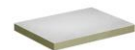
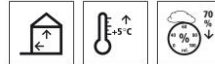


# Technical Data Sheet

## StoSilent Board MW 100

Acoustic panel made of coated mineral wool



### Characteristics

#### Area of application

- interior
- fixing by bonding
- for smooth and curved areas
- for the StoSilent Direct System
- 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/MF finish
- seamless build-up of up to 700 m<sup>2</sup> possible: with the StoSilent Decor M/MF finish
- seamless build-up of up to 200 m<sup>2</sup> possible: with either StoSilent Top Basic or StoSilent Top Finish (max. side length 20 m)

#### Properties

- weighted sound absorption coefficient  $\alpha_w$  of up to 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 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

- granulate surface
- finish options:
  - without coating, visible joints
  - StoColor Climasan or StoColor Silent, visible joints
  - StoSilent Decor M/MF, visible joints

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## StoSilent Board MW 100

- StoSilent Decor M/MF, seamless
- StoSilent Top Basic, seamless
- StoSilent Top Finish, seamless

### Information/notes

- recommendation: installation on walls outside areas subject to a risk of impacts above a height of 2 m
- do not 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 specification	Value/ Unit	Notes
Diffusion-equivalent air layer thickness	EN ISO 7783	< 2.0 m	with coating
Reaction to fire (class)	EN 13501-1	A2-s1, d0	
Rated value of thermal conductivity $\lambda$	TIAP-655 based on EN 12667	0.040 W/(m*K)	with coating
Mass per unit area		5.0 kg/m <sup>2</sup>	36 mm
Mass per unit area		6.0 kg/m <sup>2</sup>	46 mm
Mass per unit area		8.0 kg/m <sup>2</sup>	66 mm
Bulk density		130 kg/m <sup>3</sup>	36 mm
Bulk density		130 kg/m <sup>3</sup>	46 mm
Bulk density		120 kg/m <sup>3</sup>	66 mm
Sound absorption coefficient $\alpha_w$	EN ISO 11654	1.0	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

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## StoSilent Board MW 100

### Requirements

The substrate must be airtight, smooth, load-bearing, clean, dry, and free from sinter layers, efflorescence, and release agents.  
 The substrate must be able to bear a load of  $\geq 5$  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 StoSilent Prim or 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.

**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 Quarz.

**Gypsum and pre-mixed plasters of mortar groups P IV and P V:**  
 Remove any sinter skin 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 temperature for application: +5 °C and 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 pcs./m <sup>2</sup>

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

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**Primer:**

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

**System adhesive:**

StoSilent Coll MW (approx. 3.0 - 4.0 kg/m<sup>2</sup>)

**Acoustic carrier board:**

StoSilent Board MW 100

**system joint filler:**

StoSilent Filler (approx. 0.10 - 0.13 kg/m<sup>2</sup>)

**Intermediate coat:**

StoSilent Top Basic (approx. 2.0 - 3.0 kg/m<sup>2</sup>)

Not required for the StoColor Climasan / StoColor Silent finish.

**finish options:**

StoColor Climasan (application cycle 1: 0.7 kg/m<sup>2</sup>, application cycle 2: approx. 0.9 kg/m<sup>2</sup>, application cycle 3: approx. 1.1 kg/m<sup>2</sup>), application cycle 2 and 3 are optional.

StoSilent Decor M / MF (application cycle 1: 0.7 kg/m<sup>2</sup>, application cycle 2: approx. 0.9 kg/m<sup>2</sup>, application cycle 3: approx. 1.1 kg/m<sup>2</sup>), application cycle 2 and 3 are optional.

StoSilent Top Basic (approx. 2.0 - 3.0 kg/m<sup>2</sup>)

StoSilent Top Finish (approx. 3.0 kg/m<sup>2</sup>)

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#### 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:**

Mix StoSilent Coll MW in accordance with the application guideline and apply full-faced to the back of the StoSilent Board MW 100 and comb with a 15 x 15 mm notched trowel (alternatively 10 x 10 mm) at an angle of 45°. Then apply an additional bead of adhesive to all four corners to fix the board to the substrate. 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.

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

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### StoSilent Board MW 100

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.

#### Notes, recommendations, special information, miscellaneous

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

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.).

#### Delivery

**Colour shade** visible side: grey-white (approx. RAL 9002), rear side: yellow-grey

#### Packaging

pallet

#### Storage

**Storage conditions** Store in dry and frost-free conditions on a level surface. Product is sensitive to shock; do not subject it to loads or stress.

