Building with conscience.

Systematic design freedom

Our materials for unique and long-lasting facades

Facade

Our facade systems have been tried and tested many times over, and have been developed with maximum design freedom in mind. Choose from an array of expressive materials, which are available in a vast range of dimensions, shapes, surface finishes, and colour schemes.

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StoTherm and StoVentec: the perfect foundation

Boutique Hotel Briig, Split, HR
Planning: STUDIO 180 d.o.o., Zagreb, HR
Sto expertise: StoVentec R
Photo: Robert Les, Zagreb, HR

Make an impression: our facade materials

Building with conscience

Building is about creating places to live. "Building with conscience" means taking responsibility for the quality of the spaces we live in. We take responsibility: as a manufacturer of reliable system solutions and as a partner to all parties involved in the building process.

Wherever we look, architecture is all around us. It has an enormous impact on our experience, our perception, and our access to the world we live in. High-quality architecture is the result of holistic planning: the product of sophisticated technology, function, and aesthetics. And it must also be designed with the needs of the user in mind. Only when these complex requirements are met can architecture exude quality – and quality is crucial to the success of any building project.

For over 60 years, Sto has been committed to sustainable construction and aesthetic value. In both of these areas, the facade of a building has an important role to play. Over the years, facades have become an ever-more complex part of architectural design. As energy-saving targets have become more stringent, the bar has been raised even higher, making architectural planning and implementation even more of a challenge. This is especially true when buildings not only need to be highly functional, but also authentic, user-orientated, exciting, and unique, or when they need to blend in with or stand out from their surroundings.

How much easier would it be for you if you could concentrate fully on design and aesthetics – knowing that all of these technical requirements are already taken care of?

Or if you knew that your facade plan incorporated an external wall insulation system (EWIS) or a ventilated rainscreen cladding system (RSC) comprised of tried-and-tested system solutions based on safe and reliable technology?

Our facade systems give you complete design freedom. You decide on the dimensions, shapes, materials, surfaces, and colours, so that you can achieve the high-quality aesthetic and effect you're looking for in your project. Choose one of our six expressive materials, or opt for a combination. We can create the perfect system solution based on an EWIS or an RSC system.

Would you like tailored advice on suitable materials for your construction project? Maybe you need more detail on solutions with a combination of materials, or perhaps you have a question about execution?

We can provide personalised advice throughout your project – from the initial idea right through to completion of your facade. Because our role goes far beyond that of a manufacturer: we see ourselves as your partner for holistically designed living spaces.

Rehabilitation centre, Bolzano, IT
Building owner: Modus Architect, Brixen, IT
Planning: Modus Architect, Brixen, IT
Execution: Amac-Bau GmbH, Rodengo, IT
Sto expertise: StoTherm Vario, StoSignature Linear 30
Photo: Rene Riller, South Tyrol, IT

We offer more than functionality

Can a facade make a building a nicer place to be?

We know it can.
Attractive design is inherently appealing to the human psyche; it reaches out and touches our hearts and minds. The human brain is wired to prefer pictures, colours, textured materials, and interesting surfaces – anything novel or unique.

In architecture, what appeals to us might be the raw and powerful character of brick, connected in a unique way or masterfully arranged in a pattern. It might be the life in the textures of natural stone, or the seamless rendered finish that makes monolithic buildings all the more effective. It could be glass, reflecting its surroundings across its entire surface, or incorporated into a multicoloured mosaic as a detail that almost seems to tell a story. Or we may be drawn in by a three-dimensional facade adorned with contemporary details, creating fascinating parallels with historic buildings. All of this excites us.

We discover what excites us – and make it memorable.
People want to identify with the buildings in which they live, work, play, learn, and spend their free time. The more closely a facade concept is tailored to a building and its eventual use, the clearer its identity and the greater its impact on the quality of life of its users. These factors are crucial to the value retention of the building – because a building that is appreciated is looked after.

Our comprehensive range of materials provides the perfect facade material for any new-build or renovation project: whether you're designing a seamless, monolithic creation, a facade that plays with reflection and depth, or a building that draws on the diverse colours, textures, and surfaces of natural materials.

Combine a range of materials...
...to create a facade that is as unique as your design – whether you want to design a building that contrasts with its environment, seamlessly blends into its surroundings, or exudes originality.

Former post office, Bolzano, IT
Building owner: Autonomous Province of Bolzano, IT
Planning: Michael Tribus Architecture, Lana, IT
Execution: Isoleur di Roberto Pederiva, Bolzano, IT
Sto expertise: StoTherm Classic; StoSignature, Texture: Rough 1
Photo: Rene Schiller, Silandro, IT

Highlights

StoSignature

StoSignature provides a sophisticated system for designed rendered facades, offering a multitude of options for combining textures and effects.

StoCleyer B

With more than 130 surfaces across seven groups, StoCleyer B opens up a wide range of design possibilities.

StoVentec Glass

Exclusive glass panel system with open joints and invisible fixing for ventilated rainscreen cladding.

We work holistically with conscience

You know what effect you want your facade design to achieve. What you're less sure about is which materials allow you to realise your design in a way that meets all of the functional and energy performance requirements.

This case study from Brussels shows how Sto advisors and technical support helped to bring the architect's idea to life – from the first rough sketches and designs, through to detailed solutions and finally construction and the finished facade. The new social housing development needed to be constructed to the Passivhaus standard and there were a number of financial and design-related requirements for the project. Specialist contractor Ioan Ungureanu, who was responsible for construction, explains:

"The architect combined two materials using the StoTherm Vario EWIS system as a base: extruded bricks on the facade and render detailing around the windows. The light-coloured render frames are a clear design feature and really come to life against the brick facade. My task as the specialist contractor on the project was to draw up detailed plans and to build the design simply and safely. I consulted the technical team at Sto for support.

We worked together to develop a solution to perfectly adapt the StoTherm Vario EWIS system to the different material thicknesses. On site, we were able to combine the various surface materials on a single level, without heat bridges. The solution we came up with had a positive effect on the budget, too: the render frames around the windows replaced the corner brick slips, which reduced the material costs."

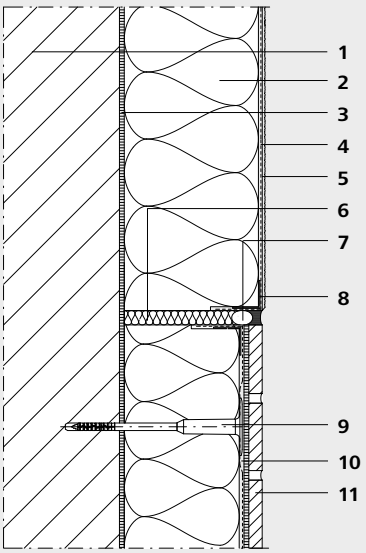
Mixing materials: the ingredients for success

- Entire insulation system sourced from one provider
- Wide range of surface materials for complete facade design freedom
- Personal support with the development of detailed solutions
- A partner with reliable construction site logistics
- Tried-and-tested system solutions

More information: www.sto.com

Jardins Potagers residential building, Brussels, BE
Building owner: Woningsfonds Van Het Brussels Hoofdstedelijk Gewest, Ixelles, BE
Planning: LD2 Architecture Stéphane van Lint, Brussels, BE
Execution: Sebimat sprl, Brussels, BE
Sto expertise: StoTherm Vario; StoBrick Sanded 420; StoSignature, Texture: Rough 1
Photo: Dennis de Smet, Ghent, BE

Solution detail



A detailed view of the transitional areas between the brick and render

1 — Wall construction
2 — Insulation board
3 — Adhesive
4 — Reinforced base coat
5 — Finishing render
6 — Insulation joint, filled with mineral wool
7 — Sealant with backing profile
8 — Sto-Mesh Angle Bead
9 — Anchor
10 — Reinforced base coat
11 — Cladding

We are a partner you can rely on

Sto advisors and the technical service team support architects, planners, and specialist contractors from the design phase right through to the last detail of the finished facade.

Our services
- Advising planners and specialist contractors, particularly for project-specific 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 anchors

Advice for every project phase
Comprehensive advice is a key component of our service portfolio – covering everything from planning, how to best co-ordinate different processes, and how to apply Sto products correctly, right through to the most detailed questions about the external wall insulation system: Sto offers expert advice quickly during every stage of the project.

Sto advisors at the construction site
Sto Technical Consultants come to your construction site to provide training on special material characteristics or working with special application methods, including demonstrating how to use products and tools effectively.

Support for specialist contractors
The Sto Technical Advisor provides professional, on-site assistance. As a qualified, technical contact person, they support specialist contractors in the correct application of Sto products.
Practical explanations on all materials and application techniques can be found in the application guidelines and in videos on the Sto YouTube channel.

Personal contact
Our subsidiaries and export partners are available to answer questions about the realisation of your facade design ideas. All Sto branches are listed at sto.com.

Services

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

Tender specifications

Tender specifications are available from Sto to provide support during the planning stage.
info.international@sto.com

Material workshops

We organise "Experiencing is understanding" workshops which focus on the materials for facade design. These workshops explore the process of planning surfaces design-relevant properties, technical application techniques, and design potential. Simply scan the QR code for current dates:

Details

The Sto technical consultant team develops highly individual details together with architects, planners, and tradesmen upon request:
info.international@sto.com

Our service team provides CAD drawings and BIM objects:
info.international@sto.com

StoDesign

The StoDesign team develops and tests various technical and design versions and defines materials, surfaces, and colour shades for aesthetic questions relating to paint and facade materials – from individual buildings to large-scale urban design.
info.international@sto.com

StoTherm and StoVentec: the perfect foundation

StoTherm external wall insulation systems and StoVentec ventilated rainscreen cladding systems provide reliable system solutions for demanding construction requirements and challenging details – created in close collaboration between the architect, specialist contractors, and the manufacturer.

All information on the StoTherm systems

All information on the StoVentec systems

Dwelling Zac Seguin residential estate, Boulogne-Billancourt, FR
Architect: Beckmann N'Thépé 5, Paris, FR
Applicator: GCEB 25, Saint-Germain-lès-Corbeil, FR
Building Owner: Nexity La Tour Initial 1, Paris, FR
Sto expertise: StoVentec Glass, StoTherm Classic®, Stolit Milano, StoSignature Fine 10
Photo: Manuel Panaget, Le Mesnil-le-Roi, FR

For any system: free choice of materials

	Insulating layer	Carrier layer	Reinforcing layer
StoTherm external wall insulation systems The StoTherm system family is comprised of eight tried-and-tested EWIS systems, so that you can respond flexibly to the diverse requirements of your project without having to forego the security of a tested solution with technical approval.	 · Insulation material (here: mineral wool), bonded and anchore fixed · Anchored through reinforcement layer for heavy surface materials		 · Reinforced base render, organic or mineral-based depending on system requirements
StoVentec ventilated rainscreen cladding facade systems The StoVentec system combines the physical advantages of a ventilated rainscreen cladding facade system with virtually unlimited colour, texture, and material options. This tried-and-tested system with European Technical Approval can even be used to realise designs with heavy facade elements on ceiling surfaces.	 · Insulation material: fleece-laminated mineral wool · Fixed with insulation dowels	 · Sub-construction comprised of wall brackets and T-profiles · Carrier board	 · Reinforced base render, organic or mineral-based depending on system requirements
StoVentec Glass StoVentec Glass is an exclusive glass panel system used to create ventilated rainscreen cladding facades with large glass panels. The tried-and-tested system solution with open joints uses invisible agraffe profiles on the rear to attach the panels to the sub-construction. The prefabricated glass elements can be produced in various sizes up to 6 m² and with an edge length of up to 4.5 metres to suit your design concept.	 · Insulation material: fleece-laminated mineral wool · Fixed with insulation dowels	 · Sub-construction comprised of wall brackets, T-profiles, and agraffe profiles	

Our systems offer the reliability you need without limiting your material choices. Choose from six different facade materials – regardless of whether an external wall insulation system (StoTherm) or a ventilated rainscreen cladding system (StoVentec) is best suited to your technical requirements. The only exception: glass panels up to 6 m^2 are only available in the StoVentec Glass system.

Material layer

StoSignature

StoEcoshape

StoDeco

StoCleyer B

StoCleyer W

Material layer options
- StoSignature: rendered surfaces
- StoEcoshape: prefabricated facade elements

- StoDeco: plastic facade elements
- StoCleyer B: resin brick slips

StoCleyer W: facade panels with timber appearance

StoSignature

StoEcoshape

StoDeco

StoCleyer B

StoCleyer W

Material layer options
- StoSignature: rendered surfaces
- StoEcoshape: prefabricated facade elements

- StoDeco: plastic facade elements
- StoCleyer B: resin brick slips

StoCleyer W: facade panels with timber appearance

StoVentec Glass

- Prefabricated glass panels for installation in the sub-construction
- Open joint pattern

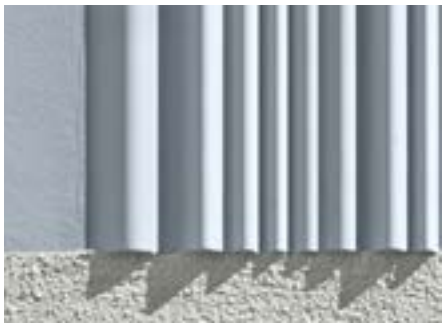
Make an impression: our facade materials

StoSignature

Detailed system for facade design using render. Four texture families – Fine, Rough, Linear, and Graphic – that also allow you to apply colour and render coatings or granulates for added effect. Flat or curved substrate. Any choice of colour shade.

StoEcoshape

Customised series products with prefabricated render elements, maximum format: 840 x 420 x 8 mm. Any choice of shape and colour shade, can be used on part of the facade or all over Eight basic surface textures; additional effects also available. Any choice of colour shade for elements and joints.



StoDeco

Three-dimensional facade elements, such as sculptural shapes, ledges, or panels; manufactured to planner's specifi cations using the CNC method. Maximum base area of 0.96 m². Any choice of colour shade for coating. Suitable for full-surface use on certain StoTherm systems.

StoCleyer B

Resin brick slips for insulated facades with an authentic brick look. Available in the standard brick formats. Unrestricted vertical or horizontal arrangement; possible to combine different slips. Bonding and pointing in a single application cycle. Can be laid without movement joints.

StoCleyer W

StoCleyer W facade panels can be used to create an authentic timber appearance on external wall insulation systems. The panels are quick and easy to apply. They are more costeffective and durable than real wood and can be painted in many colours.

StoVentec Glass

Prefabricated glass panels in rectangular formats with a side length of up to 4.50 metres and a maximum surface area of approx. 6 m². Available with a gloss, satin, or mirror finish. Any choice of colour shade, can be customised with screen printing or digital printing.

