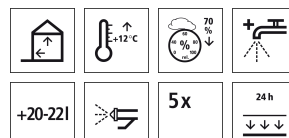


Technical data sheet

StoSilent Miral AP

Mineral acoustic spray plaster



Characteristics

- Areas of application**
- interior
 - for ceilings and upper wall areas

- Properties**
- non-combustible
 - reaction to fire (class) in accordance with EN 13501-1: A2-s1, d0
 - sound-permeable decorative coating
 - good sound absorption in the medium- and high-frequency range
 - low weight

- Appearance**
- rough surface

- Information/notes**
- do not use in brine pools, steam baths and on gypsum fibre boards

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Criterion	Standard / test regulation	Value/ Unit	Notes
Density	EN ISO 2811	0.24 - 0.30 g/cm ³	
Reaction to fire (class)	EN 13501-1	A2-s1, d0	non-combustible
Rated value of thermal conductivity λ	TIAP-655 based on EN 12667	0.10 W/(m*K)	
Area weight		10.0 kg/m ²	max. wet weight

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Sound absorption degree α_w	EN ISO 11654	0.30	depends on the layer thickness
Sound absorption factor NRC	ASTM C423	0.35	depends on the layer thickness
PH value		12.0	
Light reflectance value		80	
Degree of whiteness		44 %	

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 firm, dry, clean, and load-bearing, and also free from sinter layers, efflorescence and release agents. Damp or not fully cured substrates can lead to defects in following layers, such as bubble formation or cracks. Therefore do not apply onto damp or soiled substrates.

Preparations

New substrates:
remove soiling, then clean the surfaces. Remove any sinter skin.

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).

Plasters of mortar groups PG II + III:
do not pre-treat solid, normally absorbent substrates before coating them. Apply a substrate coating of StoSilent Prim onto coarse, porous, crumbling, highly absorbent plasters.

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Gypsum plasters and pre-mixed plasters of mortar groups PG IV + V:
sand, dust off, and prime any sinter skin with StoPrim Plex.

Gypsum construction boards:
in case of absorbent boards prime with StoSilent Prim.

Gypsum plasterboards:
maximum approved carrier rail spacing: 30 cm
sand off spatula burrs. Prepare the gypsum plasterboard surface including the honed filler and levelling coat for the subsequent coating with StoSilent Prim.

In case of visible yellowing, apply an additional blocking coat of StoPrim Isol (see BFS data sheet 12).

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.

Porous concrete:
prime with StoSilent Prim and smooth with StoLevell In Fill.

Fair-faced brick masonry:
clean, remove dust and prime with StoSilent Prim.

Load-bearing coats:
rework matt, weakly absorbent coatings directly. Roughen glossy surfaces and lacquer coatings. In case of highly absorbent old dispersion paint coats prime with StoSilent Prim.

Old lime and mineral paint coats and coatings:
mechanically remove and dust off the surfaces as much as possible and prime with StoSilent Prim.

Distemper paint coats:
Wash off thoroughly and treat the substrate accordingly.

Non-adherent wallpapers:
Remove all traces of the wallpaper. Wash off any remains of wallpaper paste and lining paper. Seal gaps with StoLevell In Fill and then treat them accordingly.

Mould-infested surfaces:
Remove mould layers through wet cleaning (e.g. brushing or scraping off). After-treatment with StoPrim Fungal. Priming depends on the type and composition of the substrate.

Level coarse uneven surfaces with a suitable filler and allow to dry.

Prime highly absorbent substrates with StoSilent Prim. However, no glossy film

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may form (create test surfaces in case of doubt).

The coating layer build-ups and recommendations listed do not release the applicator from his or her own responsibility for substrate testing and assessment.

Application

Application conditions Not more than 70 % relative humidity. A suitable measuring device is required for measuring the above-mentioned values.

Application temperature Lowest substrate and air temperature for application: +12 °C

Material preparation Calculate the amount of water according to the intended method of application (hopper gun or rotor and stator pump). When using a rotor and stator pumps, less water is usually required. Knead a full sack with 20 - 22 l of water in a slow-running compulsory mixer to a doughy consistency and mix it without lumps.

Consumption	Type of application	Approx. consumption	
	at the highest point (15 mm plaster application)/dry matter		15.0

Material consumption depends on the application, substrate, and consistency, among other factors. The stated consumption values are only to be used as a guide. If required, determine precise consumption values on the basis of the specific project.

Coating procedure Substrate coating:
Depends on the type and condition of the substrate.

Intermediate coat:
StoSilent Prep Quarz

Finish:
StoSilent Miral AP (multi-layer)

Application by machine, minimum of five layers, thickness: approx. 15 mm

Spray-apply several layers until a plaster thickness of 15 mm is achieved. Make sure that each layer dries and cures for approx. 24 hours before applying the next layer (depends on the climate in the room). Gently spray the material in single

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layers with open pores. The material may not run. Spots where the material ran off are visible defects and also cause acoustic ineffectiveness.

