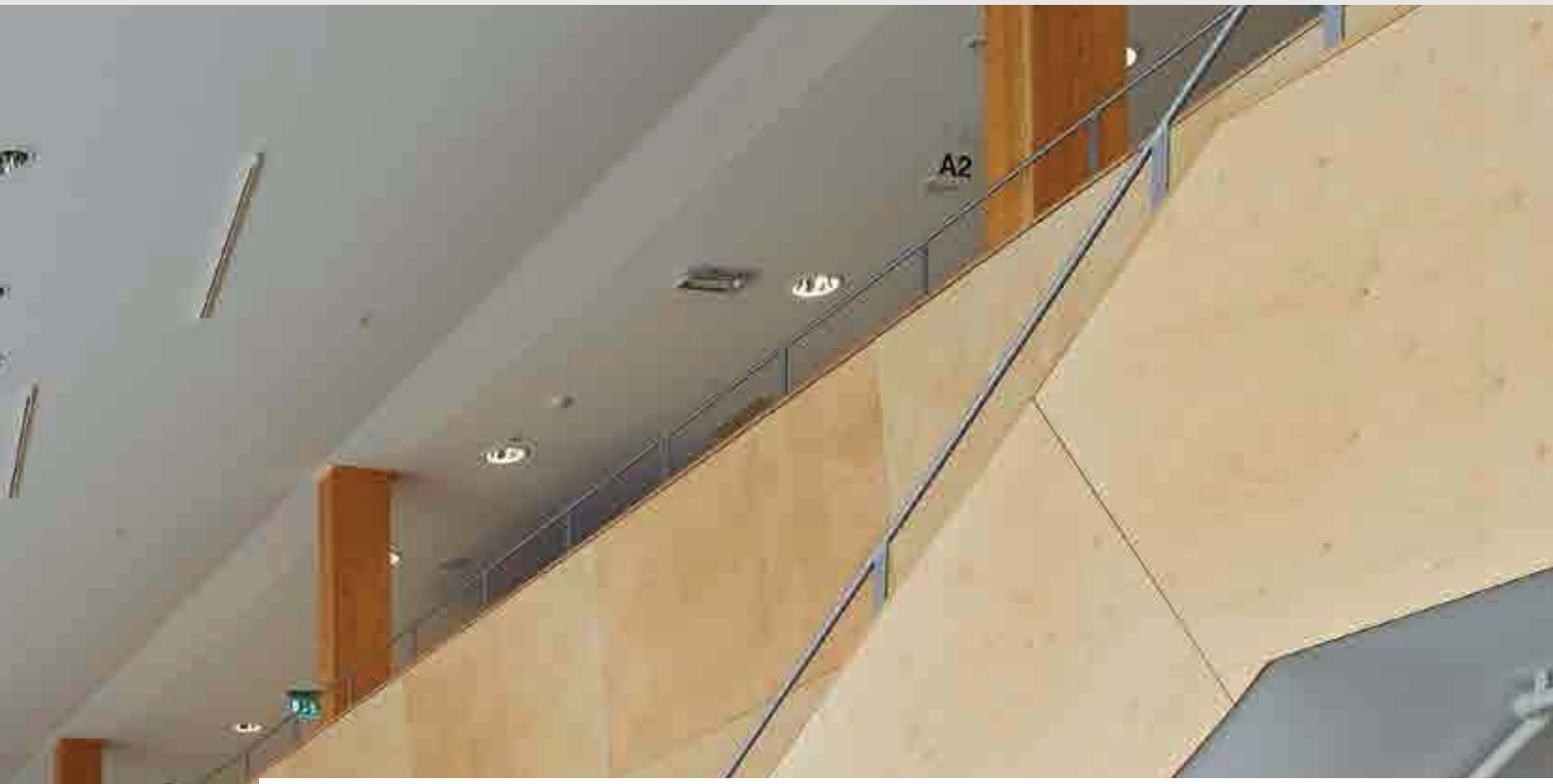
DID YOU KNOW THAT …

Knauf Danoline product range includes a hygiene ceiling that is clean room certified and can be used in laboratories and other premises with high infection control requirements?

Henrik Jais-Nielsen & Mats White Architects AB, Hus N, Sweden, Solopanel, G10/23



SOLOPANEL

NON-DEMOUNTABLE CEILING

Continuous perforations to the edge offering a fluid, monolithic look. A choice of seamless or discreet joints. Acoustic gypsum lining for ceiling surfaces.

Designpanel
Tectopanel
Contrapanel
Danopanel
Solopanel
Stratopanel

SOLOPANEL

NON-DEMOUNTABLE CEILING

SURFACE
Untreated

DANISH INDOOR CLIMATE LABELLING (DIM)
Indoor value: 10 days
Particle emission: low (< 0.75 mg)

CLEANING
Dust is removed using a dry duster or vacuum cleaner. Removal of marks depends on the paint used on site, although a damp cloth using normal cleaning practices and neutral cleaning solutions is normally suitable for minor marks. In the case of stubborn marks or if in doubt refer to the paint manufacturer's recommendations.

LIGHT REFLECTION
Depends on the paint used on site.

AMBIENT CONDITIONS
The product is designed to perform under normal conditions of use. Tested at 90% RH and 30°C. The product can withstand ambient temperatures of up to 50°C.