Dosan Aloha, Seoul, KOR
Architect: Youngsu, Kim, Moreless Architects, Seoul, KOR
Building owner: Lumie Holdings
Sto expertise: StoVentec R, StoTherm Vario, Stolit K 2.0, StoColor Lotusan, StoSignature Fine 30
Photo: Sangjin Kim, Seoul, KOR

StoSignature: customised rendered surfaces

Rendering is one of the master disciplines of construction. Applied by hand on site, the material offers virtually unlimited scope for creative design. But this creative freedom can be a source of misunderstanding between the architect and the specialist contractor. To combat this problem, the modular StoSignature system clearly distinguishes between the various design options – laying the foundations for the successful planning and creation of unique rendered facades.

KJPZ psychiatric centre for children and young people, Windisch, CH
Building owner: Psychiatrische Dienste Aargau AG, Windisch, CH **Planning:** fsp Architekten AG, Spreitenbach, CH
Execution: Schilling AG Birr Gipsergeschäft, Birr, CH
Sto expertise: StoSignature, Texture: Linear 30, +Effect: Coating 10 Partial; combined with Texture: Rough 1
Photo: Daniel Erne, Laufenburg, CH

StoSignature: unique rendering

In its original form, render is made of limestone, sand, and water. For thousands of years, this formula has been used to create fascinating facades.

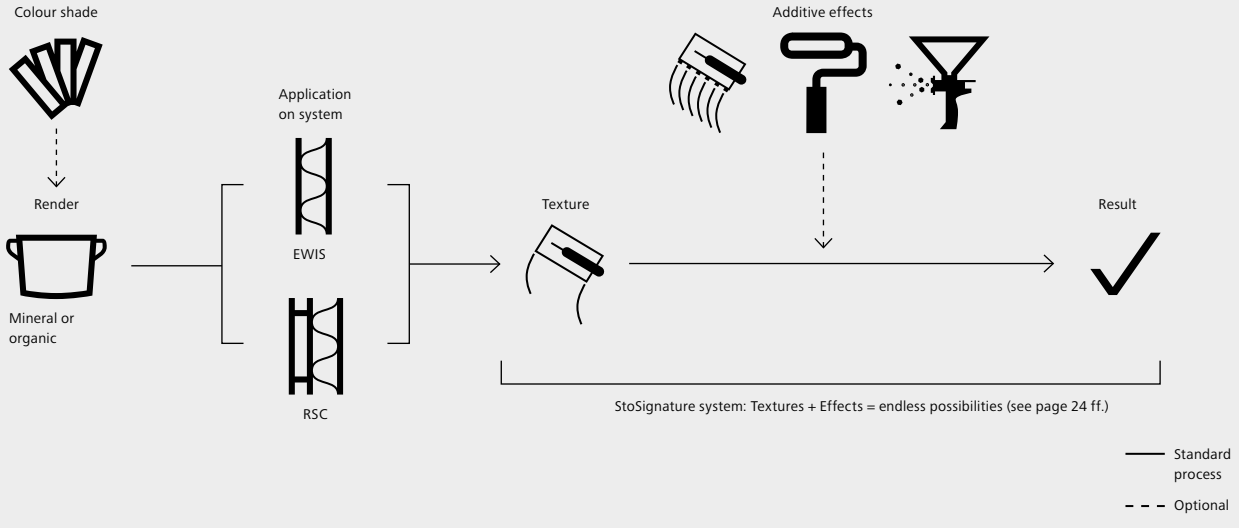
From a building physics perspective, render applied to the facade provides long-term protection against the effects of the weather and mechanical stress. The material can also be used to realise a wide range of unique architectural concepts. With the StoSignature system, render can be applied in many different ways – to create textures by hand, and to achieve special effects by employing optional extra materials or techniques.

External render can be used on single and double-leaf wall constructions, on external wall insulation systems, and on rainscreen cladding facades. External render can essentially be divided into two categories: mineral-based and organic. Mineral-based renders primarily use lime or cements as a binder, and usually possess hydrophilic and capillary properties (water-absorbing). External renders formulated with organic binders such as polymer dispersions – which may be combined with silicone resins or potassium silicate – are more water-repellent, less sensitive to crack formation, and much more easily tintable.

However, the fi nal facade appearance depends less on the composition and more on how the render is applied. To develop new solutions for application, Sto provides painters, plasterers, and planners with extensive support – from sample creation to reliable application in accordance with the StoSignature system.

For further information
simply scan the QR code

Render application with the StoSignature system



StoSignature: form and function

StoSignature gives planners enormous scope for creative freedom. The new Königsfelden psychiatric centre building in the Swiss municipality of Windisch was designed with a combination of Rough and Linear textures.

The Königsfelden psychiatric centre in Windisch, Aargau has undergone a full programme of renovation and extension work. The new psychiatric centre for children and young people is a key part of the centre. The new building – designed by fsp Architekten – is comprised of two compact, three to four-storey constructions that intersect at the corner. The open-plan reception area and two internal courtyards flood the entire building with natural light. The resulting structure is logical and externally protected, with ample indoor and outdoor space suitable for a variety of uses.

The welcoming appearance is enhanced by the dynamic aesthetic of the facade. The light-coloured rendered surfaces work in harmony with irregularly placed wooden windows of varying sizes. The design picks up on the austere horizontal and vertical lines of the surrounding buildings and adopts a more playful approach to the theme.

The facade concept is based on a light rendered grid in horizontally and vertically combed render. The combed areas vary in width, height, and position. At the heart of the facade concept is the modular StoSignature system, which is comprised of four texture groups plus optional effects. To achieve the desired look, the architects opted for a combination of Linear 30 and Rough 1 textures.

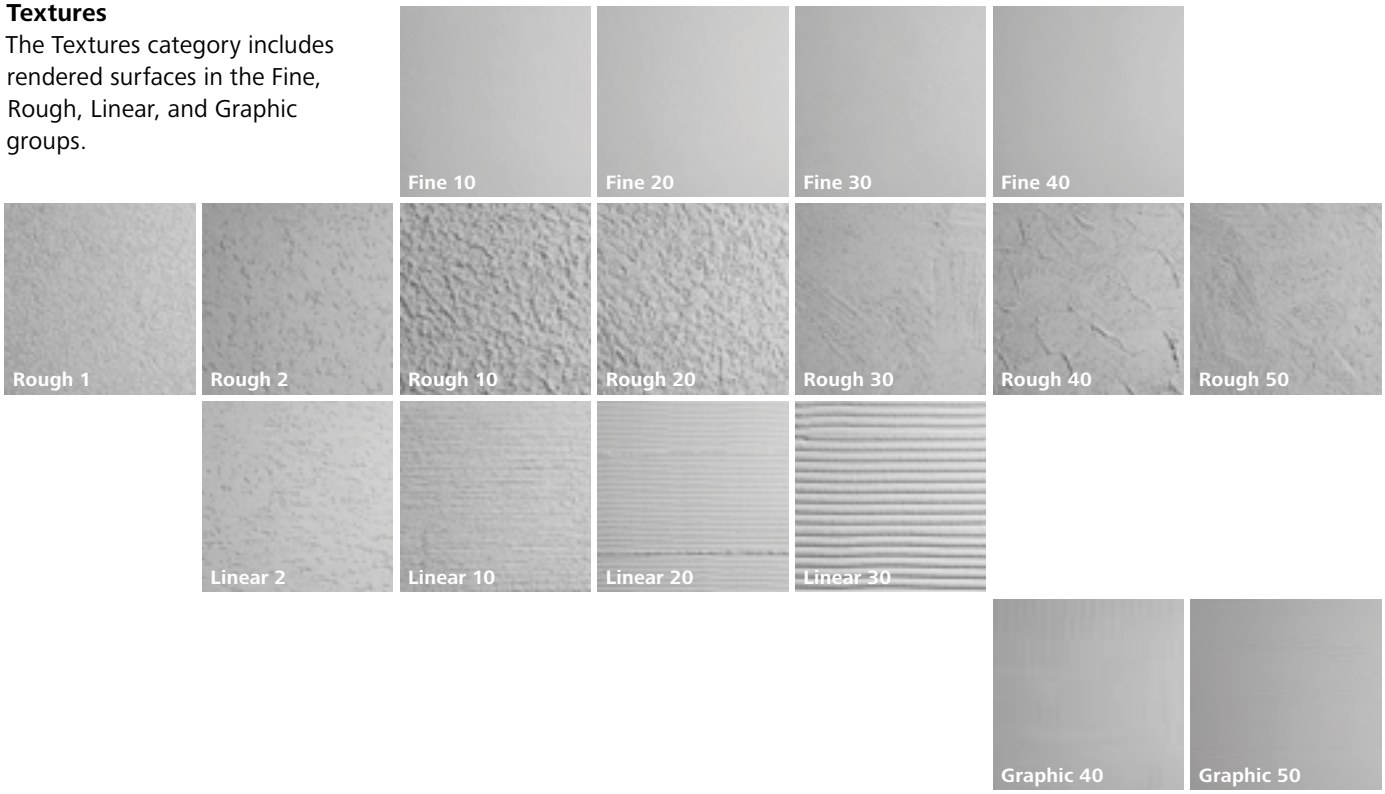
During construction, the linear-textured parts of the facade were created first. The first step involved applying a mineral base render to the facade using a smoothing trowel. A sponge float was then used to finely float-finish the render. Once the render had fully hardened, the chalk lines needed as a guide for the next step were drawn onto the surface. The specialist contractors were then able to start applying another layer of render in a combing motion along each line. There was no need for the contractors to create tricky joints in the render, because each area was sized so that it could be easily reached and applied from the scaffolding in a single motion – which proved to be a huge advantage during the construction process. Once dry, the elevations in the ridged relief of the Linear 30 texture were coated in an even lighter shade (+Effect: Coating 10 Partial). These emphasised straight lines further reinforce the effect of the changing incidence of light.

After another round of drying, the textured areas were masked. The surrounding facade areas were then coated in a mineral-based render with the Rough 1 texture to achieve a stippled effect that contrasts starkly with the other areas. The interplay of all these elements underpins the dynamic overall aesthetic of the facade.

KJPZ psychiatric centre for children and young people, Windisch, CH
Building owner: Psychiatrische Dienste Aargau AG, Windisch, CH
Planning: fsp Architekten AG, Spreitenbach, CH
Execution: Schilling AG Birr Gipsergeschäft, Birr, CH
Sto expertise: StoSignature, Texture: Linear 30, +Effect: Coating 10 Partial; combined with Texture: Rough 1
Photo: Daniel Erne, Laufenburg, CH

StoSignature: the system

Textures
The Textures category includes rendered surfaces in the Fine, Rough, Linear, and Graphic groups.



Application example

Texture: Linear 10
(directional render texture)
Finish: directional render texture, brushed

Description of texture (manufacture):
The render texture is produced by the selected top render variant, the tool used, and the the way in which the render is applied (in this example, brushed in short strokes).

The StoSignature modular system incorporates four texture groups: Fine, Rough, Linear, and Graphic. All of these textures can be customised with additional effects.

Use these examples as initial inspiration for your design. You can find more ideas and guidance in our handbook

For further information simply scan the QR code

+Effects (additive effects, optional)
In the Effects category, the existing textures can be further customised using render (2.Textures), colour coatings (Coatings), or granulates (Granulates).

	2.Texture Partial	2.Texture Defined
Coating Total	Coating Partial	Coating Defined
Granulate Total		Granulate Defined

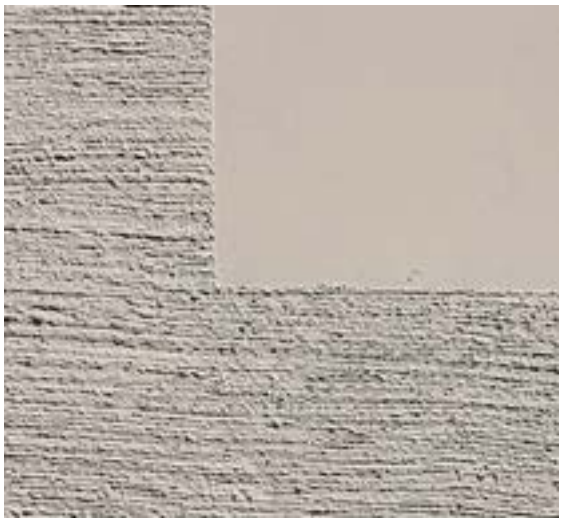
Coating 10 Partial

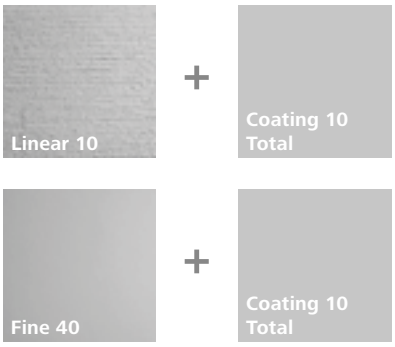
Effect: Coating 10 Partial (coating, partially applied)
Coating: coating texture elevations

Effect description (manufacture):
A coating (colour/metallic paint coat) is applied only to the raised texture parts of a through-dried, render texture in relief.

