



# Planning documents for **BASWA Basic acoustic systems**

Basic One

Basic Classic Base

Basic Classic Fine

Basic Classic Top

Basic Classic Casual

# Content

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# System description

## General information

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### System properties:

- Sound absorption up to  $\alpha_w$  0,75 / NRC 0.75, Class C
- Non-flammable A2-s1, d0 (DIN EN 13501-1)
- Interior emissions: French A+ rating for VOC's
- Suitable for damp rooms and weather-protected outdoor areas
- Fiber and solvent free
- Limited ball impact safety according to DIN 18032-3:1197-04
- System thickness 30 mm
- 1 or 2 coat system
- Standard colour shade BASWA Base, Fine and Top: ~ NCS S 0500-N
- Standard colour shade BASWA One / Casual: ~ NCS S 0300-N
- Unlimited colour selection (RAL, NCS, etc.) BASWA Base, Fine and Top
- BASWA One / Casual: Colours on request
- Surface coating options from textured (BASWA Casual) to very smooth (BASWA Top)

### Benefits:

- BASWA Basic One can be installed within 1 day for areas of up to approx. 50 m<sup>2</sup>
- High surface quality standard
- BASWA Basic Classic Casual: Installation possible without full area scaffolding (mobile scaffolding)
- Materials harmless to health
- High proportion of recycled and natural materials (up to 92 %)
- Very pressure resistant, stable surface
- High whiteness / L-value: up to 92 %
- BASWA Fill joint filler not required
- System installations and penetrations without BASWA installation platforms
- Comprehensive BASWA cleaning and renovation concept

### Suitable for application in:

- Horizontal and vertical ceilings / walls
- Seamless surfaces  
(up to the maximum permissible size of the substrate or substrate structure).

Our website [www.baswa.com](http://www.baswa.com) contains a reference list and pictures of numerous realized projects.

## System variations

The systems are installed directly onto all mineral substrates such as concrete, already plastered substrates, drywall systems (GKP, etc.).

The glued BASWA Basic acoustic panels can be coated seamlessly with various end coatings from BASWA acoustic coatings as desired.

BASWA Prime is the base layer for all BASWA Basic Classic system variants (2-layer systems).

Variations of the final layer are:

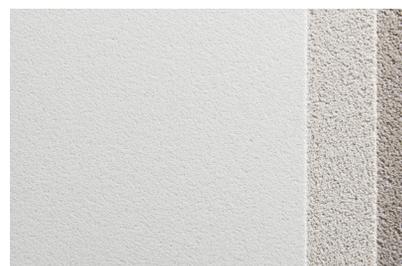
- **BASWA One**           rougher surface structure (grain size 0,5–1,0 mm)
- **BASWA Base**       Largest granulometry (0,7 mm)
- **BASWA Fine**        Medium granulometry (0,5 mm)
- **BASWA Top**         Smallest granulometry (0,3 mm)
- **BASWA Casual**     Fine textured surface (0,3–0,5 mm)



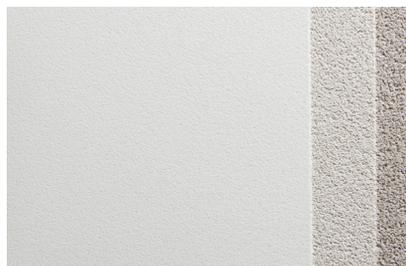
**BASWA Basic One**  
(1-layer system)  
Final layer: **BASWA One**



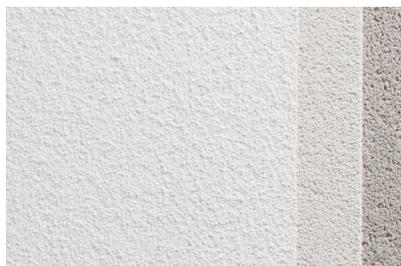
**BASWA Basic Classic Base**  
Base layer    **BASWA Prime**  
Final layer   **BASWA Base**



**BASWA Basic Classic Fine**  
Base layer    **BASWA Prime**  
Final layer   **BASWA Fine**



**BASWA Basic Classic Top**  
Base layer    **BASWA Prime**  
Final layer   **BASWA Top**



**BASWA Basic Classic Casual**  
Base layer    **BASWA Prime**  
Final layer   **BASWA Casual**

## **BASWA acoustic systems for noticeably more quality of life**

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Wherever people spend time indoors, they talk and sing, work and produce. People seek relaxation as well as recreation and should find peace and sleep. In this context, the architecture and consequently the design, but also the health, the comfort and especially the coziness in buildings are decisive factors, which have to do with the room acoustics and its quality. Room quality is thus decisively defined by room sound, speech intelligibility, noise, reverberation time and sound distribution as well as noise reduction. The result of a reverberation time that is optimally adjusted to the needs of a room is thus reflected in many areas of daily life.

A large number of independent investigations and studies confirm that poor room acoustics at the workplace, at home or in public areas with too much noise and poor speech intelligibility can demonstrably lead to more stress, high blood pressure, concentration problems, reduced productivity, increased pulse and fatigue, and even trigger various diseases. Adapted and optimised room acoustics by BASWA acoustic systems create peace, comfort and coziness, thus contributing significantly to the prevention of the above-mentioned possible consequences and increasing the quality of life.

# The BASWA Basic acoustic systems

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# BASWA Basic One

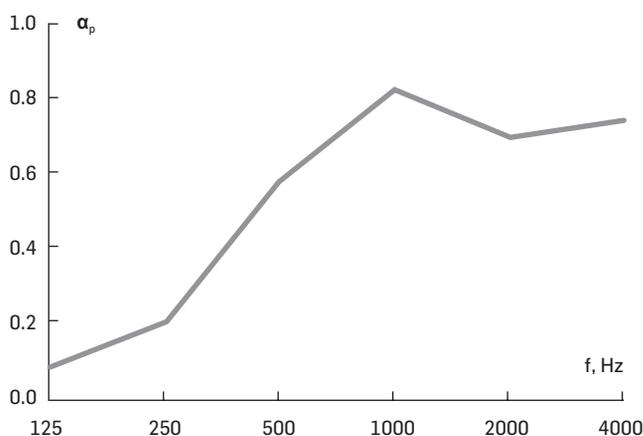
## System profile

- 1-layer system (quick installation)
- Smooth, seamless
- Grain size of the final layer: 0,5–1,0 mm
- Stable, pressure-resistant surface
- Standard colour ~ NCS S 0300-N
- Whiteness / L-value: 90%
- Light reflection: 77%
- Standard surface finish <up to Q3>
- System weight: approx. 9.6 kg/m<sup>2</sup>



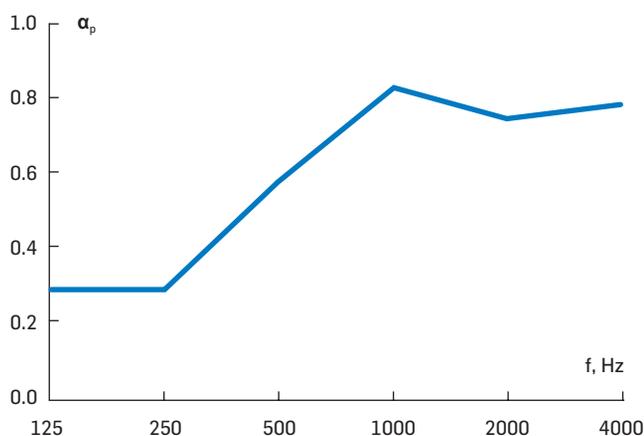
## Sound absorption coefficients $\alpha_p$ (practical) according to ISO standard DIN EN ISO 11654

### Solid ceilings (on concrete)



EN ISO 11654		ASTM E 1264
$\alpha_w$	Class	NRC
0,55	D	0,70

### Suspension 200 mm



EN ISO 11654		ASTM E 1264
$\alpha_w$	Class	NRC
0,65 (M)	C	0,70

For the complete acoustic measurement data, please refer to the current test reports.

**Attention!** When using coloured BASWA acoustic coatings and decorative designs, the specified sound absorption values may change slightly in individual cases.

# BASWA Basic Classic Base

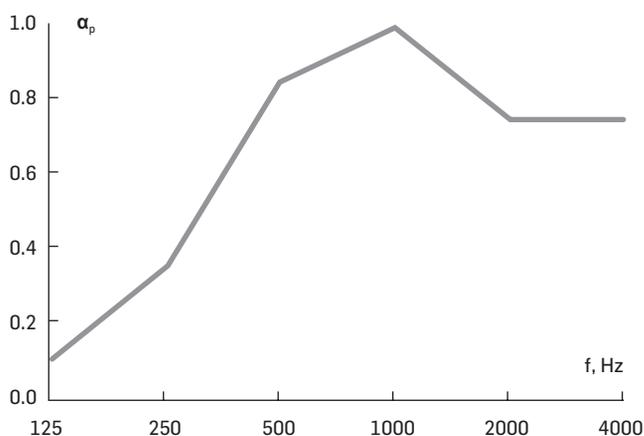
## System profile

- 2 Layer system
- Smooth, seamless
- Grain size final layer: 0,7 mm
- Very stable, pressure-resistant surface
- Standard colour ~ NCS S 0500-N
- Whiteness/L-value: up to 90 %
- Surface finish Standard <to Q3>
- System weight: approx. 12,5 kg/m<sup>2</sup>



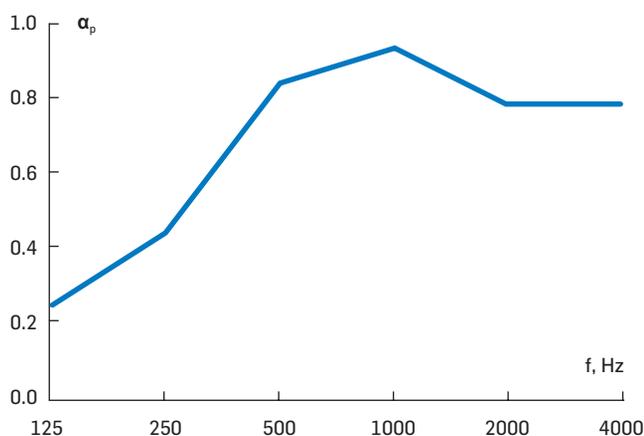
## Sound absorption coefficients $\alpha_p$ (practical) according to ISO standard DIN EN ISO 11654

### Solid ceilings (on concrete)



EN ISO 11654		ASTM E 1264
$\alpha_w$	Class	NRC
0,65	C	0,75

### Suspension 200 mm



EN ISO 11654		ASTM E 1264
$\alpha_w$	Class	NRC
0,75 (M)	C	0,75

For the complete acoustic measurement data, please refer to the current test reports.

**Attention!** When using coloured BASWA acoustic coatings and decorative designs, the specified sound absorption values may change slightly in individual cases.

