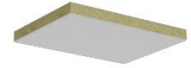


Technical Data Sheet

StoSilent Board MW 100

Acoustic panel made of coated mineral wool



Characteristics

Area of application	<ul style="list-style-type: none"> ▪ Interior ▪ For smooth and curved areas ▪ For the StoSilent Direct acoustic system ▪ Fixing by bonding ▪ For direct bonding onto ceilings and walls without sub-construction ▪ Visible joint build-up without surface area limitation possible: uncoated or with StoColor Climasan / the StoColor Silent Finish, or with the StoSilent Decor M Finish ▪ Seamless build-up of up to 700 m² possible: with the StoSilent Decor M Finish ▪ Seamless build-up of up to 200 m² possible: with either StoSilent Top Basic or StoSilent Top Finish (max. side length 20 m)
Properties	<ul style="list-style-type: none"> ▪ Weighted sound absorption coefficient α_w of up to 1.00 depending on the board thickness and finishing coat ▪ Reduction in the reverberation time and noise level ▪ Improved ability to concentrate ▪ Improvement in speech intelligibility ▪ Low weight ▪ Low moisture-induced and thermal expansion ▪ Easy to apply
Format	<ul style="list-style-type: none"> ▪ Straight-edged board edge with 45° bevel in the ceiling membrane ▪ Length x width x thickness ▪ 600 x 800 x 36 mm ▪ 600 x 800 x 46 mm ▪ 600 x 800 x 66 mm
Appearance	<ul style="list-style-type: none"> ▪ Granulate surface ▪ Finishing coat options: <ul style="list-style-type: none"> ▪ Without coating, visible joints ▪ StoColor Climasan or StoColor Silent, visible joints ▪ StoSilent Decor M, seamless ▪ StoSilent Top Basic, seamless ▪ StoSilent Top Finish, seamless
Information/Notes	<ul style="list-style-type: none"> ▪ Use in brine or saltwater swimming pools only on request ▪ Not suitable in splash water zones ▪ Not suitable for areas subject to mechanical stress ▪ Observe installation instructions

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Technical Data

Criteria	Standard / test specification	Value / Unit	Notes
Diffusion-equivalent air layer thickness	EN ISO 7783	< 2.0 m	with coating
Reaction to fire	EN 13501-1	A2-s1, d0	
Rated value of thermal conductivity λ	TIAP-655 based on EN 12667	0.040 W/(m ² *K)	with coating
Tensile strength perpendicular to faces	EN 13162:2012 + A1:2015	10 kPa	
Mass per unit area		5.0 kg/m ²	36 mm
Mass per unit area		6.0 kg/m ²	46 mm
Mass per unit area		8.0 kg/m ²	66 mm
Bulk density		130 kg/m ³	36 mm
Bulk density		130 kg/m ³	46 mm
Bulk density		120 kg/m ³	66 mm
Sound absorption coefficient α_W	EN ISO 11654	0.45	can vary depending on the coating, thickness, and optional suspension height
Sound absorption coefficient NRC	ASTM C423	1.00	can vary depending on the coating, thickness, and optional suspension height

The characteristic values stated are average values or approximate values. Due to the natural raw materials in our products, the stated values can vary slightly in the same delivery batch; this does not affect the suitability of the product for its intended use.

Substrate

Requirements

The substrate must be airtight, smooth, load-bearing, clean, dry, and free from sinter layers, efflorescence, and release agents.

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

Small, uneven areas of approx. 2 mm can be levelled using the StoSilent Coll MW or StoSilent Coll MW-G adhesive.

The substrate must be able to bear a load of ≥ 1 kPa.

Movement and separation joints must be incorporated. Further specifications can be found in the application guideline

Preparations

Old substrates:

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

Concrete:

Remove contaminants due to formwork oil, grease, and wax. Touch up gaps with StoLevell In RS.

Screwed and not filled gypsum plasterboards, type A:

Maximum approved carrier rail distance: 40 cm

1. Fill the joints between the gypsum plasterboards with StoSilent Coll MW-G.
2. Embed and smooth the Sto-Gewebefugenband.
3. Then apply StoSilent Coll MW-G wet-on-wet. See the "Application" section.

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Check the production batches on the label before starting work. Filled and honed gypsum plasterboards, type A:

Substrate requirement: at least quality level Q2

1. Prime the filled joints between the gypsum plasterboards and leave to dry. Primer: StoPrim Plex

Screwed and not filled gypsum plasterboards, type GF:

Maximum approved carrier rail distance: 40 cm

1. Prime the gypsum fibreboards full-faced and leave to dry. Primer: StoPrim Plex
2. Fill the joints between the gypsum fibreboards with StoSilent Coll MW-G.
3. Embed and smooth the Sto-Gewebefugenband.
4. Then apply StoSilent Coll MW-G wet-on-wet. See the "Application" section.

Filled and honed gypsum fibreboards, type GF:

Substrate requirement: at least quality level Q2

1. Prime the filled gypsum fibreboards full-faced and leave to dry. Primer: StoPrim Plex

Oriented Strand Boards (OSBs)

Dust off the surface. Apply an intermediate coat of StoSilent Prep Quarz.

Gypsum and pre-mixed plasters of the mortar groups PG IV and V:

Remove any sinter skin by mechanical means and dust off the surface.

Prime with StoPrim Plex and apply an intermediate coat of StoSilent Prep Quarz.

