

## TECHNICAL DATA SHEET



No. 0782/INT.EN  
Rev.-No. 04/01.2006



# Sto Acoustic Spray Plaster (Sto-Akustik-Spritzputz)

Mineral sound absorbing spray applied plaster.

### Material description



#### Type of material

Sound absorbing, single component spray plaster; improved mineral binder basis, hydraulically drying.

Apply in multiple layers to achieve a plaster thickness of 15 mm.

#### Composition

Portland cement, vinylacetate-ethylene copolymer, fillers, additives.

### Product characteristics

- Good sound absorption qualities in mid- and high-frequency ranges.
- Applicable with a spray pistol (Trichterpistole) or spiral pump with variable settings and fine spray set. Sound absorption qualities vary according to the method of application.
- Anti-condensatory properties as a result of high water absorption capability.

- High degree of reflectivity and whiteness.
- Medium to rough surface structure. Structure may vary according to method of spraying.
- Low weight when dry.
- Fire behaviour: non-combustible.

### Uses

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For use in rooms where the clarity of speech needs to be improved by regulating the sound reverberation time.

Particularly suitable for application to large areas such as in administration buildings, government buildings, schools, universities, swimming pools (not salt water), factories or churches etc. where the sound absorption requirement is not necessarily that high.

For use on ceilings and walls not subject to mechanical abrasion.

#### Areas of use

For interior use

#### Restrictions

Uses not clearly described in this Technical Data Sheet should only take place after consultation with Sto AG.

### Application

#### Substrate

The substrate should be solid, dry, load-bearing and free from grease or other adhesion reducing substances.

#### Substrate preparation

Even slightly uneven surfaces should be levelled before applying Sto Acoustic Spray Plaster, as the material will follow the exact lines of the substrate without smoothing any undulations.

Strongly absorbent substrates such as gypsum plasterboard should be primed with undiluted StoSilent Prim. In the case of gypsum plasterboard substrates, observe the reduced support beam spacing of 30 cm.

Smooth substrates and gypsum plasterboard should be sprayed with StoSilent Quartz (art. no. 0894-001) to improve adhesion. Allow sufficient drying time.

#### Material application

For each batch of material, mix an entire sack of the product with 20 - 22 l water and mix slowly for ca. 6 minutes in a positive mixer until lump-free. The amount of water to be added depends on the planned method of application (spray pistol or spiral pump). For spiral pumps, the lower amount of water is generally sufficient.

#### Spraying:

The material should be sprayed in several coats until it reaches a thickness of 15 mm.

A minimum of 5 coats will be necessary for this. Between individual coats, allow to dry for 24 hours. The material must in places be sprayed open-pore. Do not allow the material to run! Material that has run is a visible application flaw. The acoustic effect is not given for material that has run.

#### Spraying with a spray pistol (Trichterpistole):

We recommend use of a compressor with a suction of at least 350 l/min and pressure of 4 bars. Standard nozzle diameter 8mm or 6mm, to achieve a finer spraying structure. Spraying pressure should be ca. 2.5 - 3.0 bars. Spraying distance: at least 50 cm. Whilst spraying, move continually with a circular motion: do not spray on a single point. The material must not form a sealed layer.

#### Spraying with a spiral pump (Schneckenpumpe):

Spiral pumps with variable settings should be used, e.g. PFT N2V or Strobl 203, or Strobl 326. Where possible, use a half-output stator/rotor. Suction should be at least 400 l/min, output pressure at least 4 bars. Max. hose length 10 m with a hose diameter of 25 mm. Fine plaster fitting for decorative plaster; nozzle size 10mm. Spraying distance 50 - 70mm. Move continually while spraying. Material must not be allowed to form a sealed layer.

#### Note:

In cases of large connected wall surfaces, it is not recommended to spray from the scaffolding itself, but rather from a mobile platform lift. This avoids leaving the 'shadow' of the scaffold on the surface, and the correct spraying distance can be maintained throughout the spraying procedure.

#### **Drying / hardening**

Dries hydraulically.

#### **Consumption**

Approx. 15 l dry mass for 15 mm coating thickness measured at the highest point.

#### **Application temperature**

Air and substrate temperature should not be less than + 5 °C, relative humidity below 70 %. (until the material has completely set.)

