Planning and Processing Guideline S.A.C. Yellow-Line

The s.a.c. silent acoustic system permanently combines perfect acoustic properties with aesthetic surface elegance: viable solutions in the form of smooth, jointless homogenous surfaces. Today, room acoustics no longer just have to meet very high demands in concert and theatre halls as well as auditoriums. More and more frequently, acoustic subjects are in focus with new buildings and conversion of schools, restaurants, banks, industrial and office buildings as well as private residential houses.

The current trend towards spacious, bright rooms with often hard floor coverings, smooth walls and large window areas, as well as Spartan furnishing makes the installation of acoustically effective ceilings indispensable. The jointless acoustic system s.a.c. silent combines optimal acoustic properties, paired with aesthetic, finest coated surface elegance.

1. System description

Consisting of preponderantly natural, mineral raw materials, the acoustic system offers an outstanding performance with regard to sound absorption. In addition, it captivates through its jointless, homogenous surface which can be produced on horizontal and vertical, as well as on arched surfaces.

Basis components of the jointless acoustic system are the specially structured acoustic panels of glass wool with its unique acoustic properties. The panels are easy to cut, whereby the incurred offcuts show a very good cost relationship in comparison to the competition. In the case of concrete or drywall construction, the panels can be glued quite easily to the prepared subsurface. Following this, two acoustically effective coats are applied to the panels, the base coat and the topcoat. The result is a functional, visually homogenous surface without annoying interruptions. The topcoat is slightly water and dirt repellant.

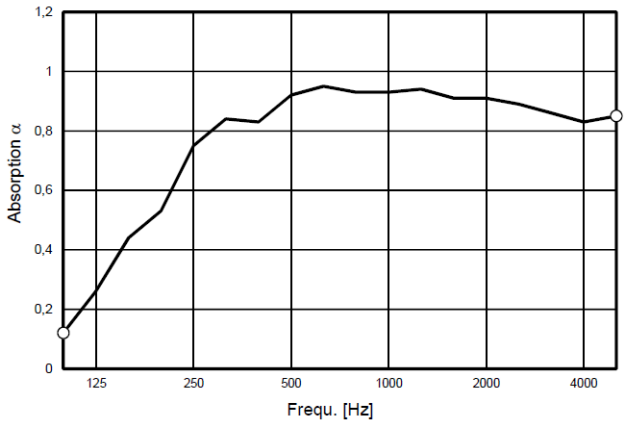
2. Properties

2.1 Absorption

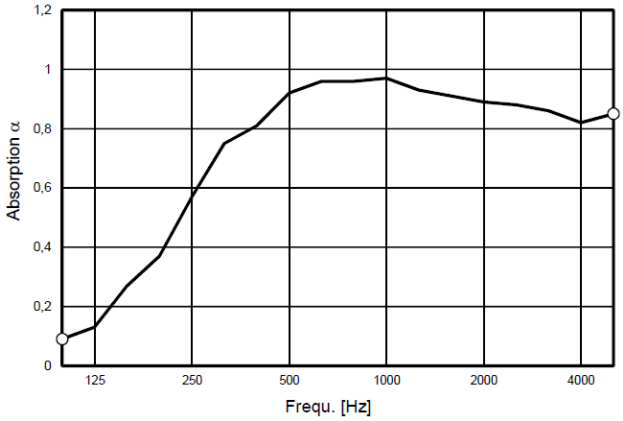
While the specially structured acoustic panels of the s.a.c. silent acoustic system absorb the sound perfectly, the two sound-permeable coatings take care of a jointless, aesthetic, visual appearance.

The absorption values shown, illustrate the effectiveness of the system and are used by acousticians and building physicists to determine the optimum reverberation time in the room. The measured values are based on laboratory measurements, which may vary depending on processing and object conditions.

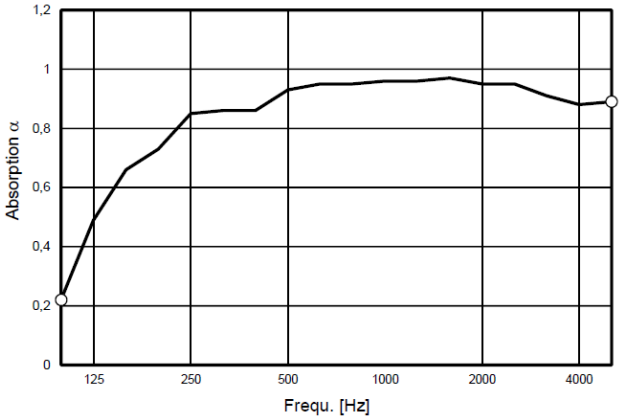
2.2 Sound absorption coefficient



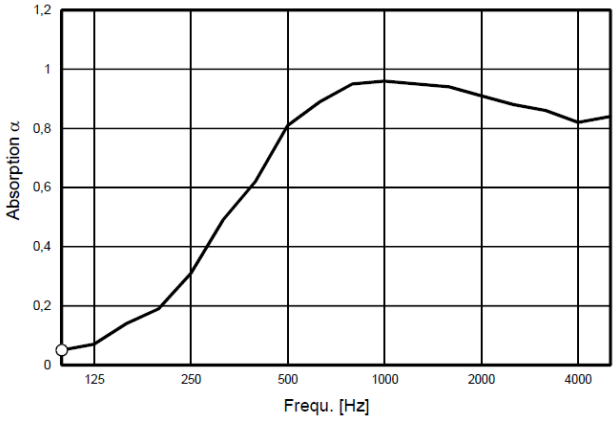
- **System thickness 50mm directly on concrete**
- **Noise Reduction Coefficient α_w = 0.90**
- **Sound absorber class = A**



