Building with conscience.

StoVentec

Ventilated rainscreen cladding systems

Facade

StoVentec offers nine different systems and a wide range of materials and surfaces to choose from. You can find solutions that use render, glass mosaic, ceramics, natural stone, glass, and photovoltaic panels. The flexible sub-construction and the StoCarrier Aero (former StoVentec Carrier Board S) provide unparalleled opportunities when it comes to freedom of design.

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Editorial

Design

Customer support

Cover photo reference:
Letmo shopping centre, Brno, CZ
Design: IKA Brno, s.r.o., Ing. arch. Tomáš Dvorák, Brno, CZ
Sto expertise: StoVentec R, Stolit® K 1.5, Stolit® MP, StoColor Lotusan® G.
Photo: Alena Šromová, Brno, CZ

System solutions

Technology

Building with conscience

Building means helping to shape the world we live in. Those who build with conscience know about the responsibility that comes with it. For more than 60 years, we have been channelling our energy and expertise into this area in order to make sustainable construction a reality while up holding aesthetic values.

For as long as Sto exists, we will remain dedicated to the field of facade design. For more than 30 years, we have been developing ventilated rainscreen cladding facade systems (RSC) which are highly regarded by architects, planners, and tradesmen alike. This is not just due to the convenient separation between thermal and weather protection, but also because they are remarkably functional and offer considerable scope for initiative. The numerous options include glass and photovoltaic panels, natural stone panel tiles, and curved rendered surfaces in intense colour shades. When it comes to sustainability, our ventilated rainscreen cladding facade systems (StoVentec product range) are second to none. That's why we offer a passivhaus-certified sub-construction for our nine systems in addition to tried-and-tested stainless steel wall brackets. This sub-construction fulfils even the most exacting requirements for energy efficiency and living comfort.

We developed the universal StoCarrier Aero Board (former StoVentec Carrier Board S) to cope with all surfaces. In combination with the flexible sub-construction, it makes three-dimensional shapes and curved facades possible. This special carrier board even conserves resources because a large part of it is made from recycled glass.

Alongside the design possibilities and the wide range of materials, we also give you a lot of scope to personalise your surfaces and detail solutions – the texture, colour, and thickness of the building materials are all adjustable.

Our role goes far beyond that of a manufacturer. Advisors and project managers for investors and planners are available all over Germany, and qualified RSC specialists are also on hand to give you advice at all stages of the planning process, right down to the last detail.

The principles that apply to our ventilated rainscreen cladding facade systems also apply to our interiors, floor coatings, and concrete repair business fields.

Sto head office reception building, Weizen, DE
In our reception building, four different surfaces were used: glass, photovoltaics, render, and three-dimensional facade elements made of Verolith. The building is a zero-energy building with a platinum certificate from the German Sustainable Building Council (DGNB).
Photo: Martin Baitinger, Böblingen, DE

A holistic approach sets us apart

StoVentec is a diverse and complete system for ventilated rainscreen cladding facades. The wide range of materials, the flexible sub-construction, and the StoCarrier Aero open up plenty of design possibilities.

Choosing StoVentec means choosing a complete system, encompassing facade cladding, insulation, and sub-construction. The system cladding stands out due to its wide range of materials and surfaces, including rendered surfaces, natural stone, ceramics, glass mosaics, and the star of the show: glass panels up to 6 m² in size.

The StoCarrier Aero (former StoVentec Carrier Board S) also allows you to make facades three-dimensional. When used in conjunction with the flexible sub-construction, it opens up countless design possibilities. You can be ambitious not just with surface design, but also with feasibility and implementation. Our experts will be happy to guide you through this process.

There is still one last piece of the puzzle for a fully holistic system – comprehensive and personalised advice. The StoVentec complete system helps you to reduce your interfaces: we are there to advise you as your sole contact through all stages of the project, from the initial design right through to the finished facade.

Residence Unik residential estate – Zac Seguin, Paris, FR
Building owner: Nexity, Paris, FR
Planning: BECKMANN N'THEPE ARCHITECTS, Paris, FR
Sto expertise: StoVentec Glass, StoVentec R, StoTherm Classic
Photo: Manuel Panaget, FR

General benefits of rainscreen cladding facade systems

With a design that separates thermal and weather protection, ventilated rainscreen cladding facades are energy-efficient, durable, and economical.

Thermal protection
The combination of insulation layer and back ventilation ensures an ideal building climate. In winter, the closed insulation layer keeps out the cold; in summer, the surface reflects heat irradiation and the back ventilation carries away the heat. As the sub-construction for the ventilated rainscreen cladding facade can be adjusted, it is also possible to use particularly thick insulants, which means any required energy standard can be achieved – and with StoVentec ARTline, the system does not just conserve energy, it also generates it.

Moisture protection
The diffusion-open wall structure ensures that moisture can escape. Moisture is removed instantly by the back ventilation, leaving the wall structure dry.

Weather protection
The sophisticated system build-up protects the thermal insulation from the effects of the weather. Even during hailstorms, the system and surface remain undamaged. If moisture enters systems with an open joint formation – for example, during driving rain – then the ventilation layer conducts this away effectively to ensure a rapid drying process. This not only preserves the construction, but also guarantees the functionality of the insulation layer.

Sound insulation
A facade surface decoupled from the wall structure and the sound-absorbing, open-pored insulation improve the weighted sound reduction index R'_w for solid walls by around 10 dB, which has the effect of halving the perceived volume.

Aesthetic appeal is the most important string to our bow

StoVentec gives you complete freedom to design your facade as you please, as the carrier board we have developed will take the shape specified by your design.

The StoVentec systems give you unparalleled opportunities when it comes to freedom of design, thanks to the StoCarrier Aero. This board is relatively light, can be bent in two directions, and takes the exact shape specified by the sub-construction. When creating the design, it is important to remember that, in the case of convex and concave shapes, each of the carrier boards is different, which makes carrying out the project more challenging.