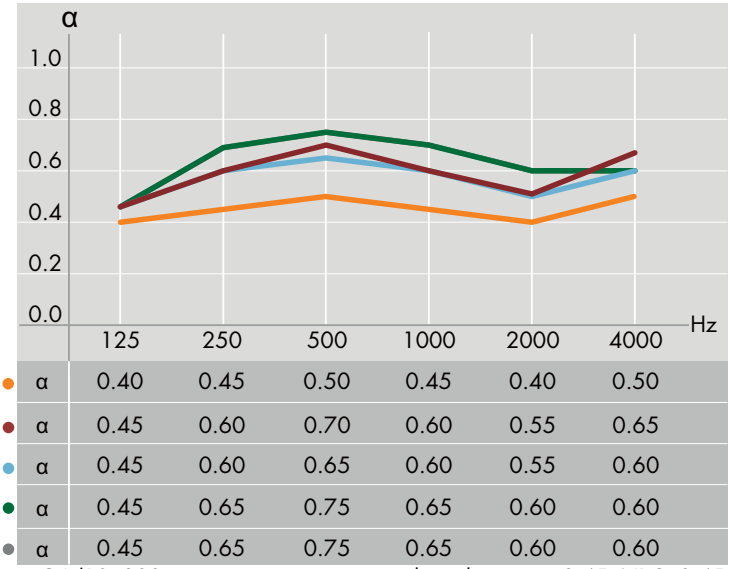
LOAD-BEARING CAPACITY
2 / A / No load
2 / B / 30N

FIRE CLASS
A2-s1,d0

ROBUSTNESS
Made of robust, glass fibre reinforced material with excellent pressure resistance and can therefore be used on walls as well as ceilings. Under normal conditions of use, the product properties are preserved and there is no decomposition of material over time.

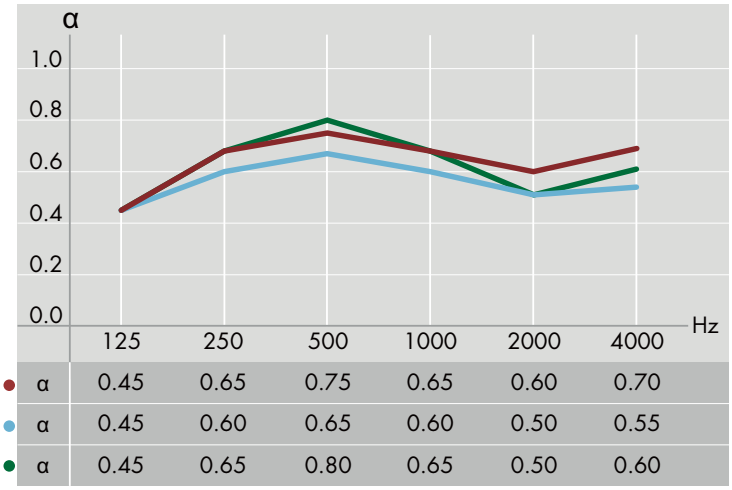
Perforation	Tile weight* (kg/m²)
G 6/18	8.8
G 8/18	8.8
G 10/23	8.8
G 12/25	8.5
G15/30	8.4
Q 8/18	8.3
G 8/12/50	9.0
G 12/20/66	8.4

ACOUSTICS



	125	250	500	1000	2000	4000
α	0.40	0.45	0.50	0.45	0.40	0.50
α	0.45	0.60	0.70	0.60	0.55	0.65
α	0.45	0.60	0.65	0.60	0.55	0.60
α	0.45	0.65	0.75	0.65	0.60	0.60
α	0.45	0.65	0.75	0.65	0.60	0.60

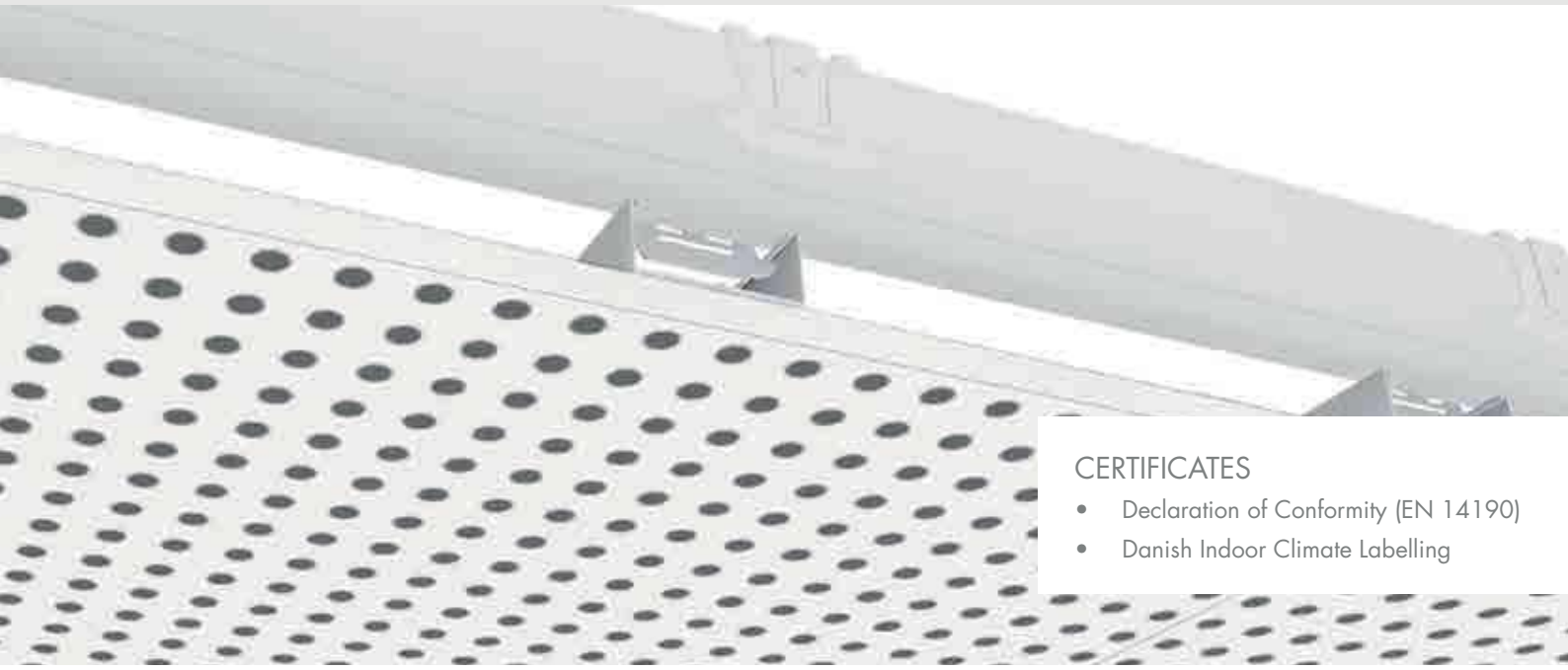
- G6/18, 200 mm suspension, no mineral wool — αw: 0.45, NRC: 0.45
- G8/18, 200 mm suspension, no mineral wool — αw: 0.60, NRC: 0.60
- G10/23, 200 mm suspension, no mineral wool — αw: 0.60, NRC: 0.60
- G12/25, 200 mm suspension, no mineral wool — αw: 0.65, NRC: 0.65
- G15/30, 200 mm suspension, no mineral wool — αw: 0.65, NRC: 0.65