- **System thickness 40mm directly on concrete**
- **Noise Reduction Coefficient α_w = 0.85**
- **Sound absorber class = B**



- **System thickness 70mm directly on concrete**
- **Noise Reduction Coefficient α_w = 0.95**
- **Sound absorber class = A**



- **System thickness 30mm directly on concrete**
- **Noise Reduction Coefficient α_w = 0.65**
- **Sound absorber class = C**

If the basic is applied mechanically, the degree of sound absorption declines by approx. 10% in comparison to a base coat applied by hand. The application of the topcoat by hand is recommended. Otherwise another decline of the absorption must be taken into account and there is danger of grey abrasion in the topcoat. The above shown values refer to a coat applied by hand. The original test certificates can be requested from S.A.C. Silent AG

3. General information

3.1 Application areas

The use of the s.a.c. silent acoustic systems is recommended in concert and theatre halls and auditoriums. As well as in open-plan areas, with new building and conversion of schools, restaurants, banks, industrial and office buildings and private residential houses.

3.1.1 Use in indoor pools as well as balcony soffits

The s.a.c. silent acoustic systems can also be applied in indoor pools, balcony soffits as well as wellness areas when there is no direct influence through moisture and water (condense water, spray water, water vapor, etc.).

3.1.2. Prerequisites for the use in indoor pools and wellness areas and balcony's:

- Indoor pools require air-conditioning or controlled room ventilation.
- Air conditions usual in swimming pools (relative humidity approx. 60%, room temperature approx. 30°C, chlorinated air) must be complied with.
- The additional hydrophobic impregnation from s.a.c. shall be provided.

3.1.3 Restrictions for use - s.a.c. acoustic ceilings may not be used in:

- areas with increased steam effect (anterooms of saunas, steam baths, etc.)
- in spray water endangered areas
- with sea water and brine baths
- in areas with increased mechanical stress (gyms and sports centers, heavily used walls)

3.2 Coherent areas

Substrate	Maximum lateral lengths	Maximum area
Concrete		600 m^2
Suspended Plaster- and Aquapanel ceilings	15 m	225 m^2

Movement joints of the building shell must be taken over into the construction of the acoustic ceilings.
Above and beyond this, movement joints must be arranged in the case of significantly restricted ceiling areas (e.g. in the case of constrictions due to wall nosings). Connections to components of other building materials, in particular supports or thermally highly stressed mounting parts such as recessed lights must also be separated, e.g. with shadow gap or rim or designed flexibly. Object specifically, butt joints can be required due to work stages.
Recommended area size: 200 m^2

3.3 Maximum sag of the substructure

The maximum ceiling sag is l/500

Example: A 5x5m large area may have a maximum sag of 10 mm in both axial directions.

3.4 Curved surfaces

The Yello-Line acoustic system is very well suited for the production of curved surfaces.

Bending radius:

Thickness acoustic panel	Minimal bending radius
22 mm	1.2 m
32 mm	1.5 m
42 mm	2.0 m
62 mm	3.0 m

The acoustic panels do not have to be cut on the reverse side (printed side).
In the case of unevenness greater than 1.0 mm a base coat has to be applied again or touched up with this. This is why we recommend calculating the application of the base coat twice.

3.5 Fire behaviour

According to standard SN EN 13501-1 the jointless acoustic system corresponds to building material class A2-s1, d0. This means that the material is not combustible without shares of combustible building materials.

3.6 Health and safety

The s.a.c. silent jointless acoustic system with finest coating has the LEED credit EQ 4.6 confirmation. This means that the system is suitable for use in schools and other buildings with regard to VOC substances and emissions.

4. Planning and preparatory work

4.1 Evenness

An expert processing of this high-quality system – from the preparation of the substrate or the possible sub-construction all the way to the topcoat – is decisive for achieving an optimum, smooth surface quality. Without a uniform, even substrate, a first-class visual appearance of the jointless covering layer cannot be achieved.

The s.a.c. system cannot be judged according to the quality levels Q1 - Q4.