Right on the beach, in the middle of a typical seaside town apartment development, the architects Barozzi Veiga have built a concert hall. The immense structure is an eye-catching town landmark, its concave facades curving round the harbour's promenade. Despite its impressive size, the building has a surprising sense of lightness and dynamism. Inside, the view on to the glittering turquoise sea takes centre stage.

The Spanish architecture firm Barozzi Veiga has built a new concert hall on the harbour's promenade, only a stone's throw from the local fishermen's patch. The architects succeeded in giving the town a new landmark that blends harmoniously into the townscape, but also stands out visibly against its surroundings thanks to its modern architectural language. Barozzi and Veiga made a name for themselves with a confident but sensitively constructed administrative building in the Spanish wine-growing region of Ribera del Duero in Burgos, and belong to a generation of young Spanish architects who know how to impress on an international scale. With a rational, restrained but very poetic architectural style, they are taking Spanish architecture in a new direction – creating buildings that exude simplicity but at heart have been designed with every detail in mind. The new concert hall in Águilas looks like a shining white monolith with just a few recesses in the facade here and there – but this seemingly secretive, closed-off building arouses our curiosity by allowing us these few glimpses into its interior.

What's ingenious about this building is its concave ventilated rainscreen cladding facade, which curves round the bay. As the architects are keen to emphasise, this is a project that was born out of its surroundings. On the one hand, the site is in the middle of a typical, tourist-focused seaside development with apartment complexes and balconies with sea views. On the other hand, nature and the building's geographical location also played a decisive role in its design: a gently curved bay with a sandy beach and a barren, rocky landscape beyond it provides the backdrop for the

The Infanta Doña Elena concert and congress hall in Águilas, Spain
Design: Estudio Barozzi Veiga, Barcelona, ES
Building owner: Ayuntamiento de Águilas, Águilas, Murcia, ES
Sto expertise: StoVentec R with Stolit® K 3.0, concave sub-construction, StoTherm Classic®, StoMiral®, StoColor Jumbosil
Photo: Julien Lanoo, Boeschepe, FR/Mariela Apollonio, Valencia, ES

auditorium. The building's design responds to both features, incorporating the contrast between the urban artificiality of the houses and the organic nature of the landscape. The concert hall appears as an immense structure, its clear, closed-off facade contrasting with the tiny, individual facades of the surrounding development. The architects designed the town-facing facades of the concert hall in rectangular form, whereas the side which faces nature embraces organic shapes. The ground-floor walls slope down to the promenade, giving the immense structure a sense of lightness and dynamism despite its size. A set of steps starts at the foot of the building and leads visitors to the west-facing main entrance, linking the construction to the promenade. Inside, the concert hall has a striking, pared-down design which incorporates the surrounding landscape. A large foyer over three storeys welcomes visitors and boasts a floor-to-ceiling window looking out on to the bay. The glass facade opens out on to a balcony and provides an uninterrupted view of the sea, which is highlighted to dramatic effect by the white interior.

Expert advice is part and parcel of good service

We are your contact for the entire StoVentec facade system. Sto project managers and the Technical Support Centre are on hand to support you from the initial concept to the finished facade and can also help with the details. Here you can find an overview of our advisory and support services.

Our services
- Planner and applicator consultation, particularly for custom solutions
- Visits to construction sites
- Communication of project-based structural analyses
- Determination of wind loads (simplified method)
- Estimation of quantities
- Communication of layout drawings
- Preliminary dimensioning of sub-construction and anchors

Advice for every project phase
Comprehensive advice is a key component of our service portfolio. We offer you expert advice quickly during every stage of the project – about planning, how to best coordinate different processes, how to apply our products correctly, right up to detailed questions about your facade system.

Sto advisors at the construction site
Our technical consultants come to your construction site directly to provide training on special material characteristics or working with special application methods. For example, they can show you the best way to use products and tools in order to optimise your productivity.

Service for your queries
Should you have any questions regarding StoVentec, simply contact either the architects' hotline at **+49 77 44 57-1131** or your local sales representative. A list of Sto branches near you can be found at www.sto.com

Our employees can also advise you on points of detail and can show you a variety of solutions.

Services

Detail drawings

Do you want to find out about construction details for StoVentec systems? We will be happy to send you CAD drawings and BIM objects on request:
info.international@sto.com

References

You can view the latest international architectural applications of Sto products and systems such as StoVentec, sorted according to country and building type, at:
www.sto.com

[ark] magazine - project [insights]

[ark] magazine is where design, architecture, and construction intersect to showcase diverse projects and materiality. Discover themes and solutions in design, architecture, and construction including projects that creatively use Sto products and systems.

Currently produced in 9 languages, this print magazine is distributed for free to selected architectural practices worldwide.
ark.sto.com

Sample service

Sto helps you to select the right system and surface with material samples that are specific to your project.
info.international@sto.com

StoDesign

With StoDesign, we provide support for the aesthetic aspects of construction. At several locations, teams of architects and colour/design specialists work with you to develop custom colour and material concepts.
info.international@sto.com

StoVentec R

Maximum design freedom for ventilated facades with a rendered surface

Almost no other system offers as many different options for designing ventilated facades with rendered surfaces as StoVentec R. You can choose to have a smooth or coarse render texture, matt or gloss surfaces, as well as individual colours. Unique textures can be created – from fine to rough, linear, or graphic. A variety of materials ranging from classic floated render through to free-style textured render in various grain sizes provide scope for new combinations and techniques. StoVentec R has yet another strength: with its flexible StoCarrier Aero (former StoVentec Carrier Board S), it is suitable for designs involving curved or folding shapes. As it is a non-combustible facade system, StoVentec R makes it possible to use ventilated facades with rendered surfaces on high-rise buildings.