=

StoSignature: tried and tested



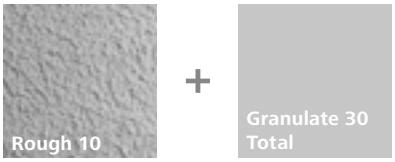


* Textures:
Linear 10= directional render texture, brushed
Fine 40= fine textured render, float-finished

+Effect:
Coating 10 Total = full-surface rolled coating

Business school, Bad Urach, DE
Building owner: Reutlingen education authority, DE
Planning: ARGE KSBU, Pfullingen, DE; Eberhard Wurst, Reutlingen, DE; Martin Dolmesch, Metzingen, DE
Execution: wahl maler GmbH & CO. KG, Reutlingen, DE; MDD Stuck GmbH, Hechingen, DE
Sto expertise: StoTherm Vario; StoSignature*
Photo: Martin Duckek, Ulm, DE

MAC Museum Art & Cars, Singen, DE
Building owner: Hermann und Gabriela Maier, Singen, DE
Planning: Daniel Binder, Gottmadingen, DE
Execution: Tip Top Bau GmbH, Hilzingen, DE
Sto expertise: StoSignature*
Photo: Martin Baitinger, Stuttgart, DE



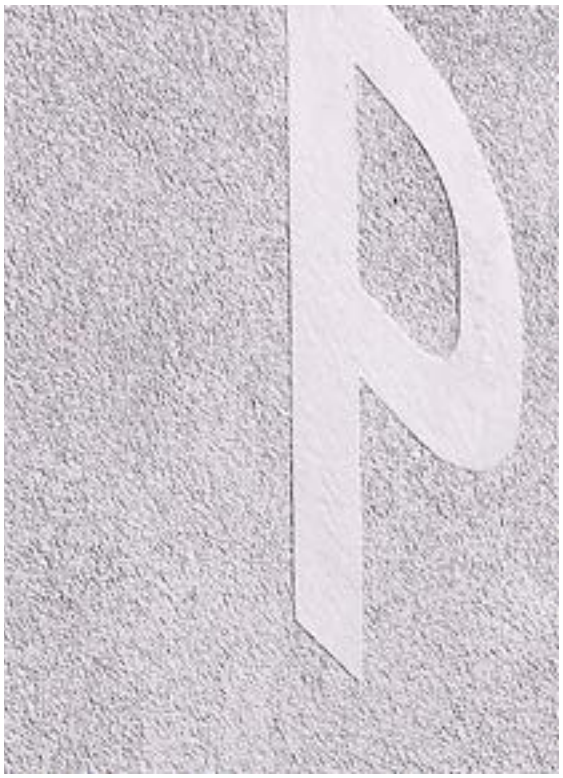
* Texture:
Rough 10 = coarse render texture, rolled

+Effect:
Granulate 30 Total = reflective glass chips, applied to coating

FIS school, Erlangen, DE
Building owner: FIS international school, Erlangen, DE
Planning: DJB-Architekten GmbH, Erlangen, DE
Execution: Malerwerkstätte Stöcklein GmbH & Co. KG, Memmelsdorf, DE
Sto expertise: StoTherm Classic®; StoSignature*
Photo: Martin Duckek, Ulm, DE

* Texture:
Rough 1 = stippled render texture, floated in all directions

+Effect:
Granulate 30 Defined = fine-grained granulate, applied to coating using a stencil



Paper Museum, Düren, DE
Building owner: Town of Düren, Düren, DE
Planning: HOLLENBECK ARCHITEKTUR, Cologne, DE
Execution: Hubert Schleicher GmbH, Aachen, DE
Sto expertise: StoVentec R; StoColor Dryonic; StoSignature*
Photo: Guido Erbring, Cologne, DE

Rough 1 + 2.Texture Fine 40 Defined

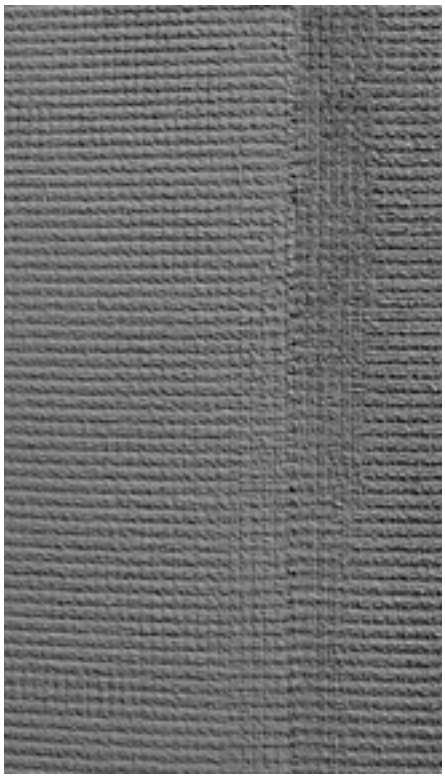
* Texture:
Rough 1 = stippled render texture, floated in all directions

+Effect:
2.Texture Fine 40 Defined = finishing render, applied using a stencil

Studio building, Berlin, DE
Building owner: Verein zur Förderung von Kunst und Kultur am Rosa-Luxemburg-Platz e.V., Berlin, DE
Planning: Bundschuh Architekten, Berlin, DE
Execution: HnB Bau- und Service GmbH, Norderstedt, DE
Sto expertise: StoSignature*
Photo: Sto, Stühlingen, DE

Graphic 40

* Texture:
Graphic 40= fine textured render, applied over mesh



Eulenberg day-care centre, Frankfurt, DE
Building owner: Hochbauamt Frankfurt a. M., Frankfurt, DE
Planning: dirschl.federle_architekten GmbH, Frankfurt, DE
Execution: Karl Hütter GmbH & Co. KG, Tann (Rhön), DE
Sto expertise: StoTherm Classic; StoVentec R; StoSignature*
Photo: Axel Stephan, Frankfurt, DE

Fine 40 + 2.Texture Rough 1 Defined

* Texture:
Fine 40 = fine textured render, float-finished

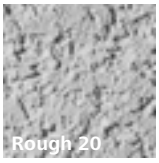
+Effect:
2.Texture Rough 1 Defined = finishing render, applied using a stencil

Mediathek media centre, Oberkirch, DE
Building owner: Town of Oberkirch, Oberkirch, DE
Planning: wurm + wurm architekten ingenieure gmbh, Bühl, DE
Execution: Rudolf Baudendistel, Renchen, DE
Sto expertise: StoTherm Classic®; StoSignature*
Photo: Johannes Vogt, Mannheim, DE

Fine 30

* Texture:
Fine 30 = fine textured render, smoothed and honed over the full surface

H5 Buga, Heilbronn, DE
Building owner: Stadtsiedlung Heilbronn GmbH, DE
Planning: Finckh Architekten BDA, Stuttgart, DE
Execution: Schnabel GmbH & Co. KG, Mosbach, DE
Sto expertise: StoSignature*
Photo: Finckh Architekten, Stuttgart, DE



+

* Texture:
Rough 20 = course render texture, rolled and partially smoothed

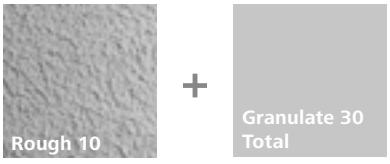
+Effect:
Coating 10 Partial = coating, partially applied

Secondary school and sports college, Nüziders, AT
Building owner: Nüziders municipal authority, Nüziders, AT
Planning: Marte.Marte Architekten ZT GmbH, Feldkirch, AT
Execution: Tomaselli Gabriel Bau GmbH, Nenzig, AT
Sto expertise: StoVentec R; StoSignature*
Photo: Christian Schellander, Villach, AT

Fine 40

* Textures:
Fine 40 = fine textured render, float-finished

Mining Museum, Bochum, DE
Building owner: DMT Gesellschaft für Lehre und Bildung mbH, Bochum, DE
Planning: Bethem Crouwel GmbH, Aachen, DE
Execution: Bau-Fa-Teck GmbH, Hoppegarten, DE
Sto expertise: StoVentec R; StoSignature*
Photo: Guido Erbring, Cologne, DE



* Textures:
Rough 10 = coarse render texture, rolled

+Effect:
Granulate 30 Total = reflective silicon carbide, coarse, applied to coating

StoEcoshape: prefabricated render elements

StoEcoshape provides planners with a range of prefabricated render elements for project-specific facade design. The tried-and-tested solution can be used to create unique solutions with a variety of surfaces, colours, and patterns while also promising great results every time.

Kulturhus De Spil, Nieuwleusen, NL
Building owner: Dalfsen municipal authority, Dalfsen, NL
Planning: LKSVDD architecten Enschede, Enschede, NL
Execution: Jansman Bouw B.V., Luttenberg, NL; Lenferink Afbouw B.V., Lemelerveld, NL
Sto expertise: StoTherm Classic®; StoEcoshape, texture: 100 combined with 250
Photo: Ronald Tilleman Photography, Rotterdam, NL

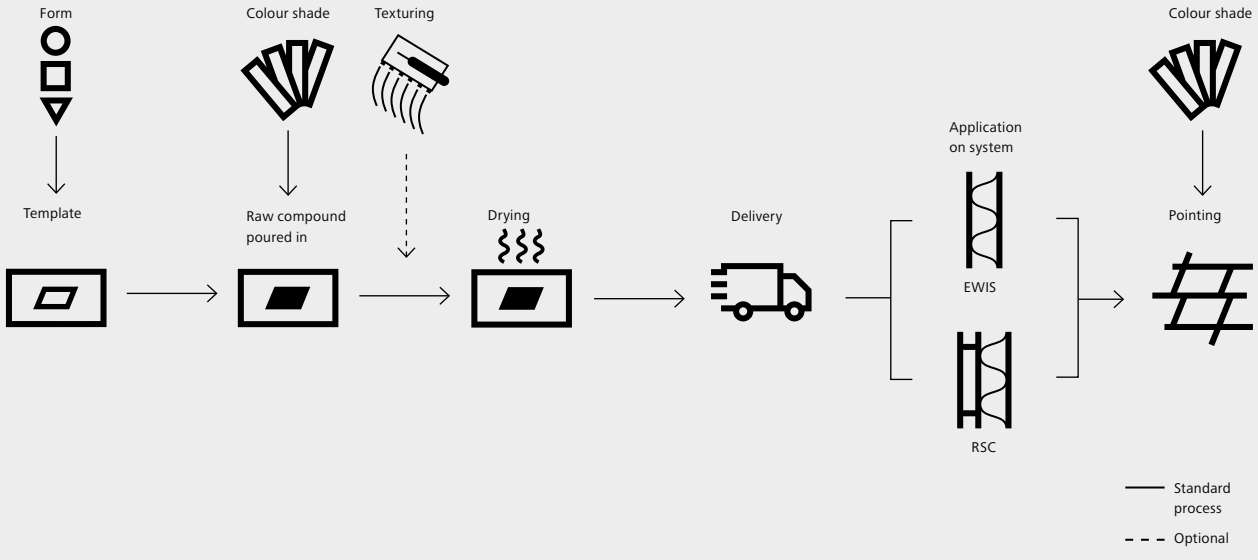
StoEcoshape: custom prefabrication

Render can be applied in any colour or texture to suit your design. StoEcoshape render elements combine the versatility of this material with the guaranteed great results of prefabrication.

Material knowledge
The raw material of StoEcoshape is made of over 90 % mineral components. The render elements are manufactured based on your design and then dried in a controlled manner at 60 °C.
The elements are so light that a single truck can transport enough StoEcoshape components to cover up to 6000 m² of facade.

Manufacturing process
The starting point for StoEcoshape elements is your design specification. Based on your design, we create a template for the raw compound. You decide the shape and colour of the elements. The next step is to pour the raw compound into the template and sand it. The surface texture can then be applied using various tools. The design can be further customised when the render elements are applied to the facade.

Manufacturing and application of StoEcoshape



StoEcoshape: attractive woven structure

StoEcoshape combines maximum design freedom with guaranteed great results. When a former bank building was converted into a new cultural centre for the Dutch town of Nieuwleusen, prefabricated render elements were used to create an attractive woven structure.

In Nieuwleusen near Zwolle in the Netherlands, an empty former bank was converted into "Kulturhus de Spil" based on designs by LSKVDD Architecten. The multifunctional complex now serves as a hub and meeting point for the community. The building houses a library, a café, a school of music, further education facilities, and a number of sports halls. All of these areas are accessed via a single shared entrance. The resulting building has become an indoor "town square" where young and old can meet.

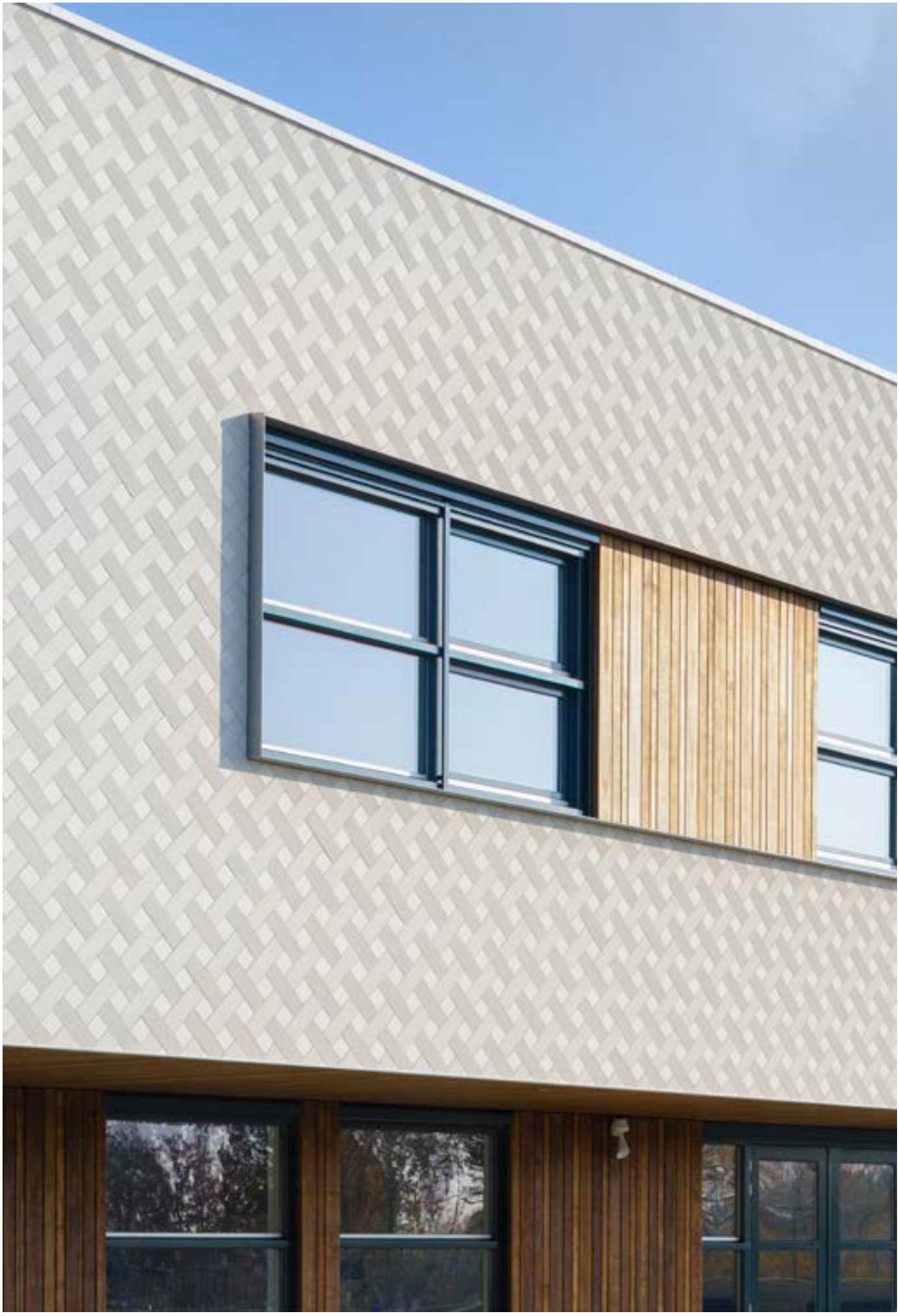
The open character of the building is emphasised by its transparent and welcoming architecture, which is dominated by the building's light facade with horizontal ribbon windows and wooden elements in various sizes. As you get closer to the building, the unique web structure of the facade becomes visible. The unusual design brings the various buildings in the complex together, fusing them into one coherent unit in a visual connection that reflects the community function of the building.