# BASWA Basic Classic Fine

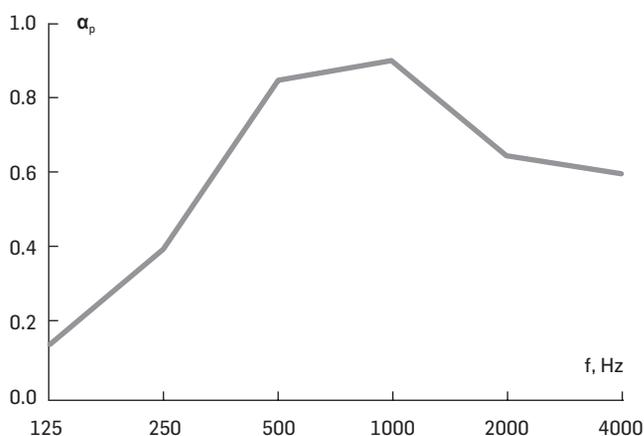
## System profile

- 2 Layer system
- Very smooth, seamless
- Grain size final layer: 0,5mm
- Very stable, pressure-resistant surface
- Standard colour ~ NCS S 0500-N
- Whiteness/L-value: up to 91 %
- Surface finish standard <to Q3>
- System weight: approx. 12,0 kg/m<sup>2</sup>



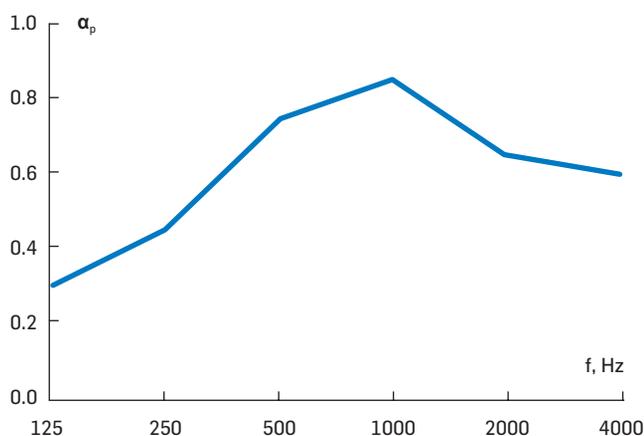
## Sound absorption coefficients $\alpha_p$ (practical) according to ISO standard DIN EN ISO 11654

### Solid ceilings (on concrete)



EN ISO 11654		ASTM E 1264
$\alpha_w$	Class	NRC
0,65 (M)	C	0,70

### Suspension 200 mm



EN ISO 11654		ASTM E 1264
$\alpha_w$	Class	NRC
0,70 (MH)	C	0,70

For the complete acoustic measurement data, please refer to the current test reports.

**Attention!** When using coloured BASWA acoustic coatings and decorative designs, the specified sound absorption values may change slightly in individual cases.

# BASWA Basic Classic Top

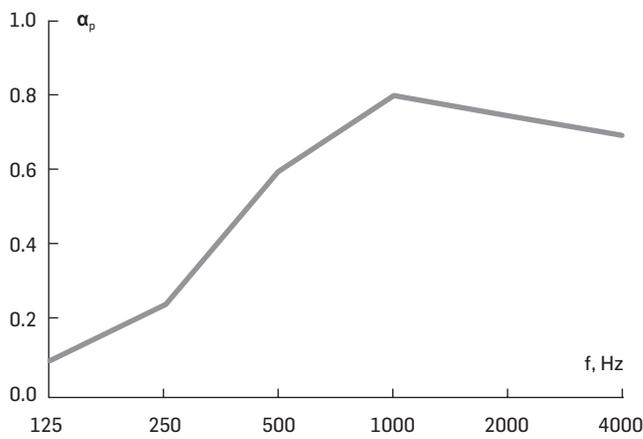
## System profile

- 2 Layer system
- Ultra smooth, seamless
- Grain size final layer: 0,3 mm
- Very stable, pressure-resistant surface
- Standard colour ~ NCS S 0500-N
- Whiteness/L-value: up to 92%
- Surface finish standard <to Q3>
- System weight: approx. 11,5 kg/m<sup>2</sup>



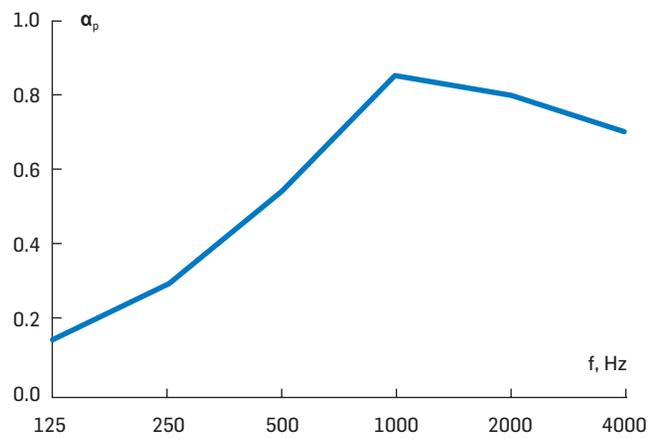
## Sound absorption coefficients $\alpha_p$ (practical) according to ISO standard DIN EN ISO 11654

### Solid ceilings (on concrete)



EN ISO 11654		ASTM E 1264
$\alpha_w$	Class	NRC
0,55 (MH)	D	0,60

### Suspension 200 mm



EN ISO 11654		ASTM E 1264
$\alpha_w$	Class	NRC
0,55 (MH)	D	0,65

For the complete acoustic measurement data, please refer to the current test reports.

**Attention!** When using coloured BASWA acoustic coatings and decorative designs, the specified sound absorption values may change slightly in individual cases.

# BASWA Basic Classic Casual

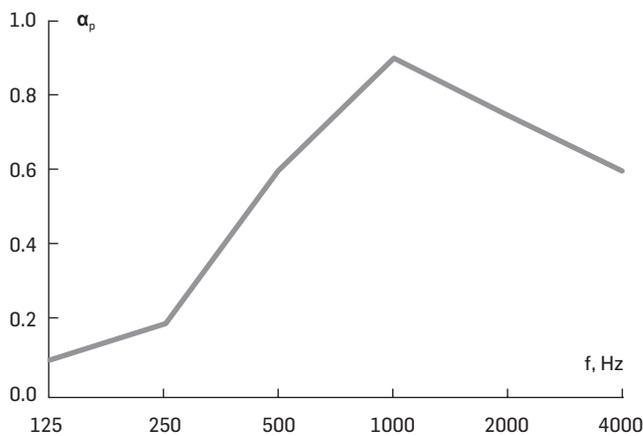
## System profile

- 2 Layer system
- Finely structured, seamless
- Grain size final layer: 0,3 – 0,5 mm
- Stable surface
- Standard colour ~ NCS S 0300-N
- Other colours upon request
- Whiteness / L-value: up to 90 %
- Surface finish standard <to Q3>
- System weight: approx. 11,3 kg / m<sup>2</sup>



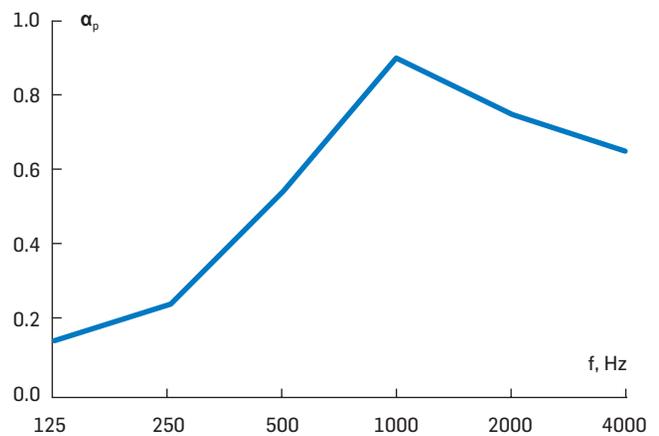
## Sound absorption coefficients $\alpha_p$ (practical) according to ISO standard DIN EN ISO 11654

### Solid ceilings (on concrete)



EN ISO 11654		ASTM E 1264
$\alpha_w$	Class	NRC
0,50 (MH)	D	0,60

### Suspension 200 mm



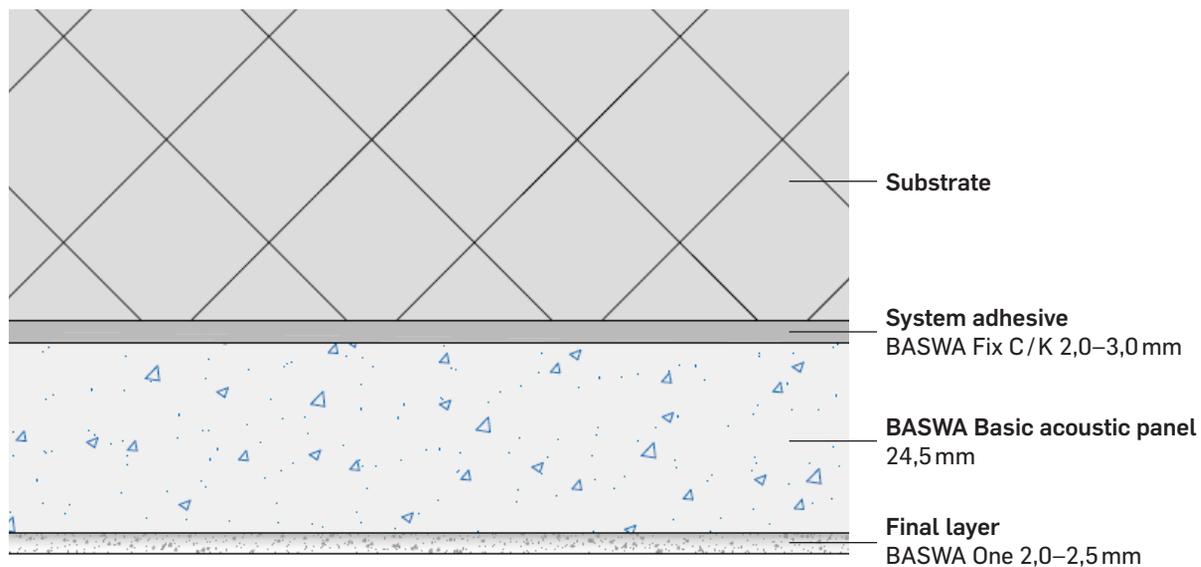
EN ISO 11654		ASTM E 1264
$\alpha_w$	Class	NRC
0,55 (M)	D	0,65

For the complete acoustic measurement data, please refer to the current test reports.

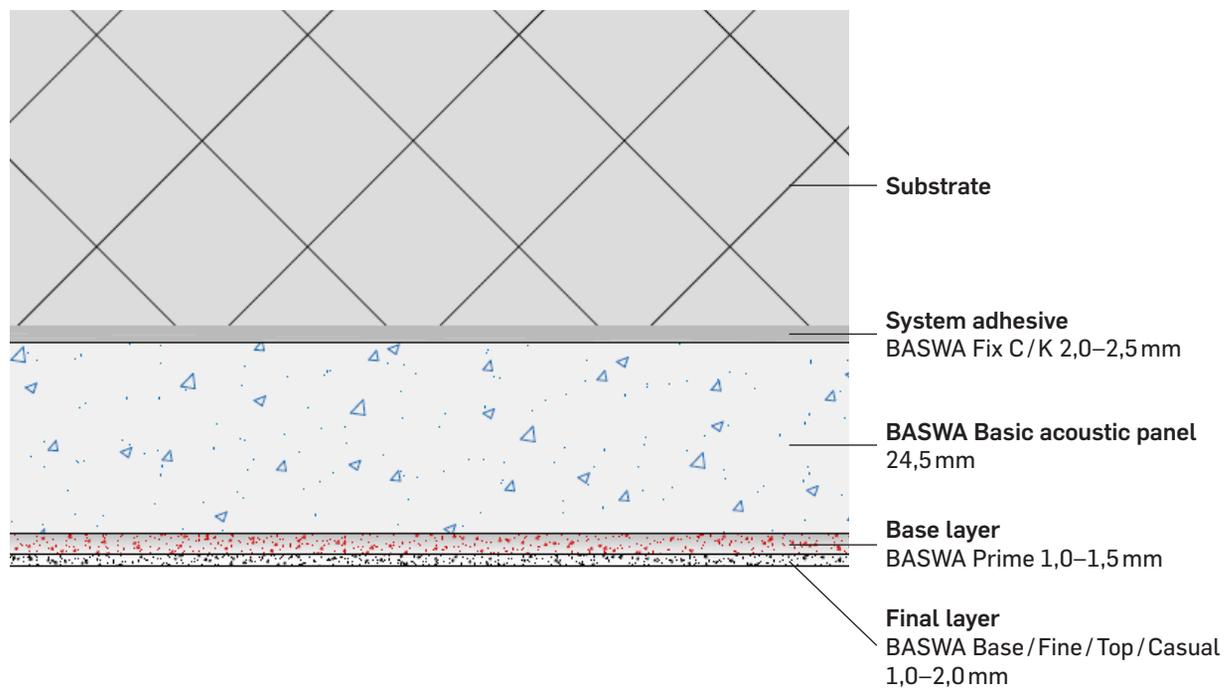
**Attention!** When using coloured BASWA acoustic coatings and decorative designs, the specified sound absorption values may change slightly in individual cases.

