SEAMLESS ACOUSTICAL SURFACES

INFORMATION BOX:
More on www.lahnau-akustik.de
--> products
--> Mikropor® FWA
You can find the detailed documents of our products in our download archive.

REFERENCES:
More references on www.lahnau-akustik.de/en
--> references
You can comfortably choose the area of application and see the matching references.

Photograph: Marco Moog
OBERFLÄCHEN

Base panel:
Expanded recycled glass granulate, bound with inorganic binder, glass-fabric reinforcement and acoustic fleece coating on both sides.

Surface/visible side:
Primer and white FWA plaster applied on site, using a proven spray method, guarantees retention of acoustic properties. In our special colour, as per sample, if desired.

Care/refurbishing:
It is possible to clean localized soiling using a damp synthetic sponge or brush. Clean with a vacuum cleaner and brush. Can be refurbished by spraying with Wilhelmi acoustic paint (WAF-R), without any loss of sound absorption properties.

Rear:
Acoustic membrane as on visible side

Edge configurations:
Untreated cut edge

Panel thickness:
Approx. 18 mm

Format:
2,500 x 1,250 mm or in special format 1,250 x 1,250 mm

Weight per unit area:
Approx. 7.5 kg/m²

Humidity:
Permanent high levels of humidity (> 70%) affect the dimensional stability of the panels.

GENERAL INFORMATION:
It is only possible to fulfil the expectations and demands placed on the function of the high-quality, seamless acoustic ceiling MIKROPOR® G FWA if assembly and coating work are carried out in accordance with the factory specifications determined by Lahnau Akustik GmbH. Ensure it is possible to move the entire substructure (narrow grid/support profile) in lengthwise and crosswise directions. Request the current manufacturer and processing guidelines before commencing installation work.

Images of surfaces, colors and structures can partly differ from the original.

TECHNICAL DATA

OBERFLÄCHEN

AKUSTAPLAN® graining 1.0 mm
Special color as sample on request

AKUSTAPLAN® graining 0.5–0.7 mm
Special color as sample on request

ALVARO FEIN® graining 0.3–0.5 mm
Special color as sample on request

LAHNAU FEIN PUTZ® graining 0.1–0.3 mm
Special color as sample on request

FIRE TESTS:

DIN 4102-1 B1/A2
EU and classified after DIN EN 13501-1
A2 – s1, d0

More test certificates on request.

Reports to sound absorption and fire tests on www.lahnau-akustik.de/en or on request.
THE PROCESSING GUIDELINE

Installation and treating of FWA-Glass seamless acoustic ceilings

INFORMATION BOX:

At www.lahnau-akustik.de
-> you can find processing guidelines on following for download installation guideline

• processing guideline – installation and treating
• Coating with Akustaplan (K 1 mm)
• Coating with Alvaro (K 0,5–0,7 mm)
• Coating with Alvaro-Fein-Putz (K 0,3–0,5 mm)
• Coating with Lahnau Fein Putz (K 0,3 mm)
• Coating with special color Alvaro and Akustaplan
• Coating with Lahnau Fein Putz (K 0,3 mm) in Sonderfarbe
• Technische Info – schallharte Ausführung
• processing guideline – non-absorbent version
• processing guideline – jointless cool panels Alvaro-Fein
• processing details for installation

You can find more detailed documents about our products in the download section. After a short registration you will be able to download it easily.

GENERAL NOTE:

Expectations and requirements of the function of the high-quality seamless acoustic ceilings MIKROPOR® G FWA can be fulfilled only if the installation and the coating work are according to the processing guideline of Lahnau Akustik GmbH. The relocatability of the whole substructure (narrow grid/support profile).

Before starting the installation you should request the manufacturer’s and processing guidelines.
CHAPTER 1 – GENERAL INFORMATION

The processing guidelines for the installation and coating of FWA-Glass seamless acoustic ceiling type must be read very attentively before the beginning of the installation!

This guideline is divided into 6 chapters/work procedures.

1. General note
2. Product Description
3. Installation of the Suspension System
4. Installation of the Acoustic Panels
5. Filling and Sanding Down

Upon request as the customer wishes:
6. Surface coating are divided in several versions:
   6.1 Akustaplan®  6.2 Alvaro®  6.3 Alvaro Fein®  6.4 Lahnau Fein Putz®

During the transition of a chapter/processing step to the next, the references at the end of each chapter are to be considered and examined!

