Technical Data Sheet
Sto-Acoustic Spray Plaster

Mineral acoustic spray plaster

Characteristics

Application
- interior
- for ceiling and upper wall areas, areas of high humidity
- suitable for damp rooms to a limited extent only
- do not use in brine pools, steam baths and on gypsum fibre boards

Properties
- non-combustible
- low weight
- Good sound absorption in the medium- and high-frequency range
- sound-absorbing NRC = 0.51 with hopper gun
- sound-absorbing NRC = 0.35 with rotor and stator pump equipment
- The use of machinery reduces the absorption behaviour
- high water absorption

Appearance
- coarsely textured surface

Technical data

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Standard / test regulation</th>
<th>Value/ Unit</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>EN ISO 2811</td>
<td>0.24 - 0.30 g/cm³</td>
<td></td>
</tr>
<tr>
<td>Fire behaviour (class)</td>
<td>DIN 4102</td>
<td>A2</td>
<td>Non-combustible</td>
</tr>
<tr>
<td>Rated value of thermal conductivity λ</td>
<td>TIAP-655 based on EN 12667</td>
<td>0.10 00006</td>
<td></td>
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<tr>
<td>Surface weight</td>
<td></td>
<td>10.0 kg/m²</td>
<td>max. wet weight</td>
</tr>
<tr>
<td>PH value</td>
<td></td>
<td>12.0</td>
<td></td>
</tr>
<tr>
<td>Lightness value</td>
<td></td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>Degree of whiteness</td>
<td></td>
<td>44 %</td>
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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 purpose.

Substrate

Requirements
The substrate must be firm, dry, clean, and load-bearing, as well as free from sinter layers, efflorescence and release agents. Damp or not fully cured substrates can lead to defects in subsequent coats, such as blistering or cracks. Therefore do not apply to damp or soiled substrates.

Preparations
New substrates:
remove soiling and clean surfaces; remove any sinter skin.

Old substrates:
remove non load-bearing paint remnants as well as non load-bearing old paints and coatings and subsequently clean (mechanically or by suitable paint remover).

Plaster of mortar groups PG II + III:
coat solid, normally absorbent substrates without pre-treatment. Apply a priming coat of StoPrim Plex onto large-pored, sandy, highly absorbent renders.

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

Gypsum construction boards:
in case of absorbent boards apply a primer using StoSilent Prim.

Gypsum plasterboards:
maximum approved carrier rail distance: 30 cm
sand off filler ridges. Prepare the gypsum plasterboard surface including the sanded filler for the subsequent coating with StoPrim Plex.

If there is visible yellowing, an additional blocking coat of StoPrim Isol must be applied (see BFS data sheet 12).

Concrete:
remove contaminants due to formwork release oil, grease and wax by jet wash. Correct small gaps and shrinkage holes with StoLevell In Z. Prime with StoSilent Prim.

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 coatings:
rework matt, slightly 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 colour paint coats and coatings:
mechanically remove and dust off the surfaces as far as possible and prime with StoSilent Prim.

Distemper coatings:
wash off thoroughly and treat the substrate further accordingly.

Non-adherent wallpapers:
remove all traces. Wash off remains of wallpaper paste and waste paper. Seal gaps with StoLevell In Fill and then treat accordingly.

Mould-infested surfaces:
remove mould layer through wet cleaning (e.g. brushing or scraping off). Subsequent treatment with StoPrim Fungal. Primer depending on the type and composition of the substrate.
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Level coarse uneven surfaces with a suitable filler and allow to dry.

Highly absorbent substrates must be primed with StoSilent Prim. However, no glossy film may form (create test surfaces in case of doubt).

The coating structures listed and recommendations do not release the applicator from his own responsibility for substrate testing and assessment.

Application

Application conditions

Not more than 70% relative air 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 water amount according to the intended method of application (hopper gun or rotor and stator pump). The lower water amount is normally sufficient for rotor and stator pumps. Knead a full sack with 20 - 22 l of water in a slow-running compulsory mixer to a doughy consistency and mix without lumps.

