

StoSilent Direct

Application guideline



Acoustic systems

StoSilent Direct is a highly absorbent acoustic direct system. It is ideal for walls and ceilings of minimum heights. Full-surface bonding on smooth and curved surfaces is possible without a sub-construction.



Film of application instructions for system Simply scan the QR code or go to the YouTube channel.

Reference title image: Holmegårdsvej, Charlottenlund, DK Building owner: Elsass Fonden, Charlottenlund, DK Applicator: Alpha Akustik ApS, Roskilde, DK Photographer: Michael Ellehammer, Frederiksberg, DK StoSilent Direct with StoSilent Top Finish

Please note that the details, illustrations, general technical information, and drawings contained in this brochure are only general proposals and details which merely describe the basic functions schematically. They are not dimensionally accurate. The applicator/customer is independently responsible for determining the suitability and completeness for the construction project in question. Neighbouring works are described only schematically. All specifications and information must be adjusted or agreed in the light of local conditions and do not constitute work, detail, or installation plans. The technical specifications and product information included in the Technical Data Sheets and system descriptions/ approvals must be observed.

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StoSilent Direct The easy direct system

System overview

Areas of application

- Interior, onto wall and ceiling surfaces
- Exterior, for selected areas (see StoSilent planning manual)
- Full-surface bonding without sub-construction
- no spherical surfaces)



- For smooth surfaces and curved surfaces (convex, concave,

Acoustic panel

StoSilent Board MW 100 application notes

	Board thickness		
	36 mm	46 mm	66 mm
System thickness	40 mm	50 mm	70 mm
Areas of application	At low height	All-purpose	For high absorption
Minimum convex radius [*]	3 m	4 m	5 m
Minimum concave radius [*]	2.5 m	3 m	4 m
Maximum cutting depth	10 mm	20 mm	40 mm

* For narrower radii, the boards can be cut on the rear side. The maximum cutting depth must be observed in such cases.



StoSilent Board MW 100

Acoustic panel made of coated mineral wool



Surface design



StoSilent Decor M/MF white

Without coating



StoSilent Top Basic tinted (white)

StoSilent Top Finish white

StoSilent Direct without coating Acoustic panel system with visible joints

System build-up



1 — Bonding StoSilent Coll MW

2 — Acoustic panel StoSilent Board MW 100

System description

Areas of application	 Spaces with minimal aesthetic requirements, acoustic function takes precedence (e.g. multi-sto- rey car parks, cellars, workshops, equipment rooms)
Properties	• High sound absorption up to $\alpha_w = 1.0$ (depending on board thickness) • Reaction to fire (class) A2-s1, d0 in accordance with EN 13501-1
Appearance	 Grey white, approx. RAL 9002 Visible, elaborate joints
Application	 Boards fixed directly in a bond pattern → offset ≥ 200 mm Joint pattern is to be planned in advance No surface area limitation; existing movement joints must be incorporated
Possible colour shades	-
Products	StoSilent Coll MW StoSilent Board MW 100 (e.g. 36 mm)
Tools	 3M Scotch[™] 244 Super Masking Tape – gold (e.g. 48 mm) Sto-Notched Trowel 15 x 15 mm Sto-Spirit Level 2 m Sto-Schleifbrett WDVS
Supplementary products	 StoSilent Profile AP 210 (e.g. 40 mm) Soudal Fix All Flexi (for stop profile) StoSeal Band BK
Approvals/standards	 The relevant European and/or national test reports/certificates apply



StoSilent Direct with StoColor Climasan/StoColor Silent Acoustic panel system with visible joints, with odour-eliminating

emulsion paint or open-pored renovation paint

System build-up



1 — Bonding StoSilent Coll MW

- 2 Acoustic panel StoSilent Board MW 100
- 3 Filler and levelling coat Sto-Joint Filler WF
- 4 Intermediate coat StoColor Climasan or StoColor Silent
- 5 Finish StoColor Climasan or StoColor Silent

Areas of application	Spaces with normal aesthetic requirements, high acoustic function is requested. Spaces exposed to odours and harmful substances (e.g. corridors, schools/nursery schools, staircases, cinemas, fitness studios, changing rooms)
Properties	• High sound absorption up to $\alpha_w = 0.95$ (depending on board thickness) • Reaction to fire (class) A2-s1, d0 in accordance with EN 13501-1 • Breaks down organic harmful substances and odours (StoColor Climasan)
Appearance	 Visible, elaborate joints Various colour designs Dead-matt in accordance with EN 13300
Application	 Boards fixed directly in a bond pattern → offset ≥ 200 mm Joint pattern is to be planned in advance No surface area limitation; incorporate existing movement joints
Possible colour shades	 StoColor Climasan – limited tintability in accordance with the StoColor System StoColor Silent – fully tintable in accordance with the StoColor System
Products	 StoSilent Coll MW StoSilent Board MW 100 (e.g. 36 mm) Sto-Joint Filler WF StoColor Silent white or StoColor Climasan white
Tools	 3M Scotch[™] 244 Super Masking Tape – gold (e.g. 48 mm) Sto-Leaf and Square Trowel (z. B. 20 mm) Sto-Notched Trowel 15 x 15 mm Sto-Spirit Level 2 m Sto-Schleifbrett WDVS Sto-Hopper Gun Replacement nozzle for hopper gun 4 mm
Supplementary products	• StoSilent Profile AP 210 (e.g. 40 mm) • Soudal Fix All Flexi (for stop profile) • StoSeal Band BK
Approvals/standards	The relevant European and/or national test reports/certificates apply