Expectations and requirements of the function of the high-quality seamless acoustic ceilings Akustaplan® glass FWA can be fulfilled only if the installation and the coating work follow the processing guideline of Lahnau Akustik GmbH. The preconditions correspond to the current state of the technology and do not relieve the processing plant from its responsibility to execution and quality. We reserve the right to make changes in the pursuit of technical progress. This version replaces all preceding versions.

This processing guideline cannot meet all questions, which concern the installation.

Please contact us with questions, immediately.
CHAPTER 2 – PRODUCT DESCRIPTION

MIKROPOR® G FWA Akustaplan panels for seamless acoustic ceilings

The panels consist of an inorganic blown-glass granulate and meet the requirements of the building material class DIN 4102-A2 for non-combustibility. General building regulatory approval no. Z-56.426-882 and a general appraisal certificate P-BAY26-03446

Fleece coating and armouring on both sides.

The panels are available in sizes of 2,500 x 1,250 mm or 1,250 x 1,250 mm.

The thickness of the panel is 18 mm (thickness tolerance + - 0.3mm). The acoustic panels must be stocked in the interior at ground level and must be protected against humidity and climatic conditions (humidity max. 70%).

Areas of Application:
• Interior ceilings and wall cladding.
• Requires corrosion resistant substructure to DIN 18168 for damp locations.
• Only for use as wall cladding outside traffic areas.

The installation of seamless areas are possible up to an area of max. 200 m². The maximum length or width should not exceed 15 m. You have to place expansion joints for larger sizes. The max. height for wall cladding (without any joints) max. 5 m. The length of wall claddings is limited like ceilings. Corners have to be separated by expansions joints.
CHAPTER 3 – INSTALLATION OF THE SUSPENSION SYSTEM

The installation temperatures may not be under 12° C. The relative air humidity should amount to at least 30% but however max. 70%!

The components of the suspension system are to be used from only one system supplier! Products of the following companies are permissible: Suckow + Fischer or Lahnau Akustik.

A relocatability of the entire suspension system (lower C-profile/supporting profile) must be ensured in length- and transverse direction. Don’t use angle anchors!

Avoid different pressure ratios arising between the ceiling voids and usable space. Due to the physical properties of the ceiling system this can lead to the surface becoming soiled.

Appropriate measures will be required if a partial vacuum is created in the ceiling or wall voids (e.g., due to a failure to exhaust stale air; refer to information on page 7). Consult the manufacturer before installing.

Arrangement of the panel longitudinal joints (lower c-profile/support profile) in consideration of the incidence of light (\(\rightarrow 90^\circ\) to the window) see picture 1.

A seamless cover is not 100% touch light-free. The quality of the surface depends on the version and fulfilment of the processing instruction. At the rating of the different surfaces you should consider different conditions and manual performance; that is why it can’t come out as even as when it is industrially manufactured.

With multilateral incidence of light the lower c-profile (support profile) should be arranged in east-west direction. (See picture 1)

Picture 1

A relocatability of the entire substructure UK (lower c-profile/supporting profile) must be ensured in lengthwise and lateral direction (see arrows). No angle anchors use, no fixing. At all system connections like walls, cover jumps, columns, cross girders etc., the connections are to be laid out as per manufacturer default.
CHAPTER 2 – PRODUCT DESCRIPTION

3.1 Tightly fasten the CD–primary profile (upper c-profile) to the underlying ceiling using Nonius hangers. (pic. 2) Use only approved and standardised raw plugs to fix the upper section of the Nonius hanger.

Set the hangers at a distance of max. 1000 mm between centres. U-connection profiles (but only for primary profile/upper c-profile) can be fitted at the wall perimeter as an assembly aid. The lower c-profile (support profile) may not be determined (see pic. 3 and the wall connections details in pictures 5 + 6 + 7.)!
3.2 The primary profile (upper c-profile) should have a maximum length of 4,000 mm and they should be set at a distance of 1000 mm between centres. Locate the primary ceiling channels at a distance of approx. 120 mm from the wall. Use a laser beam director to adjust the primary profile to the required height.