#### Note:

In very warm and dry conditions, moisten already applied layers of plaster before applying the next in order to avoid 'burning' of the plaster.

#### **Cleaning of tools and machinery**

Immediately after use with water.

#### **Renovation**

Using an Industrial vacuum cleaner with brush fitting, remove built-up dust from the surface. Finally, spray StoSilent Color crosswise 1 - 2 times at low pressure.

#### **Supply**

#### **Product code and name**

00782 Sto Acoustic Spray Plaster

#### **Packaging**

Sack, 50 l (approx. 10 kg)

#### **Colours**

Natural white.

Colour design is possible with StoSilent Color (art. 00637-001). The last two spray coatings of plaster should be pre-tinted for this purpose with the addition of max. 0,2 l full tint pigment or StoTint Aqua to the water used to prepare Sto Acoustic Spray Plaster. Equalisation to the exact tint should then take place through a

double crosswise (e.g. horizontal then vertical) spraying at low pressure with StoSilent Color.

#### **Storage and transport**

#### **Marking**

In accordance with European Union guidelines and national regulations:

VbF: -  
EU/GefStoffV: Xi - irritant  
GGVS/ADR: -  
UN-Nr.: -

GISBAU-Code: ZP01  
VVS-Code: 1610  
BAGT-Nr.: 617300

#### **Storage**

Store in dry conditions.

#### **Storage life**

In unopened sacks, product can be stored for a minimum of 9 months. (Relevant data: refer to packaging).

#### **Environment and health**

#### **Risk warnings (R-phrases)**

R38: Irritating to skin.  
R41: Risk of serious damage to eyes.

#### **Safety precautions (S-phrases)**

S24: Avoid contact with the skin.  
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.  
S51: Use only in well ventilated areas.

#### **Measures in case of accident**

Clean up material and dispose of according to local regulations.

**Table 1: Physical data**

	Tested to	Value/Test result	Unit
<b>Density</b> in supplied form			[kg/dm <sup>3</sup> ]
<b>Mass</b> wet material		6,70	[kg/m <sup>2</sup> ]
dry material		2,50	[kg/m <sup>2</sup> ]
<b>pH-value</b>		11,0 – 13,5	[1]
<b>Fire behaviour</b> Fire protection class	DIN 4102	A2 non combustible	
<b>Reflectivity</b>		71 *	[%]
<b>Whiteness</b>		61 *	[%]
<b>Thermal conductivity</b>		0,10	[W/m.K]

With the indication of the characteristic values it concerns average values. Due to the use of natural raw materials in our products the actual value can deviate slightly, without impairment of the product suitability.

\* Dependent on spraying structure.

