

Sto AG | Interiors

**Cooling/Heating
Acoustic system
StoSilent Cool**

StoSilent Cool – technology and design for enhanced comfort

Room cooling without air conditioning, room heating without radiators and room acoustics without compromise: The StoSilent Cool system turns interiors into oases of well-being.

At the same time, it also offers planners and investors diverse scope for creating very special settings by means of high-quality design in terms of colour, form and surface finish.

Pleasant conditions all year round

The acoustic panels of the StoSilent Cool system are equipped with an active capillary tube grid through which cold or hot water can flow as required. This provides for comfortable room temperatures all year round.

Apart from functioning as an “invisible” room heating system in the winter, the StoSilent Cool system also ensures a perfect indoor climate when summer temperatures prevail outside – and without any accompanying draught. This means ideal conditions for concentrated work in conference and office rooms as well as for exhibitions or any type of event.

Bad zur Sonne, Feuerbachgasse, Graz, Austria





Royal Theatre (Koninglijk Theater Carré), Amsterdam, Netherlands

Perfect room acoustics

Quieter conditions for enhanced concentration, enhanced acoustics: As a wall and/or ceiling surface, the StoSilent Cool system provides for pleasant, well-balanced acoustics. The system panels' good sound absorption factor in all frequency ranges reduces sound reflection considerably to create a harmonious sound in reverberant surroundings, from foyers to concert halls.

Vast design variety, simple installation

The StoSilent Cool system provides planners and building owners with virtually unlimited scope for wall and ceiling design. The acoustic panels can be joined to produce seamless surface areas of up to 200 m², for example. By combining thermally active and inactive panels, it is also possible to integrate lighting or ventilating elements and to produce acoustic baffles or curtain walls.

A diverse selection of surface finishes are available to lend every room its own unique, individual

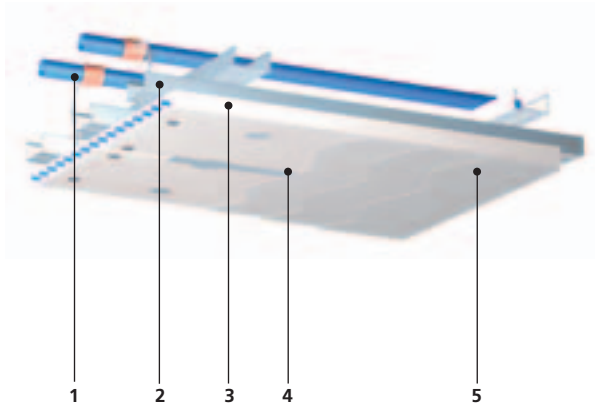
appearance. The system panels are quick and simple to install and connect. Like all acoustic systems, they are subsequently finished with either StoSilent Top or StoSilent Superfein open-pored coating.

Elegant, modern climate control

As an integrated cooling and heating unit, the StoSilent Cool system combines an elegant appearance with equally elegant technical solutions. It offers around 70 % savings in energy in comparison to a conventional air conditioning system. No air outlets are required in the ceiling. A cold water supply point is all that's needed to start up the cooling circuit; even well water can be used as an ecological alternative. The room is cooled silently, germ-free and with no unpleasant draughts.

And the StoSilent Cool system also does away with the need for convection solutions during the heating period, releasing its heating energy into the room in the form of pleasant radiant heat. To this end, the capillary tubing is simply connected via a heat exchanger to the existing heating system. No additional radiators are required as a rule.

System components



- 1 Tubing
- 2 Compression-proof metal sub-structure
- 3 StoSilent Cool / StoSilent Cool Alu acoustic panel with integrated polypropylene (PU) or copper (CU) capillary tube grid
- 4 Panel joint, bonded with StoSilent Fix and filled with StoSilent Plan
- 5 Sound-permeable top coat of StoSilent Superfein