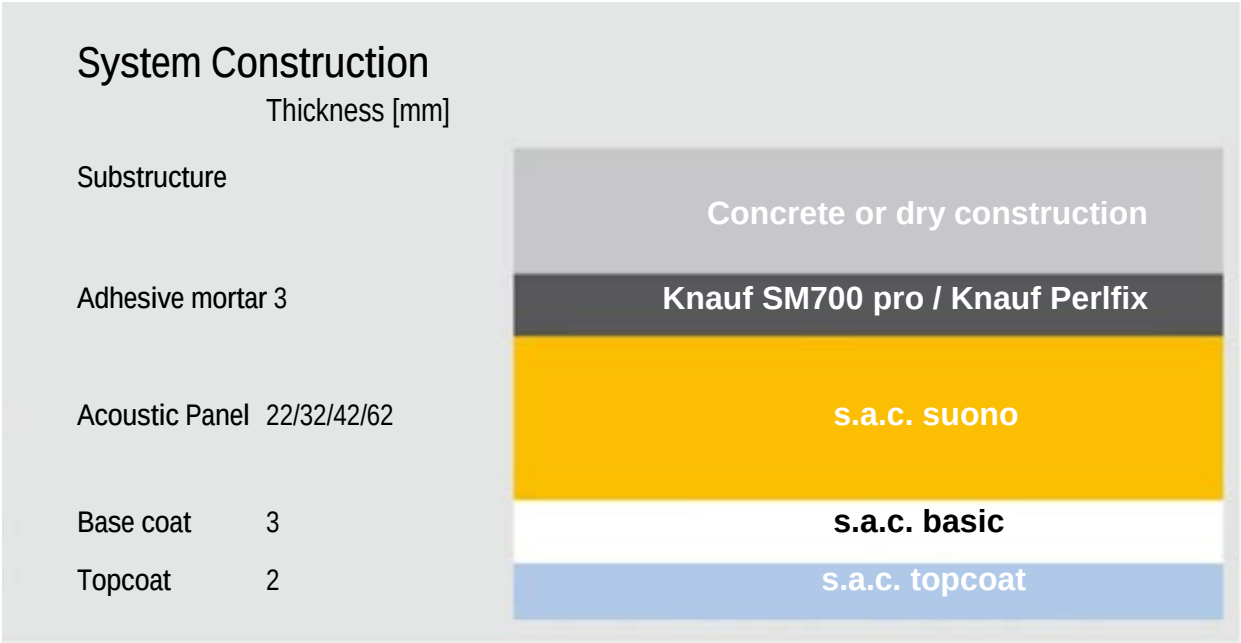
The jointless acoustic system places high demands of craftsmanship on processing. Even in the case of expert execution, it is possible that individual irregularities can be detected under sidelight conditions.

Important to know: With the s.a.c. silent topcoat, skimming and regrinding of the finished surface is not possible.

To know which execution quality may be expected, it is recommended to inspect the jointless, smoothed, finest coat on a finished property with similar light conditions. Please ask the executing enterprise if you have any questions.

4.2 Installation thickeness

At least 30 mm installation height is required for an acoustic improvement with s.a.c. silent.



Thickness acoustic panel	Substrate compensation if necessary approx.	Adhesive mortar	Basic	Topcoat	**Installation heights complete approx.**
22 mm	0 - 5 mm	3 mm	3 mm	2 mm	**30** to 35 mm
32 mm	0 - 5 mm	3 mm	3 mm	2 mm	**40** to 45 mm
42 mm	0 - 5 mm	3 mm	3 mm	2 mm	**50** to 55 mm
62 mm	0 - 5 mm	3 mm	3 mm	2 mm	**70** to 75 mm

In the case of unevenness greater than +/- 2.0 mm a substrate compensation must be allowed for.

4.3 System weights

Thickness Acoustic Panel	Acoustic Panel	Panel bonding d = 3 mm	Basic d = 3 mm	Topcoat d = 2 mm	Weights
[mm]	[kg/m^2]	[kg/m^2]	[kg/m^2]	[kg/m^2]	[kg/m^2]
22 mm	1.8	4	3	2	**10.8**
32 mm	2.7	4	3	2	**11.7**
42 mm	3.5	4	3	2	**12.5**
62 mm	5.1	4	3	2	**15.1**

Specifications in freshly installed state (wet weights). The surface weights of s.a.c. silent must be taken into consideration when calculating the substructure of suspended plasterboard and aquapanel ceil

4.4 Coloured acoustic ceilings

s.a.c. silent ceilings are standard natural white, similar to NCS S 0500-N, however the topcoat can be coloured in various pastel shades. More intense colour shades are possible upon enquiry.

Information to minimise risks regarding colour concepts, cloud formations, pigment and filler fracture:

- If the acoustic ceiling is to be built with a coloured topcoat it is recommended to have an plaster sample made up according to NCS colour palette.
- Before the start of execution, a sample ceiling of at least five square meters should be prepared by the contractor and accepted by Planning / Construction Management.
- For the execution of coloured acoustic ceilings, the manufacturer's supplementary information sheets must be observed

4.5 Ceiling installations

Popular installations such as lamps, loudspeakers, fire detectors, etc. can be integrated in the acoustic system without difficulty. Correspondingly, system-compatible installation platforms with our without ceiling cut-out are required. For a perfect appearance we recommend using installation items with a cover rim of at least 5 mm width.

Air circulating in acoustic panels can lead to discolourations or imprints on the surface. So that air cannot penetrate the acoustic panels, any manually prepared openings, cut-outs, breakthroughs or connections in the panels must be closed off again airtight. The open glass wool front sides must be smoothed with an approx. 2 mm thick connect adhesive layer or the sides masked airtight with aluminium adhesive tape.

This is an important point in particular with suspended ceilings to minimise the risk of local contaminations through air flow.

4.6 Temperature and flow resistance

Different temperatures, humidity or pressure conditions favour air circulation within a room. In the case of the jointless absorber systems which are permeable to air, this can lead to contaminations or slight colour changes of the visible surface over time.