#### Certificates/approvals

M 10 0960/15 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
M 10 0960/15 Page 2	StoSilent Direct - StoSilent Board MW100, 66 mm - StoSilent Top Basic & StoSilent Decor M - build-up E-200 Determination of the sound absorption factor in accordance with EN ISO 354

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M 10 0960/15 Page 3	StoSilent Direct - StoSilent Board MW100, 66 mm - StoColor Climasan (visible joints) - build-up E-200 Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/15 Page 4	StoSilent Direct - StoSilent Board MW100, 66 mm - without finish (visible joints) - build-up E-200 Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/15 Page 5	StoSilent Direct - StoSilent Board MW100, 46 mm - StoSilent Top Basic & Top Basic white - build-up E-200 Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/15 Page 6	StoSilent Direct - StoSilent Board MW100, 46 mm - StoSilent Top Basic & StoSilent Decor M - build-up E-200 Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/15 Page 7	StoSilent Direct - StoSilent Board MW100, 46 mm - StoColor Climasan (visible joints) - build-up E-200 Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/15 Page 8	StoSilent Direct - StoSilent Board MW100, 46 mm - without finish (visible joints) - build-up E-200 Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/15 Page 9	StoSilent Direct - StoSilent Board MW100, 66 mm - StoSilent Top Basic & Top Basic white - build-up type A Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/15 Page 10	StoSilent Direct - StoSilent Board MW100, 66 mm - StoSilent Top Basic & StoSilent Decor M - build-up type A Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/15 Page 11	StoSilent Direct - StoSilent Board MW100, 66 mm - StoColor Climasan (visible joints) - build-up type A Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/15 Page 12	StoSilent Direct - StoSilent Board MW100, 66 mm - without finish (visible joints) - build-up type A Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/15 Page 13	StoSilent Direct - StoSilent Board MW100, 46 mm - StoSilent Top Basic & Top Basic white - build-up type A Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/15 Page 14	StoSilent Direct - StoSilent Board MW100, 46 mm - StoSilent Top Basic & StoSilent Decor M - build-up type A Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/15 Page 15	StoSilent Direct - StoSilent Board MW100, 46 mm - StoColor Climasan (visible joints) - build-up type A Determination of the sound absorption factor in accordance with EN ISO 354

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M 10 0960/15 Page 16	StoSilent Direct - StoSilent Board MW100, 46 mm - without finish (visible joints) - build-up type A Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/18 Page 1	StoSilent Distance A2 - StoSilent Board MW100, 66 mm - StoSilent Top Basic & Top Finish - build-up E-200 Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/18 Page 2	StoSilent Distance A2 - StoSilent Board MW100, 66 mm - StoSilent Decor (visible joints) - build-up E-200 Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/18 Page 3	StoSilent Distance A2 - StoSilent Board MW100, 46 mm - StoSilent Top Basic & Top Finish - build-up E-200 Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/18 Page 4	StoSilent Distance A2 - StoSilent Board MW100, 46 mm - StoSilent Decor (visible joints) - build-up E-200 Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/18 Page 5	StoSilent Distance A2 - StoSilent Board MW100, 66 mm - StoSilent Top Basic & Top Finish - build-up type A Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/18 Page 6	StoSilent Distance A2 - StoSilent Board MW100, 66 mm - StoSilent Decor (visible joints) - build-up type A Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/18 Page 7	StoSilent Distance A2 - StoSilent Board MW100, 46 mm - StoSilent Top Basic & Top Finish - build-up type A Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/18 Page 8	StoSilent Distance A2 - StoSilent Board MW100, 46 mm - StoSilent Decor (visible joints) - build-up type A Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/18 Page 9	StoSilent Direct - StoSilent Board MW 100, 66 mm + renovation - StoSilent Decor - build-up type A Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/18 Page 10	StoSilent Direct - StoSilent Board MW 100, 46 mm + renovation - StoSilent Decor - build-up type A Determination of the sound absorption factor in accordance with EN ISO 354

#### Identification

Product group Acoustic panel

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# StoSilent Board MW 100

### 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 the Internet.

Sto SE & Co. KGaA  
Ehrenbachstr. 1  
79780 Stühlingen / Germany  
Phone: +49 7744 57-0  
Fax: +49 7744 57-2178  
Infoservice.export@sto.com  
www.sto.com