3.3 Fix the CD-support profile (lower c-profile), max. length 4,000 mm crosswise to primary ceiling profile at intervals of approx. 415 mm (panel width 1,250 mm) by using cross connectors to fasten them to the primary ceiling profile. (overview picture 3) For connected ceiling surfaces of >100 m² are CD-support profiles (lower c-profiles) with max. length of 2000 mm recommendable.

Fix the support profile (lower c-profile) at right angles to the primary profile (upper profile). No diagonal spannings.

A relocatability of the entire UK (lower c-profile/supporting profile) must be ensured in lengthwise and transverse directionS (see arrows). No angle anchors used and no determining.

All system connections, like walls, cover jumps, columns, bearers etc., are to be explained according to manufacturer’s default.
3.4 The CD support profiles (lower t-profile), with a max. length of 4,000mm, for connected ceiling surfaces >100 m² are CD support profiles (lower t-profile) with max. length up to 2,000 mm recommendable, should be fixed with longitudinal connecting pieces aligned at 10 mm centres (see pictures 3 and 4.1).

The centre distance parallel to the flanking construction units should have max. 75 mm (pic. 6).

3.5 The support profile (lower c-profile) should not be screwed with an U-connection profile or other perimeter components. The distance of the profile ends to the flanking construction units should have at least min. 30 mm, however max. 30 mm (Details pictures 5 + 6 + 7).
Connections on flanking components wall connection sliding in general. Don’t screw, lay-on or set the flanking construction units and wall connections to the support profile (lower c-profile) or to the panels. See the wall connections details in picture 5 + 6 + 7.

Different pressure ratios between ceiling void and room side are to be avoided. Because of the physical characteristics of the ceiling system, the surface could become dirty. For such problems it is necessary to have enough air circulation in the ceiling void. With the help of right-dimensioned open joints on the ceiling sides, you will get the correct air circulation. Before starting the installation you should request the manufacturer’s and processing guidelines.
3.6 Any required modification to the substructure system to accommodate ceiling components should be made during the construction phase. This will avoid having to saw through the substructure system at a later date.

3.7 Ceiling components, like lightings, air-channels etc. may not load the cover panels. The panels need to be fixed separately or with the help of the support profile. No fixation of components on the lower c-profile/support profile or cover panels. All connections must be made slidingly.

**Detail connection on recessed luminaire**

*Cut A – A*

- nonius hanger
- cross connector
- primary C-Profile
- L-profile 40/20/1
- max. 75
- min. 15
- dry wall screw 3,9 x 35
- Lahnau Akustik panel Mikropor G FWA

**Detail connection on ventilation rail**

*Cut B – B*

- nonius hanger
- cross connector
- primary C-profile
- secondary C-profile
- max. 75
- floating connection
- Lahnau Akustik panel Mikropor G FWA

*all measures in mm*
3.8 The substructure system should be interrupted at the location of the expansion joints (ceiling surfaces greater than 200 m²). For surfaces in length and or width greater than 15 m continuous expansion joints must be arranged. Don’t screw tight the panels tightly.

3.9 Building expansion joints are to take over to the ceiling surfaces.
THE PROCESSING GUIDELINE
Installation and coating of FWA-Glass seamless acoustic ceilings

Before starting the Installation of the acoustic panels, it is necessary to check the following points of chapter 3 “Installation of the suspension system”!

Expectations and requirements of the function of the high-quality seamless acoustic ceilings Akustaplan® glass FWA, Alvaro® glass FWA, Alvaro® Fein and Lahnau Akustik can be fulfilled only if the installation and coating work are in accordance to the processing guideline of Lahnau Akustik GmbH.

- The shifting direction should according to the incidence of light.
- The installation temperatures may not be under 12° C.
  The relative air humidity should amount to at least 30% however max. 70%!
- Were the components of the suspension system used only from one system?
- A relocatability of the entire UK (lower c-profile/supporting profile) must be ensured in along and transverse direction. No use of angle anchors!
- Don’t screw, lay-on or set the flanking construction units and wall connections to the support profile (lower c-profile) or to the panels.
- Any required modification to the substructure system to accommodate ceiling components should be made during the construction phase.
- Were the required expansion joints considered during the installation of the suspension system?
- Building expansion joints are to take over to the ceiling surfaces.
- The panels are to be stored before the installation at least 24 hr. in the area of application under temperature and humidity of the installation conditions.