StoSilent Direct with StoSilent Decor M/MF

Acoustic panel system with visible joints and organic or silicate porous acoustic spatterdash

System build-up



1 — Bonding StoSilent Coll MW

- 2 Acoustic panel StoSilent Board MW 100
- 3 Filler and levelling coat Sto-Joint Filler WF
- 4 Intermediate coat StoSilent Decor M or StoSilent Decor MF
- 5 Finish StoSilent Decor M or StoSilent Decor MF

Areas of application	- Spaces with normal aesthetic requirements, high acoustic function is requested (e.g. corridors, schools/nursery schools, staircases, cinemas, fitness studios, changing rooms, exhibition rooms, consultation rooms)
Properties	 High sound absorption up to α_w = 1.0 (depending on board thickness) Reaction to fire (class) A2-s1, d0 in accordance with EN 13501-1 Eco-certified, natureplus[®] (StoSilent Decor M)
Appearance	 Visible, elaborate joints Textured surface with fine graining Various colour designs Matt
Application	 Boards fixed directly in a bond pattern → offset ≥ 200 mm Joint pattern is to be planned in advance No surface area limitation; incorporate existing movement joints
Possible colour shades	 StoSilent Decor M – limited tintability in accordance with the StoColor System StoSilent Decor MF – fully tintable in accordance with the StoColor System
Products	 StoSilent Coll MW StoSilent Board MW 100 (e.g. 36 mm) Sto-Joint Filler WF StoSilent Decor M white or StoSilent Decor MF white
Tools	 3M Scotch[™] 244 Super Masking Tape – gold (e.g. 48 mm) Sto-Leaf and Square Trowel (z. B. 20 mm) Sto-Notched Trowel 15 x 15 mm Sto-Spirit Level 2 m Sto-Schleifbrett WDVS inoBEAM M8, nozzle 4 – 6 mm (inotec)
Supplementary products	 StoSilent Profile AP 210 (e.g. 40 mm) Soudal Fix All Flexi (for stop profile) StoSeal Band BK StoFix Zyrillo (e.g. 70 mm) or StoFix Quader (e.g. ND Midi, 40 mm)
Approvals/standards	The relevant European and/or national test reports/certificates apply



StoSilent Direct with StoSilent Decor M/MF

Seamless acoustic panel system with organic or silicate porous acoustic spatterdash

System build-up



1 — Bonding StoSilent Coll MW

- 2 Acoustic panel StoSilent Board MW 100
- 3 Filler and levelling coat StoSilent Filler
- 4 Intermediate coat StoSilent Top Basic
- 5 Finish StoSilent Decor M or StoSilent Decor MF

Areas of application	 Spaces with high aesthetic requirements, well-balanced acoustics for talking is requested (e.g. offices, living spaces, meeting rooms, prestigious reception rooms and service halls, conference rooms, hotel rooms)
Properties	 High sound absorption up to α_w = 0.80 (depending on board thickness) Reaction to fire (class) A2-s1, d0 in accordance with EN 13501-1 Eco-certified, natureplus[®] (StoSilent Decor M)
Appearance	 Seamless Textured surface with fine graining Various colour designs Matt
Application	 Boards fixed directly in a bond pattern → offset ≥ 200 mm Seamless up to 700 m² Adopt the existing movement joints
Possible colour shades	 StoSilent Decor M – limited tintability in accordance with the StoColor System StoSilent Decor MF – fully tintable in accordance with the StoColor System
Products	 StoSilent Coll MW StoSilent Board MW 100 (e.g. 36 mm) StoSilent Filler StoSilent Top Basic natural StoSilent Decor M white or StoSilent Decor MF white
Tools	 3M Scotch[™] 244 Super Masking Tape – gold (e.g. 48 mm) Sto-Notched Trowel 15 x 15 mm Sto-Spatula Trowel (e.g. 80 mm) Mirka hand block with extraction system Mirka sanding discs (e.g. P 100) Sto-Spirit Level 2 m Sto-Schleifbrett WDVS Sto-Swiss Smoothing Trowel Notched 4 x 4 Sto-Flächenspachtel inoBEAM M8, nozzle 4 – 6 mm (inotec)
Supplementary products	 StoSilent Profile AP 210 (e.g. 40 mm) Soudal Fix All Flexi (for stop profile) StoSeal Band BK StoFix Zyrillo (e.g. 70 mm) or StoFix Quader (e.g. ND Midi, 40 mm)
Approvals/standards	The relevant European and/or national test reports/certificates apply



StoSilent Direct with StoSilent Top Basic Seamless acoustic panel system with organic, porous acoustic plaster

System build-up



- 1 Bonding StoSilent Coll MW
- 2 Acoustic panel StoSilent Board MW 100
- 3 Filler and levelling coat StoSilent Filler
- 4 Intermediate coat StoSilent Top Basic
- 5 Finish StoSilent Top Basic