The previous facade was made up of red and white moss-covered bricks. In the search for a more modern alternative, the building owners opted for StoEcoshape. The design concept combines 10 x 10-cm square elements with texture 100 with 10 x 30-cm rectangular elements with texture 250. By placing the 250-texture elements at 90-degree angles to one another, the planners created a unique web structure that dynamically plays with light and shadow.

The first step in creating the facade was to prefabricate the various render elements in the relevant sizes based on the architects' plans. Using the CAD files provided, templates were created for both sizes; the raw compound was then poured and sanded. Next, the surface of the raw material was processed with various tools while still wet: texture 100 elements have a very level, fine surface. Texture 250 elements were processed with a comb to give them a linear texture.

After drying, the finished elements were delivered directly to the construction site. On site, the external wall insulation system StoTherm Classic® had been applied on the existing facade to reinforcement level. The StoEcoshape elements could then be applied directly to this surface to achieve the desired web structure. First, guidelines for the pattern were drawn onto the facade, and Sto-Bonding and Pointing Mortar in the same colour shade as the elements was applied using a notched trowel. The prefabricated render elements were then placed in the mortar layer and aligned. To prevent water from getting behind the elements, a brush was run along the edges of the mortar layer to seal the joints. The result was a system solution that is guaranteed to last and that blends in harmoniously with the architects' design concept.

Kulturhus De Spil, Nieuwleusen, NL
Building owner: Dalfsen municipal authority, Dalfsen, NL
Planning: LKSVDD architecten Enschede, Enschede, NL
Execution: Jansman Bouw B.V., Luttenberg, NL;
Lenferink Afbouw B.V., Lemelerveld, NL
Sto expertise: StoTherm Classic®; StoEcoshape, texture: 100 combined with 250
Photo: Ronald Tilleman Photography, Rotterdam, NL



StoEcoshape: shape, colour, and texture

StoEcoshape
Basic textures


100


150


200


250


300


350

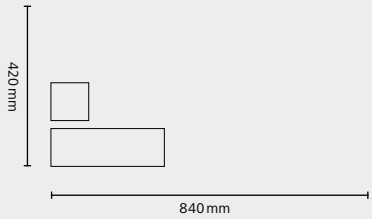

400


450

Design parameters

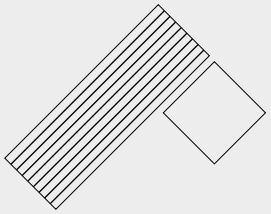
Form

Individual elements can be any shape up to a maximum size of 840 x 420 mm, material thickness 4 to 8 mm



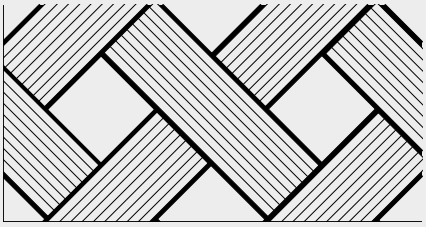
Colour and texture

Free choice of colours, free choice of texture from range of basic textures (see above), custom textures on request



Colour of joint material

Free choice of joint material colour

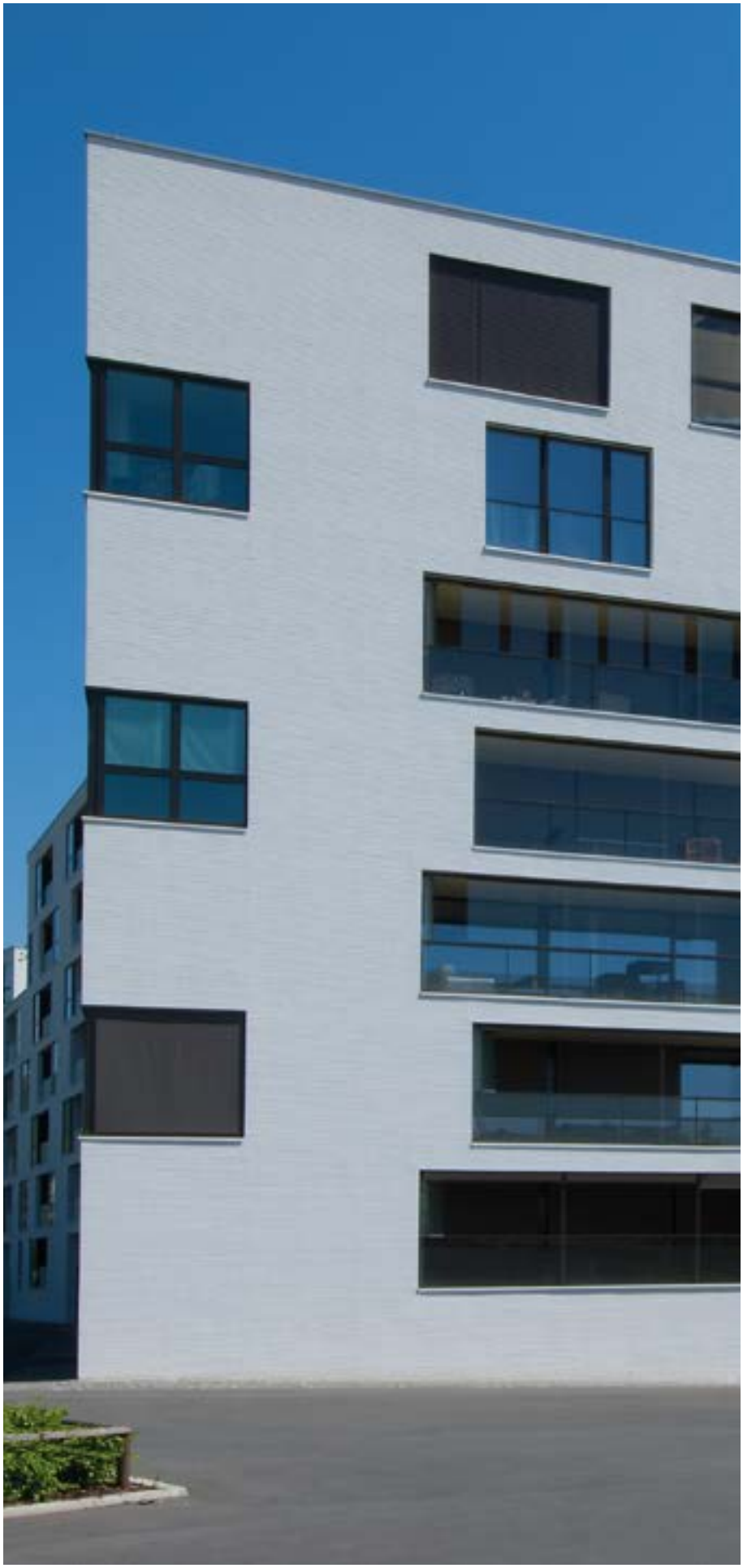


The render elements can be individually designed within the maximum dimensions of 840 x 420 mm. There are eight basic surface textures to choose from. Custom designs are available on request. The raw compound and the joint material are tintable.

StoEcoshape: tried and tested

Zuringhof apartment complex, Tilburg, NL
Building owner: TBV Wonen, Tilburg, NL
Planning: Van den Hout & Kolen Architecten, Tilburg, NL
Execution: Stukadoorsbedrijf De Groot BV, Erp, NL
Sto expertise: StoTherm Classic®; StoEcoshape, texture: custom
Photo: Ronald Tilleman Photography, Rotterdam, NL

Buizerdhorst & Valkenhorst, Leiden, NL
Building owner: Ballast Nedam West, Capelle aan den Ijsse, NL
Planning: Vanschagen Architecten, Rotterdam, NL
Execution: IJsselmonde Buitengevelisolatie, Rotterdam, NL
Sto expertise: StoTherm Classic®; StoEcoshape, texture: custom
Photo: Arjan van Nieuwkoop Hovenier, Barendrecht, NL

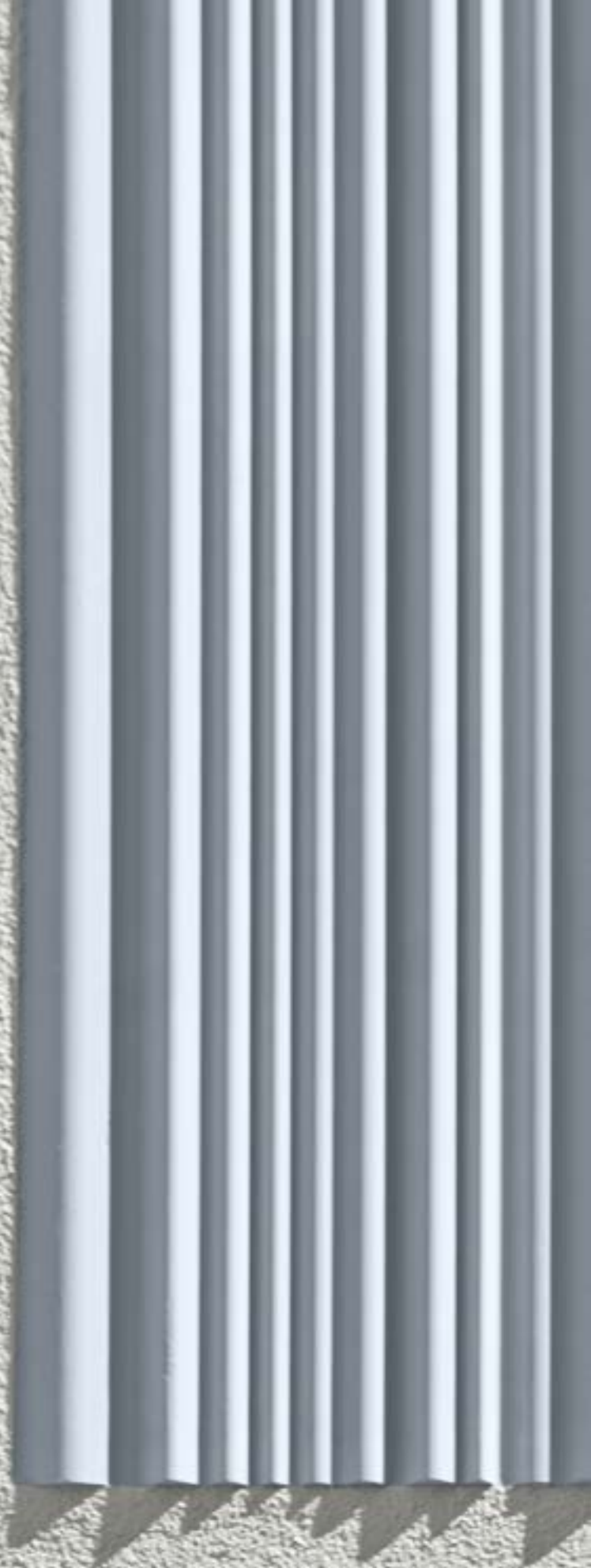


Schutzengel residential building project, Zug, CH
Building owner: Anliker AG Bauunternehmen, Emmenbrücke, CH
Planning: Leutwyler Partner Architekten AG, Zug, CH
Execution: Anliker AG Bauunternehmen Fassadenbau, Cham, CH; JvB Bauleitungen GmbH, Wolfenschiessen, CH
Sto expertise: StoTherm Classic®; StoEcoshape, texture: 100
Photo: Günter Laznia, Bregenz, AT

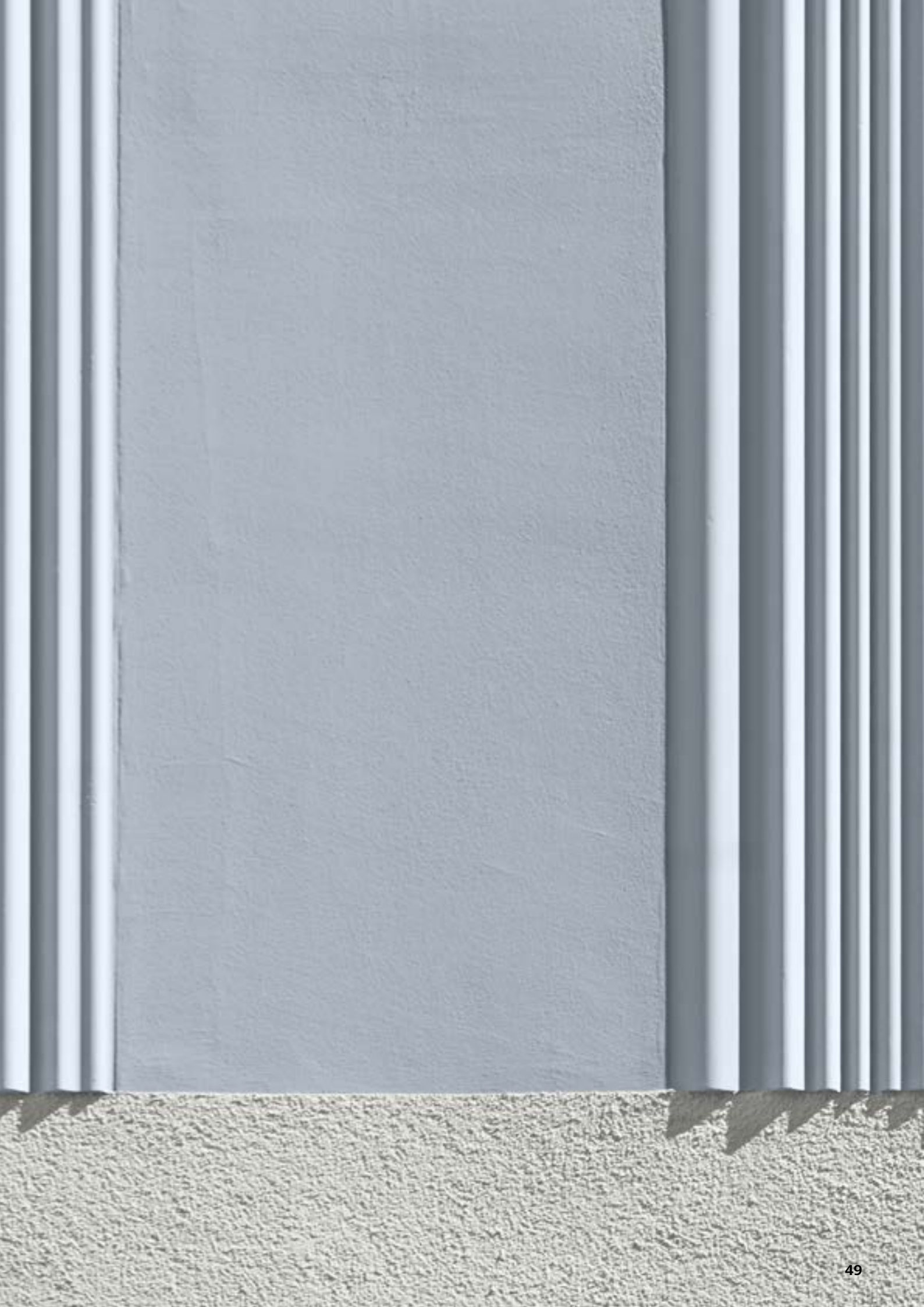
De Garve, Lochem, NL
Building owner: MSG De Garve Meester G. Propschool/Prins Hendrikschool, Lochem, NL
Planning: 19 het Atelier architecten, Zwolle, NL
Execution: TBOR (Ten Berge-Oude Rengerink), Rijssen, NL
Sto expertise: StoTherm Classic®; StoEcoshape, texture: 100; StoSignature, Texture: Rough 1
Photo: Ronald Tilleman Photography, Rotterdam, NL

StoDeco: design in three dimensions

Verolith® – the lightweight mineral construction material used to make our StoDeco facade elements – opens up new possibilities in three-dimensional facade design. Using modern CNC methods, we can precisely replicate your designs in three dimensions. With the addition of coatings and colour, you can create extraordinary facades.