	125	250	500	1000	2000	4000
α	0.45	0.65	0.75	0.65	0.60	0.70
α	0.45	0.60	0.65	0.60	0.50	0.55
α	0.45	0.65	0.80	0.65	0.50	0.60

- Q8/18, 200 mm suspension, no mineral wool — αw: 0.65, NRC: 0.65
- G8/12/50, 200 mm suspension, no mineral wool — αw: 0.60, NRC: 0.60
- G12/20/66, 200 mm suspension, no mineral wool — αw: 0.60, NRC: 0.65

For acoustic data on alternative constructions please see "Absorption Data" at knaufdanoline.com



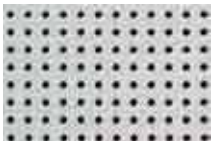
CERTIFICATES

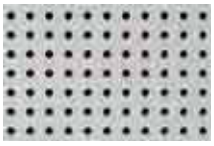
- Declaration of Conformity (EN 14190)
- Danish Indoor Climate Labelling

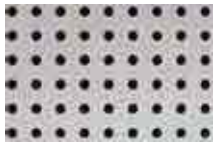
PERFORATION

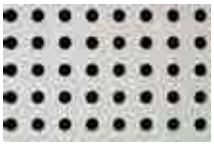
Perforation type	Perforation percentage	Sizes* (mm)		
		SK	FF	MF
G6/18	8.7 %	1188 x 1998	900/1188 x 1998	-
G8/18	15.5 %	1188 x 1998	900/1188 x 1998	1188 x 1998
G10/23	14.8 %	1196 x 2001	1196 x 2001	1196 x 2001
G12/25	18.1 %	1200 x 2000	1200 x 2000	1200 x 2000
G15/30	19.6 %	1200 x 1980	1200 x 1980	-
Q8/18	19.8 %	1188 x 1998	1188 x 1998	-
G8/12/50	13.1 %	1200 x 2000	1200 x 2000	-
G12/20/66	19.6 %	1188 x 1980	1188 x 1980	1188 x 1980

* Exact panel sizes vary from module sizes according to edge type.

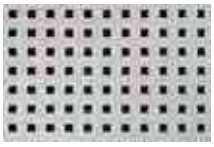

G6/18

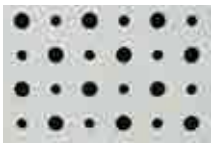

G8/18


G10/23


G12/25


G15/30


Q8/18


G8/12/50


G12/20/66

EDGES

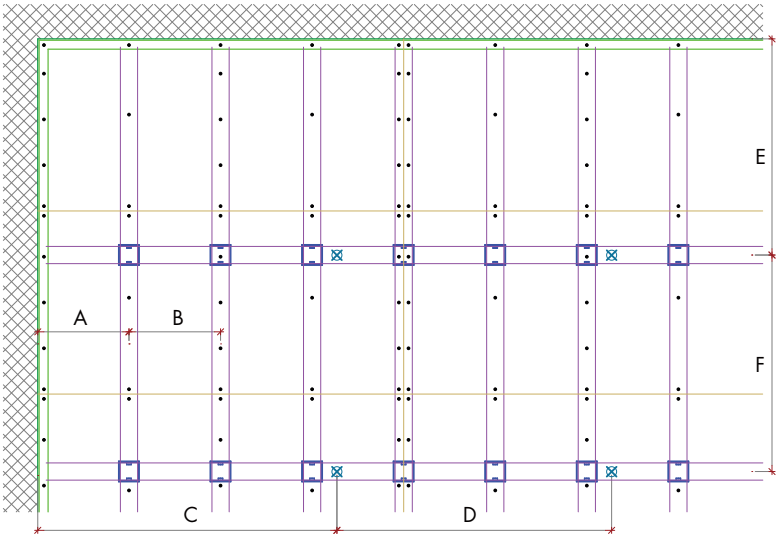

Edge SK
No visible joints

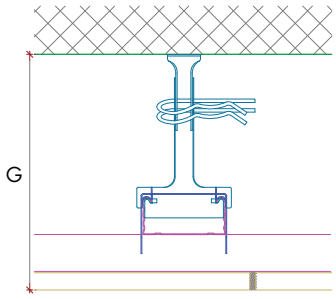

Edge FF
No visible joints

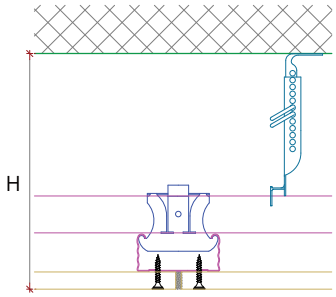

Edge MF
Discreet joint

INSTALLATION GUIDE

Fig. 1







Wall profile UD 28/27 • Screw SN 3.5 x 30

CD profile 60/27

Cross fitting

Nonius hanger (type depending on installation debth)

Panel edge

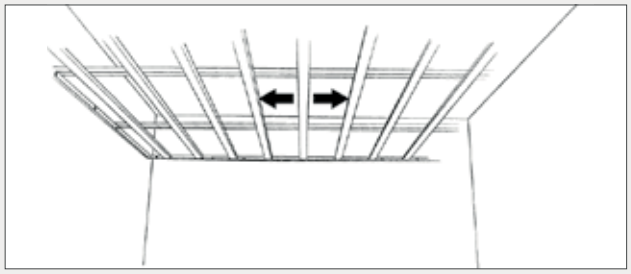
A = Max. 300 mm B = Max. 333 mm

C = Max. 900 mm D = Max.900 mm

E = Max. 900 mm F = Max. 900 mm

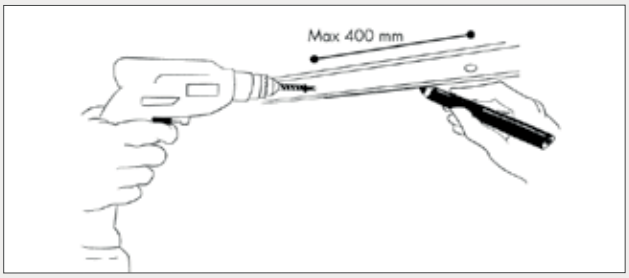
G = Min. 80 mm H = Min. 80 mm

Best Practice: Handling the panels with care will avoid damage and surface contamination prior to painting and thereby ensure a good end result.