## Sto Acoustic Spray Plaster Sound Absorption Values

Plaster Thickness: 15 mm

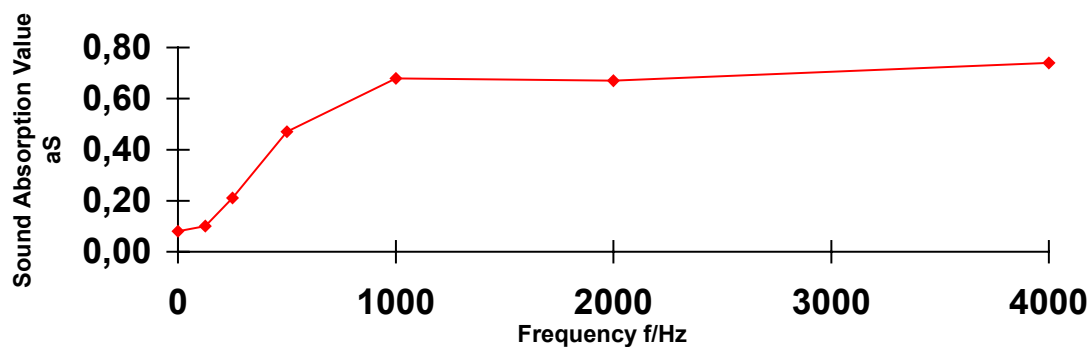
Test Area: 11,72 m<sup>2</sup>

Volume of Echo Chamber: 171.19 m<sup>3</sup>

Test Sound: Terz

Reception Filter: Terz

**Sound Absorption Values of Sto Acoustic Spray Plaster**



## Specification Text:

### Sto Acoustic Spray Plaster

Pos.	m <sup>2</sup>	Description	Price per m <sup>2</sup>	Total price
1		<b>Preparation</b> Masking off and protection of floors, walls and other areas.		
2		<b>Scaffold / Access</b> Scaffolding or access towers must be so arranged that spraying is carried out at a range of 70 cm from the ceiling or wall, so that an even surface structure can be achieved. Scaffold access required for other works such as levelling the substrate, fixing Sto Acoustic Starter Track, spray application of StoSilent Quartz etc.		
3		<b>Substrate testing and treatment</b> Test the substrate for dryness and load-bearing qualities. All adhesion reducing substances must be removed. Irregularities in the substrate must be levelled and left to dry. Prime strongly absorbent substrates with StoSilent Prim (Art. No. 0880-001). StoSilent Prim must not be allowed to form a shiny film on the substrate.		
4		<b>Preparation for Spray Plaster</b> Smooth substrates such as fair faced concrete, gypsum boards, smooth plaster etc. must be spray coated with the bonding bridge StoSilent Quartz (Article Nr. 00894-001) and left to dry for 1-2 days. Rough substrates do not need to be primed. Cement or lime bound substrates should be lightly pre-wetted.		
5		<b>Application of Sto Acoustic Spray Plaster</b> Mix Sto Acoustic Spray Plaster (50 l sack), (Art. No. 00782-002) (white) with approx. 20 - 22 litres water in a forced action mixer and spray apply using a Sto Spray Gun in 5 coats, each coat separated by 24 hrs. (Only mix full sacks). Plaster thickness 15 mm Spray Structure: fine or coarse		
		<b>Additional steps (if necessary)</b>		
6		<b>Levelling plaster</b> Levelling uneven areas with lime-cement plaster Up to 5mm..... Up to 10mm.....		
7		<b>Colour design</b> Sto Acoustic Spray Plaster mixed with water tinted with up to 0,2 litres StoColor Tint. Once dried, Sto Acoustic Spray Plaster over-sprayed with StoSilent Color (Art. No. 00637-001)		
		<b>Sub-total:</b>		
		<b>VAT:</b>		
		<b>Total:</b>		

### Disposal

Waste has to be disposed considering the local, official regulations. Material into drains to arrive do not leave.

Waste key in accordance with the European Waste Catalog: 17 09 03.

For further information on handling, storage and disposal of the product, please refer to the current EU material Safety Data Sheet, available for professional users. (Relevant data).

### Physical data

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See table 1.

### Certificates and test reports

General approval for use as a construction material in Germany:

- Report P-BWU03-I-16.4.39, Allgemeines Bauaufsichtliches Prüfzeugnis, MPA - Materialprüfungsanstalt Universität Stuttgart, 18.01.2005.

Determination of sound absorption: Sto Acoustic Spray Plaster on gypsum plasterboard:

- Report Müller-BBM in Planegg,

Determination of sound absorption: Sto Acoustic Spray Plaster on wood particle board.

- Report Müller-BBM in Planegg, 06.06.1997.

Test reports o.ae. on request.

### General information

For all contracts - whether made verbally or in writing - Sto AG general conditions of sale apply.

#### Validity

This Technical Data Sheet is valid outside Germany, in all countries without Sto subsidiary.

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### Sto worldwide:

<b>Austria</b> Sto Ges.m.b.H. 9500 Villach	<b>Belgium</b> Sto nv/sa 1730 Asse	<b>Czech Republic</b> Sto s.r.o. 150 00 Praha	<b>Finland</b> Sto Finexter Oy 33720 Tampere	<b>France</b> Sto S.A.S. 95870 Bezons
<b>Germany</b> Sto AG 79780 Stühlingen	<b>Hungary</b> Sto Építőanyag Kft. 2330 Dunaharaszti	<b>Italy</b> Sto s.r.l. 50053 Empoli (FI)	<b>Netherlands</b> Sto Isoned bv 4004 KD Tiel	<b>Norway</b> Sto Norge A/S 0664 Oslo
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