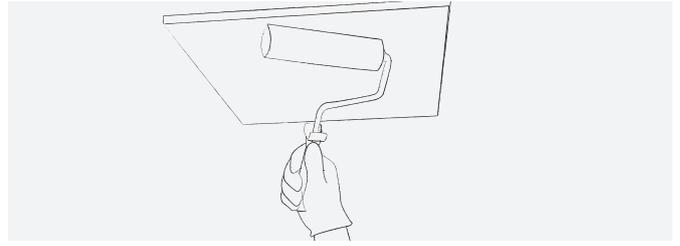


FILLING SCREW HOLES

- Check that the screws have been countersunk.
- Apply filler (Knauf Uniflott Finish or Easy Filler). Overfill slightly.
- We recommend the use of „Acoustic filling knife for holes“ in order to avoid filler getting into the perforation holes.

FILLING PERFORATED HOLES

- Spray the holes first with deep primer and fill with Knauf Uniflott. Finish off with Knauf Uniflott Finish.



PAINTING

- Make sure that the filler is completely dry and the surface is smooth and free from dust.
- Priming should be carried out in accordance with the paint manufacturer's instructions.
- Apply the paint with a roller so that the acoustic felt on the perforated panels is not sealed. Use a fine mohair roller.
- Make sure that the paint is not too thick and avoid applying too much paint at a time.
- Spraying cannot be recommended as this could influence the acoustic properties of the panels.

ACOUSTICS

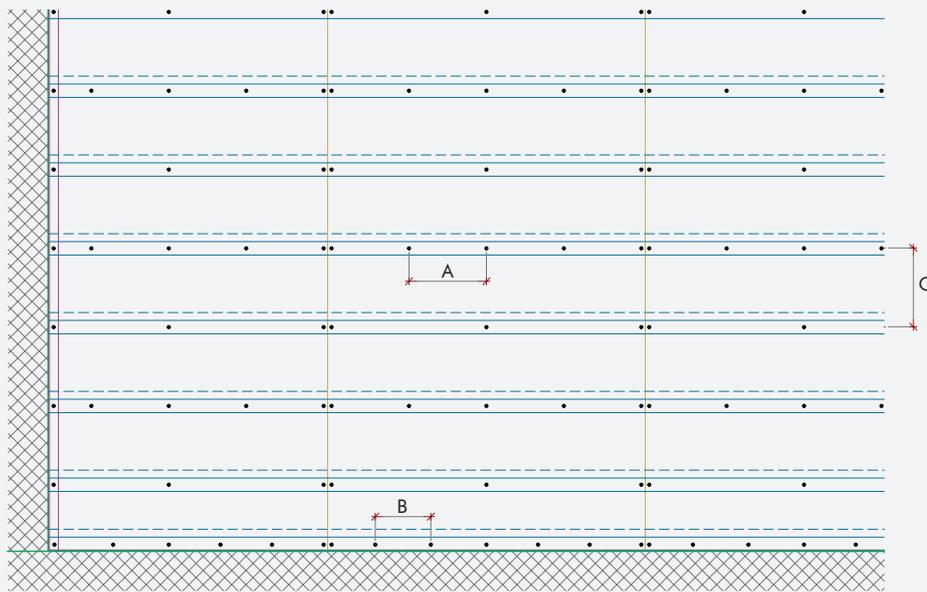
- A perforated gypsum panel will lose its acoustic function if the perforations are blocked (this applies to the front and back of the panel).
- Where applicable, a vapour barrier should therefore always be placed behind the furrings so that it does not come into contact with the back of the perforated panel.
- When installing Designpanel on a fixed surface we recommend filling the cavity between the back of the panel and the furring with mineral wool. This is primarily to ensure low frequency sound absorption.

FIRE

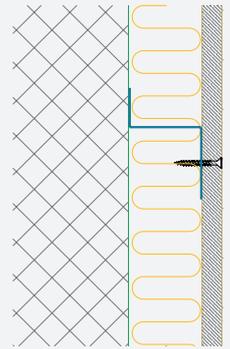
- If there is a requirement for BD30 follow the instructions for this construction.
- The furring should be dimensioned in accordance with the load in question and should be at least 45 mm in width. Where BD30 constructions are concerned 25 x100 mm furrings should be used.

INSTALLATION GUIDE DESIGNPANEL AS WALL LINING

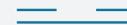
WALL LAYOUT



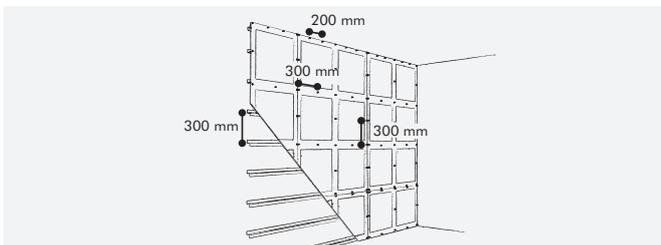
A = Max. 300 mm B = Max. 200 mm C = 300 mm



Legend:

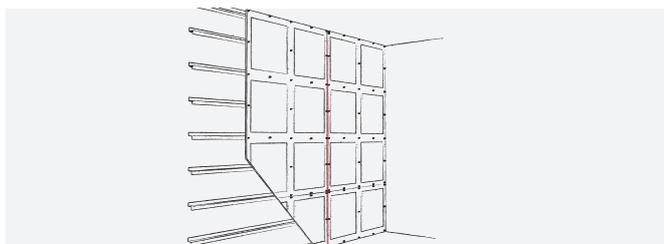
-  45 mm Z-profile
-  45 mm U-profile
-  Screw SN 3.5 x 30
-  Panel edge