Areas of application	 Spaces with high aesthetic requirements, well-balanced acoustics for talking is requested (e.g. offices, living spaces, meeting rooms, prestigious reception rooms and service halls, conference rooms, hotel rooms)
Properties	 High sound absorption up to α_w = 0.65 (depending on board thickness) Reaction to fire (class) A2-s1, d0 in accordance with EN 13501-1
Appearance	 Seamless Smooth surface with fine graining Various colour designs Dead-matt
Application	 Boards fixed directly in a bond pattern → offset ≥ 200 mm Seamless up to 200 m² Adopt the existing movement joints
Possible colour shades	Limited tintability in accordance with the StoColor System
Products	 StoSilent Coll MW StoSilent Board MW 100 (e.g. 36 mm) StoSilent Filler StoSilent Top Basic natural StoSilent Top Basic white/tinted
Tools	 3M Scotch[™] 244 Super Masking Tape – gold (e.g. 48 mm) Sto-Notched Trowel 15 x 15 mm Sto-Spatula Trowel (e.g. 80 mm) Mirka hand block with extraction system Mirka sanding discs (e.g. P 100) Sto-Spirit Level 2 m Sto-Schleifbrett WDVS Sto-Schleifbrett WDVS Sto-Flächenspachtel Sto-Special Smoothing Trowel Sto-Finishing Trowel Profi plastic 1 mm
Supplementary products	 StoSilent Profile AP 210 (e.g. 40 mm) Soudal Fix All Flexi (for stop profile) StoSeal Band BK StoFix Zyrillo (e.g. 70 mm) or StoFix Quader (e.g. ND Midi, 40 mm)
Approvals/standards	• The relevant European and/or national test reports/certificates apply
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StoSilent Direct with StoSilent Top Finish

Seamless acoustic panel system with organic, porous acoustic plaster

System build-up



- 1 Bonding StoSilent Coll MW
- 2 Acoustic panel StoSilent Board MW 100
- 3 Filler and levelling coat StoSilent Filler
- 4 Intermediate coat StoSilent Top Basic
- 5 Finish StoSilent Top Finish

Areas of application	 Spaces with the greatest aesthetic requirements, well-balanced acoustics for talking is requested (e.g courtrooms and council chambers, meeting rooms, conference rooms, high-quality hotel rooms, high-quality offices and living spaces, foyers in banks and company entrances)
Properties	• High sound absorption up to $\alpha_w = 0.65$ depending on board thickness) • Reaction to fire (class) A2-s1, d0 in accordance with EN 13501-1
Appearance	 Seamless Smooth surface with extremely fine graining Various colour designs Dead-matt
Application	 Boards fixed directly in a bond pattern → offset ≥ 200 mm Seamless up to 200 m² Adopt the existing movement joints
Possible colour shades	Limited tintability in accordance with the StoColor System
Products	 StoSilent Coll MW StoSilent Board MW 100 (e.g. 36 mm) StoSilent Filler StoSilent Top Basic natural StoSilent Top Finish white
Tools	 3M Scotch[™] 244 Super Masking Tape – gold 8 (e.g. 48 mm) Sto-Notched Trowel 15 x 15 mm Sto-Spatula Trowel (e.g. 80 mm) Mirka hand block with extraction system Mirka sanding discs (e.g. P 100) Sto-Spirit Level 2 m Sto-Schleifbrett WDVS Sto-Schleifbrett WDVS Sto-Swiss Smoothing Trowel Notched 4 x 4 Sto-Flächenspachtel Sto-Finishing Trowel Profi plastic 1 mm
Supplementary products	 StoSilent Profile AP 210 (e.g. 40 mm) Soudal Fix All Flexi (for stop profile) StoSeal Band BK StoFix Zyrillo (e.g. 70 mm) or StoFix Quader (e.g. ND Midi, 40 mm)
Approvals/standards	The relevant European and/or national test reports/certificates apply



General information

Notes prior to application

- The applicator is to take part in a training or introduction session before applying the product for the first time
- Ensure that the acoustic panels are always protected against humidity and the effects of the weather
- Always store the acoustic panels on a level surface
- Leave the panels and system components to rest for at least 24 hours before application to allow them to adjust to the climatic installation conditions
- Protect acoustic panels against mechanical or transport damage
- In order to remove the panels from the pallet, the PE film hood and the edge protection profile must be completely removed
- When manually relocating the panels, take no more than two at a time to avoid edge breaks
- There may be batch-related differences between the colour shades of the acoustic panels
- There may be colour shade differences between different batches of StoSilent finishes due to the use of natural raw materials. Only use products from the same batch over a single surface
- Ensure that suitable protective clothing is worn (safety goggles, gloves, dust masks, etc.)

Notes on application and construction site requirements

- Ensure that the lowest substrate and application temperatures of the system products are complied with in accordance with the Technical Data Sheet
- The highest substrate and application temperature for all system products is 30 °C
- The maximum permitted relative humidity is 70 %
- An areal scaffolding which is adapted to suit the system build-up at the correct working height must be provided (for finishes with StoSilent Top Basic and StoSilent Top Finish)
- The possibility of lowering the scaffolding (with gun-grade finish) must be planned in advance
- Sufficient ventilation must be ensured for the drying process, which can be accelerated using a condensate dryer if necessary
- High humidity and/or low temperatures prolong the drying time.
- Due to the fact that application is carried out manually, uneven patches may become visible as slight shadows in unfavourable light conditions (glancing light)

Notes on use after application

After installing the acoustic system, treat the surface carefully to retain the acoustic effect, and to prevent its aesthetic appeal from being adversely affected. Ensure the following are avoided:

- Damage caused by assembly work
- Contamination caused by soiled hands and hand perspiration
- Dust resulting from sanding down wooden floors, cleaning work, etc.
- Coating the StoSilent Direct surface at a later date with commercially available paint using a paint brush or a roller is not permitted. Overcoating causes the open pores required for room acoustics to become blocked. This would destroy the acoustic effectiveness of the ceiling.