Consumption

<table>
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<tr>
<th>Type of application</th>
<th>Approx. consumption</th>
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<tr>
<td>at the highest point (15 mm plaster application)/dry matter</td>
<td>15.0 l/m²</td>
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</table>

The consumption of the material depends on the application method, substrate and consistency, amongst other factors. The stated consumption rate is only to be used as a guide. Where required, precise consumption values should be established on the respective project.

Coating procedure

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

Intermediate coating:
StoSilent Quartz

Top coat:
Sto-Acoustic Spray Plaster (multi-layer)

Application

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

The material is sprayed in several layers until a render thickness of 15 mm is achieved. Between the individual layers, a sufficient hardening time of approx. 24 hours per layer (depending on the ambient climatic conditions) must be assured. The material must be sprinkled in individual layers with open pores and must not run. Spots where the material ran are not only visible defects, they also cause acoustic ineffectiveness.

Sprinkling with the hopper gun:
Standard nozzle diameter of 8 mm. Spray pressure of approx. 2.0 - 2.5 bar. Spray distance of at least 50 cm. Always work in circular movements when sprinkling, never remain at one spot. The material must not run to form a sealed layer.
Sprinkling with the rotor and stator pump:
Rotor and stator pumps with variable output amounts must be used, e.g. Inobeam F21 with 380 V or 230 V, PFT N2V or Strobl 326 S. A sufficiently powerful compressor must be used 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 textured plaster device for decorative plaster with a nozzle diameter of 10 mm. Spray distance of 50 - 70 cm. Always work in circular movements when sprinkling, never remain at one spot. The material must not run to form a sealed layer.

When using a rotor and stator pump, further application cycles may need to be planned to achieve the requisite layer thickness. In case of large contiguous wall surface areas, it is not recommended to spray from the scaffolding, but from a mobile platform lift.
Marks in the sprinkle 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.

Renovation:
Suctioning of loose dust deposits with an industrial vacuum with a brush attachment. Then carry out 1 or 2 mist applications with StoSilent Color in a criss-cross pattern (low-pressure method).

Colouring:
Coloured design is possible.
To do this, the last two layers of spray plaster are pre-tinted by adding 0.2 l StoTint Aqua to a mixing water amount of 20-22 l. Levelling, possibly by double mist application in a criss-cross pattern (low-pressure method) with StoSilent Color. In case of intense colour shades, all layers should be tinted.

Drying, curing, reworking time
When there is high humidity and/or low temperatures, the drying process will be delayed accordingly. At +20°C temperature (air and substrate) and 65% relative air humidity, the next coat can be applied after approx. 24 hours.

Cleaning the tools
Clean tools with water immediately after use.

Indications, recommendations, special information, miscellaneous
The acoustic values stated in the technical data sheets for the Sto acoustic products are only guaranteed if professionally installed. 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 refurbishment at certain intervals (see renovation cycles from rental law, for example). To retain the acoustic effectiveness of the system even after renovation, reworking should only be carried out in accordance with Sto AG specifications.

Delivery
Colour shade
Natural white
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Packaging
Sack

Storage
Storage conditions
Store in dry conditions.

Storage life
This product is low in chromate content.
The quality of the original package is guaranteed until stock by date. The stock by date can be deduced from the batch number of the package.
Batch number explanation:
Number 1 = the last number of year, numbers 2 + 3 = a week
I.e.: 1450013223 – stock date until the 45th week of the year 2011

Certificates / approvals

<table>
<thead>
<tr>
<th>Certificate</th>
<th>Description</th>
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<tbody>
<tr>
<td>P-BWU03-I-16.4.39</td>
<td>Sto-Akustik-Spritzputz - building material class A2 General building inspection test certificate</td>
</tr>
<tr>
<td>A.56/88</td>
<td>Sto-Akustik-Spritzputz on plasterboard Determining the sound absorption factor</td>
</tr>
<tr>
<td>35.120/1</td>
<td>Sto-Akustik-Spritzputz on particle board Determining the sound absorption factor</td>
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Identification

<table>
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<tr>
<th>Product group</th>
<th>Acoustic plaster</th>
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Composition
White cement, polymer powder, sands, additive

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

Special information
The information or data serves to ensure the product’s intended purpose 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 with Sto AG. Where no approval is given, such applications are at the risk of the user. 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 at www.sto.com.

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