What's more, the system meets the requirements of the highest impact protection category according to European specifications (Category I: "Hard body impact": 10 joules / "Soft body impact": 400 joules), regardless of the system build-up – making it suitable for use even in areas that are easily accessible and heavily frequented.

Central and University Library, university/ college building, Lucerne, CH
The Zurich-based architects Enzmann Fischer Partner AG planned the white rendered facade of their "city window" as a ventilated rainscreen cladding system with StoVentec R. The design is based around the stripped-back building shell of the former sorting office in Lucerne, which dates back to the 1980s.
Design: Enzmann Fischer Partner AG, Zurich, CH
Sto expertise: StoVentec R, Stolit Milano®
Photo: Uni PHZ photo gallery, Lucerne, CH

The system

Surface
- Depending on the coating build-up, surface can be matt or gloss, smooth through to very coarse
- Seamless

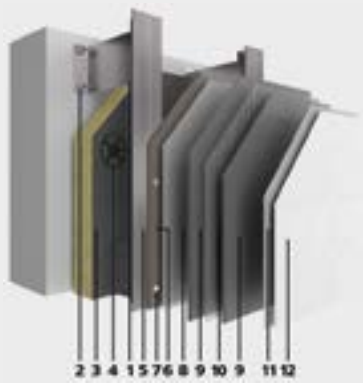
Material and colour choice
- Individual designs possible with stippled, rilled, and free-style textured renders in various grain sizes
- Dark colour shades possible

Shape/format
- Curves and folds possible

Fixing
- Carrier boards are screwed on to the sub-construction

Reaction to fire
- B-s1, d0 or A2-s1, d0 (in accordance with EN 13501-1), depending on system build-up

Structure



1 — Sub-construction
2 — Anchorage
3 — Insulation
4 — Fixing
5 — Carrier board
6 — Fixing of the carrier boards
7 — Priming coat
8 — Base coat
9 — Reinforcement
10 — Intermediate coat
11 — Finishing coat

*depending on system build-up

StoVentec M

Ventilated facades with glass mosaics provide a dazzling interplay of colours

StoVentec M provides glass mosaics in many different colours. Due to the malleable carrier board and the special sub-construction from Sto, convex and concave curves can be added to the facade. As glass mosaic tiles are characterised by their highly reflective interplay between light and colour, not to mention their unparalleled lustre, they can change according to the light and weather conditions. What's special about StoVentec M is that the colour coating applied to the rear side creates a strong depth effect.

Residential and commercial building, Frankfurt, DE
The curved facade of this residential and commercial building in Frankfurt pays homage to the Royal cinema from 1957, which used to stand in its place. schneider+schumacher used the StoVentec M ventilated rainscreen cladding facade system in their design.
Building owner: Planungsbüro Dipl.-Ing. Andrzej Lyson, Frankfurt am Main, DE
Design: schneider+schumacher Planungs-gesellschaft mbH, Frankfurt am Main, DE
Sto expertise: StoVentec M
Photo: Ben Knape, Cologne, DE

The system

Surface
- Smooth, gloss
- Closed pointing

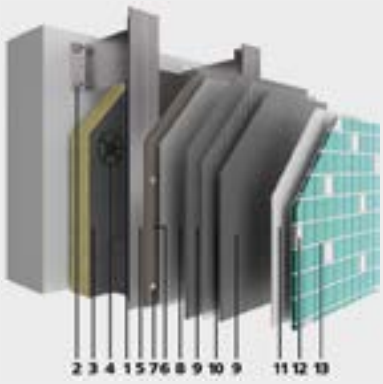
Material and colour choice
- Approx. 40 colour shades

Shape/format
- Delivered in prefabricated sheets
- Manufacturing dimension 298 x 298 mm
- 50 x 50 mm (manufacturing dimension 48 x 48 mm)
- 25 x 50 mm (manufacturing dimension 23 x 48 mm)
- 25 x 25 mm (manufacturing dimension 23 x 23 mm)

Fixing
- Screw the carrier board to the sub-construction, then bond and point the mosaic sheets to the reinforced base coat

Reaction to fire
- B-s1, d0 or A2-s1, d0 (in accordance with EN 13501-1), depending on system build-up

Structure



1 — Sub-construction
2 — Anchorage
3 — Insulation
4 — Fixing
5 — Carrier boards
6 — Fixing of the carrier boards
7 — Priming coat
8 — Base coat
9 — Reinforcement
10 — Bonding
11 — Facade cladding
12 — Pointing

StoVentec C

Ventilated facades with ceramics show expressive materiality

The constructions are characterised by materiality – classic bricks or free-shaped ceramic elements are used to clad the StoVentec C system. These cladding options give buildings a modern and distinctive appearance. There is a wide range of brick slips in various formats, firings, and colours. The hard-wearing surface offers many design possibilities, including three-dimensional facade design. Customised ceramics can also be tested for feasibility.

Zurlindenstrasse town house, Zurich, CH
A contemporary appearance set in period surroundings: huggenbergerfries Architekten AG designed this multiple dwelling in Zurich with a ceramic facade using StoVentec C.
Design: huggenbergerfries Architekten AG, Zurich, CH
Sto expertise: Glazed ceramic tiles on StoVentec C
Photo: Beat Bühler, Zurich, CH

The system

Surface
- Depending on the ceramics, surface can be matt or gloss, smooth through to very coarse
- Classic brick look
- Colourful ceramic glaze
- Closed pointing

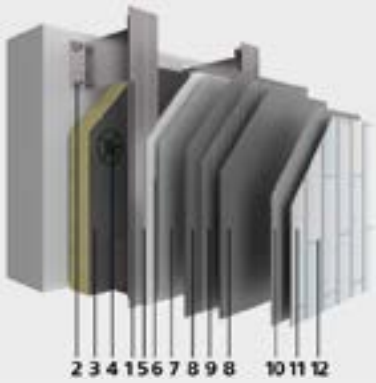
Material and colour choice
- Sto brick slips
- Ceramics from other manufacturers can be used after the material has been tested for feasibility
- Tinted pointing mortar available