This is not a defect, instead a natural phenomenon which does not result in a warranty claim. The acoustic performance of the system is not influenced by signs of aging such as greying, discoloration or imprints.

4.7 Dew point

If the s.a.c. silent acoustic system is installed adjacent to the outer shell of the building (flat roof, attic floor, outer walls, cold rooms), it is recommended to have the dew point calculated by a building physicist in advance and to take this into consideration for the planning.

Rule of thumb: insulation value of the s.a.c. acoustic panels warm side d 30% of the insulation value of the outer insulation. The thermal conductivity of the s.a.c. acoustic panels is »D = 0.035 W/(mK)

Attention: If the dew point shifts into the system due to the additional insulation value of the acoustic panels, the Yellow-Line acoustic system must not be applied under any circumstances. If the dew point is within the acoustic panels, the condensation moisture causes increased dust adhesion to the more moist coating surface and the top layer discolours relatively quickly and irregularly. Furthermore, the panels may peel off on the substrate, as adhesion cannot be guaranteed due to the increased moisture in the system.

5. Renovation

5.1 Slight contaminations and repairs

In contrast to gypsum plaster areas, the s.a.c. silent surfaces are hard to repair.

Certain contaminations can be rubbed off with a white, soft rubber or removed with adhesive tape that is pressed on the contaminated site and removed again. It is also possible that contaminations can also be dabbed off with a microfiber cloth (do not wipe!)

With smaller mechanical damages, the topcoat can be moistened, the missing acoustic render replaced and then smoothed. If necessary, sand down carefully with sandpaper of 240 grain. After the repair, the corrected spot usually shows a slightly deviating surface finish in comparison the remaining topcoat.

We therefore recommend trying out repairs and removal of contaminations on a sample first to prevent a worsening of the situation as far as possible.

5.2 Cleaning and Renovation

Larger contaminations or damages can be re-covered over the full surface, however this procedure is relatively elaborate.

Sand the topcoat on the full surface and re-work with acoustic plaster s.a.c. topcoat.

With re-application of the topcoat, the degree of sound absorption decreases by approx. 20%, compared to the previous situation. For this reason, it is advantageous to divide the work on large ceiling areas into several stages (see also: Coherent areas).

Note: Do not paint sound-permeable plaster surfaces!

The sound-permeable s.a.c. topcoat may **not be painted with a paintbrush or roller,** the surface pores will otherwise be closed and the absorption property is lost.

6. Building site facilities and preparation

6.1 Transport and storage

	against moisture, frost and weather conditions. Do not stack palettes on top of each other. When setting down the individual panels pay attention that the edges are not damaged.
	The acoustic panels must be stored flat indoors. They should be stored for at least 24 hours prior to processing at installation conditions. The material can thus adjust to the compensation moisture and temperature in the room. Shock-like or fast heating up or cooling down during assembly and drying time can cause cracking. Before starting work, all wet and installation work for other trades must be finished.

6.2 Processing tools for basic and topcoat

Work may only be conducted with non-corrosive and clean tools!

Image	Product description	Use	Quantity
	1000 W Spotlight	By creating side light, problem spots on the basic surface can be detected more easily and rectified.	2 Pcs.
	Stirrer stainless, clean	For blending and mixing the adhesive and coating mixtures	1 Pc.
	Notched trowel stainless, 6 x 6 mm	For application of the adhesive mortar and processing of the base coat. The base coat must always be serrated crosswise, where the 2nd serration runs in main direction of light incidence.	2 Pcs.
	Spraying machine s.a.c. MIPA Star, electric motor 230V, 60 litres hopper capacity, large wheels	The compact spraying machine guarantees flawless production of the s.a.c. basic coat. The gentle delivery allows processing of the product without squashing the material. This achieves good sound permeation of the coating.	1 Pc.

	Sanding board 500 mm with thin grain (K80 or 100).	A light sanding of the surface with a sanding board or sanding mesh removes burrs.	2 Pcs.
	Notched trowel stainless, 4 x 4 mm	Always serrate topcoat crosswise, where the 2nd serration runs in main direction of light incidence.	2 Pcs.
	Smoothing trowel stainless, 500mm	Smoothing of surface in one operation	2 Pcs.
	Smoothing trowel, large stainless, 800 mm	Smoothing of surface in one operation	1 Pcs.

All tools are available by S.A.C. Silent AG.

6.3 Substrate preparation

The substrate must be dry, capable of bearing loads and dust-free. The prerequisite is adequate drying of the building shell.

Substrate	Measure
Concrete damp	Max. residual moisture of concrete surfaces d 3 mass-%
Concrete with unevennesses, imperfections	Unevennesses or formwork offsets greater than +/- 2.0 mm must be levelled in advance with levelling mortar.
Concrete with formwork joint extrusions and brows	Knocking off the formwork joint extrusions and brows
Concrete dusty, dirty	Brushing, washing
Concrete greasy, formwork oil residues, other form release agents	High-pressure water cleaning with suitable cleaning agent, followed by washing with clear water, leave to dry completely
Colours and coatings	Remove mechanically
Unclear substrates	The substrate to be coated must have an adhesive tensile strength of at least 15 kg/m^2 resp. 0.15 kN/m^2. An on-site check must be carried out for this.

