

# StoSilent

Acoustic Systems for Swimming Pools

## Acoustics



The StoSilent Distance acoustic system is perfect for swimming pool environments. Available with a specially protected sub-construction and a seamless finish.





# Acoustic specification for chlorinated atmospheres

Swimmers want to enjoy their leisure time in a quiet and calm atmosphere. The StoSilent Distance system can create the perfect acoustic environment and provide a modern, clean and seamless aesthetic.

Designing an effective acoustic treatment for swimming pools, aquatic centres or private residential pools present their own unique set of acoustic requirements and technical issues. Hard, reflective surfaces, and the shape of the space filled with acoustically reflective pool water, all need to be considered when optimising attenuation and reducing reverberation to improve speech clarity and facilitate a calmer atmosphere.

An acoustic system must therefore be designed to withstand the fluctuating temperatures, humidity and corrosive pool environment, whilst eliminating the typical echo-laden pool surroundings.

The StoSilent Distance system can be installed as a suspended ceiling or wall system with a cavity behind it. The specially protected sub-construction is made of metal profiles and the acoustic panel consists of expanded glass granulate. The advantages of this material: it is light, absorbs sound, and can be adjusted to any shape of room to form a homogeneous, seamless surface.

## Benefits

- High performance acoustic board, manufactured from 95% recycled glass
- A system suitable for swimming pool areas that will not de-laminate or discolour
- Installed on epoxy powder-coated sub-construction, designed for high humidity areas and suitable for a C5 environment according to BS EN 12944.
- Compatible with, and can be seamlessly integrated with GRG features
- Low weight
- Also possible to form curved surfaces and vaults using 310F board
- Easy to install and repair

## Surface finish

- 1 StoSilent Décor M: stipple textured surface with fine graining, and an extensive colour range



Image on right:

**Private pool, UK**

Design: Paul + O Architect, UK

Sto expertise: StoSilent Distance with

StoSilent Décor Flex interior plaster

Photo: Fernando Guerra FG+SG, UK



## System

### System versions

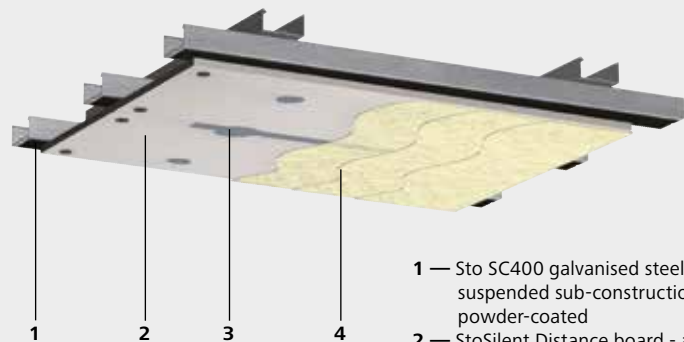
#### StoSilent Distance

- Standard system with a wide range of applications; depending on the acoustic panel and the suspension height, reaches sound absorption values up to a maximum of  $\alpha_w = 0.60$  for a board thickness of 15mm; reaction to fire (class) B-s1, d0 in accordance with EN 13501-1
- StoSilent Décor M or Décor MF finish

#### StoSilent Distance A2

- The level up from StoSilent Distance, reaches sound absorption values up to a maximum of  $\alpha_w = 0.80$  for a board thickness of 25mm; reaction to fire (class) A2-s1, d0 in accordance with EN 13501-1
- StoSilent Décor M or Décor MF finish

### Build-up: StoSilent Distance with StoSilent Décor M



- 1 — Sto SC400 galvanised steel suspended sub-construction, epoxy powder-coated
- 2 — StoSilent Distance board - acoustic absorber made from recycled glass
- 3 — Bonding and jointing with StoSilent Fix and StoSilent Plan
- 4 — StoSilent Décor M/MF finish



# StoSilent Distance

## Seamless acoustics

### Technical Overview

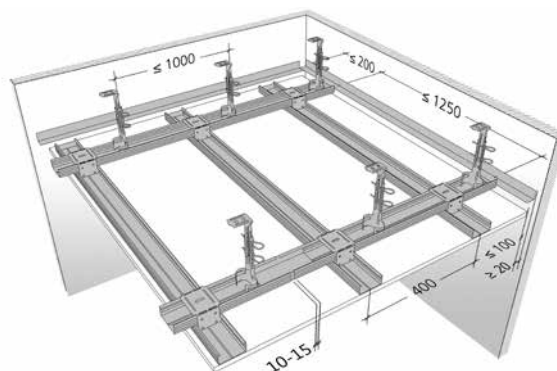
StoSilent Board Type	Finish		Absorber Class to ISO 11654			Maximum sound absorption ( $\alpha_w$ )	Reaction to Fire	Impermeable		Board Thickness	System Weight	No. of colours available
	Décor M	B	C	D	Reflective			No	Yes			
110						0.80	A2-s1, d0			25mm	9.9 kg/m <sup>2</sup>	589
310/310F						0.45	B-s1, d0			15mm	8 kg/m <sup>2</sup>	589

Image top right:  
**Aberdeen Aquatics Centre, UK**  
Design: FaulknerBrowns  
Sto expertise: StoSilent Distance with StoSilent Décor M

### SC400\* / SW150 Suspension Systems

StoSilent Distance is fixed to a suspension grid consisting of perpendicular, galvanised metal channels, suspended on continuously adjustable hangers. For installation in swimming pools or humid environments, the grid is epoxy powder-coated.