Shape/format
- Three-dimensional ceramic tiles (4 – 15 mm) can be made in customised formats up to 0.54 m²
- Brick slips with a thickness of 25 mm or less are possible up to 0.12 m²

Fixing
- Screw the carrier board to the sub-construction, then bond and point the cladding to the reinforced base coat

Reaction to fire
- B-s1, d0 or A2-s1, d0 (in accordance with EN 13501-1), depending on system build-up

Structure



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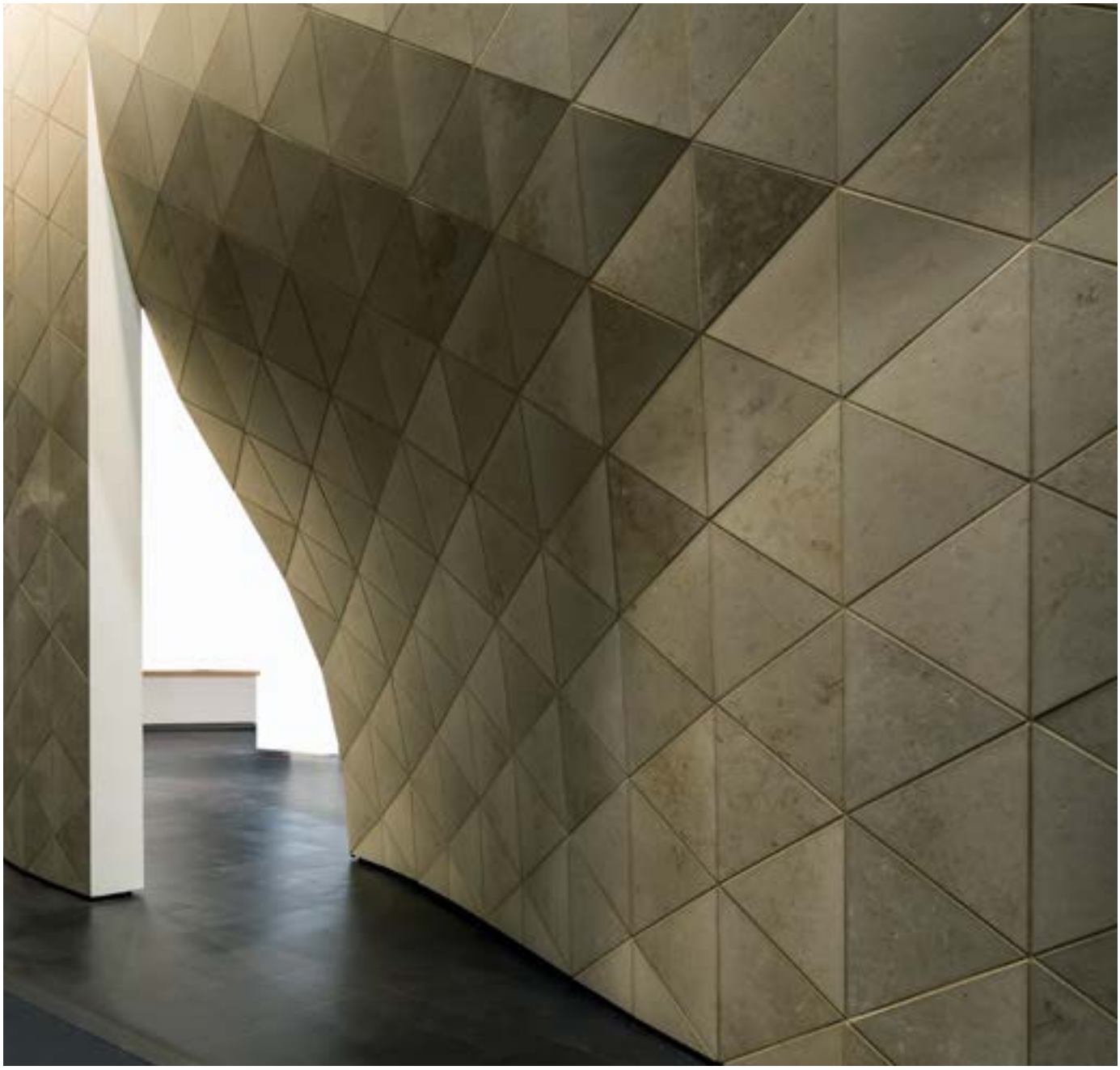
10 — Bonding
11 — Facade cladding
12 — Pointing

StoVentec S

Ventilated facade with natural stone tiles

The frost-resistant natural stones in the StoVentec S system boast a naturally rich colour spectrum and a wide selection of surface textures to create facade surfaces which are both individual and high-quality. The closed joints create an impression of a stone bond with stone formats of up to 0.54 m² with a maximum side length of 90 cm. The stone tiles can be cut into customised shapes. Curved surfaces are also possible with triangular natural stone tiles. Due to the exceptional properties of the StoCarrier Aero, StoVentec S can be combined perfectly with render, glass, glass mosaic, or ceramics.

Curved natural stone wall
This StoVentec facade was created by architects from FAT LAB and was freely shaped with 10 mm-thick natural stone tiles made from golden Jura limestone. The success of the virtually tolerance-free implementation came down to the digital design, planning, and production process.