6.4 Protection of components

Floor, walls and components adjacent to the acoustic system must be thoroughly protected with suitable covering material.

6.4 Surface scaffolding

The individual work steps for the jointless base and topcoats mainly take place overhead and are conducted in a backwards movement. Therefore, a level, full surface scaffolding, with which this work can be carried out without difficulties must be provided in advance – i.e. no overlapping, holes or other hindrances.

Surface scaffolding with closed, horizontal covering. Working base with approx. 1.8 m height to substructure prefabricated ceiling.

6.5 Separation of components

Before attaching the acoustic panels, a separation paper must be applied to all adjacent components. The Trenn-Fix should protrude 3 cm beyond the panel to be glued on so that it can be cut back at the end. Always cut the Trenn-Fix in the inner corners and prepare a new one.

7. Execution

7.1 Training and authorisation for the s.a.c. silent jointless acoustic system

The acoustic system must fulfil two requirements:

On the one hand, the calculated acoustic effect must be achieved, at the same time a successful surface is expected. Prerequisite for achieving these goals is a correct execution through authorised and practised processors.

Companies, resp. persons who work with the acoustic system for the first time, will receive training by one of our instructors directly on site. The provision of the instructor is subject to a charge. The instructor must be requested 10 days in advance. The spraying machine MIPA Star can also be rented separately.

In the case of correct execution, the companies or persons will receive authorisation for further projects. S.A.C. Silent AG keeps a processor list with the authorised companies. These companies will be recommended in the case of a corresponding enquiry. Companies which have not carried out any projects within a period of two years will be deleted from the list.

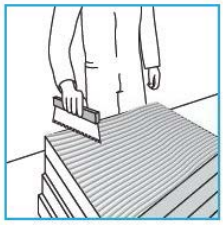
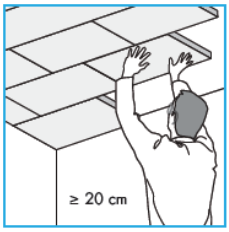
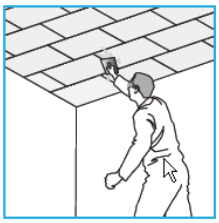
Attention: S.A.C. Silent AG disclaims any liability if untrained companies process/apply the s.a.c. silent acoustic system.

7.2 Advisory Service

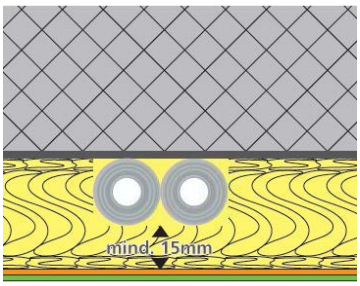
For the clarification of project-specific questions which go beyond the information of this Planning and Processing Guideline, please contact your contact partner from S.A.C. Silent.

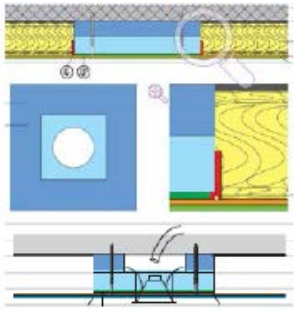
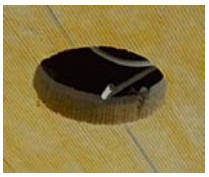
With special structural situations such as curved surfaces, considerable temperature fluctuations, air circulation or extreme light and illumination conditions, it is urgently recommended to contact the company in advance as otherwise S.A.C. Silent cannot guarantee optimum installation of the system.

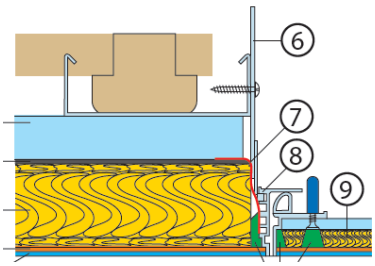
7.3 Application of the acoustic panels

Adhesive bonding of the acoustic panels	
	Adhesive bonding of the acoustic panels is conducted on the full surface with the system-tailored adhesive filler SM700 Pro for concrete and Perlfix for plasterboard. The adhesive filler is applied to the complete rear surface (printed side) of the insulating panels, stripped away and then scoured with the notched trowel (notches 6 mm x 6 mm; minimum application thickness 3 mm).
Mounting of the acoustic panels	
	Using both hands, the panels are pressed to the concrete surface with pressure immediately after applying the adhesive and slid against the already bonded panels. The acoustic panels need to be joined flush against each other. There may be no gaps or offsets. Mounting is conducted with tight joints in conjunction with a minimum panel offset of 20 cm. Attention must be paid that the adhesive does not penetrate into the joints. Neat installation of the acoustic panels is decisive for an optimal surface quality.
Open joints / offsets e 2 mm	
	The system is designed so that joints between the panels do not need to be filled. However, should there be irregularities of over 2 mm, these can be bridged / improved with the s.a.c. basic coat. An extensive filling of the panel joints is not necessary.

Knauf retaining claws	
	Additional mechanical fastening for unclear substrates. Independent of this, a check of the adhesion, resp. adhesive tensile strength should be conducted on site in the case of unclear substrates.