Only if all points were answered with “YES”, you can turn to chapter 5 “Filling and Sanding”

Points which were answered with „NO“ are to be revised in accordance with manufacturer defaults next to chapter 4 – Installation of the acoustic panels
CHAPTER 4 – INSTALLATION OF THE ACOUSTIC PANELS

The acoustic panel Mikropor® G may be installed only after adjustment of the balance dampness. The panels are to be stored before the installation at least 24 h. in the area of application under temperature and humidity of the installation conditions.

4.1 Before screwing the panels into position, bevel down the edges of the panels (to approx 23°) at the butt joints. This should be done on visible side using an edge plane. Both panel reverse sides have to get contact. On the visible side you get V-joints in along and transverse direction. It is very important for the firmness of the joints.

4.2 It is not important where you begin with the first row of panels. The cutaway percentage needs to be considered. The first row must be in full alignment.
* The flatness of the ceiling needs to be taken care of during the whole mounting

4.3 Don’t screw, lay-on or set the flanking construction units and wall connections to the support profile (lower c-profile) or on the panels.

We reserve the right to make changes in the pursuit of technical progress.
© Lahnau Akustik GmbH
A relocatability of the whole ceiling must be ensured in along and transverse direction. In all system connections like with walls, cover jumps, bearers etc. are to be explained according to manufacturer’s default.
4.4 The panels are fixed in the longitudinal joints, centred on the support profile with phosphorated quick-fix needle-point screws, Form TN to DIN 18182 at a distance of approx. 20 mm from the edge. Set the screws at a uniform distance apart of approx. 250 mm. The screw head should be countersunk to 1 mm. Connect the panels on the suspension system in a way that the panels will contact each other. On the visible side you get V-joints in along and transverse direction.

4.5 The following ranges of panels should be laid with the joints, offset by a distance of at least 500 mm from each other (see the overview in picture 3).

4.6 Use a circular hand saw with a vacuum attachment to create panel cut-outs. Where the cut edge of the panels is visible at the expansion joints, open wall connections and ceiling penetrations, these should be covered prior to installation with edge fleece that is coated with a hot-melt adhesive.
Before starting “Filling and Sanding” it is necessary to check the following points of chapter 4 “Installation of the acoustic panels”

Expectations and requirements of the function of the high-quality seamless acoustic ceilings “Akustaplan® glass FWA” and “Alvaro® glass FWA” can be fulfilled only if the installation and coating work are according to the processing guideline of Lahnau Akustik GmbH.

- According to the manufacturers default all panel connections should have a V-joint?

- The ranges of panels should be laid with the joints offset by a distance of at least 500 mm from each other.

- The installation temperatures may not be under 12° C. The relative air humidity should amount to at least 30% however max. 70%!

- Visible cut edge of the panels at the expansion joints, open wall connections and ceiling penetrations should be covered with edge fleece before the installation.

- Don’t screw, lay-on or set the flanking construction units and wall connections on the support profile (lower c-profile) or on the panels.

- The panels are fixed in the longitudinal joints, centred on the support profile

- Were the screw distances with approx. 250 mms kept?

- Final verification on flatness of the ceiling

Only if all points were answered with “YES”, you can turn to chapter 5 “Filling and Sanding”

Points which are answered with “NO” are to be revised in accordance with manufacturer defaults.

Next to chapter 5 – Filling and Sanding
CHAPTER 5 – FILLING AND SANDING DOWN

5.1 Having installed the MIKROPOR® G FWA panels, it is necessary to fill both the joints in between the panels and screw locations with Wilhelmi joint filler G. Keep the filled areas to a minimum width possible (maximum 50 mm). Fill the locations of the countersunk screw-heads so that the filler bulges; due to the fact that the fillers sinks, this will avoid the need to repeat the filling process.

The Wilhelmi jointing filler G is to be press-in hard into the V-joints. It is very important for the firmness of the panel connections. Because of the press-in operation the filler gets into the hollows of the panel and so does the V-joint after the setting for a frictional connection inside the ceiling surface.

5.2 Cut out any part areas where there is damage to the fleece surface or where mechanical damage has caused pieces of fleece to come loose. Then fill and level the surface with Wilhelmi joint filler G.