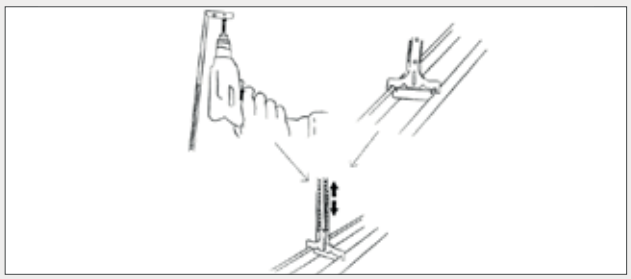
CEILING LAYOUT

- Divide the ceiling surface from the centre of the room or in accordance with the existing ceiling plans.
- Please note that expansion joints must be established on extensive ceiling surfaces at max.intervals of 15 metres in both directions. See detailed 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.



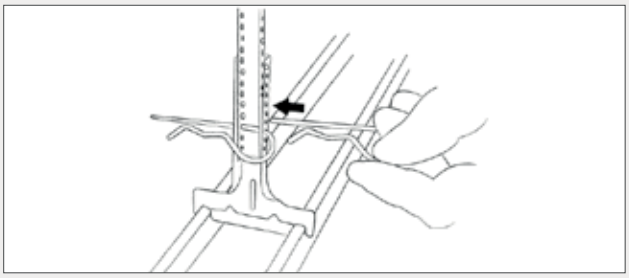
INSTALLING THE WALL PROFILE

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



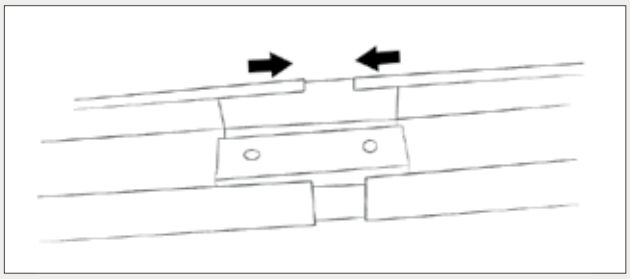
HANGERS

- 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.



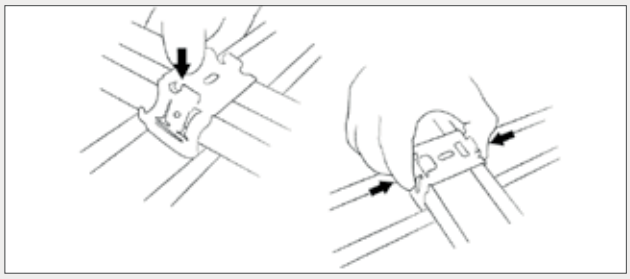
PRIMARY PROFILES

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



JOINING CD-PROFILES

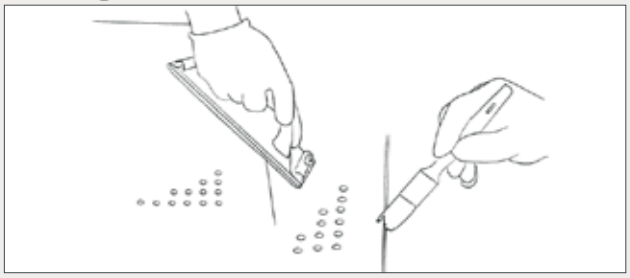
- Join the CD profiles with the help of length connectors.



SECONDARY PROFILES

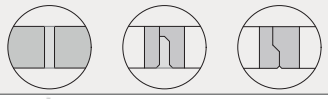
- Place a cross fitting on the primary profile.
- Press the underlying secondary profile into it.
- Adjust the locations of the secondary profiles and lock the cross fitting.
- Se distances in figure 1.

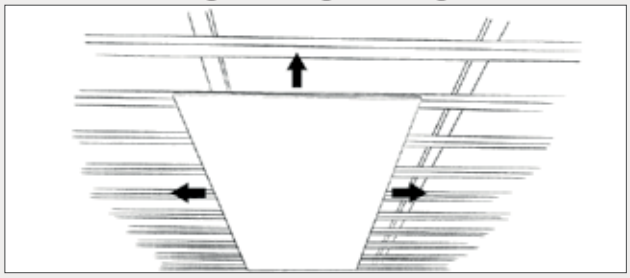
SK 



PREPARING PANELS

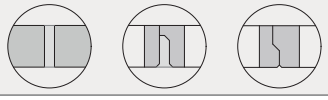
- Break all edges with fine sandpaper on the front so that the cardboard cannot rise during painting.
- Brush the edges free from gypsum dust and prime them with Knauf Tiefengrund (universal primer).

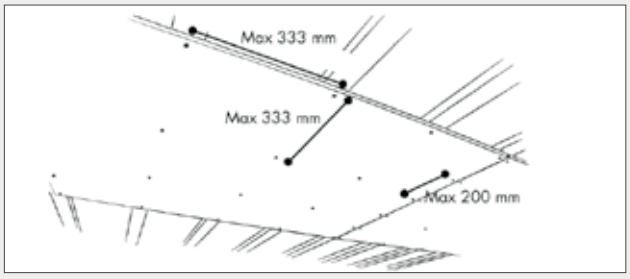
SK/FF/MF 



INSTALLATION SEQUENCE

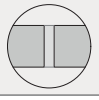
- Always wear cotton gloves when handling panels.
- Begin installation in the centre of the room.