The system

Surface
- Gloss, matt
- Polished, ground, blasted, brushed
- Closed pointing (trowel-pointed joint or slurry-grouted joint)

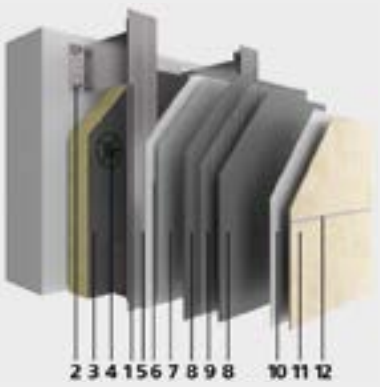
Material and colour choice
- Sandstone, lime, granite, gneiss, gabbro
- Regional stones/requested stones can be tested for system conformity.

Shape/format
- Max. 0.54 m² with maximum side length of 90 cm
- Individual formats available on request

Fixing
- Screw the carrier board to the sub-construction, then bond and point the natural stones to the reinforced base coat

Reaction to fire
- B-s1, d0 or A2-s1, d0 (in accordance with EN 13501-1), depending on system build-up

Structure



1 — Sub-construction
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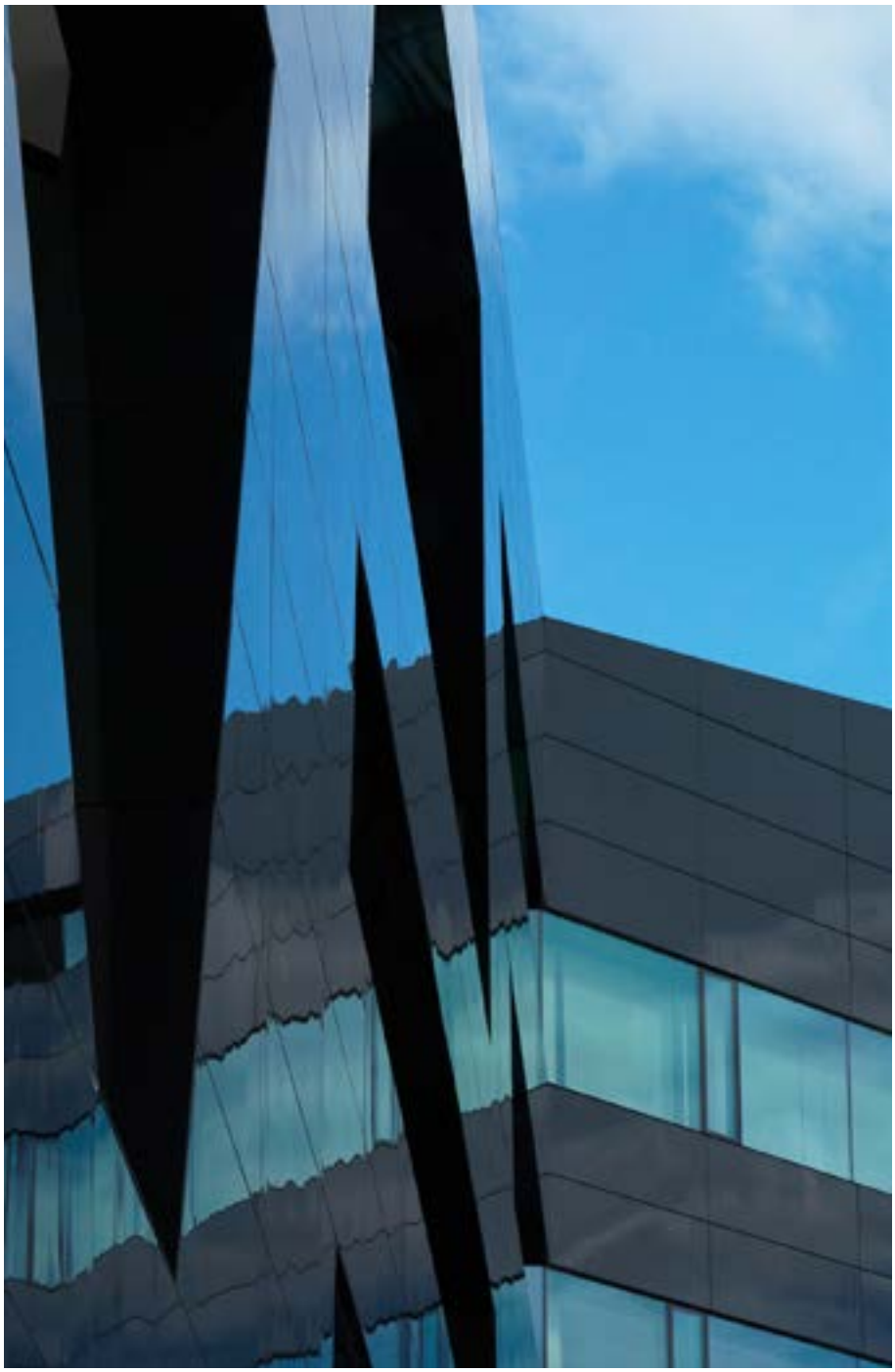
8 — Base coat
9 — Reinforcement
10 — Bonding
11 — Facade cladding
12 — Pointing

StoVentec Glass

Exclusive ventilated facades with large-format glass panels

StoVentec Glass provides exceptional design possibilities for facades. The prefabricated glass elements can be produced in various sizes up to approx. 6 m², providing endless design freedom in terms of shape, colour, and individual motifs. Glass is extremely hard-wearing, weather-resistant, and 100 % recyclable. With StoVentec Glass, even the carrier boards are made of over 90 % recycled glass. The system is also proven to work as ceiling cladding. StoVentec Glass is invisibly fixed with rear-side agraffe profiles.