5.3 Once dry, the seams and screw locations should be sanded down with a belt sander with sanding frame (grain-size 80). Any isolated problem spots that remain after sanding down the joints can be re-filled with Akustaplan FWA filler and sanded down again. This can be done using hand-held sanders and sanding screens.

5.4 Mark with colourless chalk-line any areas that subsequently require to be cut out. Cut edges that are still visible can be covered with edge fleece or filled.
THE PROCESSING GUIDELINE
Installation and coating of FWA-Glass seamless acoustic ceilings

Before starting the coating process, it is necessary to check the following points of chapter 5 “Filling and Sanding down”!

Expectations and requirements of the function of the high-quality seamless acoustic ceilings “Akustaplan® glass FWA” and “Alvaro® glass FWA” can be fulfilled only if the installation coating work are in accordance to the processing guideline of Lahnau Akustik GmbH.

- Were all panel connections executed in accordance to manufacturer default?
- Was the Wilhelmi joint filler G press-in into the joints?
- The installation temperatures may not be under 12° C. The relative air humidity should amount to at least 30% however max. 70%!
- Any isolated problem spots that remain after sanding down the joints can be re-filled with Akustaplan FWA filler and sanded down again.
- Were there areas, where there was damage to the fleece surface or where mechanical damage had caused pieces of fleece to come loose? Then fill and level the surface with Wilhelmi jointing filler G, according to manufacturer’s default.
- It is necessary to check that the ceiling is level by projecting a light across its surface. Ceiling surface has to be perfectly level and clean.

Only if all points were answered with “YES”, you can turn to chapter 6 “Coating”.

Points which were answered with “NO” are to be revised in accordance to manufacturer defaults.

Next to CHAPTER 6 – Coating
THE PROCESSING GUIDELINE
Installation and coating of FWA-Glass seamless acoustic ceilings

CHAPTER 6 – COATING

In the following the processing guideline, installation and coating of FWA-Glass seamless acoustic ceilings is going to be completed with documents.

Get more information on our website www.lahnau-akustik.de/en in the download archive at MIKROPOR® FWA.

Coating of seamless acoustic panels Mikropor® G FWA AKUSTAPLAN® 1.0 mm grain size

Coating of seamless acoustic panels Mikropor® G FWA ALVARO® 0.5–0.7 mm grain size

Coating of seamless acoustic panels Mikropor® G FWA LAHNAU FEIN FINISHING PLASTER® 0.1–0.3 mm grain size

Coating of seamless acoustic panels Mikropor® G FWA ALVARO FEIN FINISHER® 0.3–0.5 mm grain size

Coating with special color seamless acoustic panels LAHNAU FINISHING PLASTER® 0.1 mm grain size or the seamless acoustic panel Mikropor® G Alvaro grain size 0.5–0.7 mm

Beschichtung der fugenlosen Akustikdecke Mikropor® G FWA mit Lahnau Fein Putz® 0.1–0.3 mm und Alvaro Fein® 0.3–0.5 mm in Sonderfarbe.

Addition of the processing guidelines for installation and coating of Mikropor® G FWA seamless acoustic panels for the non-absorbent version.

Processing guidelines for installation and coating of MCI/FWA_cool seamless acoustic cooling panels Mikropor® G FWA_cool Alvaro Fein

Technical details for installation of seamless Wilhelmi acoustic panels
THE PROCESSING GUIDELINE
Installation and coating of FWA-Glass seamless acoustic ceilings

MATERIAL REQUIREMENT
Quantities are indicated per square metre of ceiling surface. Calculation-basis: rectangular, straight area

Suspension system:
- Metal-drill plug (wedge nail) 0.95 pcs
- Nonius hangers (upper and lower section), for CD-ceiling channel 06 x 27 0.95 pcs
- Locking pin for Nonius hanger 1.90 pcs
- U-connection profile 28 x 27 x 06/3,000 m long 0.30 m
- Screw rawlplug 6 x 40 mm 0.70 pcs
- CD-ceiling channel 60 x 27 x 0.6/4 m long 3.50 m
- Channel connector for CD-ceiling channel 0.80 pcs
- CD-cross-recess quick fastener for CD-ceiling channel 60 x 27 2.50 pcs

Mikropor® G Cover Layer and Accessories
- MIKROPOR® G glass acoustic panel 1.00 m²
  Format 2.500 x 1.250 mm, 1.250 x
- Drywall needlepoint screws 3.5 x 35 mm 14.00 pcs
- Wilhelmi Joint Filler G (powder-form) 300.00 g/m²
- Wilhelmi Akustaplan FWA (ready to use) 40.00 g/m²

Coating Materials:
- Depending on the surface version and performance. The exact information needs to be assigned to the processing guidelines “coating of seamless acoustic panels” from the company Lahnau Akustik.