Unterlauengasse 2, Jena, DE
Building owner: Unternehmen Zwei GmbH & Co KG, Ms Jahn, Jena, DE
Planning: Sabine Walther, Jena, DE
Execution: Neubauer Maler-Fußboden GmbH, Bad Berka, DE
Sto expertise: StoTherm Classic®; StoTherm Classic S1; StoDeco Panel; StoSignature, Texture: Rough 1
Photo: Christian Günther Bilderwerke, Leipzig, DE



StoDeco: mineral-based and three-dimensional

We produce StoDeco elements based on the planner's specifications. These three-dimensional elements can be used to create flat, textured, or accent facades, depending on your design.

Material knowledge
A natural weathering process transforms the volcanic rock obsidian into perlite. We use a purely thermal expansion method to turn this raw material into Verolith® in granulate form. From this material, we apply pressure and heat to create blank workpieces for the three-dimensional facade elements.

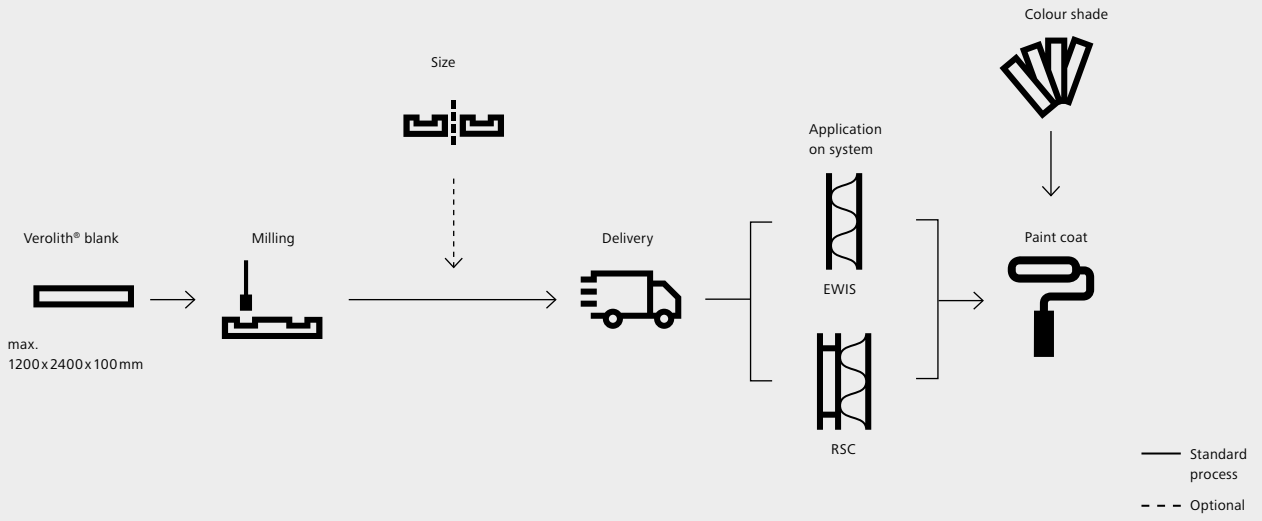
Blanks
Our patented Verolith® blanks are available in dimensions of up to 2400 mm long, 1200 mm wide, and 100 mm thick. We can also produce larger dimensions by joining blanks and producing hollow bodies.

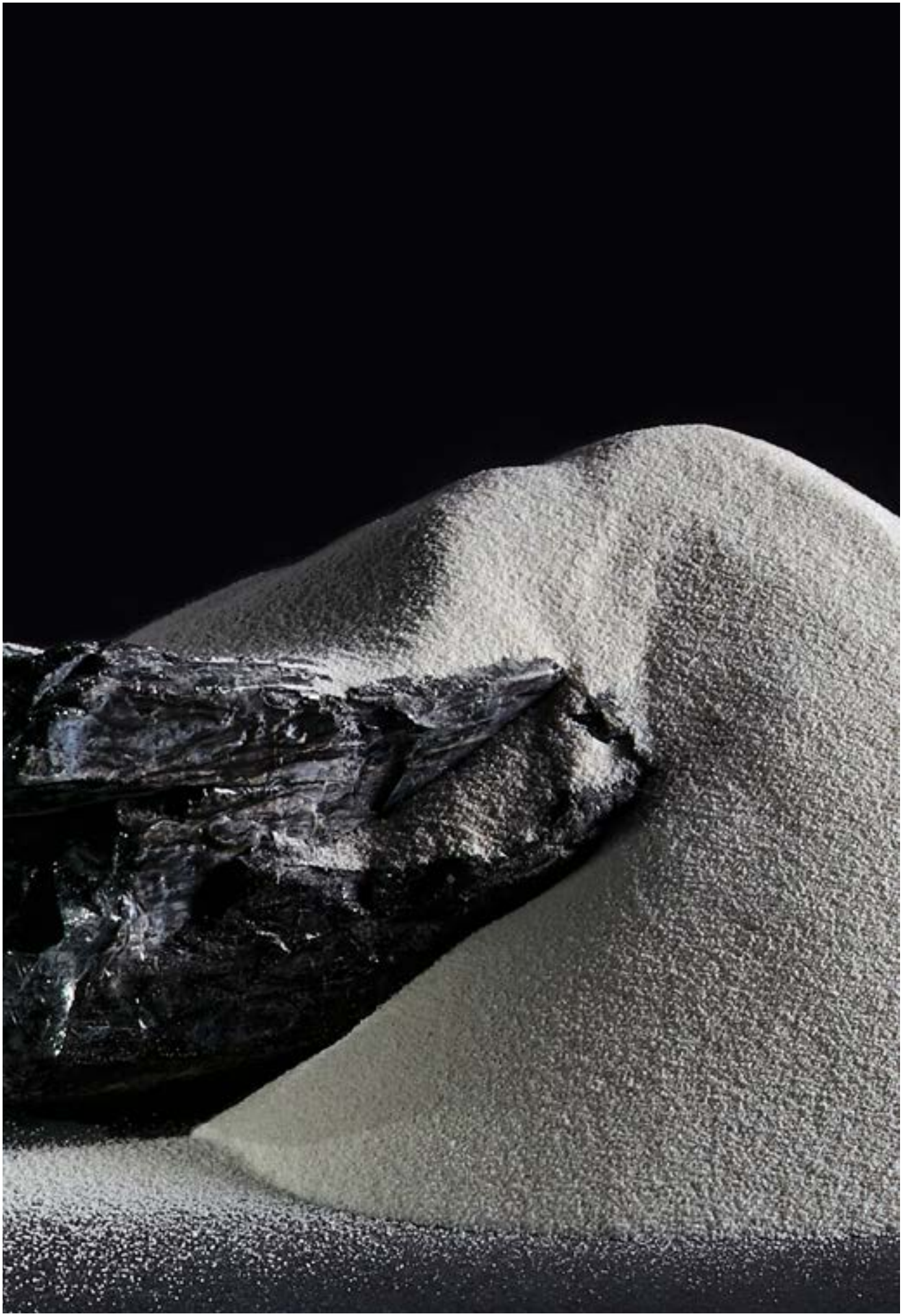
Individual design
At the next stage of production, the blanks are machined to produce the required design. Our 5-axis CNC milling machine

Application
After delivery, the precision-manufactured Verolith® elements are affixed to the facade in line with the plan. Once the three-layer coating is in place, colour can be applied to the elements as required. Thanks to X-black Technology, it is possible to achieve intense colours with lightness reference values < 15.

Image on right:
The raw material for our Verolith® is the volcanic rock obsidian.

Manufacturing and application of StoDeco





StoDeco: harmonious design

In Jena, a new hotel building fits seamlessly into an ensemble of historic buildings. Elegantly rounded corners, the light rendered facade, and expressive StoDeco elements give the building a playful sense of lightness. In 2017, the project won the Jena Facade Prize.

In Jena's historic old town, a new building has been added to a restaurant and hotel. The corner building needed to look contemporary and unique, yet still blend in harmoniously with the historic townhouses surrounding it. The building also had to provide vehicle access to the internal courtyard and have a solid fire wall on the southern facade. With this brief as a starting point, architect Sabine Walther created a four-storey flat-roof building with a classic modern design. The design draws you in with its gently rounded south-east-facing corners and sweeping windows. Inspired by the architecture of the New Objectivity movement, the curves of the new building connect it to its surroundings.

The light and playful character of the design is emphasised by the light-coloured render facade above the windows and the exposed concrete of the ground floor. The integration of accents in a different tone and the three-dimensional design elements between the windows create a neat horizontal division across the space. The wavy texture of the facade elements mirrors the folds in the curtains hanging behind the windows, visually extending the ribbon windows along the facade. On the south-facing fire wall, the decorative pattern is deliberately continued to soften the aesthetic of the windowless surface and to link it back to the welcoming east facade.

The sections between the windows, which are accentuated with soft waves repeated as a style theme throughout the building, required special attention during the planning phase. To create these areas, the architect first designed a repeatable pattern of the three-dimensional wave structure she had envisaged. Based on this template, the Sto factory then machined precision-manufactured StoDeco elements in mineral-based material Verolith®. Thanks to their A2-s1, d0 fire performance classification, these StoDeco elements could also be used on the windowless south-facing fire wall to soften the overall design.

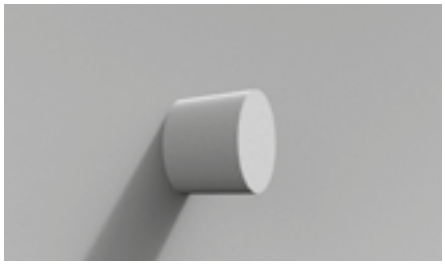
On site, the finished elements were affixed to the StoTherm Classic® EWIS and the StoTherm Classic® S1 fire wall with optimised fire protection. The three-layer coating was then applied in the desired colour. The surrounding rendered area was finished in StoSignature in two shades of grey in the texture Rough 1. With this simple combination of three-dimensional StoDeco elements and render on the EWIS, the architect was able to sensitively integrate the new building into its historic surroundings while also achieving higher levels of fire protection.

Unterlauengasse 2, Jena, DE
Building owner: Unternehmen Zwei GmbH & Co KG, Ms Jahn, Jena, DE
Planning: Sabine Walther, Jena, DE
Execution: Neubauer Maler-Fußboden GmbH, Bad Berka, DE
Sto expertise: Sto Therm Classic®; StoTherm Classic S1; StoDeco Panel; StoSignature, Texture: Rough 1
Photo: Christian Günther Bilderwerke, Leipzig, DE

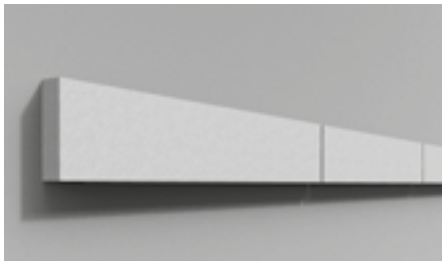
StoDeco: configuration options

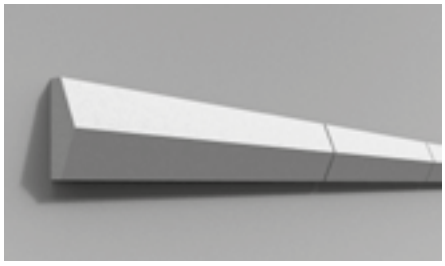
StoDeco element variants

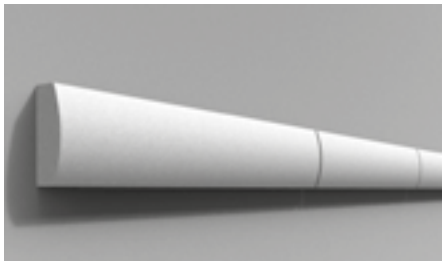
Object



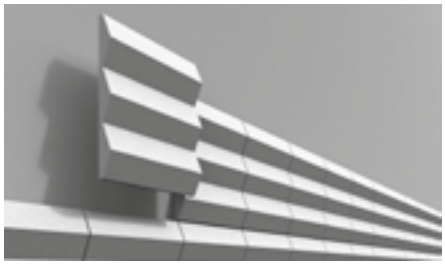
Mouldings & sills

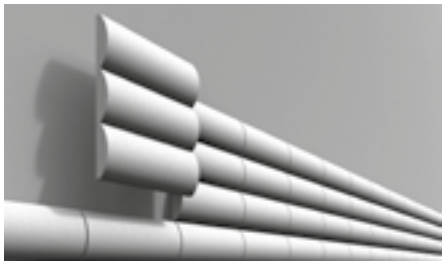






Panels





Design parameters

Object and dimensions

· Object
· Moulding & sill
· Panel
· Max. dimensions: 2400 x 1200 x 10 mm

Colour shade

Coating in any colour, with LRV < 15 thanks to X-black Technology

Application

Most common applications:

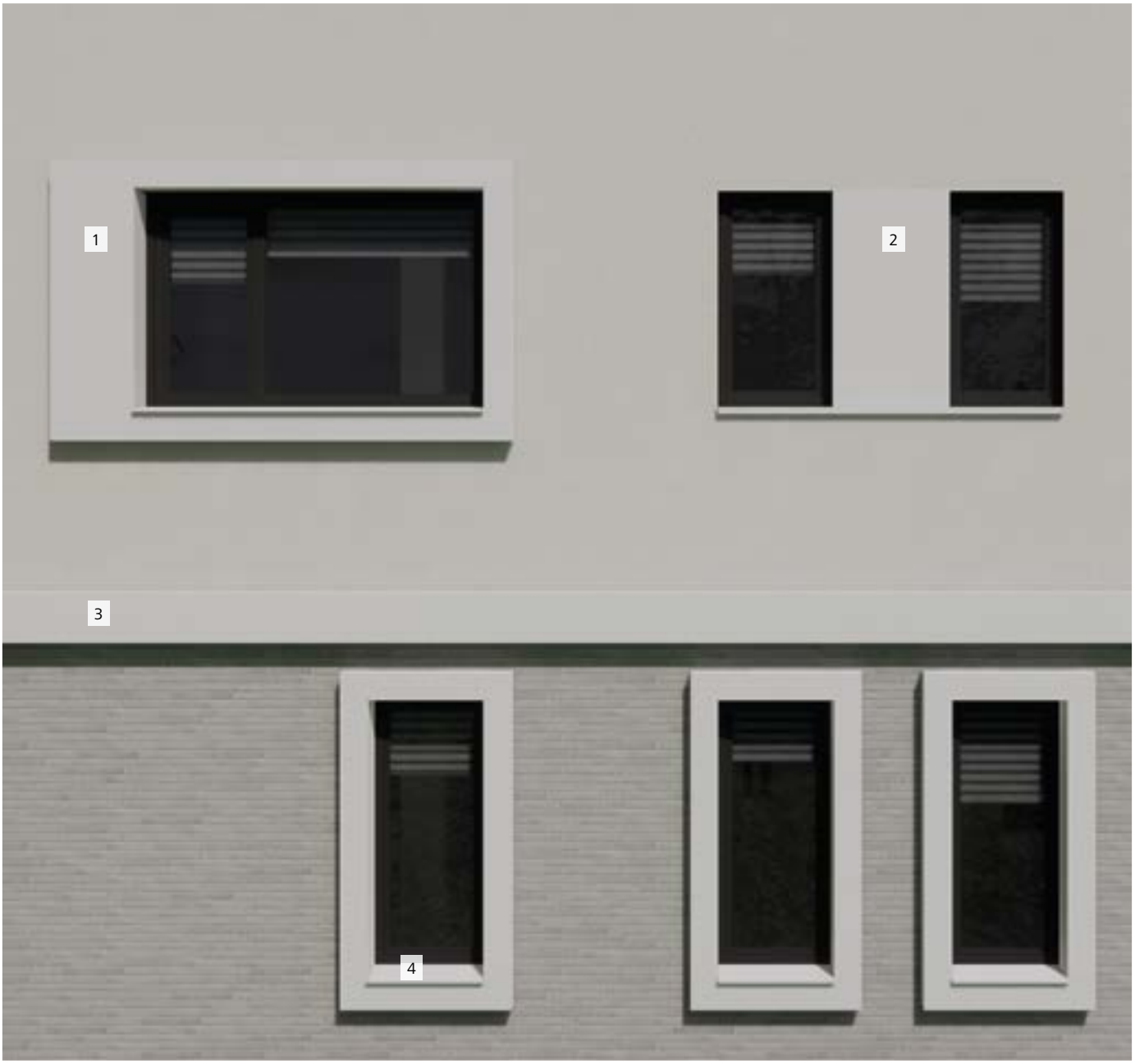
1 — window edging
2 — ribbon windows/panels
3 — cornices
4 — window sills

For more information on these and other applications, please see the case studies on the following pages.

Whether for objects, mouldings & sill, or panels – our Verolith® blanks can be formed into a variety of three-dimensional designs tailored precisely to your facade.

Use these examples as initial inspiration for your design. You can find more ideas and guidance in our handbook.

For further information
simply scan the QR code

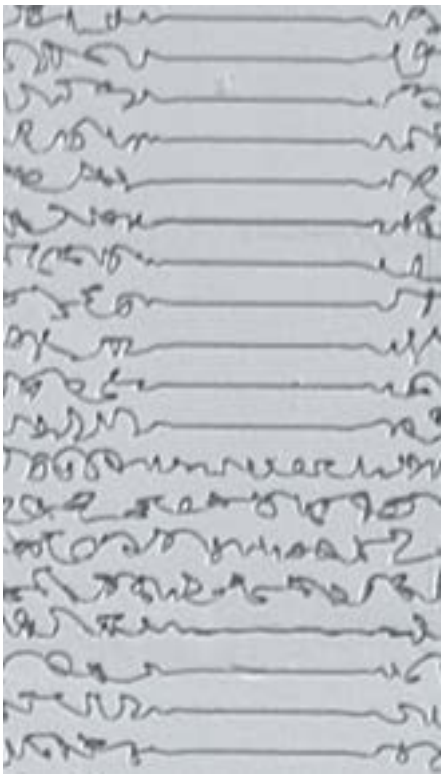


StoDeco: tried and tested

Kraftwerksschule apartment building, Essen, DE
Building owner: Kraftwerkschule e.V., Essen, DE
Planning: bgs architekten GbR, Düsseldorf, DE
Execution: Lurvink GmbH, Bocholt, DE
Sto expertise: StoTherm Classic®, StoColor X-black
Photo: Guido Erbring, Cologne, DE

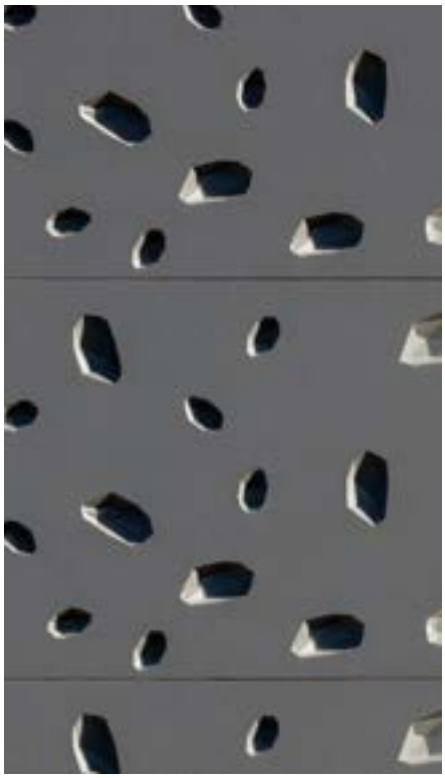
Sonnenweg, Hannover, DE
Building owner: Behrens und Fiedler, Entenfang, Hannover, DE
Planning: Brandenburg und Tebarth, Hannover, DE
Execution: temps GmbH Malereibetriebe, Neustadt, DE
Sto expertise: StoTherm Mineral; StoSignature, Texture: Linear 10, and Fine 40; StoColor X-black; StoDeco Line; StoBrick, custom surface
Photo: Christoph Gebler

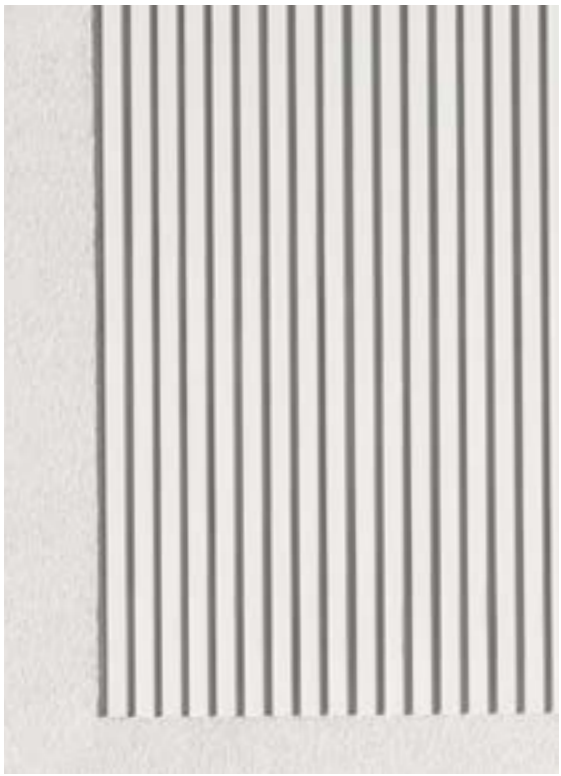
Kleiner Ritter residential house and studio, Frankfurt, DE
Building owner: Rothenberger Anshin GmbH, Bad Homburg, DE
Planning: Franken Architekten GmbH, Frankfurt, DE
Execution: Helmut Lindt Malerfachbetrieb GmbH, Frankfurt, DE
Sto expertise: StoTherm Vario; StoDeco Panel
Photo: Axel Stephan, Frankfurt, DE



Evangelical Lutheran regional church office, Munich, DE
Building owner: Regional church office of the Evangelical Lutheran Church in Bavaria, Munich, DE
Planning: Wandel Lorch Architekten, Saarbrücken, DE
Execution: Haslreiter GmbH, Ortenburg, DE
Sto expertise: StoTherm Vario; StoDeco Panel
Photo: Gerhard Hagen Fotografie, Bamberg, DE

Boarding House FIT, Lupburg, DE
Building owner: FIT AG, Lupburg, DE
Planning: Berschneider + Berschneider GmbH, Pilsach, DE
Execution: Max Mauderer, Neumarkt, DE
Sto expertise: StoTherm Mineral; StoDeco Panel; StoColor Dryonic S with X-black Technology
Photo: Gerhard Hagen Fotografie, Bamberg, DE





Wohnen am Burggarten, Hannover, DE
Building owner: WGH-Herrenhausen eG, Hannover, DE
Planning: pk nord, Hannover, DE
Execution: GEBOtherm GmbH, Hildesheim, DE
Sto expertise: StoTherm Mineral; StoDeco Line; StoSignature, Texture: Rough 1
Photo: Christoph Gebler, Hamburg, DE

StoCleyer B: Resin brick slips optimised for insulation systems

StoCleyer B is a quick and easy solution for creating insulated facades with an authentic brick look. With more than 130 surfaces across seven groups, StoCleyer B opens up a wide range of design possibilities. The material properties of the resin brick slips, which have been optimised specifically for insulation systems, enable your drafts to be transformed into efficient and reliable solutions.
And all this regardless of whether the resin brick slips are being used on an external wall insulation system or a rainscreen cladding facade.

MyLoft World Fashion Center, Amsterdam, NL
Building owner: CPO MyLoft – WFC, Amsterdam, NL
Design: Architektenburo Brink & Fleer, Dronten, NL
Execution: Haase Bouw, Rijssen, NL
Sto expertise: StoTherm Classic®; StoCleyer B, customised surface; StoSignature, Texture: Rough 1
Photo: Norbert Duijvelshoff, Tiel, NL

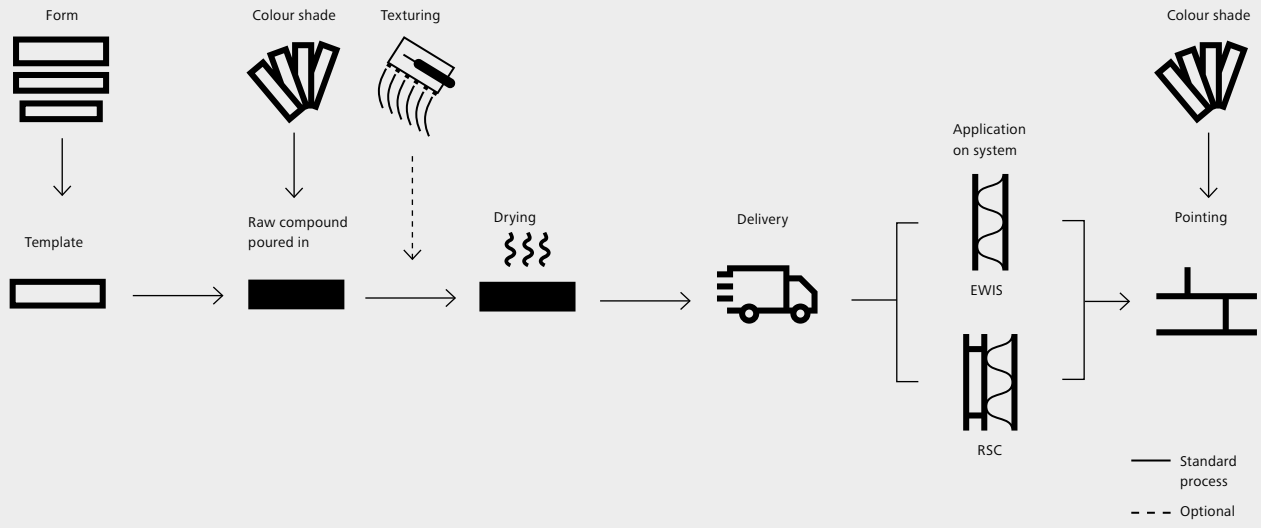
StoCleyer B: The contemporary solution for brick facades

StoCleyer B resin brick slips, which have been optimised for facade insulation systems, make it incredibly easy to combine the powerful look of a brick-slip facade with contemporary thermal protection.

It takes a lot of time and money to create insulated brick-slip facades. Bonding brick slips in an insulation system provides a cost-effective and structurally straightforward alternative to double-leaf construction types. Our StoCleyer B resin brick slips are the perfect example of this theory in practice. The extremely lightweight and flexible material, 90 % of which is made up from mineral components, can be used not only on all our external wall insulation systems (StoTherm) but also on StoVentec R rainscreen cladding facades. Standard application of the associated insulation system is unaffected and continues in the same way.

The low material thickness of 4 to 8 mm opens up additional design possibilities. Combination with external renders or malleable StoDeco facade elements is possible without the need for complicated details. Field demarcation joints, which take time to install and spoil the look of the facade, are not required to compensate for thermal influences either. The result is a modern brick-slip facade which will grow old gracefully.

Manufacturing and application of StoCleyer B



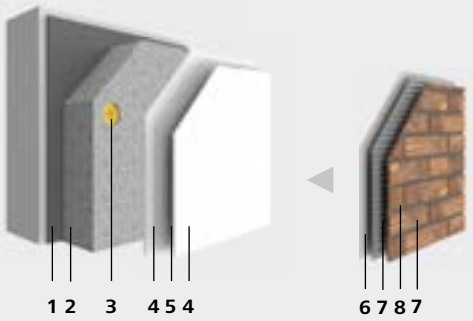
StoCleyer B can be used on all Sto insulation systems; it does not require complex additional measures such as field demarcation joints. Similarly, no drying time is required between bonding and pointing. A utility knife is all you need to cut the StoCleyer B resin brick slips to size.

StoCleyer B as part of an overall system

StoTherm External wall insulation systems

Our tried-and-tested systems are different because they combine insulant with organic or mineral base coat. As as result, you can provide a flexible response to the diverse requirements of your project without having to forego the security of a tested solution with technical approval.

- StoCleyer B is compatible for full-surface use on all StoTherm systems
- The thickness of the material makes it ideal for combination with StoSignature (external renders) and StoDeco



Insulating layer
1 — Bonding
2 — Insulant (EPS in this case)
3 — Fixing

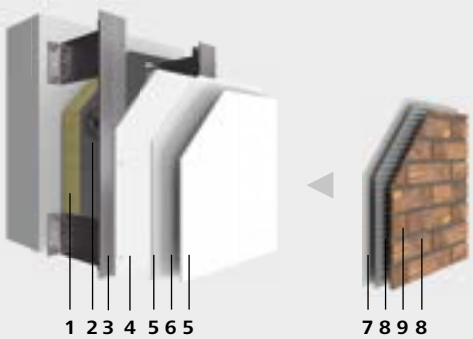
Reinforcing layer
4 — Base coat
5 — Reinforcement

Material layer
6 — Intermediate coat (optional)
7 — Bonding and pointing
8 — StoCleyer B cladding

StoVentec Rainscreen cladding facades

The StoVentec system combines the physical advantages of a ventilated rainscreen cladding facade system with virtually unlimited colour shade, texture, and material options.