## System structure

### 1- layer system



### 2- layer system



## Installation times BASWA Basic systems

The specified installation times assume a team of 3 to 4 people and an area of 40–60 m<sup>2</sup>. The drying times refer to the room climatic conditions: 20 °C room temperature / 50 % relative humidity.

Allow each work step to dry completely.

BASWA Basic One	Days	1	2
Gluing BASWA Basic panels (version with BASWA Fix K)		●	
Grind surface flat evenly		●	
Apply BASWA One		●	
Gluing BASWA Basic panels (version with BASWA Fix C)		●	
Grind surface flat evenly		●	
Apply BASWA One			●

BASWA Basic Classic Base / Fine / Top	Days	1	2	3	4	5	6	7
BASWA Basic panels bonding		●		drying				
Grind surface flat		●						
Applying BASWA Prime			●				drying	
Check BASWA Prime and grind flat again if necessary					●			
Applying BASWA Base, Fine or Top						●		
Follow-up work								●

BASWA Basic Classic Casual	Days	1	2	3	4	5	6	7	8	9
BASWA Basic panels bonding		●		drying						
Grind surface flat		●								
Applying BASWA Prime			●				drying			
Check BASWA Prime and grind flat again if necessary					●					
BASWA Casual 1 spray application						●				
BASWA Casual 2 spray application								●		
Follow-up work										●

# Preparation and planning

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## Requirements and prerequisites

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### General information

Correct planning, careful site preparation and execution of the work under optimum installation conditions are necessary to guarantee the surface quality and service life of a BASWA acoustic system.

In order to ensure the acoustic and aesthetic quality as well as the longevity of the BASWA surfaces, the BASWA systems are exclusively installed by trained and certified companies. The experience of the executing team, a suitable scaffolding and adherence to the installation guidelines are essential prerequisites for the installation of the BASWA System.

### Standards and recommendations

The current guidelines of the company BASWA acoustic AG must be observed for both types of work. The agreed terms and conditions as outlined in the planning documents, installation guidelines, and the general terms and conditions of BASWA acoustic AG take effect on the date of the contract.

### Certification of installing companies

In order to qualify for the installation of BASWA acoustic systems, it is necessary to attend a certification course. BASWA acoustic AG products can only be purchased from certified companies.

Companies that are about to carry out a project with BASWA acoustic systems should attend a installation course at the respective BASWA company location 4–6 weeks before the start of the project. Information about the courses on offer can be obtained from the regional contact person at BASWA acoustic AG. Upon completion of the training, the course participants and the company receive a certificate which identifies them as a certified BASWA installer. On request, BASWA provides architects and planners with a list of certified and experienced companies.

Companies that do not carry out any projects for 2 years lose certification. However, the company is free to attend another certification course.

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## Planning of installation

The installation of BASWA acoustic systems, in particular the application of the final coating, should, if possible, be carried out in the final phase of interior finishing.

## Building and room conditions

### Installation

- Temperatures of at least 15 °C to max. 30 °C must be maintained during installation until complete drying
- Avoid draughts during installation
- During the drying time there should not be a temperature gradient of more than 10 °C
- If the humidity in the building is high, the drying time will be prolonged. The use of gas heaters is not recommended. These usually increase the relative humidity, which considerably prolongs the drying time!

### Building use

- Up to stress category B (SN EN 13964 for suspended ceilings) at 90 % relative humidity and 30 °C ( $\pm 2$  °C)

### Dew point

- If there are strong fluctuations in temperature and relative humidity, care must be taken to ensure that the dew point is not located on the surface or within the BASWA acoustic system
- The design of the building insulation and the commissioning of air conditioning systems must be planned and controlled accordingly
- The moisture caused by condensation in the room air can cause damage to the BASWA acoustic system

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### **Drying times, time planning and finish dates**

The minimum drying times between the individual installation steps must be observed. These minimum drying times refer to ideal indoor climatic conditions: 20 °C room temperature and 50 % relative humidity. Cold and humidity extend the drying times considerably. Fans, with or without heating, favour drying times to ensure compliance with the construction program. Before each working step, a complete drying of the previous coating masses must be ensured.

### **Jointlessness**

BASWA Basic acoustic systems do not require joints as a system, but the specific properties of the ceiling or wall surface, as well as the shape of the construction, material expansion, possible subsidence or deformation of the shell must be taken into account. Joints in the substrate created during construction must be carried through to the BASWA Basic system structure.

Guidelines of the product suppliers of the selected underneath material must be observed according to their set regulations.

### **Application in damp rooms and weather-protected outdoor areas**

- Up to stress class B (SN EN 13964 for suspended ceilings) at 90 % relative humidity and 30 °C (± 2 °C )
- No visual change, such as discolouration, blistering, wavy surfaces, thickness changes, etc.

The use of BASWA Basic acoustic systems for special applications is subject to special requirements.

#### **Subconstruction:**

The substructure must meet the requirements for damp rooms indoors (cf. DIN 18 168 T1 and T2, and DIN EN 13964-2014 at least stress class C). In particular, the substructure must be mineral-based or consist of a suspended mineral-based system with corrosion protection. BASWA acoustic AG categorically rejects any liability for the substructure.

#### **Installation Notice:**

The acoustic system must be installed with mineral (cement-bound) adhesive plaster (BASWA Fix C).

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Additional surface protection:

Furthermore, a subsequent surface hydrophobic treatment with BASWA Protect is recommended.

Climatic conditions / dew point:

(see Climatic building and room conditions page 15)

Chemical exposure:

The vapours and gases (chlorine, ozone, brine, etc.) usually found in such wet rooms (e.g. swimming pools) are compatible with the BASWA Basic acoustic system. Care must be taken to ensure that no solid or liquid precipitation or deposits form on the ceiling. These can lead to discolouration on the surface. Direct contact by splashing water must be prevented.

Installations:

Fixtures, adjacent components and superstructures must meet the requirements prevailing in corresponding wet rooms (corrosion resistance, cf. cited standards). No thermal bridges may be created by installations, extensions or superstructures, as these can lead to corrosion-related damage.

**Thermal properties:**

- Thermal conductivity  $\lambda_{10}$ : 0,073 [W/(m·K)]

**Side light conditions**

It is not advisable to plan lateral illumination of the BASWA Basic surfaces with LED luminaires. Under the influence of the lateral LED light, the slightest traces of installation and irregularities become highly visible. It is therefore advisable to have a surface sampled in advance under original lighting.

**Quality levels**

Unless otherwise agreed, the standard surface quality is always Q2. If increased requirements are placed on the evenness of surfaces, this must be expressly stated in the bill of quantities and contractually agreed.

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## Flatness and dimensional tolerances

In the case of increased requirements for surface quality 3, additional flatness tolerances must be contractually agreed. These already apply to the preparatory work on the substrate to which the BASWA acoustic systems are applied.

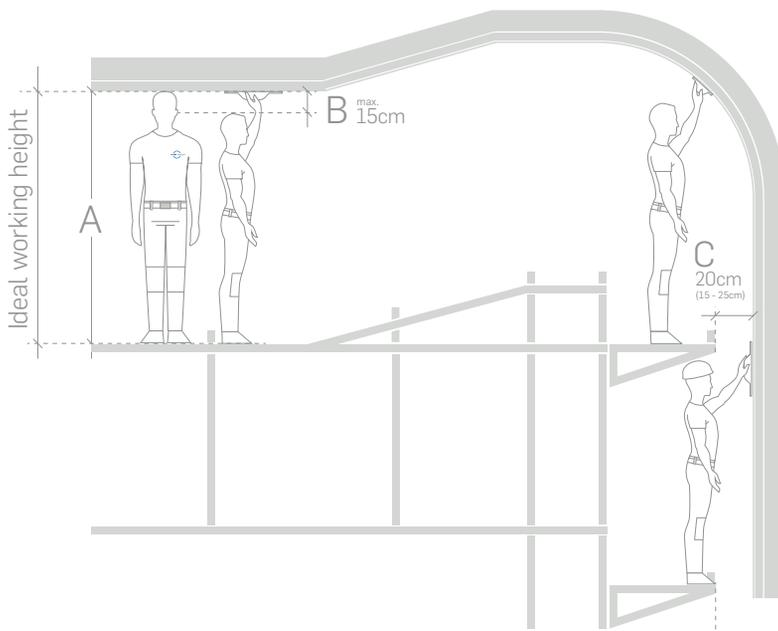
## Scaffolds

In order to achieve the best possible surface quality, the coating installation are to be carried out with the aid of surface frameworks. This ensures an unhindered, continuous workflow, especially during the smoothing of the final layer.

The height difference between ceiling and surface scaffold must be adjusted to the body size of the installation team (optimum difference between scaffold and ceiling between 185 and 195 cm).

**When installing the BASWA Basic Classic Casual system, it is possible to use mobile scaffolds instead of full surface scaffolds. However, this depends on other factors such as room size, accessibility in the room, etc.**

**Watch your step!** Wearing headgear during coating work can damage the freshly created surface!



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### **Wall scaffolds**

When applying coating compounds to vertical surfaces, it is advisable to work on facade scaffolding constructions using scaffolding brackets. A settling in the middle of the surface leads to visible traces of installation. The distance between the surface and the scaffold bracket should be at least 15 cm, optimally 20–25 cm. The national safety regulations regarding maximum distances must be observed.

Temporary safety anchors in the wall construction should be avoided wherever possible.

### **Subsequent work**

Subsequent installation work by other trades on BASWA system surfaces (e.g. installation of luminaires) must be carried out carefully and with clean gloves.

All planners and craftsmen involved in the construction must be made aware of the consequential costs arising from subsequent damage or planning changes.

### **Repairs**

BASWA Basic surfaces are only partially repairable (depending on the size and illumination of the repair areas). The repaired area usually has a slightly different structure and becomes visible under unfavorable incidence of light. In the case of major damage, it is recommended to recoat the entire surface of the surface segment. Furthermore, it is advantageous to divide the surfaces into smaller areas by means of separating joints.

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## Storage

The BASWA products are delivered on pallets in EU format and should be stored correctly on the construction site or in the material warehouse until installation.

- Protect from weather and frost (air-conditioned containers if necessary)
- Acoustic panels must also be protected against dew formation (wetness)
- Temperature in storage room min. 5°C max. 30°C
- Products must be protected from direct sunlight

The expiry date of coating compounds and joint fillers is 12 months from production. BASWA products are provided with a batch number:

1 Year	04 Month	12 Day	2 Batch
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**production date**  
**= 12.04.2021**

# Substrate for BASWA Basic acoustic systems

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## General

The substrates to be coated must always be tested for the following requirements:

- If the substrate is mineral
- Flatness or evenness of the substrate according to the requirements for the evenness of component surfaces according to DIN 18202
- Free of sintered layers and form release agents etc.
- Free of dust, impurities and harmful efflorescence
- Load-bearing, solid and sufficiently dimensionally stable
- Adhesive tensile strength  $> 0,25 \text{ kN/m}^2$  ( $25 \text{ kg/m}^2$ )
- Airtight
- Crack-free
- Guarantee of dew point prevention
- Dry (residual moisture  $\leq 3 \text{ mass \%}$ ), not water repellent

**Attention!** If the substrate has been pre-treated in advance with a barrier or adhesive primer, only BASWA Fix C cement adhesive may be used!