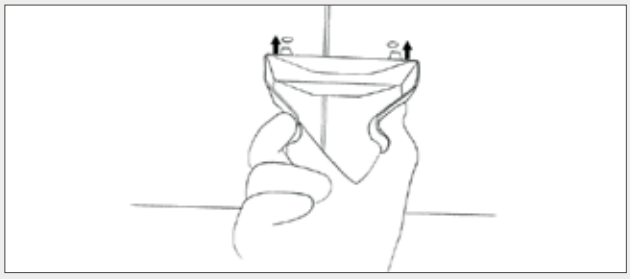
SK/FF/MF 



INSTALLATION

- Use a string or a laser to ensure that the perforation rows are flush. Note: The panels must all face in the same direction (red mark against blue mark).
- Make sure that the screws are countersunk without damaging the cardboard surface.

SK 

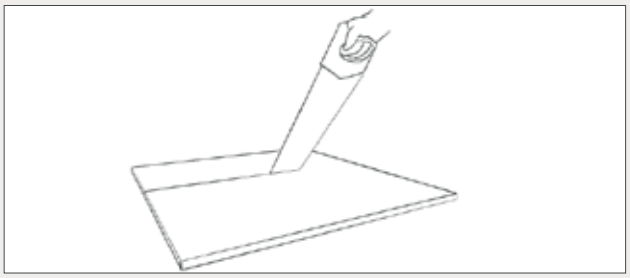


POSITIONING

- SK panels are supplied undersized, and must be installed at distances of 2-5 mm from each other to ensure that it is possible to insert filler all the way up between the edges.
- Use a mounting hook to ensure the correct distance between perforation rows at the joints.
- See distances in previous illustration.

INSTALLATION GUIDE

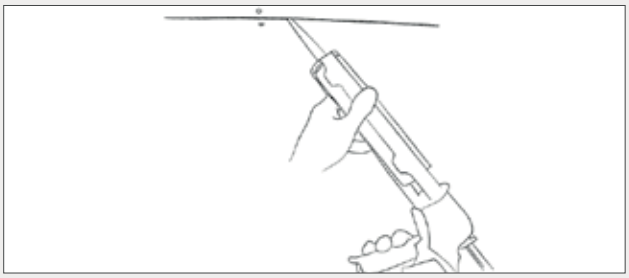
SK/FF/MF



CUTTING

- Cut the elements to size from the front with a fine-toothed saw.
- Prime the edges with Knauf Tiefengrund (universal primer).

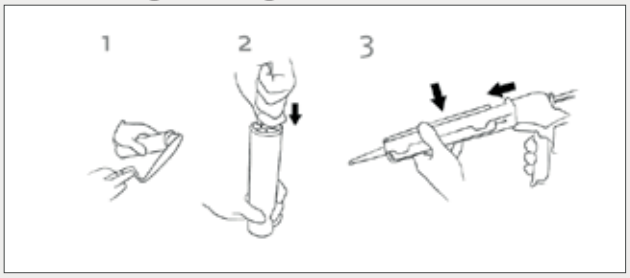
SK/FF



FILLING

- Check that the screws are undersunk and that the panels are not pushed close together.
- Check that the edges have been primed and are free from dust.
- Use Knauf Uniflott for filling.

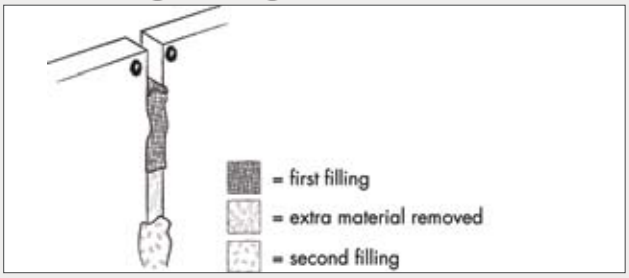
SK/FF



PREPARING KNAUF UNIFLOTT FILTER

- Prepare the filler according to the instructions on the filling package.
- Fill the tube with joint filler with the help of a putty knife.
- Attach the jointing nozzle.
- Insert the tube and nozzle into a jointing gun.

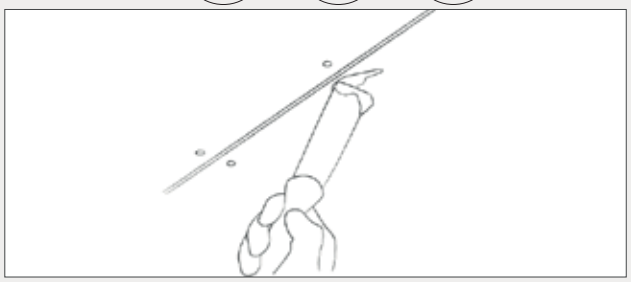
SK/FF



FILLING

- ill the joint with filler (Knauf Uniflot). Use a jointing gun or press the filler into the joint with a filling knife. Overfill slightly and make sure that the filler is pressed all the way up between the edges of the panels and avoid getting filler in the perforations.
- Press the filler up again by running a finger over the joint. Fill again.
- Allow the filler to dry for about 45 minutes.
- Remove surplus filler.
- Allow the filler to dry.
- Apply the second layer of filler (Knauf Uniflott Finish). Overfill slightly.
- Allow the filler to dry.

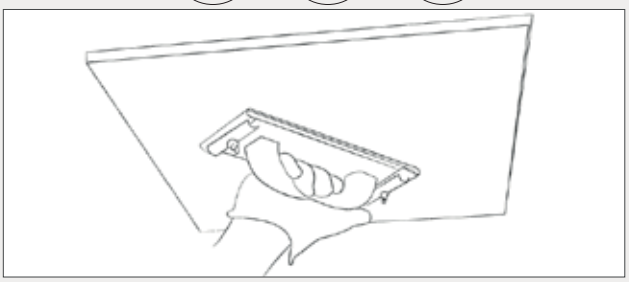
SK/FF/MF



FILLING SCREW HOLES

- Apply the filler (Knauf Uniflott Finish). Overfill slightly. We recommend the use of Knauf Danogips „Acoustic filling knife for holes“ in order to avoid filler getting into the perforation holes.
- Allow the filler to dry.