Technical data

StoSilent Cool / Sto Silent Cool Alu acoustic panel

Panel format	1200 x 800 x 15 mm
Weighted sound absorption factor α_w	up to 0.60
Panel weight (without sub-construction)	<ul style="list-style-type: none"> • active PP approx. 5.4 kg/m² • active CU approx. 5.4 kg/m² • inactive approx. 5.2 kg/m²
Building materials class (in accordance with DIN 4102)	B1
Cooling capacity (in accordance with DIN 4715)	<ul style="list-style-type: none"> • active PP approx. 75 W/m² • active CU approx. 60 W/m²
Heating capacity (in accordance with DIN 4706)	<ul style="list-style-type: none"> • active PP approx. 90 W/m² • active CU approx. 75 W/m²

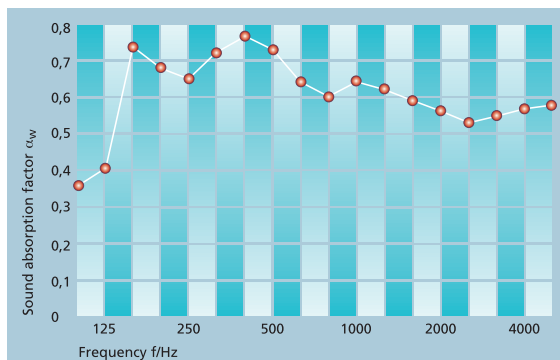
Top coat in StoSilent Superfein

Luminous reflectance	approx. 0.90
Lightness value	approx. 0.83
Whiteness	approx. 0.66

Top coat in StoSilent Top Finish

Luminous reflectance	approx. 0.75
Lightness value	approx. 0.77
Whiteness	approx. 0.69

Sound absorption



StoSilent Cool with Polyprop register with StoSilent Top Superfein, at suspension height of 245 mm

Technical note:

All information and figures have been carefully checked and are in accordance with current practices and standards. They are to be considered as general information and do not take into account the special aspects relating to specific buildings and applications. All the above information is provided without any guarantee of its applicability to a real application scenario. This brochure will cease to apply upon publication of a new edition.



Room acoustics: Reconciling architecture and well-being

Acoustics are important to the functions of a room and the feeling of well-being in a room. Long reverberation times, disturbing noises or undesired sound reflection can have severely detrimental consequences. This calls for a systematic approach to prevent such effects.

A complex challenge

Smooth walling and sound-reflecting surfaces such as concrete, metal, glass or marble are common features of modern architecture. This results in a low level of sound absorption.

The precise requirements pertaining to the absorption and reflection characteristics of individual room elements always depend on the specific situation applying to the room concerned, however. From concert halls through foyers and open-plan offices to conference halls, every room has its own acoustic concept entailing a broad range of highly complex factors. Professional planning expertise is required in order to meet the challenges involved here.

Comprehensive system for individual solutions

Sto offers planners comprehensive support in all aspects of room acoustics, covering both the design of new rooms and improvements to existing premises.

**DaymerChrysler AG, Maybach-Center
(Center of Excellence), Sindelfingen, Germany**

Where necessary, Sto's technical consultants are able to oversee projects right from the initial planning phase, until the ideal solution is found. The diverse range of tried and tested Sto acoustic systems ensures concepts that are tailored perfectly to every individual requirement.

StoSilent Panel

Basic system panel for seamless acoustic ceilings and walls

StoSilent Top

Acoustic system with ultra-fine surface finish

StoSilent A-Tec

Acoustic system with built-in fire protection

StoSilent Cool

Acoustic system incorporating room cooling and heating

Sto Acoustic Plaster / Sto Acoustic

Spray Plaster

Sound protection coating for direct application

StoSilentyl acoustic wallpaper

Paste-on sound protection



Subsidiaries abroad

Austria

Sto Ges.m.b.H.

Richtstrasse 47
A-9500 Villach
Phone +43 4242 33133
Fax +43 4242 34347
info@sto.at
www.sto.at

Belgium

Sto nv/sa

Industriezone Mollem 5 (92.2)
Assesteenweg 34
B-1730 Asse
Phone +32 2 4530110
Fax +32 2 4530301
info.be@sto.eu.com
www.sto.be

China

Shanghai Sto Ltd.

6 Qingda Road
Pudong
201201 Shanghai
P.R. China
Phone +86 2158 973701
Fax +86 2158 972769
www.sto.com.cn

Czech Republic

Sto s.r.o.