- StoCleyer B can be used to create modern brick-slip facades on rainscreen cladding facade systems
- The highly flexible material enables curved surfaces to be created



Insulating layer
1 — Insulant: mineral wool with nonwoven fabric backing
2 — Fixed with insulation fasteners

Carrier layer
3 — Sub-construction (wall brackets and T-profiles)
4 — Carrier board, screw fixing

Reinforcing layer
5 — Base coat
6 — Reinforcement

Material layer
7 — Intermediate coat (optional)
8 — Bonding and pointing
9 — StoCleyer B cladding

StoCleyer B: Curved slip facade

At the MyLoft apartment complex in Amsterdam, StoCleyer B resin brick slips have been combined with prefabricated insulation elements for maximum design freedom in the creation of a malleable curved brick-slip facade.

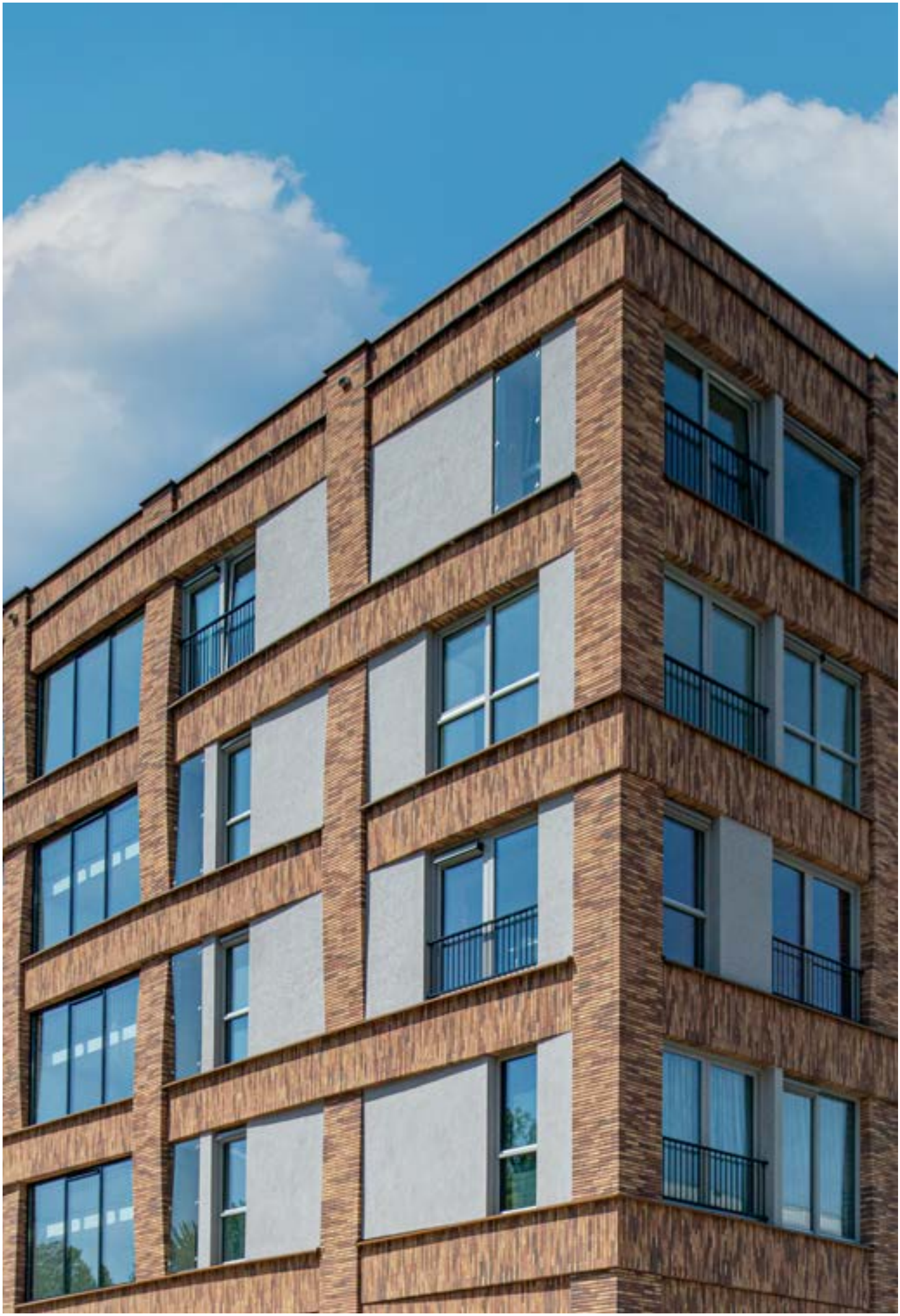
Virtually no other major city is so strongly characterised by its brick architecture across the ages than the Dutch metropolis of Amsterdam. When architecture firm Brink & Fleer was commissioned to design a five-storey apartment complex for building owners consortium MyLoft, bricks were bound to be the material of choice for the building's facade. StoCleyer B resin brick slips were used to combine the required brick appearance with maximum design freedom. The result showcases the advantages of this contemporary solution for brick-slip facades.

The planners had already used StoCleyer B successfully in a previous project for MyLoft. They were able to take even fuller advantage of the design freedoms created by the material in the new building on the Schipluidenlaan. The result is a perforated facade with a strong grid pattern which on closer inspection gives way to a more refined appearance with gently curved horizontal and vertical sections stepping forwards or backwards in waves. The stretcher bond facade also really draws the eye with its lively play of colours from the resin brick slips in combination with an incredibly slim stone format.

The possibility of designing a malleable facade offered by the use of the insulant were also put to use to turn the design concept into reality. Based on the architects' design, the insulating material was prefabricated to match the curved surface of the facade and bonded to the supporting external wall. Once the insulation layer had been reinforced and subsequently allowed to dry, the bonding mortar for the StoCleyer B resin brick slips was applied. After this, installation work could get under way. The flexibility of the material made it possible to clad the rounded surface with ease. The corners were formed using corner resin brick slips that had been prefabricated specifically for this purpose. Following the initial hardening of the bonding mortar, pointing work was completed in a single application cycle which involved smoothing the bonding mortar and sealing the flanks of the resin brick slips.

Image on right:
MyLoft World Fashion Center, Amsterdam, NL
Building owner: CPO MyLoft – WFC, Amsterdam, NL
Design: Architektenburo Brink & Fleer, Dronten, NL
Execution: Haase Bouw, Rijssen, NL
Sto expertise: StoTherm Classic®; StoCleyer B, customised surface; StoSignature, Texture: Rough 1
Photo: Norbert Duijvelshoff, Tiel, NL

Image below:
Close-up of StoCleyer B corner resin brick slip

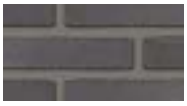


StoCleyer B: Range

StoCleyer B 11 000 (11 000–11 999)

StoCleyer B 11 130

11 132



11 140

11 150

11 160

11 180

11 181

11 220

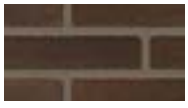
11 230

11 460

11 470

11 490

11 710



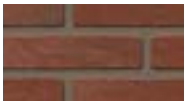
11 720

11 800

11 810

11 820

11 830



11 850

11 860

11 920

and many other colour shades

StoCleyer B 21 000 (21 000–21 999)

StoCleyer B 21 130

21 140

21 450

21 460

21 470

21 700

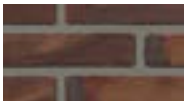
21 750

21 760

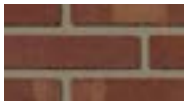
21 770

21 800

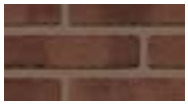
21 820



21 830



21 840



21 850

21 870

Our StoCleyer B range includes more than 130 bricks, which we have divided into seven groups for a better overview. All resin brick slips are available in standard brick formats along with the associated corner solutions.

StoCleyer B 31 000 (31 000–31 999)

StoCleyer B 31 129

31 130

31 140

31 150

31 160

31 180

31 185

31 190

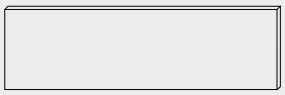
31 490

31 500

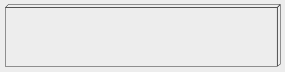
31 720

31 730

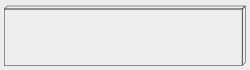
Standard formats:



StoCleyer B normal format: 240 x 71 mm

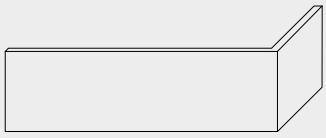


StoCleyer B thin format (DF): 240 x 52 mm



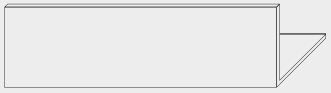
StoCleyer B Dutch Waal format (WL) = 210 x 50 mm

Corner resin brick slip



StoCleyer B corner resin brick slip normal format: 240 / 115 x 71 mm

Lintel resin brick slip



StoCleyer B lintel resin brick slip NF: 240 x 115 / 71 mm

- All StoCleyer B resin brick slips are available in standard brick formats along with the associated corner solutions
- Material thickness: 4–8 mm
- Custom mixtures of bricks are available on request

StoCleyer B: Range

StoCleyer B 41 000 (41 000–41 999)

StoCleyer B 41 000

41 140

41 860

StoCleyer B 51 000 (51 000–51 999)

StoCleyer B 51 220

StoCleyer B 61 000 (61 000–61 999)

StoCleyer B 61 130

61 140

61 200

61 460

61 470

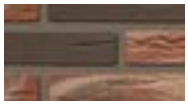
61 480

61 490

61 710

61 740

61 810



61 820

61 830

61 860

61 870

61 880

61 890

61 910

61 940

61 950

StoCleyer B 71 000 (71 000–71 999)

StoCleyer B 71 130

71 140

71 170

71 190

71 200

71 230

71 460

71 480

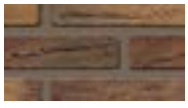
71 520

71 530

71 550

71 710

71 730



71 760

71 770

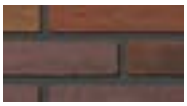
71 790

71 841

71 850

71 870

71 890



71 912

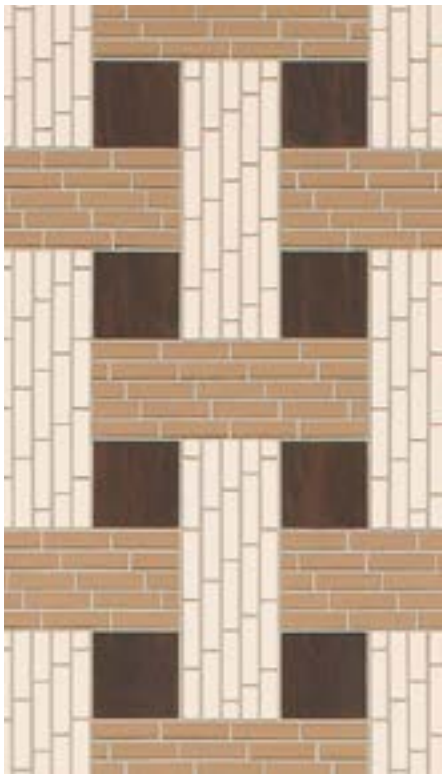
and many other colour shades

StoCleyer B: Tried and tested

Groene Linten, Haarlem, NL
Building owner: Pré Wonen, Velserbroek, NL
Design: Klous + Brandjes Architecten bna, Haarlem, NL
Execution: VBK Noord-West B.V., Schagen, NL
Sto expertise: StoTherm Wood; StoCleyer B 71500
Photo: Ronald Tilleman Photography, Rotterdam, NL

A multitude of possibilities: the following examples of projects demonstrate the many different ways in which StoCleyer B can be used to create traditional brick-slip facades and showcase the innovative ideas for facade design involving facade insulation systems which can be made real.

De Wever, Gennep, NL
Building owner: Mooiland Wonen, Grave, NL
Design: 2.0 Architecten, Venlo, NL
Execution: IJsselmonde VOF, Rotterdam, NL
Sto expertise: StoTherm Classic®, StoCleyer B, StoEcoshape
Photo: Bona Pictura, Cuijk, NL

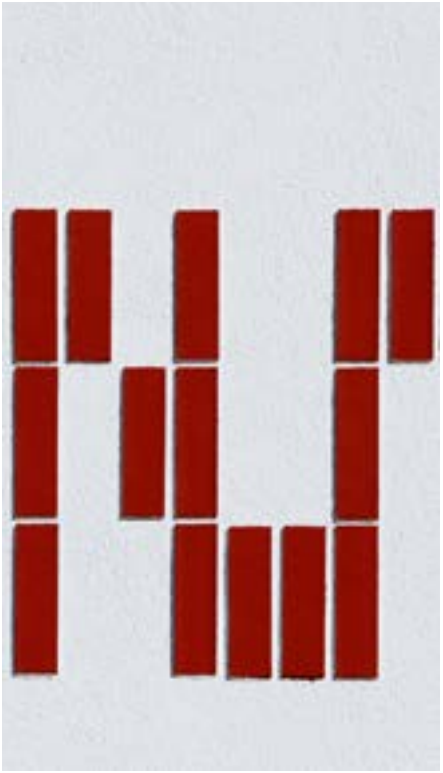


Reykjavikplein, Utrecht, NL
Building owner: Stichting Pensioenfonds van de Metalektro, Den Haag, NL
Design: diederendirrix B.V., Eindhoven, NL
Execution: De Vries en Verburg Bouw B.V., Stolwijk, NL
Sto expertise: StoTherm Classic® (timber stud construction type);
StoCleyer B 61740
Photo: Ronald Tilleman Photography, Rotterdam, NL

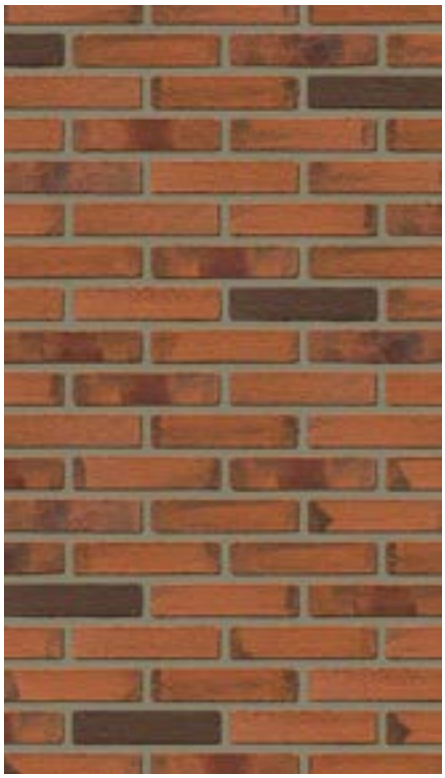
Ter Plaeten UpKot Gent, BE
Building owner: Upgrade Estate, Gent, BE
Design: Baeyens & Beck ir. architecten, Gent, BE
Execution: Hobe Belgie NV, Houthalen-Helchteren, BE
Sto expertise: StoTherm Classic®; StoCleyer B, customised surface; StoSignature, Texture: Rough 1
Photo: co2images, Christian Overdeput, Gent, BE