INSTALLATION OF PANELS



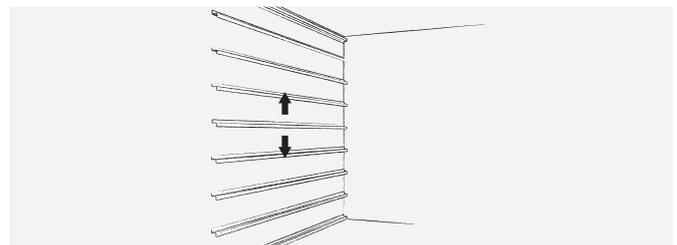
FURRING

- Depending on current fire regulations Designpanel can be installed on wood or steel furrings.
- Furrings can be vertical or horizontal but should in general be at right angles to the direction of the panels to ensure that the end edges of the panels are properly supported.
- Furrings should be at least 45 mm in width. Also see the section "Acoustics" on next page.



INSTALLATION

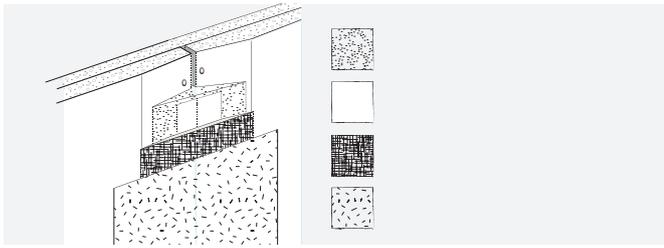
- Install the first row of panels with the help of string.
- Screws must be fixed 10 mm from the long panel edge and 15 mm from the end panel edge.
- The panels are supplied undersized and must be installed at distances of up to 4 mm from each other to ensure that it is possible to insert filler all the way up between the edges of the panels.
- The perforated fields must be flush in their own rows and at right angles to the adjacent fields.
- Cut the elements to size from the front with a fine-toothed saw.



LAYOUT

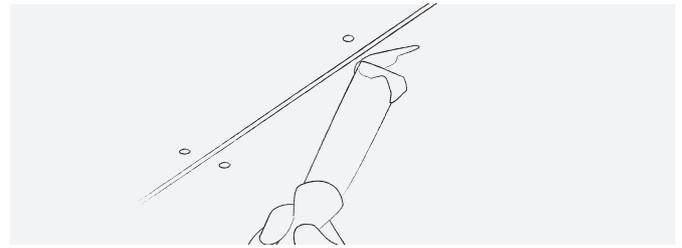
- Perforated wall panels are normally installed on the upper section of a wall in accordance with acoustic requirements and the shape of the room in question. Perforated panels can also be used to cover an entire wall, depending on the degree of physical impact.
- Follow any available drawings or divide the surface of the wall so that the perforated modules are positioned symmetrically in the room.
- Expansion joints should be made on extensive wall surfaces at intervals of max. 15 metres. See drawings on knaufdanoline.com.

INSTALLATION GUIDE DESIGNPANEL AS WALL LINING



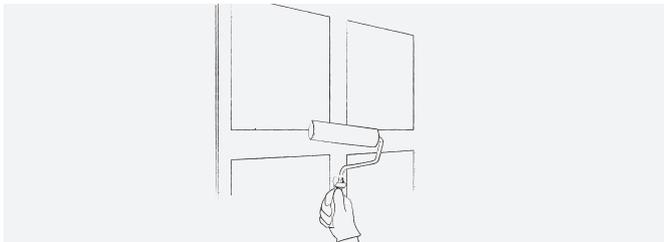
FILLING

- Apply the first layer of filler (Easy Filler Light). Make sure it is pressed all the way up between the panel edges and avoid getting filler in the perforations.
- Apply filler tape to the wet filler.
- The first filling and application of filler tape can be carried out in a single, very simple operation by using a Mini Bazooka.
- Allow the filler to dry. Make sure that the filler is completely dry before sanding. Sand with fine sandpaper. Be careful not to damage the cardboard surface.
- Apply the second layer of filler (Easy Filler Light).
- Allow the filler to dry. Make sure that the filler is completely dry before sanding. Sand with fine sandpaper. Be careful not to damage the cardboard surface.
- Apply the third layer of filler (Easy Filler Light). Make sure that the filler is completely dry before sanding. Sand with fine sandpaper until the joint is completely smooth. Be careful not to damage the cardboard surface.



FILLING SCREW HOLES

- Check that the screws have been countersunk.
- Apply the first layer of filler (Easy Filler Light).
- Allow the filler to dry.
- Sand with fine sandpaper.
- Apply the second layer of filler (Knauf Uniflott Finish), overfill slightly.
- Allow the filler to dry.
- Sand with fine sandpaper until the surface is completely smooth. Be careful not to damage the cardboard surface.



PAINTING

- Make sure that the filler is completely dry and the surface is free from dust.
- Priming should be carried out in accordance with the paint manufacturer's instructions.
- Apply the paint with a roller so that the acoustic felt on the perforated panels is not sealed. Use a fine mohair roller.
- Make sure that the paint is not too thick and avoid applying too much paint at a time.
- Spraying cannot be recommended as this could influence the acoustic properties of the panels.

ACOUSTICS

- A perforated gypsum panel will lose its acoustic function if the perforations are blocked (this applies to the front and back of the panel).
- Where applicable, a vapour barrier should therefore always be placed behind the furrings so that it does not come into contact with the back of the perforated panel.
- When installing Designpanel on a fixed surface we recommend filling the cavity between the back of the panel and the furring with mineral wool. This is primarily to ensure low frequency sound absorption.