Notes

When installing lights, cast in units, etc., always wear clean gloves. Please note that even ladders can cause metal abrasion on gloves and therefore also on the surface.

Thorough cleaning and renovation instructions are available on request or can be found in the StoSilent planning manual.

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Substrate preparation

New substrates

- Remove soiling and clean surfaces; remove any sinter skin
- Substrate preparation with StoSilent Prim or StoPrim Plex and StoSilent Prep Quarz as a bonding agent

Old substrates

- Remove loose paint remnants as well as non-load bearing existing paint coats and coatings and subsequently clean the substrate (mechanically or using a suitable paint remover)
- Prime absorbent and crumbling substrates with StoSilent Prim or StoPrim Plex
- Overcoat existing paint coats with the bonding agent StoSilent Prep Quarz

Concrete substrate

- The concrete surface must be free of formwork oil
- Remove flashes with a suitable tool
- Level out any unevenness, small gaps, and blow-holes using StoSilent Coll MW
- Level out and fill joints in precast concrete elements, gaps, and similar with StoLevell In RS

Gypsum plasterboard substrate

- Maximum approved carrier rail distance: 30 cm
- · Level out unevenness in the substrate
- Substrate preparation with StoSilent Prim or StoPrim Plex and StoSilent Prep Quarz as a bonding agent

Lime-gypsum plaster substrate

- Level out unevenness in the substrate
- Substrate preparation with StoSilent Prim or StoPrim Plex and StoSilent Prep Quarz as a bonding agent

Notes

Unevenness in the substrate can affect the appearance of the surface. This applies to suspended gypsum plasterboard substrates in particular.

Small areas of unevenness of approx. 2 mm can be levelled using the StoSilent Coll MW adhesive.

The substrate must be checked professionally by the applicator for sufficient resistance, using measuring equipment if necessary.

The substrate must be able to bear a load of \ge 5 kPa.

The substrate must be airtight. Openings, etc., must have an airtight seal.

Installing the boards

Level surfaces with StoSilent Board MW 100



To prevent crack formation, separate off neighbouring surfaces or structures (wall junctions, columns, windows, or door frames made from metal, timber, etc.) using 3M Scotch™ 244 Super Masking Tape gold or Sto-Stucco Tape, for example. The protruding adhesive tape must be cut off flush at a flat angle, at the latest before the finish is applied. Alternatively, form a shadow gap with the StoSilent Profile AP 210 stop profile (see p. 16).



Mask ceiling installations such as lights, speakers, fire alarms, or cable ducts with StoSeal Band BK sealing tape so that they are airtight. This will prevent through-flow and therefore soiling, joint staining, etc. This applies particularly to suspended gypsum plasterboard substrates.

Cut StoSilent Board MW 100 to the required

a handsaw, utility knife, circular saw, or

Mark cable ducts or other objects on the

saw, handsaw, or utility knife.

substrate as a cutting pattern on the rear side of the mineral wool board and then cut using a suitable device. Cut out recesses with a keyhole

keyhole saw.

format using a suitable cutting device, such as



Fix the StoSilent Board MW 100 acoustic panels in the bond with a joint offset of at least 200 mm. They should be flush over the area and tightly butt-joined. Avoid stack bonding. This will avoid contaminating the visible side of the board (e.g. adhesive soiling).

Firstly position the StoSilent Board MW 100 without pressing it completely into the adhesive bed. Then position further acoustic panels in the bond.



After bonding approx. five StoSilent Board MW 100 boards, press them into the adhesive bed with the Sto-Schleifbrett WDVS without any height offset across their surface and then align them. If necessary, use a Sto-Spirit Level or a level to ensure that the surface is even. After approx. 5 minutes, check the surface again and apply more pressure if necessary.

Amount of material and drying time

StoSilent Coll MW

Drying time



Amount of material

36 hrs.

Note



Always arrange continuous longitudinal joints parallel to the incidence of light.

A joint plan must be established for a system build-up without coating or with visible joints.

Tips

A joint filler (see p. 19) and an additional acoustic panel coating is not required for a system build-up with visible joints.

Bonding on curved surfaces or the use of a stop profile for field demarcation is also possible (see p. 15/16).



Mix the StoSilent Coll MW adhesive for approx. 3 minutes in accordance with the Technical Data Sheet. Allow to rest for approx. 3 - 5 minutes and then remix for approx. 30 seconds.



Apply StoSilent Coll MW thinly to the full surface of the back of the board under high pressure. Apply further adhesive and comb at an angle of approx. 45° using the Sto-Notched Trowel 15 x 15 mm or 10 x 10 mm for a very smooth substrate. Alternatively, the Sto-Zahntraufel-Vibra-L 8 can also be used.

Then apply an additional bead of adhesive to all four corners to fix the acoustic panel to the substrate for the first time.

