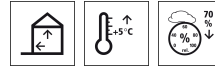


Technical data sheet

StoSilent Board MW 100

Acoustic panel made of coated mineral wool



Characteristics

Areas of application

- interior
- fixing by bonding
- for smooth surfaces
- for direct bonding onto ceilings and walls
- up to 700 m² possible without expansion joints, using StoSilent Decor M and StoColor Climasan as a finish (max. side length: 20 m)
- up to 200 m² possible without expansion joints, using StoSilent Top Basic as a finish (max. side length: 20 m)

Properties

- non-combustible
- reaction to fire (class) in accordance with EN 13501-1: A2-s1, d0
- rated sound absorption coefficient of up to α_w 1.00 depending on the board thickness and finish
- reduction in the reverberation time and noise level
- improved ability to concentrate
- improvement in speech intelligibility
- low weight and high stiffness
- low moisture-induced and thermal expansion
- simple application

Format

- straight-edged board edge with 45° bevel on the face
- length x width x thickness
- 600 x 800 x 46 mm
- 600 x 800 x 66 mm

Appearance

- the following finishes are possible:
StoSilent Decor M
StoSilent Top Basic
StoColor Climasan

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Information/notes

- not suitable for areas subject to mechanical stress
- not for use in brine pools or in areas subject to a risk of splash water
- usage in swimming pools and wet rooms on request

Technical data

Criterion	Standard / test regulation	Value/ Unit	Notes
Diffusion-equivalent air layer thickness	EN ISO 7783-2	< 2.0 m	with coating
Reaction to fire (class)	EN 13501-1	A2-s1, d0	non-combustible
Rated value of thermal conductivity λ	TIAP-655 based on EN 12667	0.040 W/(m*K)	with coating
Area weight		6.0 kg/m ²	46 mm
Area weight		7.9 kg/m ²	66 mm
Apparent density		130 kg/m ³	46 mm
Apparent density		120 kg/m ³	66 mm
Sound absorption degree α_w	EN ISO 11654	1.0	Can vary depending on the coating, thickness, and optional suspension height

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Sound absorption factor NRC			Can vary depending on the coating, thickness, and optional suspension height
	ASTM C423	1.00	

The characteristic values stated are average values or approx. values. We use natural raw materials in our products, which means that 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 flow-proof, smooth, load-bearing, clean, dry, and free from sinter layers, efflorescence and release agents.
 The substrate must be able to bear a load of ≥ 5 kPa.
 Movement and separation joints must be incorporated. Please find further specifications in the application guideline.

Preparations

Old substrates:
 Remove non load-bearing paint remnants as well as non load-bearing old (paint) coats and then clean the substrate (mechanically or using a suitable paint remover). Prime highly absorbent substrates with StoSilent Prim.

Concrete:
 Remove contaminants due to formwork oil, grease, and wax using a jet wash. Correct small gaps and blow-holes with StoLevell In Z. Prime with StoPrim Plex. It is necessary to apply StoSilent Prep Quartz as a bonding agent to smooth and/or weakly absorbent concrete substrates.

Gypsum plasterboards:
 Maximum approved carrier rail spacing: 30 cm
 Sand off filler ridges. Apply StoPrim Plex to the gypsum plasterboard surface including the sanded filler. Then apply an intermediate coat of StoSilent Prep Quartz.

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Gypsum and pre-mixed plasters of mortar groups PG IV + V:
Sand, dust off, and prime any sinter skin with StoPrim Plex. Then coat with StoSilent Prep Quartz as an intermediate coat.

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 application and substrate temperature: +12 °C at max. 70 % relative air humidity; installation after adjusting the equilibrium humidity in the room.
Rapid shock-type heating or cooling during installation and drying can induce crack formation.

Consumption	Execution	Approx. consumption	
			pcs./m ²
		2.08	

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 procedure

System: StoSilent Direct

Primer:

If necessary, prime with StoSilent Prim depending on the type and condition of the substrate.

System adhesive:

StoSilent Coll MW (approx. 3.0 - 4.0 kg/m²)

Acoustic carrier board:

StoSilent Board MW 100

System joint filler:

StoSilent Filler (approx. 0.1 kg/m²)

Intermediate coat:

StoSilent Top Basic (approx. 2.0 - 3.0 kg/m²)

Not required for the StoColor Climasan finish.

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The following finishes are possible:
 StoSilent Decor M (0.8 - 0.9 kg/m² per spray coating with a 6 mm nozzle)
 StoColor Climasan (two spray coatings)

Application

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

Full-surface bonding:
 Mix the system adhesive (StoSilent Coll MW) in accordance with the application guideline. Work the adhesive into the mineral wool side of the StoSilent Board MW acoustic panel. Comb it off with a notched trowel (e.g. 10 x 10 mm or 15 x 15 mm). Then float the board into place on the ceiling. Bond as T joint with a min. 200 mm joint offset. Align the direction of laying with the incidence of light. Directly after bonding, align the board in the wet adhesive at the same height as the adjacent boards.

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

Indications, recommendations, special information, miscellaneous

Please observe the general Sto application guidelines for acoustic systems. They are available from Sto SE & Co. KGaA.

In order to avoid an uncontrolled occurrence of condensate in the system build-up, in the planning phase it is necessary to provide structural verification for use on external walls and exterior ceilings.

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

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

Structural expansion joints must be incorporated.

Delivery

Colour shade visible side: grey-white, rear side: yellow-grey

Packaging pallet

Storage

Storage conditions Store in dry and frost-free conditions. Product is sensitive to shocks, do not subject it to loads or stress.

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Certificates/approvals

M100960/15 Page 1	StoSilent Direct - StoSilent Board MW100, 66 mm - StoSilent Top Basic & Top Basic white - Build-up E-200 Determination of the sound absorption factor in accordance with EN ISO 354
M100960/16	StoSilent Direct Determination of the sound absorption factor in accordance with ASTM C 423

Identification

Product group	Acoustic panel
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Special notes

The information or data 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. Nevertheless, users are responsible for establishing the suitability of the product for its intended use.

Applications other than those explicitly mentioned in this technical data sheet are only permissible after prior consultation. Where no approval is given, such applications are at the risk of the user. This applies particularly to combinations 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 the Internet.

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