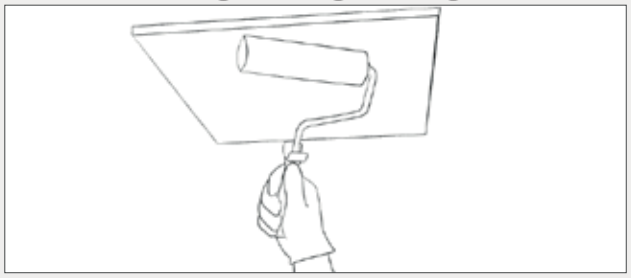
SK/FF/MF



SANDING

- Make sure that the filler is completely dry.
- Sand with fine sandpaper until the surface is completely smooth. Be careful not to damage the cardboard surface.

SK/FF/MF

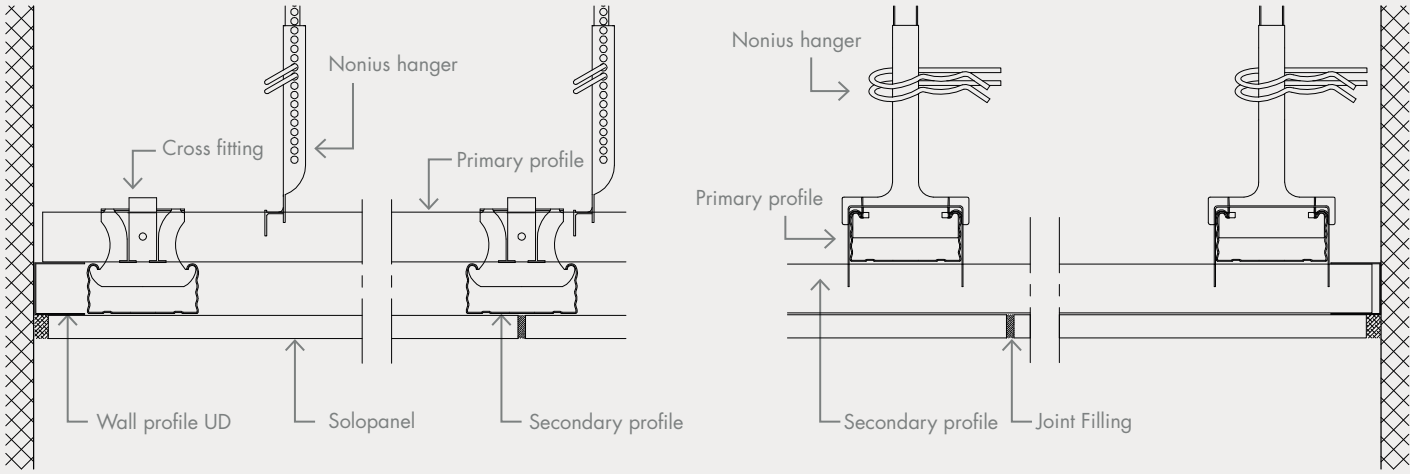


PAINTING

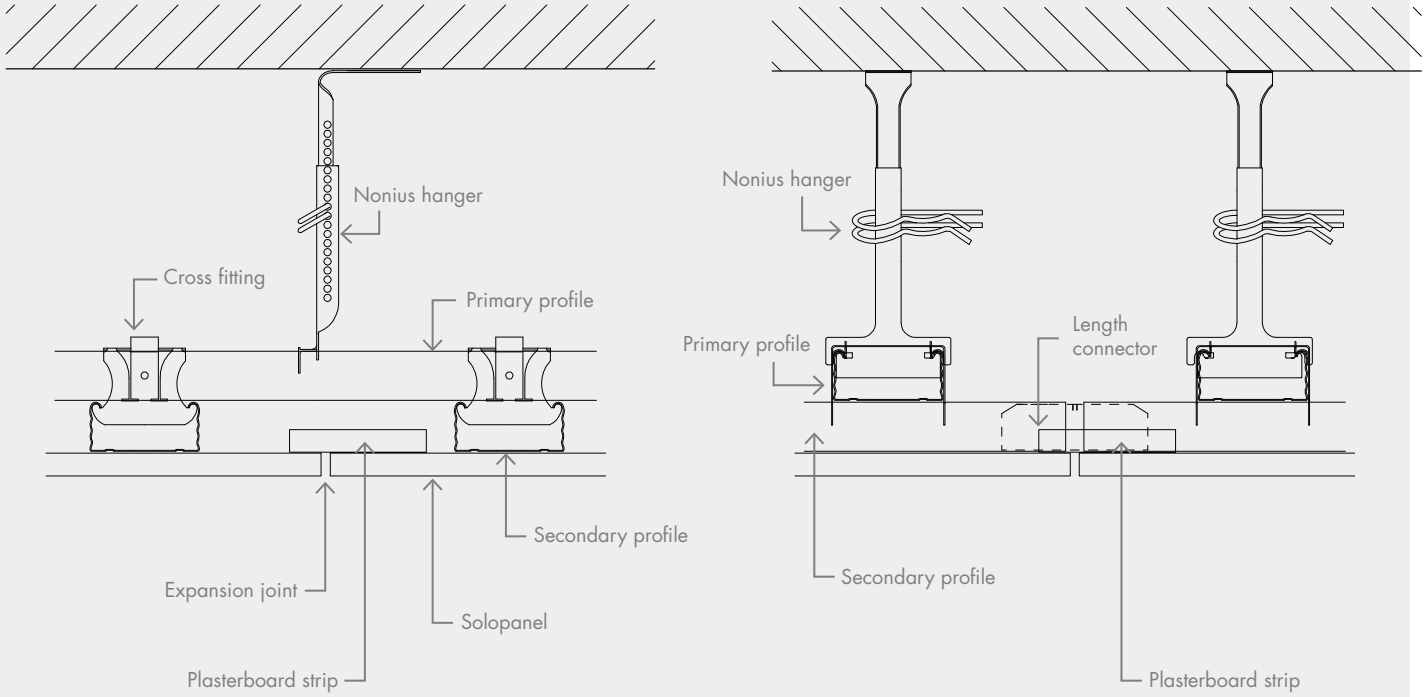
- Make sure that the filler is completely dry and the surface is smooth and free from dust.
- Priming should be carried out in accordance with the paint manufacturer’s instructions.
- Apply the paint with a roller so that the acoustic felt on the perforated panels is not sealed. Use a fine mohair roller.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