## Additive Substrate preparation:

To ensure the service life and surface quality of a BASWA Basic acoustic system and to prevent long-term damage, the substrate on which the system is bonded must be checked for 5 points of essential basic requirements.

### 1. Adapt the substrate to the required final shape

Even: In principle, the substrate must be as flat as possible. The adhesive mortar and the grinding of the acoustic panels can also be used to even out any unevenness. Increased requirements for evenness (Q3), dimensional tolerances and form accuracy must be met with the substrate accordingly.

Strong formwork offsets and burrs on concrete surfaces ( $> 3 \text{ mm}$ ) must be machined in advance (beveled and or partially leveled).

Caution: The compensation layer must dry completely before the acoustic panels are installed (drying times:  $24 \text{ h/mm}$  layer thickness of compensation plaster).

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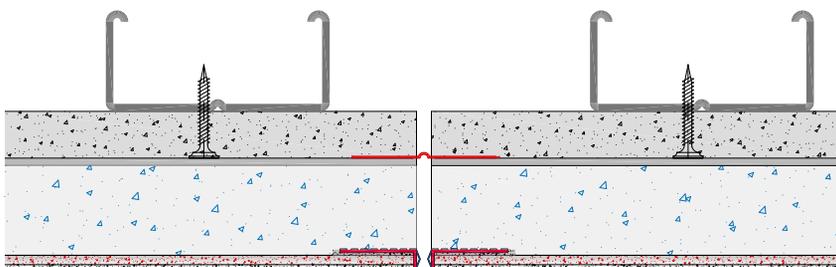
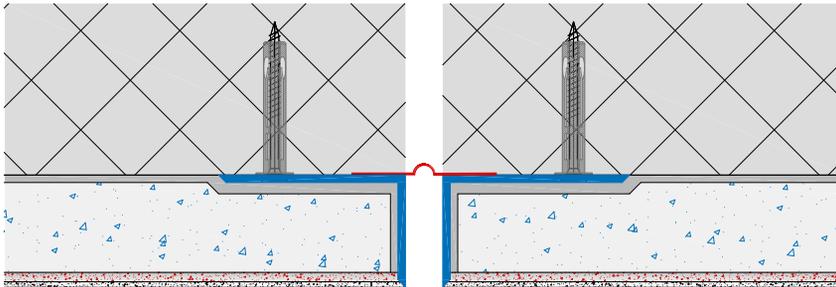
## 2. Substrate stability

No cracking or movement:

Taking into account the specific properties of the ceiling or wall surface such as the shape of the structure, material expansion, possible subsidence and/or deformation of the shell, surfaces can be designed up to the maximum size of the respective substructure.

The guidelines of the product suppliers of the selected substructure must be strictly observed. In order to prevent the formation of cracks, expansion joints caused by design must be incorporated into the BASWA acoustic systems. No warranty for non-mineral substrates such as OSB, MDF, metal plates, etc.

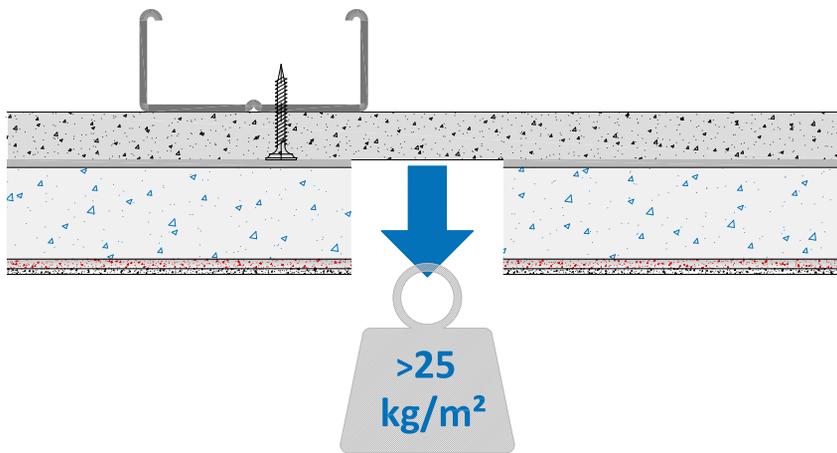
Formation of expansion or separation joints: For large areas, depending on the specific properties of the building structure or the construction process, the formation of separation joints is necessary. The following principle shows how air circulation to the cavity can be avoided, thus excluding partial contamination.



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### 3. Adhesive tensile strength $>25 \text{ kg/m}^2$

The substrate to be coated must have an adhesive tensile strength of at least  $25 \text{ kg/m}^2$ . If this is not guaranteed, measures must be taken to achieve this adhesive tensile strength. For suspended ceilings, the spacing of the suspended structure must be selected so that the entire ceiling structure can support the additional load of the BASWA acoustic system. Gypsum plasterboards should preferably be pre-treated with a deep primer due to their tensile strength.

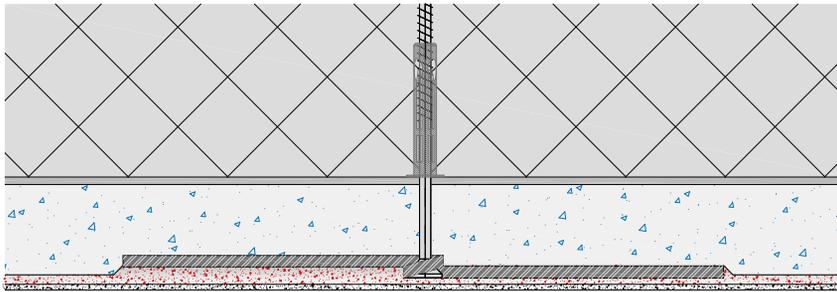


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### Additional mechanical fastening

For existing ceilings (plaster, paint), the adhesive tensile strength and moisture sensitivity must be checked beforehand. If the adhesive tensile strength is less than 25 kg/m<sup>2</sup>, the defective substrate must be removed accordingly or strengthened by means of a depth substrate matched to the existing coating.

Additional mechanical fastening of the bonded acoustic panels with the BASWA fastening rod can only have a supporting effect to prevent third-party damage.



DD\_003

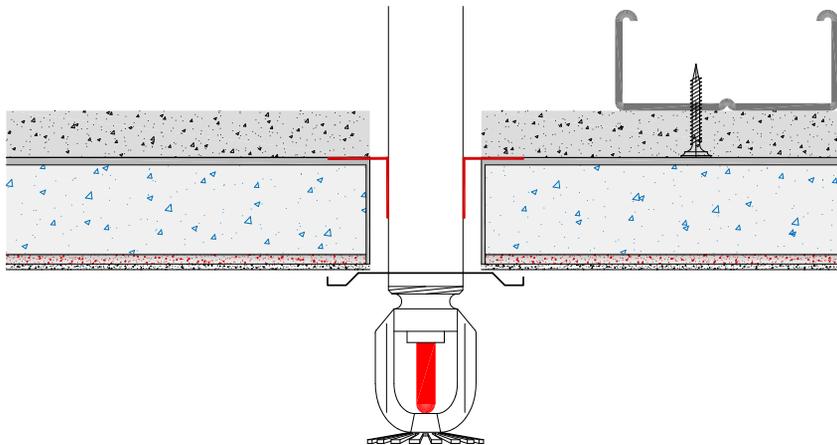


BASWA mechanical fastening rod

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#### 4. The substrate must be airtight

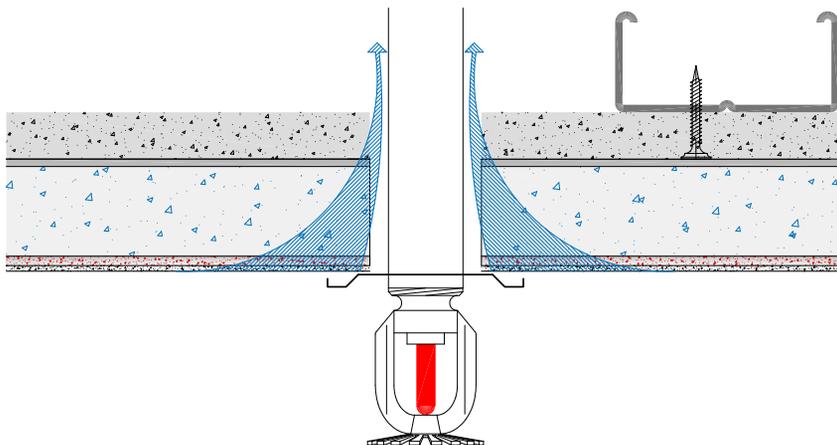
In the case of suspended ceilings, all panel joints must be filled and reinforced in such a way that a level, stable and closed substrate is created (airtightness!). All installation penetrations and gaps to connections to components must be sealed airtight with vapour barrier tape before the acoustic panels are bonded. These seals prevent air circulation through the open-pore acoustic system (prevention of partial dust deposits in the final coating). In order to ensure airtightness over the entire service life of the installation, an adhesive tape should be selected which ensures a corresponding long-term adhesion (e.g. vapour barrier adhesive tape).



DD\_074

#### Ageing process with air flows

In the event of leaking connections to suspended surfaces, the air circulates through the open-pored acoustic system. The dust carried along is filtered in the final coating and leads to strong partial discolourations over the course of the service life.



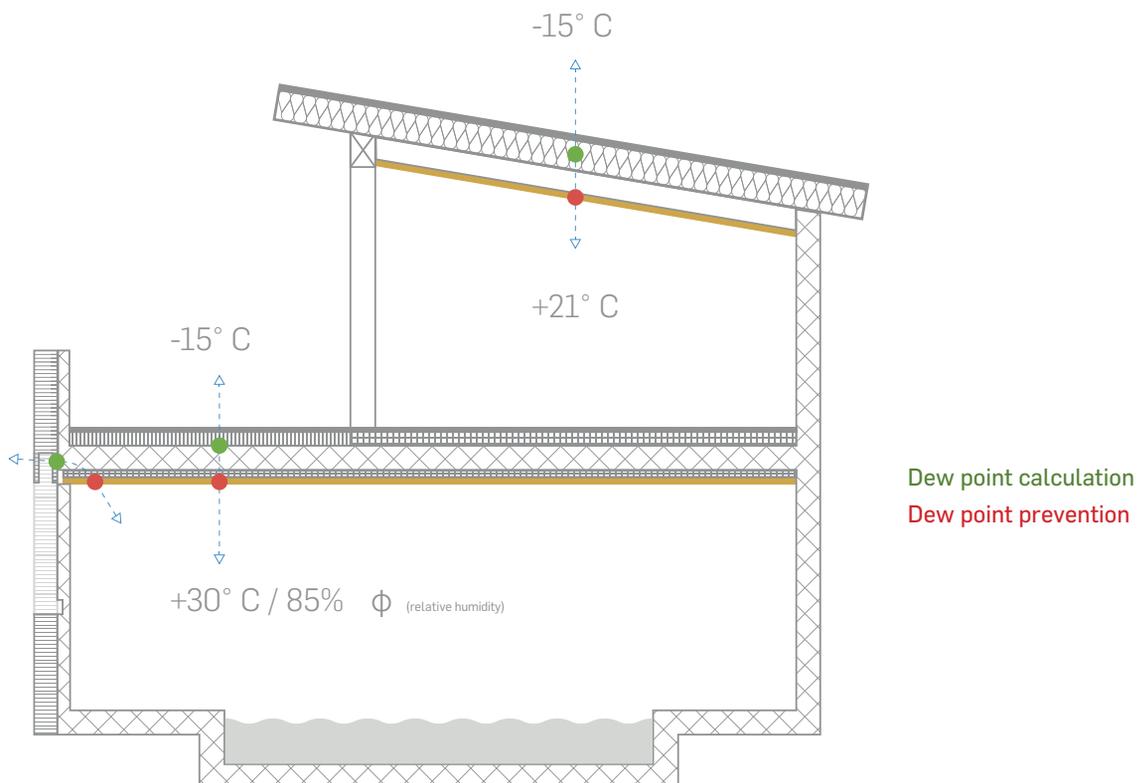
DD\_074.2

Air permeable without  
vapour barrier tape – red

## 5. Calculation and prevention of the dew point

When planning a BASWA Basic acoustic system adjacent to the outer shell of the building, the dew point must be calculated and checked in advance by a specialist planner (e.g. at the top floor / outside walls / balcony, terrace undersides / cold rooms, etc.).