Michael Pachleitner Group headquarters, Graz, AT
1,800 black glass elements have been applied to the facade of the Michael Pachleitner Group headquarters (nicknamed "Black Panther"). The Michael Pachleitner Group is a glasses company based in Graz. GSarchitects opted for the StoVentec Glass system.
Building owner: Dr Michael Pachleitner, private foundation, Graz, AT
Design: GSarchitects, Graz, AT
Sto expertise: StoVentec Glass
Photo: Gerald Liebminger, Graz, AT

The system

Surface
- Smooth, gloss (further options available on request)
- Open joints

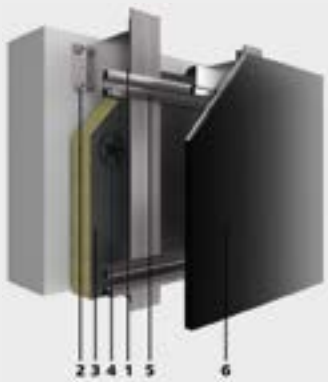
Material and colour choice
- Glass in a variety of colour shades
- Dark colour shades possible
- Printing possible

Shape/format
- Individual formats up to approx. 6 m²

Fixing
- Non-visible fixing thanks to agraffe profiles attached to the rear side

Reaction to fire
- B-s1, d0 (in accordance with EN 13501-1)

Structure



1 — Sub-construction
2 — Anchorage
3 — Insulation
4 — Fixing
5 — Facade cladding

StoVentec ARTline Inlay

Generous surface coverage with framed photovoltaic panels

The StoVentec ARTline system uses framed photovoltaic modules. These are inserted into black rails which are then screw-fixed to the system's sub-construction. The panels are 1205 x 605 mm and can be installed in both portrait and landscape format. Anthracite, the standard colour shade, is timeless. The glass elements can be screen printed in custom colour shades.

Speicher7, Mannheim, DE
Speicher7, a former granary on the banks of the Rhine in Mannheim, is now home to offices, a hotel, and restaurants. The architecture firm SCHMUCKER und PARTNER used StoVentec ARTline Inlay to create the photovoltaic surface on the facade.
Design: SCHMUCKER und PARTNER planungs-gesellschaft mbh, Mannheim, DE
Sto expertise: StoVentec ARTline Inlay
Photo: Johannes Vogt, Mannheim, DE

The system

Surface
- Smooth, gloss

Material and colour choice
- Glass, anthracite
- Other colour shades/printing possible

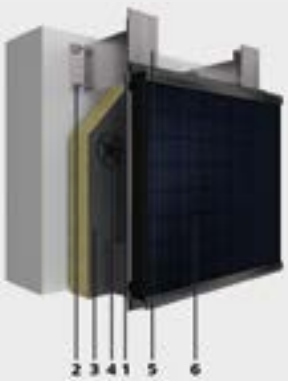
Shape/format
- 605 x 1205 mm (suitable for use in portrait and landscape format)

Fixing
- Visible fixing of the framed modules using black anodised mounting rails

Reaction to fire
- Class B1 in accordance with DIN 4102-1, limited combustibility

on performance
- Photovoltaic modules from various performance classes are available
- The amount of electricity generated by the facade depends on the location, alignment, surface, and module type

Structure



1 — Sub-construction
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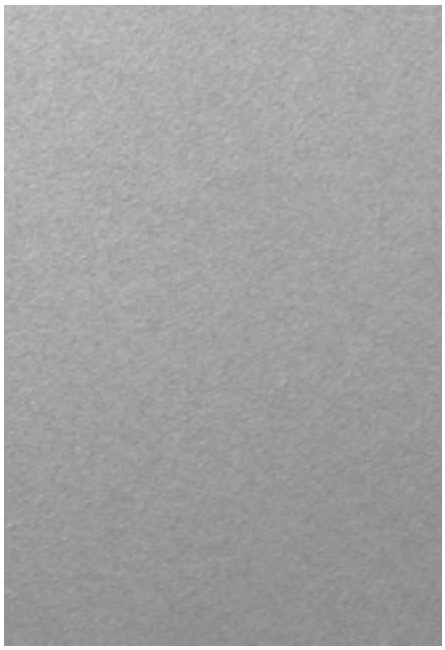
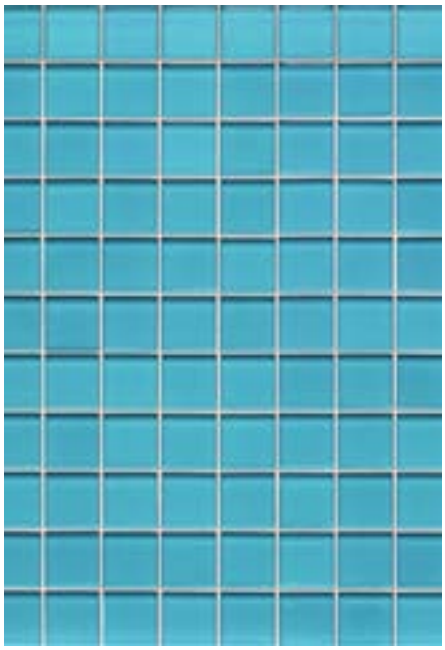
4 — Fixing
5 — Facade cladding

Material diversity is the best tool to have



Render

Render offers a range of fascinating facade design options in terms of form, colour, and texture. It can be used in individual designs and applied manually using a wide variety of tools and application techniques. Of course, there is more than one type of render. We provide organic and silicone resin renders, render with Lotus-Effect® Technology, and mineral and silicate renders. Surfaces ranging from smooth to very coarse can be created using different types of render (stippled, rilled, and free-style textured render) with various grain sizes. You can also decide whether the appearance should be smooth or matt and you can choose from a whole rainbow of colour shades.
More on pages 12 – 13



Glass mosaic

Glass mosaic owes its dazzling effect to the interplay of light and colour, and produces spectacular results on curved shapes. It also provides unparalleled lustre, a reflective surface, and an impressive depth effect. At Sto, you can combine various colours and formats. Our extensive range also features a variety of standard colour shades and joint material that can be tinted to match.
More on pages 14 – 15

Ceramics

We have a wide range of brick slips in various surfaces and formats. If you wish, you can also pick out your own ceramics and we will test them for feasibility with the system. Ceramics provide a hard-wearing surface that offers many design possibilities, including three-dimensional facade design. At Sto, you can choose from smooth, coarse, and three-dimensional surfaces, as well as matt and gloss finishes – and you can decide on the colour shade as well.
More on pages 16 – 17

The StoVentec systems for ventilated facades cover an incredibly wide range of products and offer an unparalleled range of materials to choose from – including render, ceramics, natural stone, glass, and photovoltaic panels. Some of the materials also come in different structures and surfaces, and can vary in colour, size, and thickness.