DETAILS

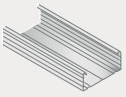
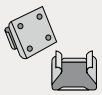
Solopanel on CD 2 system



Solopanel - expansion joint



ACCESSORIES

PRODUCT NAME		SAP NO.	W x L x H (mm)	Consumption per. m²
Primary / secondary CD 60/27-profile		2648	60 x 4000 x 27	4.6 m
Wall angle UD 28/27		2649	28 x 3000 x 27	1.0*
Length connector CD 60/27		4281	59 x 80 x 28	1.1 pcs.
Cross-fitting		4284	-	3.3 pcs.
Split pin for hanger		8513	-	2.6 pcs.
Nonius hanger lower		8510	-	1.3 pcs.
Nonius hanger, upper 85 mm		8511	125 - 185	1.3 pcs.
Nonius hanger, upper 135 mm		8512	135 - 235	
Nonius hanger, upper 235 mm		9201	235 - 340	
Nonius hanger, upper 340 mm		9202	340 - 440	
Nonius hanger, upper 440 mm		9203	440 - 540	
Nonius hanger, upper 540 mm		9204	540 - 640	
Nonius hanger, upper 640 mm		9205	640 - 740	
Nonius hanger, upper 740 mm		9206	740 - 840	
Nonius hanger, upper 840 mm		9207	840 - 940	
Nonius hanger, upper 940 mm		9208	940 -1040	
Knauf Tiefengrund (Universal Primer)		9209	5 L	0.02 L
Unflott Finish		129801	8 kg	0.1 kg
Knauf Uniflott		253631 253630	25 kg 5 kg	0.4 kg
Filler tube set		9218	-	-
Filling knife		73962	-	-
Screws SN 3.5x30		9275	3.5 x 30	20 pcs.
Mounting hook 6/18 8/18 10/23 12/25 15/30 8/12/50 12/20/66		9211 9212 9213 9214 9215 9216 9217	2 pcs 2 pcs 2 pcs 2 pcs 2 pcs 2 pcs 2 pcs	-

**Depending on room size.*

UPKEEP & MAINTENANCE

Best Practice: Use of clean cotton gloves when handling painted and foil-covered product elements will ensure a good result and a ceiling without fingermarks.

PRODUCT CATEGORY	DEMOUNTABLE T-GRID CEILINGS	
Products	Visona, Contur, Belgravia, Linear, Markant, Plaza	Danotile, Medley
Surface	White painted	Foil finish
Upkeep	Designed for use under normal conditions, i.e. up to 70% RH and 25°C, e.g. in offices, institutions and similar premises. Belgravia, Markant, Plaza and Danotile 600x600 have also been tested at 90% RH at 30°C and can be used under more extreme conditions such as kitchens, laboratories and rooms with frequent and major changes in the temperature and air humidity. Special purpose, anticorrosion treated suspension systems should be used in areas of very high humidity.	
Cleaning	Dust is removed using a dry duster or vacuum cleaner. Marks can be removed with a damp cloth using normal cleaning practices and neutral cleaning solutions. Stubborn marks and minor damages should be wiped clean prior to repainting. LINEAR: To ensure good alignment it is important that the tiles are installed in the same orientation. This is also important for maintenance when vacuuming or painting. Always ensure that when applying upward (painting) /downward (vacuuming) pressure, that the tiles are pushed / pulled in the same direction moving away from the grooved edge.	Dust is removed using a dry duster or vacuum cleaner. Marks can be removed with a damp cloth using a mild detergent if necessary. Stronger cleaning agents may be used where necessary to remove stubborn marks or where cleaning regimes require it. The product can also stand rigorous cleaning with concentrated disinfectants and detergents with high and low pH values (13.0 - 2.5).
Repair	Stubborn marks and visible damages and scratches on the surface can be repaired. Damages and scratches can be filled and finished with sandpaper prior to repainting. When painting use Knauf Danoline repair paint or similar (closest RAL colour 9003) and apply by paint roller. Spray painting is not recommended on perforated products, as there is a risk of the spray paint being applied to the acoustic felt backing thereby altering the acoustic properties.	Damages and scratches are difficult to repair and therefore it is recommended to replace damaged tiles with new.
Lamp suspension	DANOTILE: For sizes up to 625x625 and min. thickness 9mm, units of up to 3kg can be installed directly into the panel without reinforcement. For larger module sizes and all sizes in 6mm thickness, a reinforcement panel of sufficient strength can be installed behind the element. The reinforcement panel must extend all the way into the main runners, so that the weight is transferred to them. The total weight should not be greater than 3kg for each m^2 of ceiling. Where loads are greater than 3kg/m^2, additional hangers must be used. Units over 3kg, should be installed independently, so that they do not place any load on the ceiling. BELGRAVIA, MARKANT, PLAZA, MEDLEY: For sizes up to 625x625 not in Tangent perforation, units of up to 3kg can be installed directly into the panel without reinforcement. For larger module sizes and all sizes with Tangent perforation a reinforcement panel of sufficient strength can be installed behind the element. The reinforcement panel must extend all the way into the main runners, so that the weight is transferred to them. The total weight should not be greater than 3kg for each m^2 of ceiling. Where loads are greater than 3kg/m^2, additional hangers must be used Units over 3kg, should be installed independently, so that they do not place any load on the ceiling. VISONA, CONTUR, LINEAR: With smaller units (of up to 3kg) a reinforcement panel of sufficient strength can be installed behind the element. The reinforcement panel must extend all the way into the main runners, so that the weight is transferred to them. The total weight should not be greater than 3kg for each m^2 of ceiling. Where loads are greater than 3kg/m^2, additional hangers must be used Units over 3kg, should be installed independently, so that they do not place any load on the ceiling.	