Curved surfaces with StoSilent Board MW 100



For a clean edge finish, separate off neighbouring surfaces or structures (wall junctions, columns, windows, or door frames made from metal, timber, etc.) using 3M Scotch™ 244 Super Masking Tape gold or Sto-Stucco Tape, for example. The protruding adhesive tape must be cut off flush at a flat angle, at the latest before the finish is applied. Alternatively, form a shadow gap with the StoSilent Profile AP 210 stop profile (see p. 16).



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Insert the StoSilent Board MW 100 acoustic panel into the intended curve of the existing roof. Fix the acoustic panels in the bond with an offset of at least 200 mm. They should be flush over the area and tightly butt-joined. Avoid stack bonding. This will avoid contaminating the visible side of the board (e.g. adhesive soiling).



Mask ceiling installations such as lights, speakers, fire alarms, or cable ducts with StoSeal Band BK sealing tape so that they are airtight. This will prevent through-flow and therefore soiling, joint staining, etc.



Press StoSilent Board MW 100 using a tool adapted to the curve. The high wet adhesive strength of StoSilent Coll MW ensures immediate adhesion of the acoustic panel to the curved substrate.



Cut StoSilent Board MW 100 to the required format using a suitable cutting device, such as a handsaw, utility knife, circular saw, or keyhole saw.

Mark cable ducts or other objects on the substrate as a cutting pattern on the rear side of the mineral wool board and then cut using a suitable device. Cut out recesses with a keyhole saw, handsaw, or utility knife.



Mix the StoSilent Coll MW adhesive for approx. 3 minutes in accordance with the Technical Data Sheet. Allow to rest for approx. 3 - 5 minutes and then remix for approx. 30 seconds.



After bonding approx. five StoSilent Board MW 100 boards, press them into the adhesive bed without any height offset across their surface and then align them. If necessary, use a Sto-Spirit Level or a level to ensure that the surface is even. After approx. 5 minutes, check the surface again and apply more pressure if necessary.

 Amount of material and drying time

 Amount of material

 StoSilent Coll MW
 3.5 - 4.0 kg/m²

 1.2 kg/m² per mm of layer

 thickness

Drying time 36 hrs.

Note



Always arrange continuous longitudinal joints parallel to the incidence of light. The minimum radius of the curve depends on the board thickness (see p. 5). For narrower radii, the boards can be cut on the rear side. The maximum cutting depth (see table on p. 5) must be observed in such cases. Sample surface areas must be created.

Тір

A joint filler (see p. 19) and an additional acoustic panel coating is not required for a system build-up with visible joints.



Apply StoSilent Coll MW thinly to the full surface of the back of the board under high pressure. Apply further adhesive and comb at an angle of approx. 45° using the Sto-Notched Trowel 15 x 15 mm or 10 x 10 mm for a very smooth substrate. Alternatively, the Sto-Zahntraufel-Vibra-L 8 can also be used.

Then apply an additional bead of adhesive to all four corners to fix the acoustic panel to the substrate for the first time.

Installing the boards

Field demarcation with StoSilent Profile AP 210 stop profile



Mark the field dimension and demarcation on the substrate with a chalk line, straightedge, and angle. For field demarcation, cut the StoSilent Profile AP 210 stop profile to size to a profile height and length suitable for the butt joint. Professionally cut mitres and connections to size at an angle using a mitre saw or hack saw with a hacksaw blade for aluminium. Deburr the cutting edges and reapply lacquer if necessary.



Clean StoSilent Profile AP 210 (e.g. with Multi-Star All-Purpose Cleaner) and sand if necessary. Cut the nozzle head of the Soudal Fix All Flexi cartridge obliquely to a diameter of approx. 5 mm and apply the adhesive in waves with a wavelength of approx. 5 cm on the 30 mm wide wing of the stop profile. Optionally, StoSilent Profile AP 210 can be fixed professionally with suitable flat-head screws or hammer-in anchors.



Press StoSilent Profile AP 210 onto the substrate with the adhesive surface and align immediately. Select a contact pressure that is high enough to force some adhesive to escape from both profile edges so that it becomes visible. Connect neighbouring profiles cleanly and align. Align the profile joint using a spring clamp and supplements if necessary.

Note

In the next stage, follow steps 1 to 5 of board installation for even or curved surfaces in accordance with the information on pages 14 and 15.



Only bond the StoSilent Board MW 100 acoustic panels when StoSilent Profile AP 210 is securely fixed in place. Bond acoustic panels straight-edged against the field demarcation. Avoid stack bonding. Avoid contaminating the visible side of the panel. Observe the application steps on page 14/15. If StoSilent Direct is not coated or if only one colour coating is sprayed on, StoSilent Board MW 100 must be aligned to the height of the profile edge. When coating with StoSilent Decor or StoSilent Top, the acoustic panel must be aligned approx. 2 mm behind the profile edge.



Fix the StoSilent Board MW 100 acoustic panels in the bond with a joint offset of at least 200 mm. They should be flush over the area and tightly butt-joined. Avoid stack bonding. This will avoid contaminating the visible side of the board (e.g. adhesive soiling). Firstly position the StoSilent Board MW 100 without pressing it completely into the adhesive bed. Then position further acoustic panels in the bond.