Photovoltaics

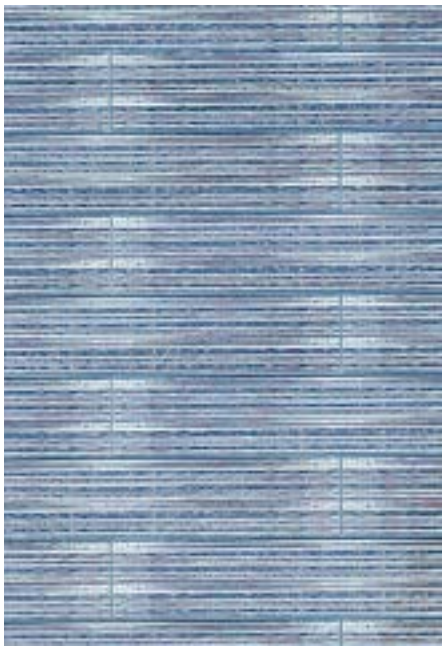
The panels have a smooth, gloss surface with a distinctive depth effect. The standard colour shade is a timeless anthracite with a pinstripe appearance, as this gives the panels the highest level of efficiency. However, other colour shades are possible and panels can also be-screen printed individually. This means the result is not just eco-friendly, but also stylish.

More on pages 26–29

Natural stone

We have a wide range of natural stone for you, some of which comes from our very own quarry. You can find stones such as Kirchheim shell limestone, sandstone, and dolomite in our product range. We are also happy to test a stone of your choice for system feasibility. The final appearance of the individual stones is determined by the way the surface is treated. Stones can be polished, finely honed, or sand-blasted to create a matt or gloss appearance.

More on pages 18–21



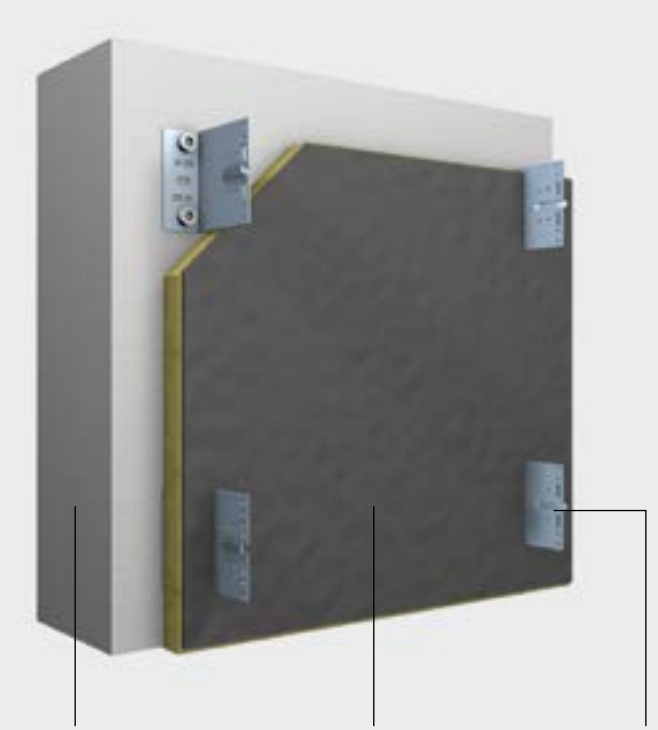
Glass

Glass is a reflective surface that shows a mirror image of its environment, but that's not the only effect that can be achieved with this material. Alongside a whole host of possible colour shades (which are applied to the rear side using an enamel), glass can be screen printed, treated in various ways, or provided with special coatings, giving you considerable scope to design customised facades. Our tempered safety glass is available in various shapes and sizes and can be used in a wide range of applications.

More on pages 22–25

Our systems all have one fixed component: variability

Wall + sub-construction

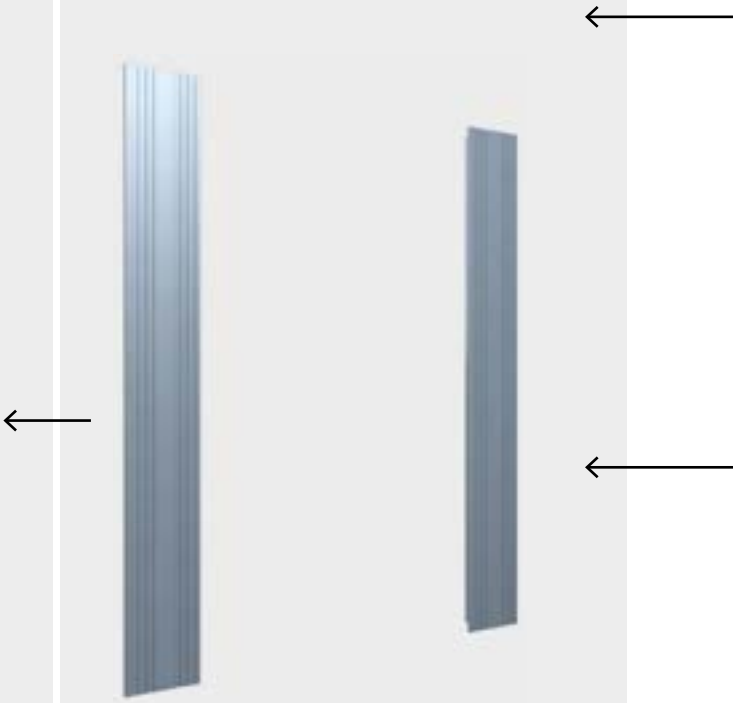


Substrate
Systems are suitable for use in new buildings and refurbishments

Insulation
Mineral wool with nonwoven fabric facing (in accordance with national specifications)