If the dew point is within the BASWA acoustic system, the surface will change colour irregularly within a very short time due to condensation (increased dust adhesion to the moist coating surface).



**BASWA Basic System**

30 mm

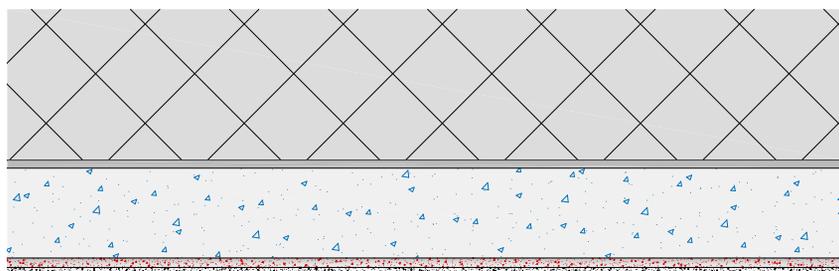
$\lambda$  Lambda-value  
(W/m K)

Aprox. 0,073

# Ceiling structure



## Solid ceilings



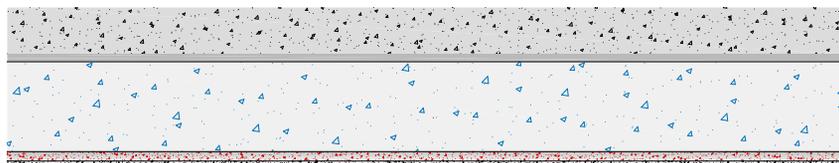
DD\_001

## Suspended ceilings

In order to prevent partial contamination of the surface, the system requires a stable, absolutely airtight ceiling substructure. Commercially available suspension systems made of metal rails can be used for the substructure. Wooden constructions are not recommended for this purpose. These may form cracks due to long-term deformation.

A 12,5mm thick plasterboard or gypsum fiberboard ceiling is suitable as a suspended base for the BASWA Basic system structure. Gypsum plasterboards should preferably be pre-treated with a deep primer due to their tensile strength.

In damp rooms, such as swimming pools, wellness areas and adjacent areas, the substructure must be selected on the basis of structural-physical investigations. All components of the suspension structure must be corrosion-resistant. Cement fiber boards or water-repellent dry construction boards, cementitious levelling plasters intended for this application must be used. The BASWA Basic acoustic panels must be bonded with BASWA fix C cement adhesive. See application data sheet for installation of BASWA Basic acoustic systems in damp rooms.



DD\_002

## Acoustic reflection areas / jointless hybrid systems

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For reasons of acoustic design, sound-reflecting surfaces (reflection areas) can be planned into the ceiling or wall surfaces. Direct coating of concrete or gypsum substrates with the BASWA coating dimensions has practically no acoustic effect.

Due to the different flow resistances of the reflecting gypsum or concrete surfaces as well as the sound-absorbing acoustic panel surfaces, an irregularly occurring aging (contamination) cannot be excluded in the course of the service life.

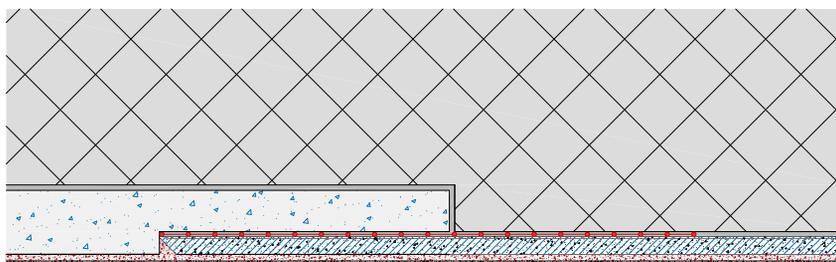
The colour differences of the surfaces resulting from this construction-physical process can therefore not be objected to.

### BASWA Hybrid panel

The BASWA Hybrid panel was developed to prevent different ageing of reflection areas and the adjacent absorption surfaces. The approx. 10 mm open-pore pre-coating – identical to the pre-coating of the BASWA Basic acoustic panel – creates an open-pore, breathable substrate which ensures even ageing over the entire coated surface.

### Sound reflection areas with BASWA Hybrid on solid ceilings

To prevent cracks, the BASWA Hybrid panel must overlap the BASWA Basic acoustic panel by at least 10 cm. To compensate for the height, the BASWA Basic panel is cut back to the required level at least 10 cm wide. Then embed the reinforcing fabric and glue the BASWA Hybrid panel to the same height as the BASWA Basic panel.



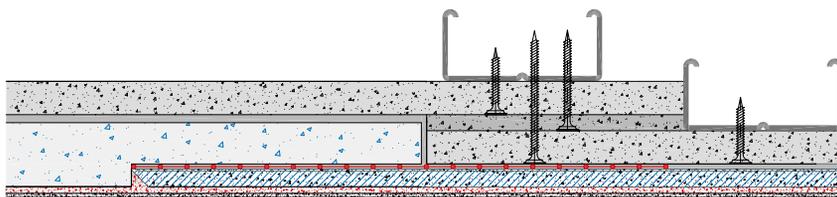
DD\_079



### Suspended hybrid systems

Sound reflection areas (hybrid systems) can also be used in suspended systems for acoustic reasons. The above points also apply to this application.

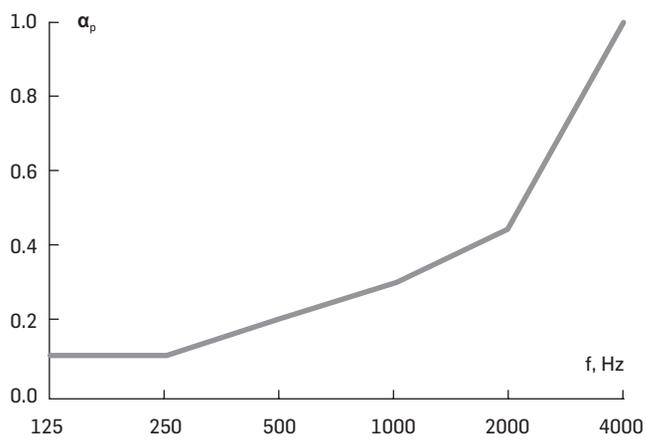
The construction of the ceiling offset must be airtight and stable in movement!



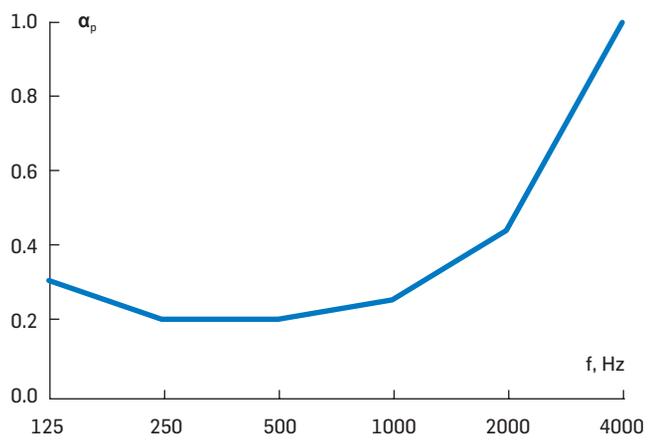
DD\_080

### Sound absorption BASWA Hybrid Base

Solid ceilings (on concrete)



Suspension 200 mm



## BASWA Colours

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The choice of colours for the BASWA coating compounds is almost unlimited. The coating compounds can be coloured in almost any desired shade. After delivery of a colour reference, a colour sample is created by BASWA. This must be confirmed by the architect or client.

In order to achieve coloured surfaces, the BASWA coating materials are dyed at the factory to order. The colour formulations are determined individually for each new colour in the BASWA acoustic AG laboratory; due to the special properties of the porous surfaces, each colour formulation is compared by eye with the original pattern.

The pigment preparations are mixed into the coating masses without further addition of additives. The coloured products are then applied on site. Furthermore, all desired colours can be mixed on order according to references of common colour cards or physical samples.

The products are made from natural marble sand. Untreated natural products are always subject to minimal colour variations and can easily influence the basic tone of the colour. The standard white of the BASWA coating dimensions corresponds approximately to NCS S 0500-N.

Due to the porosity of the surface, finished BASWA surfaces can have very different effects depending on the incidence of light. Similar to other mineral systems, a slight cloud formation cannot be excluded with coloured surfaces.



## Light reflection of BASWA coatings

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Light reflection on surfaces in rooms should be as high as possible, because poor lighting conditions can lead to fatigue, headaches, poor eyesight and noticeably reduced productivity at the workplace.

The BASWA acoustic coatings with white surface have an optimal light reflection between 75–79%. This enables a high level of light diffusion and thus an even distribution of light, which can considerably increase well-being. Artificial and natural light is also used efficiently and can also contribute to energy savings.

The following values refer to measurements carried out according to DIN EN ISO 11664-4 according to CIELAB system.

Coating	light reflection	Degree of whiteness (CIE-Y-Value)
BASWA Base	0,75	89,61
BASWA Fine	0,77	90,28
BASWA Top	0,79	91,30
BASWA Fresh	0,76	89,66
BASWA Casual	0,76	89,85
BASWA One	0,77	90,15

## Surface structures and effects

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### Surface structures and effects

The smooth finish of the BASWA Basic acoustic systems with their fine, smooth surface texture supports the design of modern, timeless architecture. Using special installation techniques, various plaster structures can be imitated, which are often used in the acoustic renovation of historic buildings.