Covering of installation pipes min. 15 mm	
	For acoustic panels with the thicknesses 42 and 62 mm cuts for electrical installation pipes are possible. So that the high evenness demands can be complied with, it must be insured that the panel weakened by the cut does not bounce. That is why the minimum cover is 15 mm fibrous layer. The electrical pipes are integrated on the rear of the acoustic panels. The electrical pipes must be attached precisely, without slack and as straight as possible, to the ceiling with pipe clips. Pipe crossings are not possible.

s.a.c. installation platforms	
	The platforms are measured and marked beforehand for the installation of the installation platforms. After the panels are mounted, the cut outs are prepared. s.a.c connect adhesive is applied at the mineral fibre front end. Then the platforms are bonded to the substrate and screwed after drying. When bonding the platform, the installation height must be adjusted to the height of the acoustic panels plus 0.5 mm. For a perfect appearance we recommend the use of built-in parts with a covering edge of at least 5 mm width. Air circulating in acoustic panels can cause discoloration or markings on the surface. To prevent air from entering the acoustic panels, manually created openings, cut-outs, openings or connections in the panels must be sealed airtight. The open-end faces must be filled with an approx. 2 mm thick bonding adhesive layer or the sides must be sealed airtight with aluminium adhesive tape. This is particularly important for suspended ceilings in order to minimize the risk of local contamination by air flow. Note: The glass wool end face visible here must be filled.  

s.a.c. inspection openings	
	Height adjustable, air-tight inspection flaps with white aluminium frame, polyurethane coated, similar to RAL 9010 matt. All building site connections of the openings must be sealed with steam stop tape. With this, the risk of partial contaminations on the s.a.c. surface through air flow can be minimised. The tape is available in the sizes 300 x 300 mm, 400 x 400 mm, 500 x 500 mm and 600 x 600 mm.

7.4 Application of the base coat

Mixing	
	Mix bucket with 3.0 to 3.5 litres clean water and process within 1 hour. The water, mixing container and the stirrer need to be absolutely clean.
Acoustic spraying machine	
	It is recommended to apply the material with the s.a.c. MIPA Star acoustic spraying machine especially developed for this purpose. Application by hand or with the spraying machine is also possibl
Full surface application	
	Apply s.a.c. basic once on the complete surface of the acoustic panels. After approx. 9 - 12 m^2 lightly press on with a smoothing trowel so that adhesion is guaranteed.
Serrating	
	Serrate s.a.c. basic with a 6 x 6 mm notched trowel crosswise, where the 2nd serration runs in main direction of light incidence. To guarantee even layer thicknesses, the serration in one direction should always be carried out by the same person. When serrating, the angle of the smoothing trowel to the surface is approx. 15 degrees. **In the case of an irregular serration impression material needs to be applied again.**
Smoothing	
	Then smooth the surface in one operation with a smoothing trowel. Smooth the surfaces at an angle of the smoothing trowel to the surface of approx. 3 to 10 degrees. Do not collect excess material separately, instead use again directly. After drying (drying time min. 72 hours.) lightly sand the surface with a sanding board or sanding mesh to remove burrs. Then dust off.

7.5 Control of evenness

	Create side light from 2 sides with at least 2 spotlights. All unevennesses and waves must be surface ground so that the topcoat can be applied and a smooth, even end result is created.
	Surface grind the dry acoustic area with sanding board, grain size 40. Clean surface grinding of possible waves and unevenesses. With unevenesses larger than 1.0 mm another basic coat must be applied or touch up with it.

7.6 Application of the topcoat

Mixing	
	Mix bucket with 3.5 – 4.0 litres clean water and process within 30 minutes. The water, mixing container and the stirrer need to be absolutely clean and stainless.
Mixing the coloured topcoat	
	The supplied pastes are added to the topcoat buckets in small container units and mixed with 3 litres of clean water. At least 3 buckets have to be mixed and then 1/3 each poured into a clean fourth bucket. The homogenous colouring of the mortar must be checked before application. Then process within 30 minutes.
Application by hand	
	Apply s.a.c. topcoat with the trowel to the full surface. Start with serrating after approx. 15 m^2.

Serrating	
	Serrate s.a.c. basic coat with a 4 x 4 mm notched trowel crosswise, where the 2nd serration runs in main direction of light incidence. To guarantee even layer thicknesses, the serration in one direction should always be carried out by the same person. When serrating, the angle of the smoothing trowel to the surface is approx. 15 degrees. **In the case of an irregular serration impression material needs to be applied again**.
Smoothing	
	Then smooth the surface in one operation with a smoothing trowel in the same direction as the 2nd serration. Smooth the surfaces at an angle of the smoothing trowel to the surface of approx. 3 to 10 degrees. Do not collect excess material separately, instead mix directly with the bucket material and continue to use (very slight grey abrasion through serrating. Occasionally stir the material with the trowel. After processing mark surface as finished to avoid damages. Have the ceiling accepted promptly by Construction Management. Drying time 2 days.