Wall bracket
Anchored in the load-bearing substrate

Vertical carrier profile
Attached to wall bracket and screwed in without torsional stress



You can create designs with curved shapes and folded and tilted surfaces thanks to the variable projection of the sub-construction. Different build-ups (such as carrier boards, agraffe profiles, or mounting rails) can be used, depending on the cladding. The StoCarrier Aero is perfectly suited to creating surfaces and can be used to incorporate three-dimensional shapes seamlessly.

Carrier board

Systems that use carrier boards

StoVentec R*
(see page 12)

StoVentec M*
(see page 14)

StoVentec C*
(see page 16)

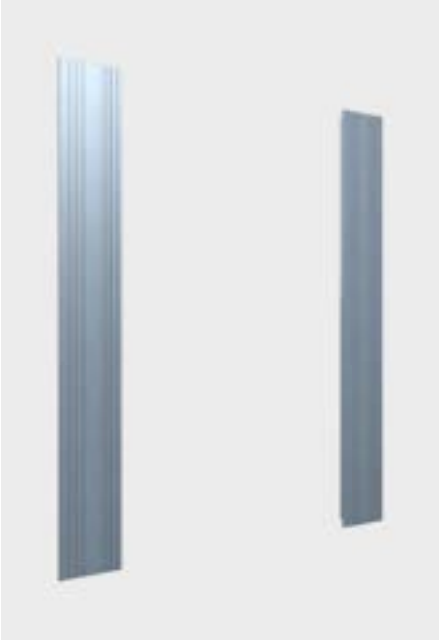
StoVentec S*
(see page 20)

Agraffe profile

Systems that use agraffe profiles

StoVentec Glass
Carrier profile for inserting elements is fixed to the rear side (see page 22)

Functionality and energy efficiency are part of the system

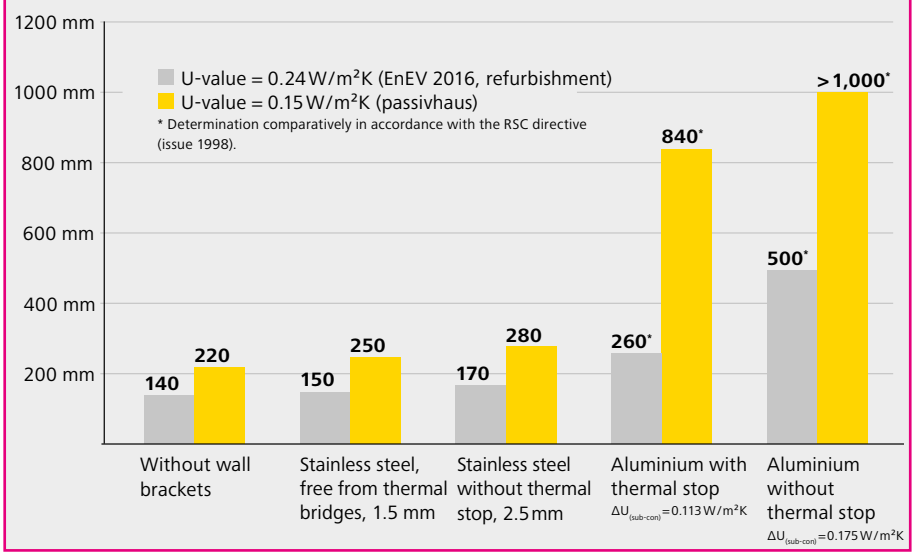


Sto-Aluminium-T-Profile and L-Profile
In the case of a rainscreen cladding facade with carrier board system, the boards are seamlessly installed with abutting edges, directly screwed to the Sto sub-construction, and given a surface. This fixing system is used for surfaces using render, glass, mosaics, ceramics, and stone tiles.

Sto-Agraffenprofil and Sto-Plattentragprofil
The rainscreen cladding facade with panel system comes with prefabricated, in some cases large-size panels (glass, photovoltaics), which are mounted in an agraffe profile that is fixed to the sub-construction. This is why a board carrier profile is attached to the rear side of the panels at the factory.

The Sto sub-construction can be easily installed on all load-bearing anchorage substrates and perfectly levels uneven spots. The sophisticated modular system is suitable for all StoVentec systems. The passivhaus-certified stainless steel wall brackets provide an ingenious solution for dealing with wall structures that have stringent energy requirements. They minimise heat loss and increase energy efficiency by reducing thermal bridges.

Required insulant thicknesses for specific thermal transmittance (U-values) taking into account the thermal bridges caused by metal sub-constructions



Passivhaus-certified sub-construction
Based on the tried-and-tested stainless steel wall brackets, we are making a passivhaus-certified sub-construction available for our StoVentec systems. The installation of the patented sub-construction is as simple as it always is. Only two thermal separating elements must be integrated: the first is attached to the wall before the wall brackets are fixed and the second one is attached before the T-profiles are fixed. The passivhaus certification certifies the Sto sub-construction to be "free of thermal bridging." The patented wall bracket thus meets the high requirements placed on passivhaus construction.

Insulation layer thickness
Reduced insulation layers thanks to sub-constructions with lower thermal bridging and necessary insulation layer thickness for specific thermal transmittance values taking the thermal bridges caused by metal sub-constructions into account.

Notes

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