Please refer to the guidelines of the Bundesausschuss Farbe und Sachwerteschutz (Federal Committee for Paint and the Protection of Material Assets) and the Bundesverband der Gipsindustrie e.V. (Federal association for the gypsum industry)

Prepare the concrete substrate using a suitable method in accordance with ZTV-ING Part 3, section 4.

Application

Application temperature

Lowest substrate and application temperature: +5 °C at max. 70 % relative humidity. First adjust the equilibrium humidity in the room and only then install the boards.

Rapid shock-type heating or cooling off during installation and drying time can lead to cracks.

Consumption

Type

Approx. consumption

2.08 no's of panel/m²

The stated consumption values are only to be used as a guide. If required, precise consumption values plus cuttings should be determined on the project.

Coating build up

System: StoSilent Direct

Primer:

Depending on the type and condition of the substrate, prime with StoPrim Plex, if necessary.

Substrate coating:

StoSilent Prep Quarz

System adhesive:

StoSilent Coll MW: approx. 3.5 - 4.0 kg/m²

or

StoSilent Coll MW-G: approx. 3.0 - 4.0 kg/m² for gypsum plasterboard substrates

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Acoustic carrier board:
StoSilent Board MW 100

Filler for system joints:
Seamless system: StoSilent Filler (ca. 0.10 - 0.13 kg/m²)

Intermediate coat (seamless system):
StoSilent Top Basic (approx. 2.0 - 3.0 kg/m²)

Finishing coat options:
Visible : StoColor Climasan or StoColor Silent (application cycle 1: 0.3 kg/m², application cycle 2: ca. 0.5 - 0.7 kg/m²)
Seamless :StoSilent Decor M or (application cycle 1: 0.7 kg/m², application cycle 2: approx. 0.9 kg/m², application cycle 3: approx. 1.1 kg/m²)
Seamless :StoSilent Top Basic (approx. 2.5 - 3.0 kg/m²)
Seamless :StoSilent Top Finish (approx. 3.0 kg/m²)

Application

Adopt the existing expansion joints.

Cut acoustic panels to size using a keyhole saw, a handsaw, a knife, or a circular saw bench (dust vacuuming necessary).

Full-surface bonding:

- System adhesive: StoSilent Coll MW
- system adhesive for gypsum plasterboard substrates: StoSilent Coll MW-G
- notched trowel 15 x 15 mm
- notched trowel for gypsum plasterboard substrates: notched trowel 10 x 10 mm

Mix the system adhesive in accordance with the application guideline and apply full-faced to the back of the board.

Comb off the system adhesive with a notched trowel at an angle of 45°.

Using the Sto-Notched Trowel, apply an adhesive bead all the way round the edge of the board.

Arrange the boards flush and butt-jointed in bond with a min. joint offset of 200 mm. Avoid stack bonds.

Avoid contaminating the visible side of the board (e.g. due to adhesive soiling). Position the boards first and do not yet press them completely into the fresh layer of adhesive. Then position further boards in bond.

For curved surfaces, press StoSilent Board MW 100 using a tool adapted to the curve. The high wet adhesive strength of the StoSilent Coll MW or the StoSilent Coll MW-G adhesive immediately bonds the acoustic panel to the curved substrate.

After bonding approx. five StoSilent Board MW 100 boards, press them into the adhesive layer 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 and apply more pressure if necessary.

In glancing light the ceilings are not free from visible unevenness.

Please refer to the StoSilent Direct application guideline for a more detailed description of application on even and curved surfaces, and on the use of a stop profile or mounting elements.

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Notes, recommendations, special information, miscellaneous

Please consult the local sales office for further information and any site assistance required.

Observe the general Sto application guidelines for StoSilent acoustic systems. They are available from Sto SEA Pte Ltd.

If using on outside walls and ceilings, it is necessary to provide structural verification in the planning phase in order to avoid an uncontrolled occurrence of condensate in the system build-up.

Installation/coating must only be carried out after prior instruction.

Protect acoustic panels against moisture and effects of the weather. Store the acoustic panels on a level surface.

Leave the boards and system components to rest for min. 24 hours at the specified lowest application temperature 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 boards from the pallet, remove the PE film hood and the edge protection profile completely.

When manually relocating the boards, take a maximum of two at a time to avoid edge breaks.

There may be batch-related differences in the colour shades of the acoustic panels.

Wear suitable protective clothing (safety glasses, gloves, dust protection mask, etc.).

Recommendation: installation on walls outside areas subject to a risk of impact, above a height of 2 m.

Delivery

Colour shade Visible side: White (approx. RAL 9002),
Rear side: Yellow Grey

Packaging

Article number	Name	Packing
03225-001	StoSilent Board MW 100, 46 mm	44 pcs/pallet
03225-002	StoSilent Board MW 100, 66 mm	32 pcs/pallet
03225-003	StoSilent Board MW 100, 36 mm	56 pcs/pallet

Storage

Storage conditions Store in cool dry conditions; avoid direct sunlight. Product is sensitive to shock; do not subject it to loads or stress.

Identification

Product group Acoustic panel

Safety Please refer to Safety Data Sheet.

Special Notes

The information in this Technical Data Sheet serves to ensure the product's intended use, or its suitability for use, and is based on our findings and experience. Users are nevertheless responsible for establishing the product's suitability and use.

Applications not specifically mentioned in this Technical Data Sheet are permissible only after prior consultation. Where no approval is given, such applications are at the user's own risk. This applies in particular when the product is used in combination with other products.

When a new Technical Data Sheet is published, all previous Technical Data Sheets are no longer valid. The latest version is available on www.sto-sea.com.

Technical Data Sheet

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*Product images may differ from the actual product.