All coating components are put ready for use, nevertheless, are to be stirred up before use by means of beater!

April 2017 – Lahnau Akustik GmbH
CHAPTER 6.4 – Coating with Lahnau finishing plaster K 0.1–0.3 mm – standart color white

Read the information about for the coating of FWA-glass seamless acoustic panels with acoustic plaster Lahnau finishing plaster (grain size 0.1–0.3 standard color white) before starting the installation work properly!

The information is divided in 5 steps. Step 6 depends on the variation.

1. General note
2. Product description
3. Installation of the suspension system
4. Installation of the acoustic panels
5. Filling and Sanding Down

Upon request as the customer wishes:
6. Surface coating are divided in several versions:
   6.1 Akustaplan®  6.2 Alvaro®  6.3 Alvaro Fein®  6.4 Lahnau Fein Putz®

During the transition of a chapter/processing step to the next the references at the end of each chapter are to be considered and examined!

On the following pages you can find “the processing guidelines – coating of seamless Wihelmi acoustic ceilings” the coating guideline for Lahnau Fein plaster grain size 0.1–0.3 mm. Further coating guideline on request you can find on www.lahnau-akustik.de/en.

If you switch over to another chapter, notes of the chapter before need to be considered and checked.

Expectations and requirements of the function of the high-quality seamless acoustic ceilings Lahnau Fin plaster® glass FWA can be fulfilled only if the installation and the coating work are according to the processing guideline of Lahnau Akustik GmbH. The preconditions correspond to the current state of the technology and do not relieve the processing plant from its responsibility to execution and quality. We reserve the right to make changes in the pursuit of technical progress. This version replaces all preceding versions.

This processing guideline cannot meet all questions that concern installation.
Coating of seamless acoustic panels

Notice: All coating component need to be stored 24 h before the processing in the range of application and its temperature and humidity.

Before starting the coating process, it is necessary to check that the ceiling is level by projecting a light across its surface. Visible installation or detail mistakes should be shown by the coating personal.

The only way to ensure that the finished seamless Lahnau Fein Putz® ceiling has a perfect optical finish is to start with a ceiling surface that is perfectly level and clean.

The expectation of the functions from the high quality seamless acoustic panels, with Lahnau Fein® grain size K 0.1–0.3 mm can be fulfilled only if the installing and coating work are following the working standards made by Lahnau Akustik GmbH. The conditions fit the current level of technics and do not absolve processor from the responsibility towards the execution and quality. Technical change of the construction is reserved because of the constant progress. It replaces every previous version.

> A jointless ceiling is not 100% highlight-free. The quality of the surface depends on the accuracy of the execution and from following the steps of the instruction. Meanwhile the assessment of the surface should be considered about the technical execution under different circumstances of created capacity. That's why it can't present the industrial evenness of the product.

This technical information cannot include every question concerning the coating.

If you don’t have the information for the installation and coating from the FWA-glass jointless acoustic panels, or if you have any questions, please contact the manufacturer.

6.4.1 The first step of the process is to spray coat the whole of the ceiling surface with Wilhelmi using a pressure spray (quantity: approx. 200 ml/m²).
> The amount of approx. 200 m² contains the accruing spraying loss.
THE PROCESSING GUIDELINE

Beschichtung FWA-Glas fugenlose Akustikdecken

Use plaster spraying equipment with a screw conveyor to coat the ceilings. The air compressor should have a minimum rating of 600–800 l/m. (Equipment manufacturer: e.g. Strobel).

> The compliance of the order quantity and the drying time between the coating steps is important for an optical and acoustic effective surface. Because of different undergrounds (acoustic panels and spatula joint) a formation of unwanted grooves can appear if you don’t follow the compliance of the order and the drying time.