- Spray application
- Brush Texturing
- Modeling the trowel

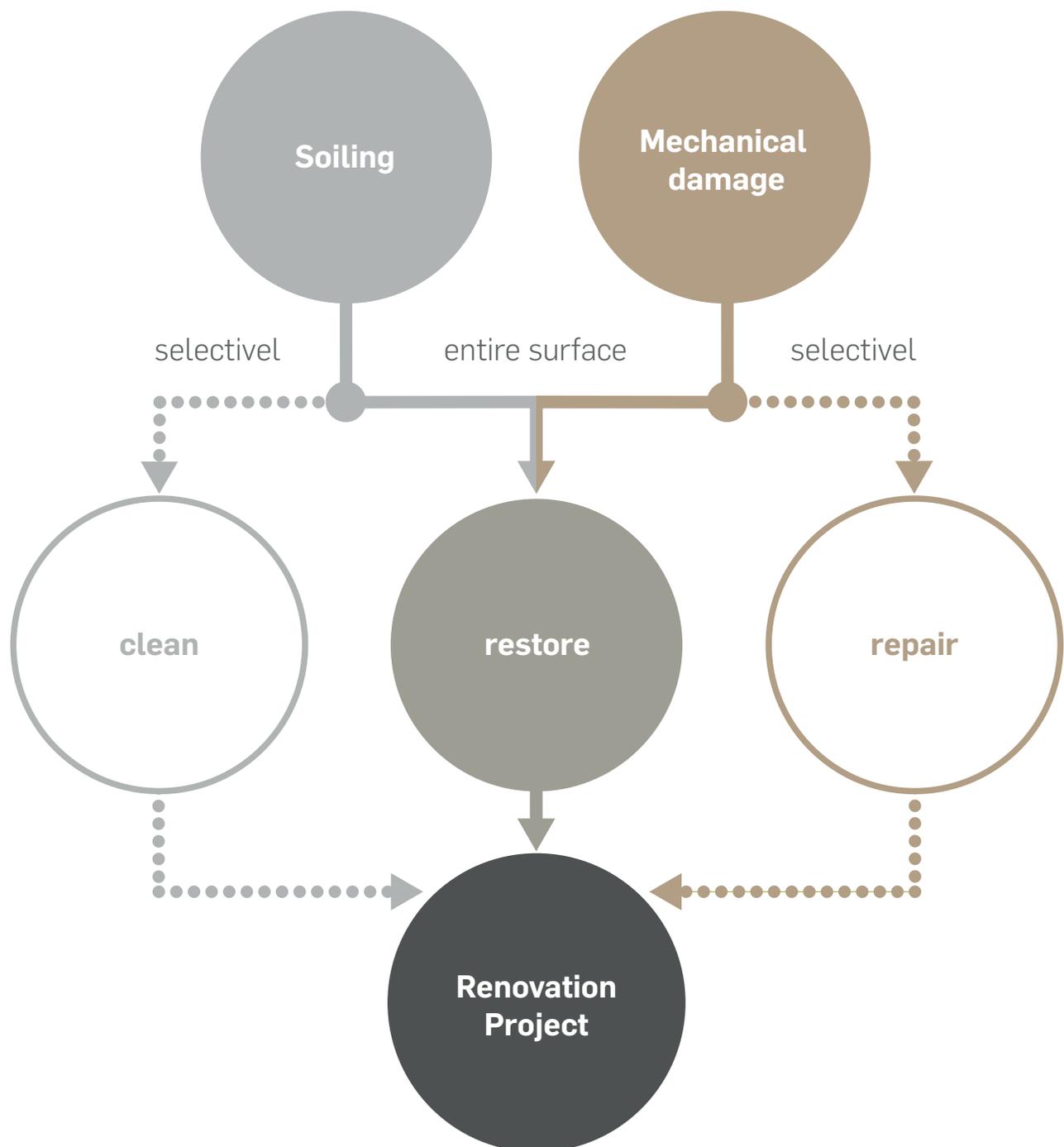
### Sparkling effects with BASWA Shine

The BASWA Shine surface refinement gives the surface a glittering effect without significantly impairing its acoustic performance. The mica dispersion BASWA Shine is used for the subsequent finishing of BASWA acoustic surfaces. It must be directly illuminated with the help of the lighting concept in order to achieve the glitter effect.

On request, BASWA acoustic AG develops special surface effects in cooperation with customers.



## Protection, cleaning, maintenance and refurbishment



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## **General information**

BASWA Basic acoustic systems are fine-pored surfaces that absorb sound energy. The pore size and the number of pores significantly determine the absorption properties of the various acoustic systems. In order to maintain the porosity of the surface and thus the effectiveness of sound absorption, BASWA Basic surfaces must not be painted under any circumstances.

## **Aging of BASWA Basic acoustic systems**

The open-pored BASWA Basic surfaces act like a filter due to their permeability to changes in air pressure. Over the years, fine dust can therefore settle in the pores, which can lead to a discreet greying of the surfaces. Under normal conditions this greying is very minimal and hardly visible. Ageing has no influence on the acoustic performance of the system.

Since the BASWA Basic acoustic systems are installed exclusively on airtight, closed surfaces, an air flow through the system is excluded. As a result, aging and greying therefore take place evenly and slowly.

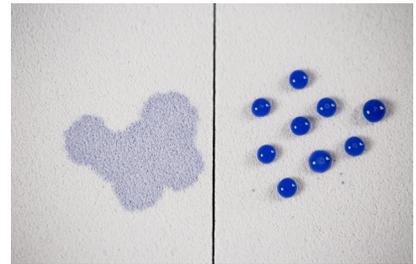
## **Furthermore, the following must be observed:**

- No cleaning attempts with water or other cleaning agents!
- In general, only touch the surface with clean hands or wear clean gloves
- Always protect BASWA surfaces with masking tape during connection work
- Do not rub superficial, partial soiling (dust, fingerprints etc.), otherwise the dirt will penetrate deeper into the pores
- Do not paint BASWA acoustic ceilings!

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## Surface protection

BASWA Protect is a specially developed premium impregnation system to achieve deep water repellency with optimum protection for BASWA acoustic surfaces. The acoustic performance of the treated surface is not impaired. The deep penetration of BASWA Protect into the acoustic system results in significantly lower dirt and water absorption. This prevents the immediate ingress of liquids and thus reduces the absorption capacity of liquid type dirt and dirt particles that have combined with liquids. Furthermore, the impregnation can have a positive influence on the cleaning of BASWA surfaces and the longevity of BASWA surfaces.



BASWA Protect (right)

## Cleaning

Dry dirt or dust adhering to the surface can be removed with an adhesive tape or a fine brush (attached to a suction device).

Partial organic soiling (drink stains, grease, nicotine etc.) can be removed with BASWA Blonde (bleaching agent) or BASWA Clean (special enzyme cleaner). Prior treatment of the surfaces with BASWA Protect facilitates cleaning and maintenance work.



BASWA Clean

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## BASWA Fresh

The mineral dispersion technology of BASWA Fresh is used to renovate age- and use-related discolourations of BASWA surfaces. BASWA Fresh is a part of the BASWA maintenance and refurbishment product line and can therefore be combined with other applications, such as surface cleaning with BASWA Clean. Treating surfaces with BASWA Fresh, however, does not replace full renovation, but can considerably extend the service life of a BASWA surface. The professional application refreshes age-related discolourations as well as faded BASWA surfaces and gives them back their new appearance. The acoustic performance is virtually unaffected. BASWA Fresh is not suitable for re-colouring existing BASWA acoustic surfaces.

**Note!** With coloured BASWA acoustic surfaces treated with BASWA Fresh, colour differences in relation to the original colour cannot be ruled out. BASWA Fresh may only be used by specially trained companies (certified BASWA partners).

BASWA Fresh is supplied in as close to the original colour of the existing surface as possible.



BASWA Fresh

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## **BASWA Casual**

BASWA Casual is the acoustic spray plaster, which is used for the renovation of existing BASWA Phon acoustic surfaces.

In the event of renovation, BASWA Casual is applied to the existing acoustic system in one to two stages. The result is a slightly textured, homogeneous, jointless surface. Soiled or damaged areas or surfaces must be cleaned in advance with suitable agents (e.g. BASWA Clean) and partially repaired.

As part of a complete renewal, the BASWA coating compounds can be removed with the aid of grinding equipment and then the coating compounds can be reapplied. Depending on the BASWA Basic System, it is also possible to apply a new final coating. In this case, however, a slight impairment of the absorption capacity must be accepted.

## **BASWA maintenance and renovation concept**

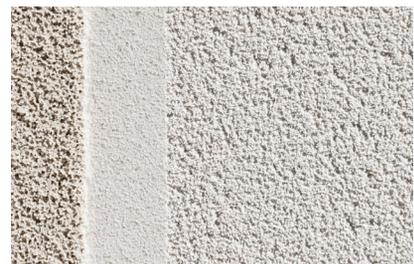
BASWA acoustic ceilings should only be refurbished by specially trained companies.

The specialized company investigates the case and decides which measures and methods are most suitable for refurbishment. Depending on the soiling, the size of the ceiling and the available time window, various measures have to be combined for a successful renovation.

Each renovation is unique and individual in needs, this is highly considered when finding a solution for your project.



BASWA Fresh (left)



BASWA Casual

# Common construction details

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## Common construction details

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For the planning of various construction details such as surface connections, edge formation, separating and expansion joints as well as various installations, a large number of schematic detail drawings are available to you on our website under the menu item "Documentation".

The following pages describe the most important points of the most common detailed solutions by topic.

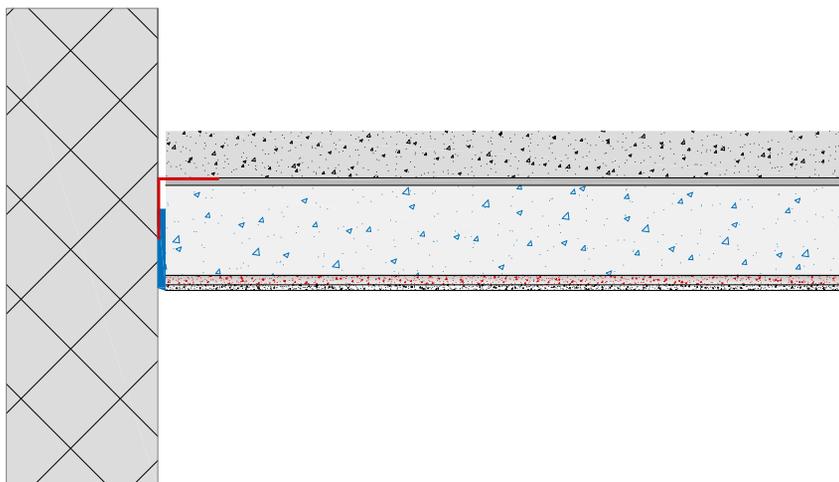
## Surface connections to vertical components

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### Wall connection with separating strips

In order to prevent uncontrolled cracking, the coating compounds of all BASWA acoustic systems must be separated from adjacent surfaces and /or structures (e.g. columns, wall connections, window or door frames made of metal or wood and others) with a ceiling separating strip.

Depending on the optical or building physics requirements, this can be done with a ceiling separating paper or 3 mm thick PE foam separating strips.

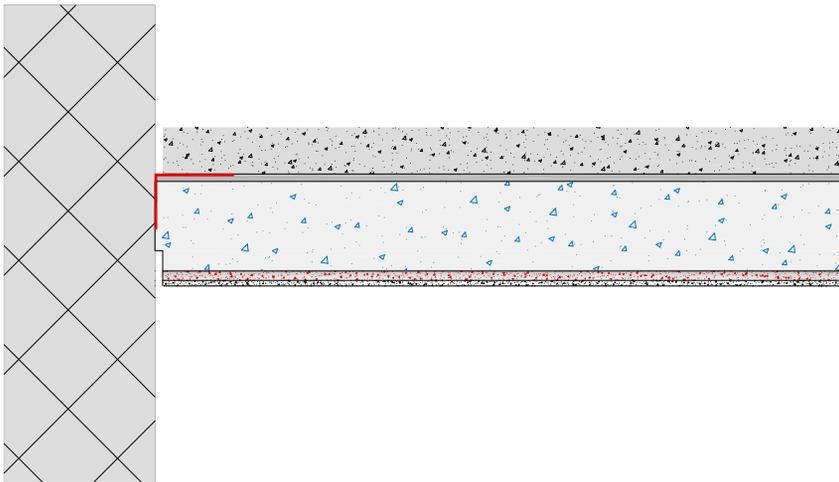


DD\_014

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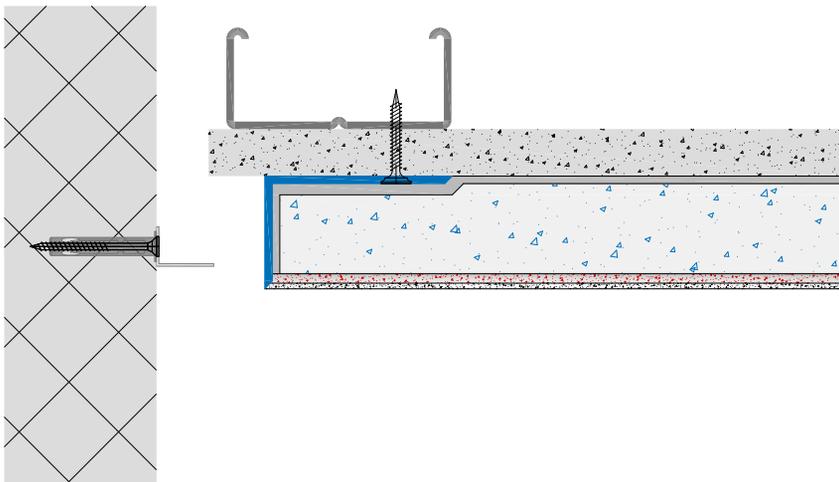
### Wall connection with separating cut

For connections to drywall or wooden walls, we recommend the use of a 2 to 3 mm wide partition cut. This is due to the higher mechanical vibrations and expansion coefficients in function of humidity and temperature.