7.7 Avoid damages and contaminations

Avoiding damages and contaminations	
	In contrast to white plaster areas, the acoustic surfaces are hard to repair. The surface must be treated carefully after completion of the ceiling so as not to impair the jointless look. The following should be avoided: • Contamination through dirty hands and hand perspiration, e.g. when mounting lamps and similar items • Increased dust development through sanding of parquetry floors and similar activities • Damage through mountings on the ceiling or right next to it. **Subsequent installations in the ceiling must be carried out carefully and with gloves.** **The sensitization of all tradespeople and planners involved in the construction with regard to consequential costs in the case of damages or planning changes is the prerequisite for a smooth process and optimum final result.**

7.8 Impregnation

	Application of s.a.c. Impregnation after full drying of the system. The additional hydrophobic coating is to be provided for indoor pools, balcony soffits and areas with a higher contamination danger. This surface protector has no influence on the porosity and absorption. The protective film prevents penetration of moisture and liquids into the system and makes settlement of dust particles more difficult. Processing is carried out by S.A.C. Silent AG.

8. Climatic conditions & drying times

During the entire processing and drying time of s.a.c. coatings, the room temperature must not fall below 18 °C. The use of heaters is recommended in critical temperatures.

Air circulation in the room is indispensable for drying out the acoustic coatings. Continuous air exchange must be ensured by cross ventilation or the use of site fans. If necessary, the plastic cover in the rooms must also be removed.

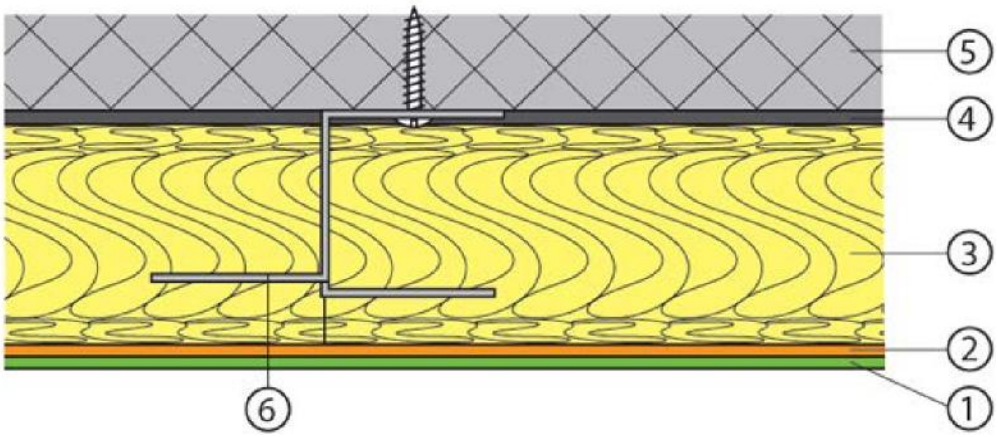
The humidity must not exceed 70%. The use of dehumidifiers is recommended from an air humidity of more than 50%.

The drying time of the s.a.c. coatings are at least 24 hours per mm of layer thickness.

The minimum drying times must always be taken into account. Drying times can be extended depending on climatic conditions. An on-site inspection to determine whether the coatings have completely dried out must be carried out.

9. Technical Drawings

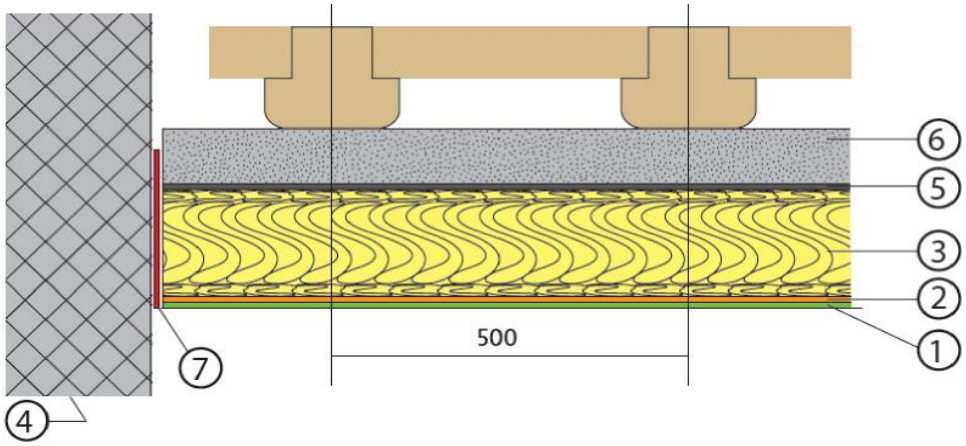
System configuration on concrete
s.a.c. silent with mechanical safety fastening



Legend

① s.a.c. topcoat Final Coat
② s.a.c. basic Base Coat
③ s.a.c. suono acoustic panel, thickness 22, 32, 42 or 62 mm
④ Knauf SM700 Pro adhesive mortar cementitious
⑤ Concrete as substrate
⑥ Knauf retaining claw FIB IV, thickness 18, 33 mm fastened with knock-in anchors
(for conversions resp. unclear substrates)