Spraying with a hopper gun:

Standard nozzle diameter 8 mm. Spray pressure approx. 2.0 - 2.5 bar. Spraying distance min. 50 cm. Always work in circular movements when sprinkling, never remain at one spot. The material must blend run to form a sealed layer.

Spraying with a rotor and stator pump:

Use rotor and stator pumps with variable output, e.g. Inobeam F21 with 380 V or 230 V, PFT N2V or Strobl 326 S. Use a sufficiently powerful compressor in order to atomise the output material. Suction power at least 400 l/min. at 4 bar continuous pressure. Maximum hose length is 10 m with a hose diameter of 25 mm. Fine-texture plaster device for decorative plaster with a nozzle diameter of 10 mm. Spraying distance 50 - 70 cm. Always work in circular movements when sprinkling, never remain at one spot. The material must blend run to form a sealed layer.

When using a rotor and stator pump, further application cycles may be necessary to achieve the requisite layer thickness. In case of large contiguous wall areas, it is not recommended to spray from the scaffolding, but from a mobile platform lift. Marks in the spray pattern due to the scaffolding platforms are thus avoided and the correct spraying distance can be maintained. In case of very warm and dry conditions, wet already completed layers before applying a new layer to prevent the plaster from burning up.

Renovation:

Vacuum up loose dust deposits with an industrial vacuum cleaner with a brush attachment. Then mist over once or twice in a criss-cross pattern (low pressure method) with StoColor Silent.

Alternative: spray-apply StoSilent Miral AP in 1 or 2 layers.

Colouring:

A coloured design is possible.

To do this, pre-tint the last two layers of spray plaster by adding 0.2 l StoTint Aqua to 20 - 22 l mixing water. Levelling, possibly by double mist application in a criss-cross pattern (low-pressure method) with StoColor Silent. In case of intense colour shades, all layers should be tinted.

Drying, curing, ready for next coat	High humidity and/or low temperatures prolong drying. At +20 °C temperature (air and substrate) and 65 % relative air humidity: over-coatable after approx. 24 hours.
Cleaning the tools	Clean tools with water immediately after use.
Indications,	The acoustic values of the Sto acoustic products stated in the Technical Data Sheets are only guaranteed if the products are installed by experts.

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recommendations, special information, miscellaneous

These values are the basis for the calculations of the normal reverberation time - mostly carried out by acousticians. By using Sto acoustic products, the ideal acoustics planned for the respective application are achieved. Acoustic ceilings are functional ceilings which are subject to natural ageing and require optical reworking at certain intervals (see, for example, renovation cycles from tenancy law). To retain the acoustic effectiveness of the system even after renovation, reworking should only be carried out in accordance with Sto SE & Co. KGaA specifications.

Delivery

Colour shade white (approx. RAL 9003)

Packaging sack

Storage

Storage conditions Store in dry conditions.

Storage life

This product has a low chromate content. The quality of the product in its original container is guaranteed until the maximum storage life has expired. The storage life date can be deduced from the batch number of the container.
Batch number explanation:
Number 1 = the last number of year, numbers 2 + 3 = a calendar week
e.g.: 5450013223 – storage life until week 45 of the year 2015

Certificates/approvals

Declaration of conformity No. 2014-04 Acoustic products formulation identity/name change Certificate of conformity

Test report No. 14-002-789 C StoSilent Miral AP - Application with a hopper gun - ASTM E84
Fire behaviour test in accordance with ASTM E84

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Test report No. 14-002-789 D	StoSilent Miral AP - Application with a rotor and stator pump - ASTM E84 Fire behaviour test in accordance with ASTM E84
M 10 0960/11 Page 1	StoSilent Compact - StoSilent Miral AP, 15 mm, application with hopper gun - Build-up E-200 Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/11 Page 2	StoSilent Compact - StoSilent Miral AP, 15 mm, application by machine with conveying pump - Build-up E-200 Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/11 Page 3	StoSilent Compact - StoSilent Miral AP, 15 mm, application with hopper gun - Build-up Typ A Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/11 Page 4	StoSilent Compact - StoSilent Miral AP, 15 mm, application by machine with conveying pump - Build-up Typ A Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/20 Page 1	StoSilent Compact - StoSilent Miral AP, 25 mm, application by machine with conveying pump - Build-up E-200 Determination of the sound absorption factor in accordance with EN ISO 354
M 10 0960/20 Page 2	StoSilent Compact - StoSilent Miral AP, 25 mm, application by machine with conveying pump - Build-up Typ A Determination of the sound absorption factor in accordance with EN ISO 354

Identification

Product group Acoustic plaster

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Composition white Portland cement, polymer powder, sands, additives

Safety This product is a hazardous material.
Please observe the safety data sheet

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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