DD\_006

### Wall connection with shadow gap

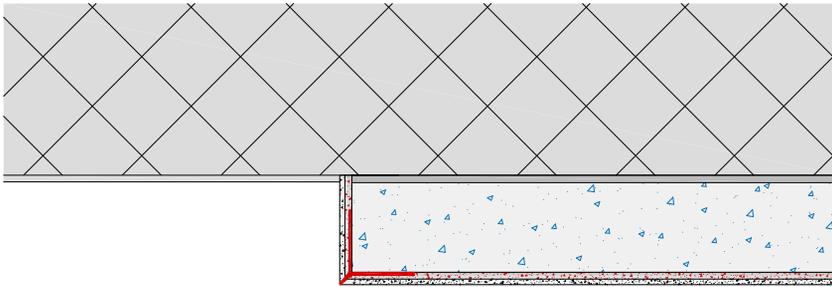


DD\_018

## Edge formations Cassette ceilings

### Edge protection profiles

If possible, corners with edge protection profiles should be formed with BASWA PVC profiles. With untreated aluminum profiles, there is a risk of discolouration due to abrasive material wear in the area of the edge. In the case of metal profiles, the profile legs may shimmer through thinly applied coating compounds. We recommend the use of the special BASWA edge protection profiles.

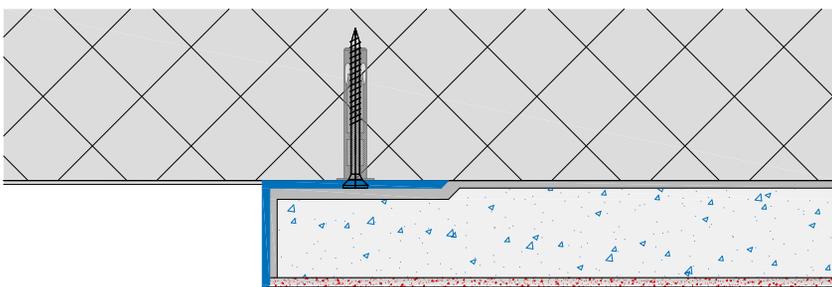


DD\_025

### L-Angle profiles

BASWA L-angle profiles made of PVC or aluminum are used for edge formation. (BASWA Art. No. a271 and a348 are recommended).

These provide protection against mechanical damage. In the case of profiles exposed to heat radiation, there is a risk of cracks forming between the profile and the acoustic coating. (Observe the expansion coefficient of aluminum, PVC or steel).



DD\_027

## Spotlights, luminaires, tracks, pendants, etc.

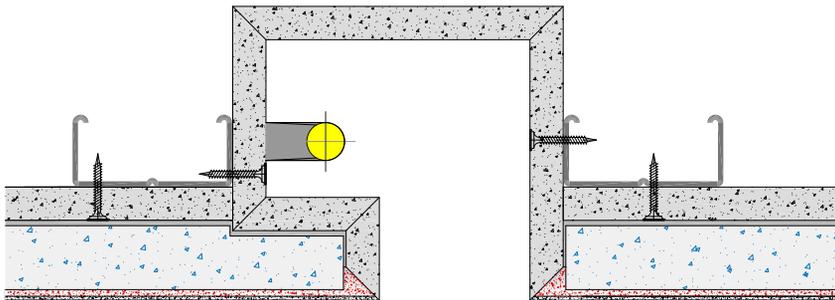
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Openings for installations, such as recessed lights, surveillance cameras, movement and fire alarms, loudspeaker boxes, etc., can be carefully made with a crown drill during panel bonding or following final coating. All panel faces of penetrations (vertical mineral wool faces) must be sealed airtight by applying an approx. 2 mm thick coat of gypsum filler and / or by masking with aluminum adhesive tape. This prevents partial contamination by air flow. The mechanical fastening of installations must be mounted through the BASWA Basic System into the substrate.

### Installation of light covers

Depending on the type of luminaire selected, the luminaire can be mounted directly on the substructure or in the suspended ceiling using light covers. The variant shown shows light bands without visible lamp bezel.

**Important:** Depending on the heat development and expansion of the respective material of the luminaire, cracks may form in the adjacent coating.

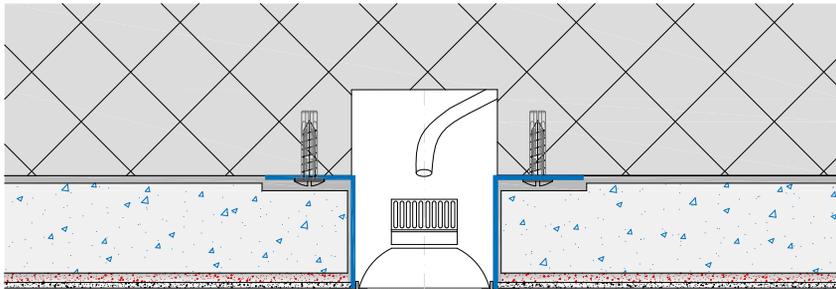


DD\_076

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## Mounting rings

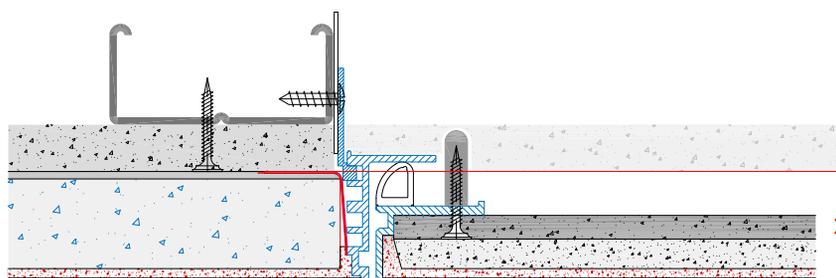
In order to prevent damage to the edge during installation or maintenance work on installation elements, the cover rings should be at least 1 cm wide. In the case of installation elements with narrow cover rings, a metal sleeve (prefabricated metal ring) in the diameter of the required ceiling cutout can instead be fitted in advance in the penetration area of the substructure.



DD\_072

## Service openings

The BASWA inspection opening flaps are individually height-adjustable and already RAL9010 PUR-coated. A special breathable acoustic inlay in the door frame prevents the surfaces from ageing differently. It is important that the side connection between the outer frame and the substrate is sealed airtight beforehand. This prevents air from flowing through the adjacent acoustic system.



DD\_067

# Ventilation ducts and Vacuum and overpressure ceilings

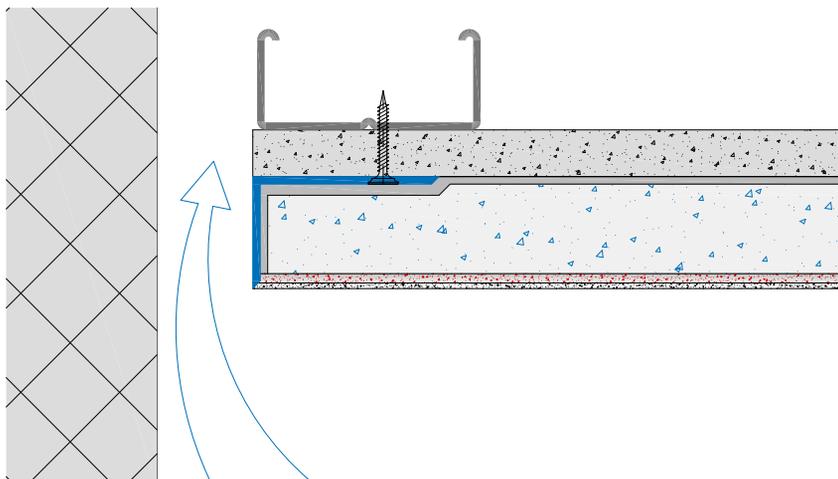
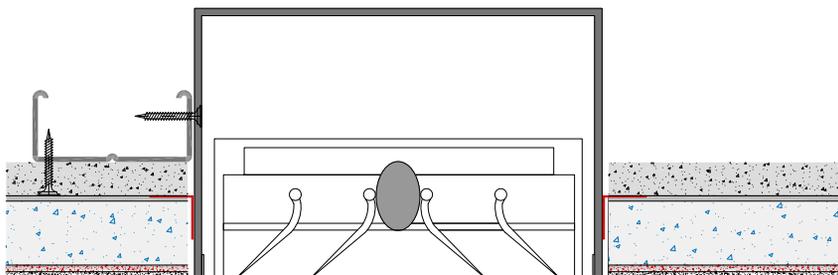
In order to exclude or minimize partial soiling around ventilation slits, the supply and exhaust air should be directed sideways to the wall. If this is not possible, it is important to ensure that the air exchange is as constant and minimal as possible so that no standing air vortices result. With an air outlet angle of 45°, contamination is greatly reduced.

## Ventilation outlets

Ventilation ducts behind suspended ceilings should be sealed in such a way that no additional negative pressure is created in the ceiling cavity.

Ideally, the ventilation ducts or pipes should penetrate the plasterboard construction by the height of the BASWA acoustic system to be installed (30 / 40 / 50 / 70 mm).

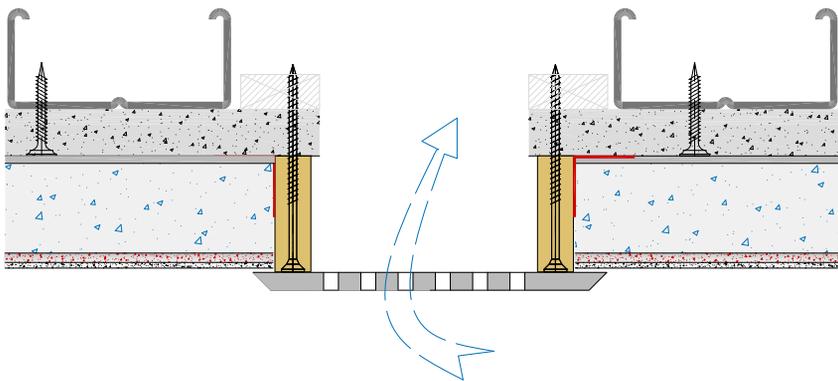
The sheet metal channels protruding from the gypsum plasterboard construction should be sealed airtight all around (prevention of partial contamination of the acoustic system by air flow). The acoustic panels are then pushed firmly against the sheet metal channels. Remaining gaps are filled with BASWA Prime.



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### Pressure compensation for suspended ceilings

If there is a risk of air pressure differences (installation space to the interior), unforeseen soiling can be prevented by installing a blind hole or lateral shadow joints. For this purpose, the blind hole is covered by a loudspeaker cover, for example. Specialist planners design the dimension.