**Note:** The coating with Lahnau Fein Plaster graining 0.1 – 0.3 mm is approved with a plaster pipe only. Plaster pipe nozzle = 4 mm

Sollten Ihnen die Technischen Informationen zur Montage und Beschichtung von FWA-Glas fugenlosen Akustikdecken nicht vorliegen, oder bei Fragen ist umgehend Kontakt mit dem Hersteller aufzunehmen

6.4.2 The final coating with Wilhelmi Acoustic Plaster Filigree Structure, grain size – 1 mm or the Wilhelmi Acoustic Plaster Alvaro, grain size 0.5–0.7 is applied in two consecutive coats with a drying time of approximately 3–4 hours between each. Total coating weight 1.8 kg per m². The plaster should be applied by cross strokes. During the coating process the room temperature should not fall below 12° C and the relative humidity should not be above 70%.

> After the coating it is necessary to feed enough ventilation and drying out of the rooms immediately!
> Shock-like heating or cooling the rooms are to be avoided because it can crack imitation!

**Compound seams should not be visible after the second spraying.**

**NOTE:**

During the drying process, between the coating steps, it is necessarily to open the foils and to provide enough ventilation.

All coating components are put ready for use, nevertheless, and are to be stirred thoroughly before use by means of beater!
THE PROCESSING GUIDELINE

Beschichtung FWA-Glas fugenlose Akustikdecken

After the finishing of the coating the following points of chapter 6 “Coating” should be absolutely kept.

Expectations and requirements of the function of the high-quality seamless acoustic ceilings Akustaplan® glass FWA, Alvaro® glass FWA, Alvaro® Fein und Lahnau Fein can be fulfilled only if the installation and coating work are according to the processing guideline of Lahnau Akustik GmbH.

- During the coating process the room temperature should not fall below 12° C and the relative humidity should have min. 30% however max. 70%.
- After the coating it is necessary to feed enough ventilation and drying out of the rooms immediately!
- Did you maintain the drying time between the sprayings?
- Shock-like heating or cooling the rooms is to be avoided, because it can come to crack imitation!
- Tape material and foils are to remove immediately for a sufficient air circulation.

Note: All coating components are put ready for use, nevertheless, are to be stirred up before use by means of beater thoroughly!

Protective measures:
a protective mask P 1 and protective goggles should be worn for overhead work and in areas where there is dust. The technical information we provide, including that relating to recommended applications, is on the basis of the current state of technology. Otherwise our “General Terms and Conditions of Sale” apply.

March 2017
Lahnau Akustik GmbH
SEAMLESS ACOUSTIC COOLING CEILINGS

MIKROPOR® G FWA COOL
The Seamless Acoustic Cooling System

INFORMATION BOX:
More on www.lahnau-akustik.de
-> Produkte
-> Mikropor® FWA cool
finden Sie weitere Informationen zum Produkt.

You can find the detailed documents of our products in our download archive.

GENERELLER HINWEIS:
Die Erwartungen und Anforderungen an die Funktion der hochwertigen fugenlosen Akustikdecke MIKROPOR® G FWA können nur dann erfüllt werden, wenn die Montage- und Beschichtungsarbeiten nach den Werksvorschriften der Lahnau Akustik GmbH ausgeführt werden. Eine Verschiebbarkeit der gesamten UK (Feinrost/Tragprofil) muss in Längs- und Querrichtung gewährleistet sein.

Vor Montagebeginn sind die aktuellen Hersteller- und Verarbeitungsrichtlinien anzufordern.

REFERENCES:
More references on
www.lahnau-akustik.de/en
-> references

You can comfortably choose the area of application and see the matching references.
Fine designed rooms inspire your soul. Interior design, spatial experience and performance power have a big influence on a worker.

Progressive architecture was always considering these aspects for the good of humans and the environment. The ceiling is the most untouched area in a room and that’s why Lahnau Akustik GmbH isn’t bound to building grid.

COOLING CEILING MIKROPOR® G FWA Cool was added to our MIKROPOR® G FWA as a climatic addition.

This product can be used as an alternative to the metal ceiling cooling system. By doing so you avoid operating noises and air circulation which guarantees a nice interior climate.

The minimal thermal conductivity from expanded glass granulate gets raised by aggregates without acoustical loss. Heated air rises on the top and is cooled by acoustic cool panels. It guarantees a pleasant indoor temperature. Cold draughts feeling is being avoided.