After bonding approx. five StoSilent Board MW 100 boards, press them into the adhesive bed with the Sto-Schleifbrett WDVS without any height offset across their surface and then align them. If necessary, use a Sto-Spirit Level or a level to ensure that the surface is even. After approx. 5 minutes, check the surface again and apply more pressure if necessary.

Note



Always arrange continuous longitudinal joints parallel to the incidence of light.

A joint plan must be established for a system build-up without coating or with visible joints.

Tip

A joint filler (see p. 19) and an additional acoustic panel coating is not essential for a system build-up with visible joints.

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Mounting elements

StoFix Zyrillo



Mark the StoFix Zyrillo mounting cylinder on the StoSilent Board MW 100 acoustic panel. Then remove the marked surface from the acoustic panel professionally using a suitable cutting device (such as the Sto-Thermo aluminium countersinking tool).



StoFix Zyrillo Mounting cylinder made of polystyrene foam for fixing light loads



Remove any remnants of the acoustic panel and the adhesive from the opening.

Note

The mounting elements must be cut professionally by machine to the corresponding thickness. Guideline: mounting element should be approx. 6 mm thinner than the StoSilent Board MW 100 acoustic panel used. Install the mounting elements as soon as possible after having applied the acoustic panels.



Apply the StoSilent Coll MW adhesive to the full surface of the StoFix Zyrillo and countersink in the ceiling opening approx 2 mm below the granulate surface.



The generously fill StoFix Zyrillo with the StoSilent Filler joint filler. Plane once it is completely dry (approx. 36 hours).

Mounting elements

StoFix Quader



Mark the StoFix Quader mounting ashlar that has been suitably cut to size on the StoSilent Board MW 100 acoustic panel and cut out using a utility knife. Apply the StoSilent Coll MW adhesive to the full surface of the StoFix Quader and comb with the Sto-Notched Trowel 15 x 15 mm. Countersink the StoFix Quader approx. 2 mm below the granulate surface in the ceiling.



StoFix Quader ND Mini/ND Midi/Quick Mounting ashlar made of polystyrene foam for fixing light loads; compression underlay for light loads

Notes

The mounting elements must be cut professionally by machine to the corresponding thickness. Guideline: mounting element should be approx. 6 mm thinner than the StoSilent Board MW 100 acoustic panel used. Install the mounting elements as soon as possible after having applied the acoustic panels.

Anchorage in the substrate is required depending on the load. Observe the specifications in the Technical Data Sheet.



Then adhere StoSilent Board MW 100 to the remaining surface and generously fill the StoFix Quader with the StoSilent Filler joint filler. Plane once it is completely dry (approx. 36 hours).

Alternatively, StoFix Quader can be used in retrospect on bonded boards:



Mark the StoFix Quader mounting ashlar on the bonded StoSilent Board MW 100 acoustic panel. Then cut out the marked surface from the acoustic panel using a suitable cutting device, such as a utility knife, and remove. Remove any remnants of the acoustic panel and the adhesive from the opening.



Apply the StoSilent Coll MW adhesive to the full surface of the StoFix Quader and comb with the Sto-Notched Trowel 15 x 15 mm. Countersink the ashlar approx. 2 mm below the granulate surface in the ceiling opening.

The generously fill StoFix Quader with the StoSilent Filler joint filler. Plane once it is completely dry (approx. 36 hours).

Filler and levelling coat

Visible joints with Sto-Joint Filler WF



Cut the nozzle head of the Sto-Joint Filler WF obliquely to a diameter of approx. 1 - 2 mm and spray thinly into the centre of the joints. Do fill the joints completely.



Using the Sto-Leaf and Square Trowel, cleanly trowel off the joints at an angle of approx. 45°. The joint filler should not go over the edge of the joint.



Fill the joints with StoSilent Filler using a

Sto-Spatula Trowel until they are completely

filled with a small amount of excess.

to make sure it stays foamy.

Fill StoSilent Filler into a clean container in

accordance with the Technical Data Sheet at a

with a commercially-available mortar stirrer for 1-2 minutes until it is foamy. Allow to mature for approx. 5 minutes, and then stir again for approx. 30 seconds. Regularly stir the product

mass ratio of 2:1 (joint filler:clean water). Stir



For StoSilent Direct with visible joints, planning the joint pattern is crucial for the design of the overall ceiling area.



Leave StoSilent Filler to dry for up to 48 hours at a recommended ambient room temperature of at least +12 °C. The drying process can be accelerated by sufficient ventilation. Make sure that the joint filler is completely dry after no more than 48 hours.

Tips

A joint filler is not required if the StoSilent Board MW 100 acoustic panels require no further coating.

A joint filler is not needed for a system build-up with the StoColor Climasan, StoColor Silent, or StoSilent Decor finish if the board joints are visually acceptable and no mineral wool is showing.



Sand the joints and unevenness evenly with a fine sanding board or a suitable sander. P 100 or P 120 graining is suitable for this. Then remove any dust from the surface. We recommend using an automatic sander with an integrated vacuum cleaner.

Notes

Keep stirring StoSilent Filler at intervals to maintain the application consistency.

For the finish with StoColor Climasan, StoColor Silent, or StoSilent Decor with visible joints, it is not necessary to use StoSilent Filler.