Whilst the grid is rigid, it can accommodate small amounts of building movement, and is also suitable for some semi-exposed applications.



\*400 = maximum centres between channels  
150 = maximum standard projection from the wall

## System Build-up

### Components

- Sto Nonius Extension Strip
- Sto Nonius Extension Strip Connector
- Sto Fixing Pins
- Sto Nonius Hanger, epoxy powder-coated
- Sto Primary Channel, epoxy powder-coated
- Sto Secondary Channel, epoxy powder-coated
- Sto Acoustic Board (15mm or 25mm thick, as specified)
- StoSilent Fix Adhesive
- StoSilent Plan
- Sto Acoustic Finish (Décor M or Top as specified)



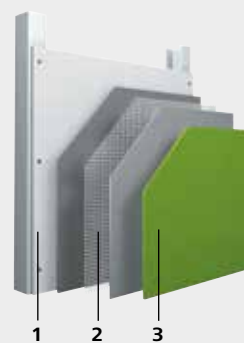


## Interior Wall Finishes

StoDÉcor Flex is a mesh-reinforced system comprising of Sto interior plaster finishes onto the unique StoVentec carrier board. The extra reinforcement provides additional protection from cracking and damage, and allows for easy creation of curves and sharp, clean lines. Comprising of a build-up of: Sto epoxy powder-coated, corrosion resistant grid work, which the StoVentec glass carrier board is fixed to, Sto RFP reinforcing base coat, Sto glass fibre mesh, embedded, and a final StoDecosit finish, with two coats of StoColor Opticryl Satinmatt paint. The StoDÉcor Flex system is ideal for use within pool environments. It is an acrylic based system, which allows for movement within humid, damp atmospheres like pool environments.

StoDecosit combines the best properties of emulsion-based plasters and silicate plasters in a single product. Suitable for decorating walls to protect against mould and mildew, and for walls in heavy-use areas. StoDecosit is easy to apply, available in stippled, rilled and free-style textures and can be hand or spray-applied. It is made-up of 97% natural ingredients and is preservative-free.

### Build-up: StoDÉcor Flex



- 1 — StoVentec carrier board
- 2 — Fibre-reinforced, lightweight, cement free, reinforcing base coat and Sto-Glass Fibre Mesh Fine
- 3 — StoDecosit - available in 3 grain sizes and in the full 800 colours of the StoColor system

### Finishes



**StoDecosit K**  
Stippled finish



**StoDecosit R**  
Rilled finish



**StoDecosit MP**  
Free-style texture

StoDecosit is suitable for use on its own in areas outside of splash zones. Coating with StoColor Opticryl Satinmatt, StoColor Puran Satin or StoPox WL 100/WL 200 enables use in areas that may occasionally get wet and are resistant to most common cleaning materials.



# Because expert advice is part and parcel of good service

Our technicians are on hand to support you from the initial concept to the finished project and can also help with all the details. Here you can find an overview of our support services.

## Advice for every project phase

Comprehensive advice is a key component of our service portfolio. This is why our Acoustic team are working to ensure that no question remains unanswered. Project managers and acoustic specialists are on hand to help you. We offer expert advice quickly during every stage of the project, from initial planning, how to best coordinate different processes, how to apply our products correctly, right up to the detailing questions.

## Our services

- Planner and applicator consultation, particularly for custom solutions
- Visits to construction sites (upon consultation)
- Specifications and installation guidelines
- Guideline acoustic calculations
- Training in-house or on site
- UK and global project references

## Sustainability

Alongside recognised building certifications, many architects, investors and public procurement bodies expect today's building products, particularly for interiors, to achieve high environmental and health standards. Sto therefore provides specific information in order to enable clear, transparent product evaluation. In addition, safety data sheets, Environmental Product Declarations (EPD) and our Sustainability Data Sheets contain all of the relevant facts and figures on the subjects of health and the environment.

All StoSilent components and materials are either low in, or free from VOC, as well as being formaldehyde and carcinogen free. This means they can help to gain BREEAM credits, and you can build safely in the knowledge that they have virtually no emissions, harmful or otherwise over their lifetime.

Décor M is particularly environmentally friendly. It is emissions-free, and it carries the Natureplus quality seal in respect of the raw materials used and energy consumed in its manufacture. It has also passed stringent TÜV standards for emissions, harmful substance content and pollutants from production.

## Repair and refurbishment

When you have a Sto Acoustic system installed, you also have the added benefit that it can be refurbished and seamlessly repaired, should damage occur. A combination of inert boards, that don't expand or contract with temperature changes, a rigid sub-construction and resilient adhesive mean that StoSilent ceilings are designed to last. Over time, however, all ceilings and walls can show signs of wear and tear. Surfaces finished with Décor M offer particularly impressive performance in terms of maintenance and refurbishment. They can be vacuumed to remove any surface debris or marking, and their appearance can be quickly refreshed with a simple respray. This can also be done if a change of colour is required to reflect any change made to the room itself.

Image top right:  
**Rocco Forte Hotel, DE**  
Sto expertise:  
StoSilent Distance  
Image below right:  
**Kärnten Therme, Austria**  
Sto expertise:  
StoSilent Distance with  
StoSilent Décor M





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