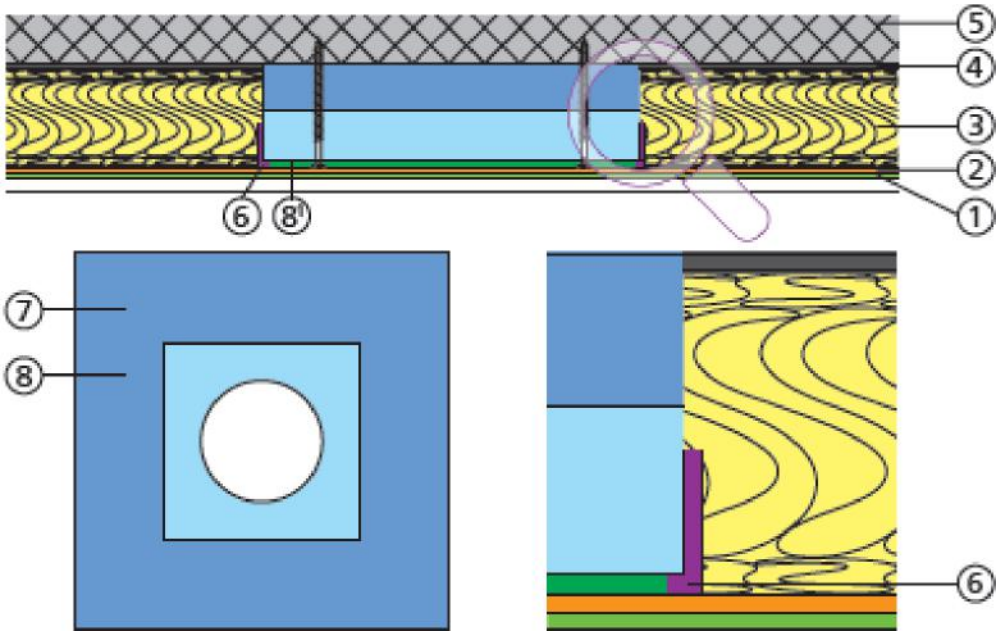
System configuration on suspended plasterboard ceilings s.a.c. silent on suspended ceilings



Legend

① s.a.c. topcoat Final Coat
② s.a.c. basic Base Coat
③ s.a.c. suono acoustic panel, thickness 22, 32, 42 or 62 mm
④ Construction wall (drywall construction, concrete or brickwork)
⑤ Knauf Perlfix adhesive mortar on gypsum base
⑥ Suspended plaster ceiling/plasterboard
⑦ Knauf Trenn-Fix 65 Adhesive Tape Separation of building components
(retaining claw FIB IV f for conversions resp. unclear substrates)

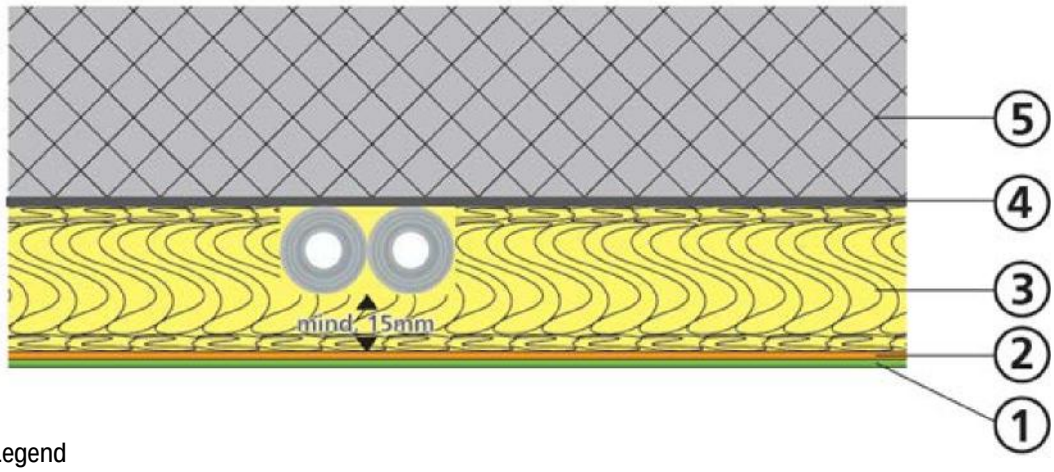
Installation of the s.a.c. silent installation platforms on concrete



Legend

1. s.a.c. topcoat Final Coat
2. s.a.c. basic Base Coat
3. s.a.c. suono acoustic panel, thickness 22, 32, 42 or 62 mm
4. Knauf SM700 Pro adhesive mortar cementitious
5. Concrete as substrate
6. s.a.c connect for bonding the mineral fibre front end with the platform
7. Pressure-resistant support for mechanical fastening on the substrate
8. Knauf s.a.c. Installation platform with pre-coating 3mm (8.1.) Allow platform to protrude $^1/_2$ mm.

Covering of installation pipes on concrete



Legend

1. s.a.c. topcoat Final Coat
2. s.a.c. basic Base Coat
3. s.a.c. panel acoustic panel, min. panel thickness 42 mm
4. Knauf SM700 Pro adhesive mortar cementitious
5. Concrete as substrate

General information

The Planning and Processing Guideline corresponds to the current state of development and practice. The corresponding product data sheets, detail sheets and technical sheets apply in addition. They, however, do not release buyers from the responsibility of testing the products themselves and at their own responsibility for suitability for the intended purpose of use. Our General Terms and Conditions apply.

Customer Service

Our Customer Service will be glad to help you with any questions or uncertainties you may have:

Telephone **+41 41 448 40 00** or by e-Mail: **info@sac-silent.com**