1

Seamless with StoSilent Filler

Intermediate coat

Seamless with StoSilent Top Basic

Checklist

- · Areal scaffolding at the correct working height is required for applying the coating.
- The correct tool and a sufficient number of employees must be available for the application (1 person per 1.5 - 2.0 m of work width; increase the manpower accordingly in case of difficult connection details, for example).
- We recommend applying the coating to a test surface of at least 5 m² and having it approved by the planner/building owner representative.



Prepare the StoSilent Top Basic natural intermediate coat in accordance with the Technical Data Sheet with max. 5 % water to achieve proper application consistency and stir well. To avoid waiting times, mix all necessary containers prior to coating.

Tip

Optionally, StoSilent Top Basic can be sprayed on by machine as an intermediate step, in particular onto curved surfaces, to facilitate further material application. After approx. 6 hours of drying, scratch off the grain tips with the edge of the Sto-Swiss Smoothing Trowel toothed 4 x 4. The intermediate coat is then applied (step no. 2) but steps 3 + 4 are no longer necessary.



Apply StoSilent Top Basic with the Sto-Swiss Smoothing Trowel toothed 4 x 4 from the edge of the ceiling to the acoustic panels. Work at right angles to the main incidence of light. At this stage, the appearance is of secondary importance.

It is more important to apply a sufficient amount of material for the next step.



Comb in a criss-cross pattern using the Sto-Swiss Smoothing Trowel Notched 4 x 4 mm, whereby the first notching also runs at right angles to the main incidence of light. Press the finishing trowel firmly and uniformly at an angle of approx. 30° - ideally until scraping is heard on the surface. Leave approx. 3 cm of material without notching in the edge zone in order to ensure visually perfect smoothing.



The second notching with the Sto-Swiss Smoothing Trowel Notched 4 x 4 runs parallel to the main incidence of light.



Smooth StoSilent Top Basic with the rust-free Sto-Flächenspachtel applying uniform pressure at an angle of approx. 10°. In doing so, trowel off as little material as possible. First smooth the areas along the edge, and then work on the entire surface. Finally, deburr the entire surface. If the StoSilent Profile AP 210 stop profile was used, this acts as a smoothing ridge for StoSilent Top Basic.



Leave it to dry for 36 to 48 hours, then carefully remove protruding material and ridges.

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Amount of material ar	nd drying time	
	Amount of material	Drying time
StoSilent Top Basic	2.0 – 3.0 kg/m ²	Natural: 36 hours; whi

Silent Top Basic	2.0 – 3.0 kg/m ²	I
		t

Natural: 36 hours; white/ tinted: up to 48 hours



Seamless with StoSilent Top Basic

Notes

Comb in one direction in order to ensure as even a layer thickness as possible. The application cycle should also be carried out by the same person.

On curved surfaces, only ever comb in one direction forming the shape of a curve.

Do not smooth in any fixed direction but ensure that the result appears visually neat.

In order to avoid forming trowelling ridges, bend up the tool's corners slightly in one direction. Mark the relevant side if necessary.

If there is not enough StoSilent Top Basic on a certain surface area, take material from the surrounding area where possible and level it slowly while applying more pressure.

When coating walls in rooms that are subject to a strong draught, drying times may differ due to the different surface temperatures. Therefore, pay particular attention when carrying out step 5.

Tips

Collect combed-off StoSilent Top Basic (natural or white) separately and redistribute into the pails when applying the intermediate coat in subsequent construction phases.

Combed-off StoSilent Top Finish cannot be reused.

Finish

Visible joints with StoColor Climasan/StoColor Silent



Prepare the colour coating to achieve application consistency in accordance with the Technical Data Sheet and stir well.

2

Set the air pressure on the Sto-Hopper Gun and test the spray pattern on a test surface. Spray the colour coating directly onto the acoustic panels in two to three application cycles at a distance of 50 to 70 cm. Begin with the edge zone with movements parallel to the wall and then spray the coating onto the surface with circular motions. Observe the drying times between the individual application cycles.

Machine technology settings

- Sto-Hopper Gun, compressor (e.g. V-Meko 400)
- Nozzle size: 4 mm
- Spraying distance: approx. 50 70 cm
- Air pressure: 1.5 2.5 bar
- Compressor performance: min. 360 l/min, constant

Amount of material and drying time

	Amount of material	Drying time
Application cycle 1	approx. 0.3 kg/m ²	min. 6 hours
Application cycle 2	approx. 0.5 – 0.7 kg/m ²	min. 12 hours

Notes

On surfaces larger than approx. 20 $m^2,\,it$ is recommended to use a peristaltic conveying pump or a conveying pump with stator.

The height of the scaffolding must be adjusted accordingly to ensure the optimum spraying distance.

Safety goggles and a P1 dust mask are recommended when spraying.

We recommend using two application cycles. Keep the amount of material as low as possible during the first application cycle.

Additional application cycles may be required depending on the colour shade.

Тір

A test surface of 5 m² is recommended.

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Visible joints/seamless with StoSilent Decor M/MF



Prepare the StoSilent Decor finish to achieve application consistency in accordance with the Technical Data Sheet and stir well (additional water is required when using the Sto-Hopper Gun).



Use a test surface to adjust the spray pattern of the peristaltic conveying pump by adapting air quantity and conveying output. Spray StoSilent Decor directly onto the acoustic panels or, in the case of a seamless system build-up, onto the dry StoSilent Top Basic intermediate coat in two to three application cycles at a distance of approx. 70 cm. Begin with the edge zone with movements parallel to the wall and then spray the coating onto the surface with circular motions. Observe drying times.