PRODUCT CATEGORY	SELF-SUPPORTING CEILINGS	
Products	Corridor 400, Corridor Swing	Corridor F30
Surface	White painted	Foil finish
Upkeep	Designed for use under normal conditions, i.e. up to 70% RH and 25°C, e.g. in offices, institutions and similar premises. Corridor 400 and Corridor F30 have also been tested at 90% RH at 30°C and can be used under more extreme conditions such as kitchens, laboratories and rooms with frequent and major changes in the temperature and air humidity.	
Cleaning	Dust is removed using a dry duster or vacuum cleaner. Marks can be removed with a damp cloth using normal cleaning practices and neutral cleaning solutions. Stubborn marks and minor damages should be wiped clean prior to repainting.	Dust is removed using a dry duster or vacuum cleaner. Marks can be removed with a damp cloth using a mild detergent if necessary. On non-perforated tiles stronger cleaning agents may be used where necessary to remove stubborn marks or where cleaning regimes require it.
Repair	More visible damages and scratches on the surface can be repaired using filler and finishing with sandpaper prior to repainting. When painting use Knauf Danoline repair paint or similar (as NCS 0700 or closest RAL colour 9003) and apply by paint roller. Spray painting is not recommended on perforated products, as there is a great risk of the spray paint being applied to the acoustic felt backing thereby altering the acoustic properties.	Damages and scratches are difficult to repair and therefore it is recommended to replace damaged tiles with new.
Lamp suspension	CORRIDOR 400: Units weighing up to 3kg can be installed directly into the panel without reinforcement. N.B. The maximum cut-out, when installing in the centre of the panel is Ø265mm / 265x265mm. Units over 3kg, should be supported independently, so that they do not place any load on the ceiling. CORRIDOR SWING: The ceiling tile may not bear additional weight from other installations.	Objects up to a maximum of 17kg can be suspended using appropriate fixings.

UPKEEP & MAINTENANCE

Best Practice: Use of clean cotton gloves when handling painted and foil-covered product elements will ensure a good result and a ceiling without fingermarks. Handling the untreated panels with care will avoid damage and surface contamination prior to painting and thereby ensure a good end result.

PRODUCT CATEGORY	NON-DEMOUNTABLE CEILINGS AND WALL LININGS			
Products	Danopanel	Designpanel, Tectopanel, Solopanel, Stratopanel	Contrapanel, Adit	Kinopanel, Amfipanel
Surface	White painted	Untreated	Foil finish	Black painted
Upkeep	Designed for use under normal conditions, i.e. up to 70% RH and 25°C, e.g. in offices, institutions and similar premises. DESIGNPANEL, TECTOPANEL: The panels have also been tested at 90% RH at 30°C and can be used under more extreme conditions such as kitchens, laboratories and rooms with frequent and major changes in the temperature and air humidity. In areas of high humidity consideration should be given to anticorrosion suspension systems and durable/washable surface finishes.		CONTRAPANEL: Designed for use in sports halls and similar areas where conditions do not normally exceed 70% RH and 25°C. ADIT: The panels are custom made and designed for use under normal conditions, i.e. 70% and 25°C, e.g. in offices, institutions and similar premises unless otherwise advised. Adit and Contrapanel have also been tested at 90% RH at 30°C and can be used under more extreme conditions with frequent and major changes in temperature and air humidity.	Designed for use in cinemas, theatres, studios and similar premises under normal conditions, i.e. up to 70% RH and 25°C.
Cleaning	Dust is removed using a dry duster or vacuum cleaner. Removal of marks depends on the paint used on site, although a damp cloth using normal cleaning practices and neutral cleaning solutions is normally suitable for minor marks. In the case of stubborn marks or if in doubt refer to the paint manufacturer's recommendations. CONTRAPANEL: Dust is removed using a dry duster or vacuum cleaner. Marks can be removed with a damp cloth using normal cleaning practices and neutral cleaning solutions. On non-perforated tiles stronger cleaning agents may be used where necessary to remove stubborn marks or where cleaning regimes require it.			
Repair	More visible damages and scratches on the surface can be repaired using filler and finishing with sandpaper prior to repainting. When painting use Knauf Danoline repair paint or similar (closest RAL colour 9003) and apply by paint roller. Spray painting is not recommended on perforated products, as there is a risk of the spray paint being applied to the acoustic felt backing thereby altering the acoustic properties.	Use a paint roller to apply paint. Use the same paint as the original surface finish chosen. Spray painting is not recommended on perforated products, as there is a great risk of the spray paint being applied to the acoustic felt backing thereby altering the acoustic properties.	Damages and scratches are difficult to repair and therefore it is recommended to replace damaged panels with new.	When painting use Knauf Danoline repair paint or similar (as NCS S9000-N) and apply by paint roller. Spray painting is not recommended on perforated products, as there is a risk of the spray paint being applied to the acoustic felt backing thereby altering the acoustic properties.
Lamp suspension	The tile may not bear additional weight from other installations. Light objects up to a maximum of 3 kg/m² may be installed where they can be suspended from the furring system which must be able to bear the full weight.	Light objects up to a maximum of 3 kg can be suspended using appropriate fixings. Items over 3 kg must be suspended from the furring system which must be able to bear the full weight.	CONTRAPANEL: Light objects up to a maximum of 3 kg can be suspended using appropriate fixings. Items over 3 kg must be suspended from the furring system which must be able to bear the full weight. ADIT: The panel may not bear additional weight from other installations.	The panel may not bear additional weight from other installations.

PRODUCT CATEGORY	DESIGN ELEMENTS	
Products	Curvex	Mitex
Surface	Untreated	Untreated
Upkeep	Designed for creating organic wall and ceiling shapes e.g. in offices, institutions and similar premises under normal conditions, i.e. up to 70% RH and 25°C.	Designed for creating clean-cut edges wall and ceiling shapes e.g. in offices, institutions and similar premises under normal conditions, i.e. up to 70% RH and 25°C.
Cleaning	Dependent on the chosen surface finish.	
Repair	Dependent on the chosen surface finish.	
Lamp suspension	The panels are custom made and may not bear additional weight from other installations unless otherwise advised.	