Our product COOLING CEILING MIKROPOR® G FWA Cool combines great room acoustic, climatical aspects and aesthetics.
SEAMLESS ACOUSTICAL COOLING CEILINGS
Mikropor® G FWA Cool

SEAMLESS BEAUTY – WELL TEMPERED – ENDLESSLY FLEXIBLE

Pleasant atmosphere
- Constant temperature control
- No cold draughts feeling
- Comfort
- Disturbing operating noises and air circulation are avoided

Endlessly flexible
- High architectural designer freedom
- Coherent area up to 100 sqm without expansion joint
- Coating with Alvaro® Fein Putz (0.3–0.5 mm)

Acoustically effective
Even in combination with our cooling system the acoustic panels

Easy handling
- Installation of substructure
- Insert of cooling meanders
- Examination of pressure and tightness
- Installation of panels
- Spatula and sanding
- Coating

Other advantages
- Independent from acoustic panels and cooling system
- High light reflexion
- Renovateble
- Very thermal conductivity
- Building material class A2 (not flammable)
- Eco-friendly and hygienic
- Ecological building material
- Panel size 2,500 mm x 1,250 mm

Comfortable atmosphere with constant temperature

The newly developed acoustic panel  MIKROPOR® G FWA

Easy handling while mounting
OVERVIEW MOUNTING

1. Installing the substructure
Ensure it is possible to move the entire substructure (narrow grid/support profile) in lengthwise and crosswise directions.

2. Laying the cooling meanders
The cooling meanders are then inserted on site into the support profiles in the notched recesses in the hold-down assemblies, determined at the factory in a manner that ensures they are not fixed rigidly in place.

3. Complete installation of cooling technology
The individual control assemblies are connected together and to the feed, and return lines of the room-side water mains using flexible, oxygen diffusion-tight connection hoses.

4. Leakage test, pressure test and tubing
Once all cooling meander tubes are connected to the distributor lines and control assemblies carry out, document a pressure test with compressed air before covering with acoustic panels. Then fill the system with water and vent.

5. Installing the modified acoustic panels
Only use screws with “Ruspert coating”, due to the graphite content in the panel core!

6. Filling and sanding down
When filling and sanding down, observe the manufacturer’s specifications in chapter 5 of the technical information.

7. Coating
Manufacturer specifications in chapter 6 of the technical information.

GENERAL INFORMATION:

The specifications are state-of-the-art; nevertheless, it remains the responsibility of the person/persons carrying out the work to maintain quality and workmanship consistent with best practice.

Construction and variants subject to technical modifications due to continual further development. All rights reserved. This version supersedes all previous versions.
FUGENLOSE AKUSTIK-KÜHDECKEN
Mikropor® G FWA Cool

1. Installing the substructure
Ensure it is possible to move the entire substructure (primary grid profiles/climate profiles) in lengthwise and crosswise directions. Do not use angle anchors!

2. Substructure specifications
Hang the C-primary grid ceiling profiles with a max. spacing of 1,250 mm using 40 kg rated Nonius hangers. The maximum spacing allowed between hangers is 800 mm.

As the installation is DIN EN 13 964 compliant, the manufacturer guidelines of the leading system manufacturers apply. The climate profile (support profile level) must not be fixed in position!

3. Installing the cooling tubes
It is very easy to press the tubes into the ribbing of the omega-shaped profile by applying lubricant. It is recommended that you initially fit tubes into every second profile, and use the unused profiles in between to connect up the next circuit. About 10 m² of tubing is required for the control circuit (precise length of tubing per control circuit is detailed in hydraulic design specifications).

4. Leakage test and pressure test
Once all tubes are connected to the control circuit, the distributor carries out and documents a pressure test with compressed air before covering with acoustic panels. Then fill the system with water and vent. The system is commissioned by filling and venting the whole system.

5. Installing the modified acoustic panels
Stagger the panels along their longitudinal joints next to the tubing on the climate profile; secure using drywall needle point screws with “Ruspert coating”, form TN, to DIN 18182 at approx. 20 mm distance to the edge. Bolt each profile on both sides of the tubing alternately with 400 mm spacing.

6. Filling and sanding down
When filling and sanding down, observe the manufacturer’s specifications in chapter 5 of the technical information.

7. Coating
Manufacturer specifications in chapter 6 of the technical information.

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