Radlická 69
CZ-150 00 Praha 5
Phone +420 251 555189/190
Fax +420 251 550 335
info.cz@sto.eu.com
www.sto.cz

Finland

Sto Finexter Oy

Valimotie 4
FI-00380 Helsinki
Phone +358 20 7659191
Fax +358 20 7659192
asiakaspalvelu@sto.eu.com
www.stofi.fi

France

Sto S.A.S.

224, Rue Michel Carré
F-95870 Bezons
Phone +33 1 34345700
Fax +33 1 34345660
sto.fr@sto.eu.com
www.sto.fr

Hungary

Sto Építőanyag Kft.

Jedlik Anyos u. 17
HU-2330 Dunaharaszti
Phone +36 24 510210
Fax +36 24 490770
info.hu@sto.eu.com
www.sto.hu

Italy

Sto Italia srl

Via G. di Vittorio, 1/3
Zona Ind. le Terrafino
I-50053 Empoli (FI)
Phone +39 0571 94701
Fax +39 0571 946718
www.stoitalia.it

Malaysia

Sto SEA Sdn. Bhd.

No. 8, Jalan Bukit 3
Kawasan MIEL Bandar
Balu Sri Alam
MY-81750 Masai
Johor Darul Takzim
Phone +607 388 1737
Fax +607 388 4737
+607 388 4636
www.sto-sea.com

Netherlands

Sto Isoned bv

Postbus 6400
NL-4000 HK Tiel
Phone +31 344 620666
Fax +31 344 615487
info.nl@sto.eu.com
www.sto.nl

Norway

Sto Norge AS

Caspar Storms Vei 12
NO-0664 Oslo
Phone +47 2207 2900
Fax +47 2207 2901
info.no@sto.eu.com
www.stonorge.no

Poland

Sto - ispo Sp. z o.o.

ul. Zabraniecka 15
PL-03-872 Warszawa
Phone +48 22 5116-102
Fax +48 22 5116-101
info.pl@sto.eu.com
www.sto.pl

Singapore

Sto SEA Pte Ltd

159 Sing Ming Road
#03-08 Amtech Building
SG-Singapore 575625
Phone +65 64 533080
Fax +65 64 533543
www.sto-sea.com

Spain

Sto Ibérica S.L.

Polígono Industrial
Les Hortes del Camí Ral
Via Sergia 32, Nave 01
E-08302 Mataró (Barcelona)
Phone +34 93 7415972
Fax +34 93 7415974
info.es@sto.eu.com

Sweden

Sto Scandinavia AB

Gesällgatan 6
S-582 77 Linköping
Phone +46 13 377100
Fax +46 13 377137
kundkontakt@sto.eu.com
www.sto.se

Switzerland

Sto AG

Südstrasse 14
CH-8172 Niederglatt/ZH
Phone +41 1 8515353
Fax +41 1 8515300
sto.ch.marketing@sto.eu.com
www.stoag.ch

U.K. and Ireland

Sto Ltd.

Unit 3, Lyon Road
Linwood Industrial Estate
GB-Paisley PA3 3BQ
Phone +44 1505 324262
Fax +44 1505 323618
info.uk@sto.eu.com
www.sto.co.uk

USA

Sto Corp.

6175 River Side Drive S.W.
USA-Atlanta,
Georgia 30336-5609
Phone +1 404 3463666
Fax +1 404 3463119
stosales@stocorp.com
www.stocorp.com

Head office

Sto AG

Ehrenbachstrasse 1
D-79780 Stühlingen
Phone +49 7744 57-0
Fax +49 7744 57-2178
infoservice@sto.eu.com
www.sto.com



Quality management system
Sto AG, DIN EN ISO 9001, reg.-no. 3651
Environmental management system
Sto AG, DIN EN ISO 14001, reg.-no. 3651
Plants in Stühlingen, Donaueschingen,
Tollwitz

Subsidiary Germany

StoVerotec GmbH

Hanns-Martin-Schleyer-Strasse 1
D-89415 Lauingen/Donau
Phone +49 9072 990-0
Fax +49 9072 990-117
infoservice.stoverotec@
sto.eu.com
www.stoverotec.de

Technical information can be obtained by calling:

Hanns-Martin-Schleyer-Strasse 1
Phone +49 9072 990-0
infoservice.stoverotec@
sto.eu.com