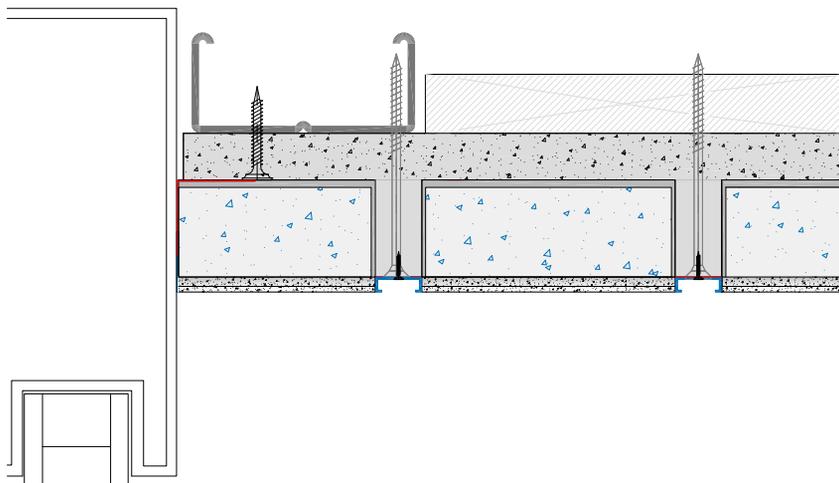
DD\_077

## Conductor rails, curtain rails and the like

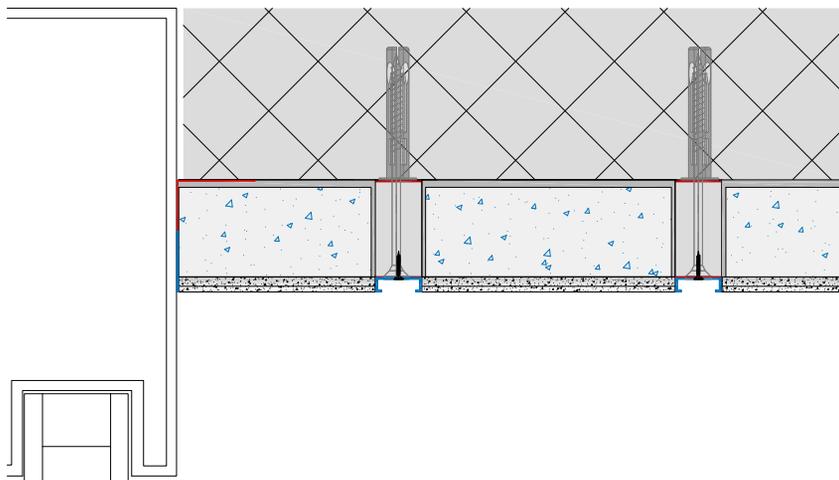
### Installation of curtain rails

The types of curtain rails are numerous and, depending on the weight of the curtain, require special detailed solutions in combination with the BASWA acoustic systems. Conventional curtain rail profiles are doubled, glued and screwed to the acoustic system height (30/40/50/70 mm). The acoustic panels are then connected laterally. The thermo-lacquered curtain rail profile also serves as a plaster application aid.

Important: In the connection area of the BASWA acoustic ceilings to façade windows, the dew point in the concrete ceiling or the rear cavity of suspended ceilings must be checked (according to point 5 Dew point prevention, page 35) by a specialist planner (e.g. plan in frost brick inserts).



DD\_059



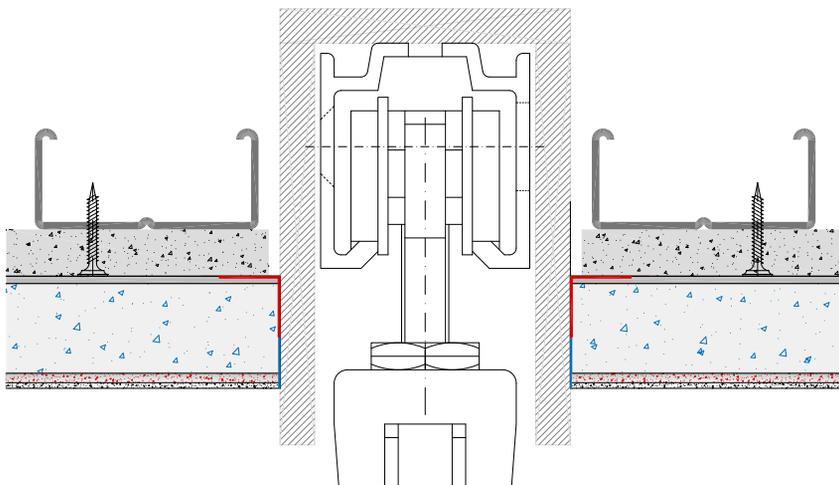
DD\_058

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### Installation of sliding doors and the like

Massive constructive elements such as sliding doors, which generate vibrations or movements, must be separated from the substructure and fastened separately.

Here, too, the plaster must be separated by separating strips and the connection of the suspended construction must be sealed airtight.



DD\_016

## Legal notice

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The above information, in particular the suggestions for installation and use of our products, are based on our knowledge and experience in normal cases, provided that the products have been stored and used properly. Because of the different materials, substrates and different working conditions, a warranty of a work result or a liability, regardless of the legal relationship, cannot be based on these references or on verbal advice, unless we are guilty of intent or gross negligence in this respect. In doing so, the User must prove in writing that he has provided BASWA in a timely and complete manner with all the knowledge required for BASWA's proper and promising assessment. The user must test the products for their suitability for the intended application. Product specifications are subject to change without notice. The industrial property rights of third parties must be observed. In all other respects, our respective terms and conditions of sale and delivery shall apply. The most current product data sheet applies, which can be requested from us.

Planning documents for BASWA Basic Akustiksysteme.  
The **latest valid version** of this document can be found on our website [www.baswa.com](http://www.baswa.com) under the Documentation tab.

**BASWA acoustic AG** +41 (0)41 914 02 22 [www.baswa.com](http://www.baswa.com)

# General Terms and Conditions (GTC) of BASWA acoustic AG

## 1. General information

These General Terms and Conditions apply to all services and deliveries of BASWA acoustic AG (hereinafter referred to as "BASWA") to the customer ("Purchaser"). Deviating conditions of the Purchaser which BASWA does not expressly accept in writing shall not be binding on BASWA. Even if BASWA does not expressly contradict these conditions.

## 2. Quotes

Offers from BASWA are always non-binding. Technical data, descriptions or illustrations of the delivery item in offers, brochures or other information documents do not constitute warranted characteristics and are subject to BASWA's right of modification. The indication of average consumption values of BASWA products is without guarantee. Quantity calculations prepared by BASWA (material excerpts) shall be checked immediately by the Employer and shall be made without warranty. Contracts with BASWA shall not be concluded until BASWA has confirmed the order in writing, but in any case upon delivery. The content of the contract shall be governed by BASWA's order confirmation or, in the absence thereof, by BASWA's quotation. BASWA reserves the right to make technical, constructive and design changes, in particular improvements, even after order confirmation, insofar as this is reasonable for the Customer.

## 3. Prices

Unless otherwise agreed, all prices are quoted without value added tax in Swiss francs, including packaging. The price calculation shall be based on the prices valid on the day of delivery, unless otherwise agreed in writing. The prices apply in Switzerland free truck-accessible construction site (Incoterms 2010 CPT Carriage paid to); unloading is carried out by the customer. Deliveries are made on Euro pallets. These will be invoiced at CHF 15.00 per pallet. Euro pallets can be returned. These are credited for the same amount, as long as they can be used again after being returned to BASWA. Defective pallets will not be reimbursed. Outside Switzerland, the terms of delivery FCA (Free carrier) according to Incoterms 2010 apply.

## 4. Terms of payment

Unless otherwise agreed, all invoices are due for payment net within thirty days of the invoice date. If payment is made after the due date, BASWA shall be entitled to charge default interest of 6% per annum. Offsetting against BASWA's claims shall only be permissible if the Customer's counterclaim has been acknowledged in writing or has been legally established. The goods shall remain the property of BASWA until full payment has been made.

## 5. Delivery dates

The delivery periods notified by BASWA are carefully determined, but are not binding. If dispatch is delayed for reasons for which BASWA is not responsible, the delivery period shall be deemed to have been observed if notification of readiness for dispatch has been given within the agreed period. If delivery becomes impossible in whole or in part due to force majeure or difficulties through no fault of BASWA's own, BASWA shall be entitled to withdraw from the contract. The same applies if such circumstances occur with subcontractors or suppliers. In this case, the customer has no claim to compensation or subsequent delivery.

## 6. Delivery

Deliveries with a goods value of less than CHF 500 are subject to a freight surcharge in Switzerland. Unloading on site. Special transports will be invoiced to the customer. Outside Switzerland, the terms of delivery FCA (Free carrier) according to Incoterms 2010 apply.

## 7. Risk assumption

The customer bears the risk for all deliveries, including any returns. The risk shall pass to the Customer as soon as the consignment leaves BASWA's warehouse or a third party warehouse maintained by BASWA. If the shipment is carried out at the request of the purchaser or for reasons for which the purchaser is responsible,

In the event of a delay in delivery due to circumstances beyond our control, the risk shall pass to the Purchaser from the date of notification of readiness for dispatch for the duration of the delay. The shipper is responsible for ensuring that the goods are properly packed and shipped. Goods that arrive at BASWA after the expiration date or are defective will not be refunded.

## 8. Complaints, Warranty

Warranty for defects, with the exception of the designated properties of the products according to the BASWA article list, is excluded. For special solutions (i.e. for products that are not on the BASWA article list) and colored coating compounds, any warranty is excluded. Color differences due to raw materials are not considered defects. Any liability is excluded in the event of improper use of BASWA products in combination with other or third-party systems, products or technologies. The delivery is to be checked immediately. Complaints due to incomplete, incorrect or defective delivery must be reported immediately after delivery, at the latest however after three days (72 hours). BASWA shall be liable for defects within the meaning of the preceding paragraph in accordance with the following provisions:

Unless otherwise agreed in writing, the warranty period for the warranted properties of the products shall be based on the corresponding expiry date. The customer shall in all cases comply with the contractual obligations incumbent upon him, in particular the agreed terms of payment. BASWA shall have the right to replace the defective goods by a subsequent delivery. A cancellation of the contract by the customer is excluded. In the event of improper storage and / or non-compliance with the processing guidelines specified by BASWA by the Customer or a third party, any warranty and liability shall be excluded if the Customer or a third party violates their own diligence as craftsmen.

Further claims of the Purchaser against BASWA or its vicarious agents shall be excluded, in particular claims for compensation for damage not caused to the delivery item itself.

Claims for damages are limited to the amount of the purchase price.

## 9. Returns

BASWA is not obliged to accept returns and to reimburse them. In exceptional cases, however, this is possible in the original condition without a wall. The remuneration for accepted returns is 90% of the value of the goods minus deduction for transport costs. Colored products are neither taken back nor reimbursed.

## 10. Liability

Unless expressly stated otherwise in these terms and conditions, BASWA shall only be liable for damages caused by it intentionally or through gross negligence. Any liability for auxiliary persons of BASWA is hereby expressly excluded.

## 11. Place of performance

The place of performance shall be the registered office of BASWA.

## 12. Place of jurisdiction

The exclusive place of jurisdiction for all disputes arising in connection with these General Terms and Conditions as well as the contracts concluded within the framework of these Terms and Conditions shall be the domicile of BASWA. BASWA shall be entitled to bring an action before any court having jurisdiction over the Customer.

## 13. Applicable law

These general terms and conditions as well as the contracts concluded within the framework of these conditions are subject to Swiss law. Processing guidelines of BASWA are part of the General Terms and Conditions. The application of the provisions of the United Nations Convention on Contracts for the International Sale of Goods of 11 April 1980 (Vienna Sales Convention) is excluded.

Baldegg, December, 2017