Alternatively, StoSilent Decor can be applied with the Sto-Hopper Gun. Set the air pressure and test the spray pattern on a test surface.

Additional water is required when using the Sto-Hopper Gun.

See step 2 for material application.



After the third application cycle and 12 hours of drying time, the textured surface is ready with StoSilent Decor fine graining. To finish, carefully sweep the ceiling to remove loose or poorly adhering particles using a brush with soft bristles. The joint filling underneath the coating on StoSilent Top Basic is no longer visible. The joint filling is still slightly visible underneath the coating without StoSilent Top Basic as an intermediate coat.

Machine technology settings

- Peristaltic conveying pump (e.g. inoBEAM M8), conveying pump with stator (e.g. Strobot 406 RS), or Sto-Hopper Gun, compressor (e.g. V-Meko 400)
- Nozzle size: 4 6 mm
- Flow: 0 15 l/min
- Spraying distance: approx. 70 cm
- Air pressure: 1.5 2.5 bar
- · Compressor performance: min. 360 l/min, constant

Amount of material and drying time

	Amount of material	Drying time
Application cycle 1	approx. 0.7 kg/m ²	min. 5 hours
Application cycle 2	approx. 0.9 kg/m ²	min. 12 hours
Application cycle 3	approx. 1.1 kg/m ²	min. 12 hours

Notes

On surfaces larger than approx. 20 m^2 , it is recommended to use a peristaltic conveying pump or a conveying pump with stator.

The height of the scaffolding must be adjusted accordingly to ensure the optimum spraying distance.

Safety goggles and a P1 dust mask are recommended when spraying.

The finished surface has fully dried through after approx. 24 hours.

In the case of intense colour shades, longer drying times are to be expected, as there is otherwise a risk of mottling. Additional application cycles may be required depending on the colour shade.

High humidity and/or low temperatures prolong the drying time.

Tip

A test surface of 5 m² is recommended.

Finish

Seamless with StoSilent Top Basic/StoSilent Top Finish

Checklist

- Areal scaffolding at the correct working height is required for applying the coating.
- The correct tool and a sufficient number of employees must be available for the application (1 person per 1.5 2.0 m of work width; increase the manpower accordingly in case of difficult connection details, for example).
- We recommend applying the coating to a test surface of at least 5 m² and having it approved by the planner/building owner representative.



2

Prepare the StoSilent Top finish to achieve application consistency in accordance with the Technical Data Sheet and stir well. For StoSilent Top tinted, a smaller quantity of water is required to achieve an optimum application consistency.

To avoid waiting times, mix all necessary containers prior to coating.

Apply StoSilent Top with the Sto-Swiss Smoothing Trowel Notched 4 x 4 from the edge to the acoustic panels. Work at right angles to the main incidence of light. At this stage, the appearance is of secondary importance.

It is much more important to apply a sufficient amount of material for the next step.



Comb in a criss-cross pattern using the Sto-Swiss Smoothing Trowel Notched 4 x 4 mm, whereby the first notching also runs at right angles to the main incidence of light. Press the finishing trowel firmly and uniformly at an angle of approx. 30° – ideally until scraping is heard on the surface. Leave approx. 3 cm of material without notching in the edge zone in order to ensure visually perfect smoothing. The second notching with the Sto-Swiss Smoothing Trowel Notched 4 x 4 runs parallel to the main incidence of light.



Smooth StoSilent Top with the rust-free Sto-Flächenspachtel applying uniform pressure at an angle of approx. 10°. In doing so, trowel off as little material as possible. First smooth the areas along the edge, and then work on the entire surface. Finally, deburr the entire surface.



To finish, smooth the surface after approx. 15 – 45 minutes depending on the ambient room temperature and humidity. Start doing this when the surface is starting to become matt. Begin with the Sto-Finishing Trowel Profi plastic 1 mm in the edge zone.



Subsequently, smooth the entire surface again using the Sto-Special Smoothing Trowel, starting in the edge zone.

Amount of material and drying time

	Amount of material	Drying time
StoSilent Top Basic	2.5 – 3.0 kg/m²	Natural: 36 hours; white/ tinted: up to 48 hours
StoSilent Top Finish	3.0 kg/m ²	36 hrs.

Notes

Comb in one direction in order to ensure as even a layer thickness as possible. The application cycle should also be carried out by the same person.

On curved surfaces, only ever comb in one direction forming the shape of a curve.

Do not smooth in any fixed direction but ensure that the result appears visually neat.

In order to avoid forming trowelling ridges, bend up the tool's corners slightly in one direction. Mark the relevant side if necessary.

If there is not enough StoSilent Top on a certain surface area, take material from the surrounding area where possible and level it slowly while applying more pressure.

When coating walls in rooms that are subject to a strong draught, drying times may differ due to the different surface temperatures. Therefore, pay particular attention when carrying out steps 4 and 5.

Seamless with StoSilent Top Basic/StoSilent Top Finish

Tips

Collect combed-off StoSilent Top Basic (natural or white) separately and redistribute into the pails when applying the intermediate coat in subsequent construction phases.

Combed-off StoSilent Top Finish cannot be reused.

While smoothing the surface, regularly wipe off the binding agent film from the plastic trowel using a damp sponge.

Notes



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