Beeke van Belzen office building, Middelburg, NL
Building owner: Jan Beeke/Sander van Belzen, Middelburg, NL
Design: Joos Nijsse Architectuurburo, Middelburg, NL
Execution: Willems Stucadoor & Afbouwbedrijf VOF, Duizel, NL
Sto expertise: StoTherm Classic®; StoCleyer B 21130; StoSignature Rough 1
Photo: Viorella Luciana photography, Middelburg, NL

NSG Groenewoud, Nijmegen, NL
Building owner: Nijmeegse Scholengemeenschap, Nijmegen, NL
Design: Van den Berg Architecten, Houten, NL
Execution: Willems Stucadoor & Afbouwbedrijf VOF, Duizel, NL
Sto expertise: StoTherm Classic®; StoCleyer B, customised surface; StoSignature Rough 1
Photo: Bona Pictura, Cuijk, NL



Kielort 16-18, Norderstedt, DE
Building owner: Bauverein der Elbgemeinden eG, Hamburg, DE
Design: ABJ.Planungsgesellschaft mbH, Hamburg, DE
Execution: Hans-Jürgen Rath GmbH, Hohenaspe, DE
Sto expertise: StoTherm Classic®; StoCleyer B 11800; StoSignature, Texture: Rough 1
Photo: Fotodesign Christoph Gebler, Hamburg, DE



Wiebelstraße/Drieschweg, Hamburg, DE
Building owner: Bauverein der Elbgemeinden eG, Hamburg, DE
Design: henningerarchitekt, Gesellschaft von Architekten und Ingenieuren mbH, Hamburg, DE
Execution: Preusse Baubetriebe GmbH, Hamburg, DE
Sto expertise: StoTherm Vario; StoCleyer B, customised surface; StoSignature, Texture: Rough 1
Photo: Fotodesign Christoph Gebler, Hamburg, DE

StoCleyer W: Facade panels with timber appearance

StoCleyer W facade panels can be used to create an authentic timber appearance on external wall insulation systems. The panels are quick and easy to apply. They are more cost-effective and durable than real wood and can be painted in many colours.

Office building Hanse Haus, Oberleichtersbach, DE
Design: Hanse Haus, Oberleichtersbach, DE
Execution: Baudekoration Limpert GmbH, Zeitlofs, DE
Sto expertise: StoCleyer W
Photo: Axel Stephan, Frankfurt, DE

StoCleyer W: Timber appearance for facades

Cladding external wall insulation systems with real wood results in additional costs and is more time-consuming. Now there is a more cost-effective alternative with StoCleyer W.

Low-maintenance facades that stay pristine for longer
StoCleyer W facade panels are available in many different grains. They can be painted in a wide range of colours and the appearance hardly differs from that of real wood. At the same time, the material is more durable and easier to maintain.

Without additional structural work
The panels in 200 cm x 16 cm format can easily be cut to size with a utility knife and, unlike real wood or plastic panels, do not require any elaborate sub-construction or complicated detail connections.

Greater planning flexibility
The decision to clad the facade with StoCleyer W can be made at short notice, because the way in which the external wall insulation system is built up remains unchanged up to the base coat. There is a lot of scope for design – from the creation of specific accentuated areas to full-surface use for the authentic appearance of a wooden house.

Easier and safe to apply
As a component of the external wall insulation system, the facade panels are bonded in place quickly and securely and comply with building inspection requirements.
For a prefabricated construction, the panels can also be easily processed at the factory. In addition to polystyrene, you can also choose stone wool insulation boards and stone wool insulation lamellas as insulants.

Title page/Right-hand inside page:
Office building, Hanse Haus, Oberleichtersbach, DE
Photo: Axel Stefan, Frankfurt, DE

Image on the inside page:
It's almost impossible to tell the difference between StoCleyer W and timber.

Colour shades as required

Lasure
StoCleyer W can be glazed in various colour shades with StoAqua Top Satin. Featuring 40 colour shades, the StoLasuren range has been developed specifically for application on many different substrates, including StoCleyer facade panels.

Covering paint coat
StoCleyer W can be coated not only with lasures but also with Sto facade paints. The shades from the "Architectural Colours" fan are available for this purpose.

Always observe light reflectance values:
Colour shades with a light reflectance value of up to 15 % are possible for organic base coats and up to 20 % for mineral base coats.

The StoLasuren range and the "Architectural Colours" fan can be ordered from your sales representative.

Product advantages

- Authentic timber appearance
- More cost-effective and durable than real wood
- Hard-wearing and easy to maintain
- Without sub-construction and complicated connections to external wall insulation systems with polystyrene, stone wool insulation boards, and stone wool insulation lamellas
- Simple application – at the construction site and at the factory
- Can be painted in many colours
- Technical approval Z-33.47-1705

StoVentec Glass: brilliant shine

Glass is a long-lasting, weather-resistant, and recyclable material that can be used in a multitude of ways in facade design. Depending on your architectural concept, glass can be used to create matt, high-shine, or even reflective finishes.

MP09 office building, Graz, AT
Building owner: Dr Michael Pachleitner, private foundation, Graz, AT
Planning: GSarchitects ZT-Gesellschaft m.b.H, Graz, AT
Execution: MA-TEC Stahl- und Alubau GmbH, Neutal, AT
Sto expertise: StoVentec Glass
Photo: Gerald Liebminger, Graz, AT

Glass: enduring beauty

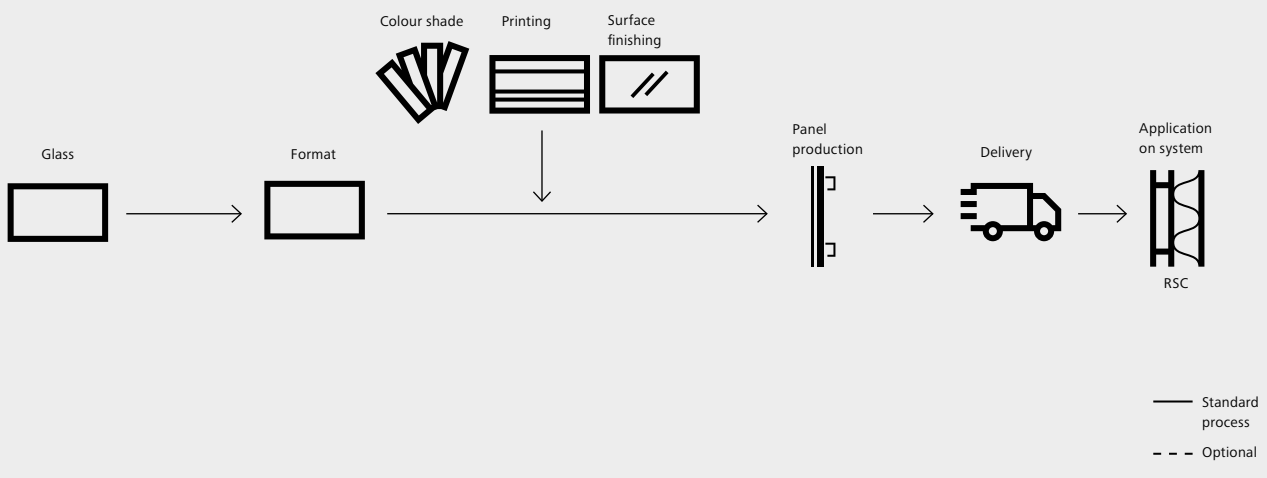
Thanks to its unique properties, glass is one of the most important materials in modern architecture. Sto offers custom solutions for opaque glass facade design.

People have been enthralled by glass since ancient times. It's easy to see why: the material is not only attractive, but also weather-resistant, long-lasting, and 100 % recyclable. Sourced from quartz sand and other mineral raw materials, glass is a versatile material that can be polished, engraved, etched, printed, or sand-blasted, and finished with a matt, high-gloss, or reflective surface, depending on the effect you're looking for.

The Sto portfolio encompasses two solutions for opaque facades: StoVentec Glass offers large glass panels to create ventilated rainscreen cladding facades with open joints (see page 100 ff). StoGlass Mosaic can be used to construct prefabricated glass mosaics (see page 106 ff) on RSC or EWIS systems.

Image on right:
Interpane Glas Industrie AG, Lauenförde, DE

Manufacturing and application of StoVentec Glass



StoVentec Glass: a polished look

StoVentec Glass can be used to create unique glass facades. At the MP09 office building in Graz, Austria, the ventilated rainscreen cladding system emphasises the extraordinarily dynamic design.

The MP09 office building owned by the Michael Pachleitner Group is an example of corporate architecture at its finest. The modern company headquarters – known as "the black panther" was designed to reflect the philosophy of the global optics specialist, drawing the eye with its expressive architectural language. Built to plans by GSarchitects, the cool design is characterised by elegant, dynamic shapes and glossy black glass surfaces. A unique detail of the angular complex is the tapered point that projects along the northward motorway slip road. The building also features a raised concrete plinth to level out the slight downward incline of the site. All of these elements combine to create an eye-catching building at the heart of an urban environment.

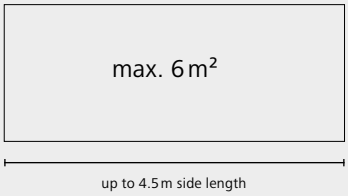
The glossy black shell, divided into sections by dynamic openings, is made up of 1800 invisibly fixed StoVentec Glass panels. With their linear yet fractured joint pattern, the horizontal glass elements emphasis the extraordinary architecture of this sculptural building.

MP09 office building, Graz, AT
Building owner: Dr Michael Pachleitner, private foundation, Graz, AT
Planning: GSarchitects ZT-Gesellschaft m.b.H, Graz, AT
Execution: MA-TEC Stahl- und Alubau GmbH, Neutal, AT
Sto expertise: StoVentec Glass
Photo: Gerald Liebminger, Graz, AT

Design parameters

Size

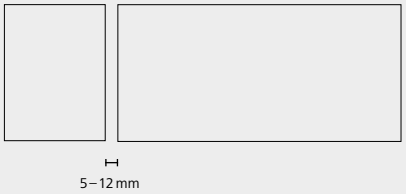
- Rectangular shapes with sides of up to 4.50 m and surface area of up to 6 m²
- Custom sizes available on request



Joint pattern

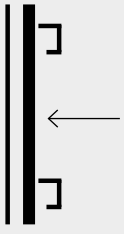
With StoVentec Glass, the joints are open, making them an important element of the overall design. The following factors have an enormous impact on the final results:

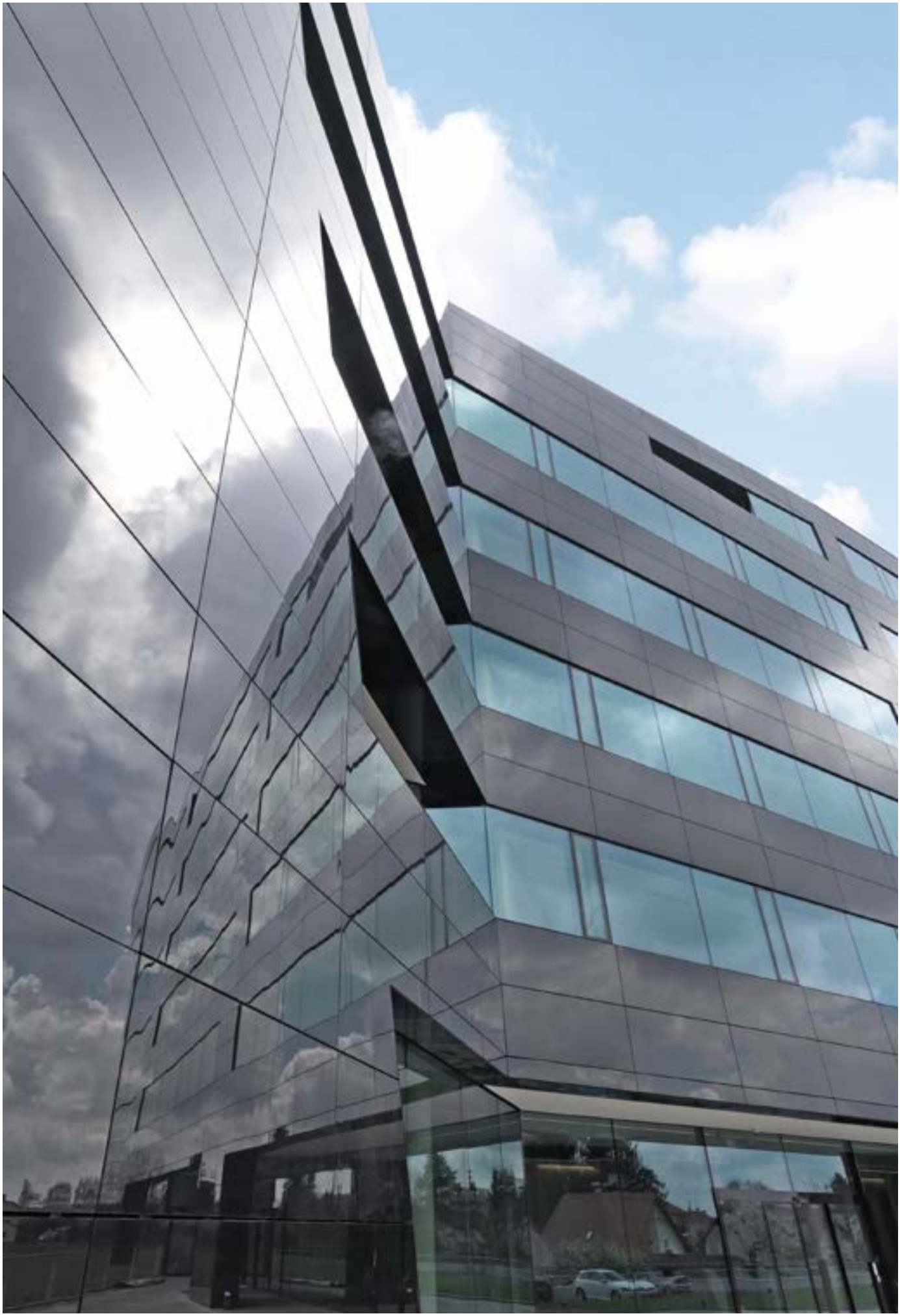
- Joint width: 5 – 12 mm
- Joint arrangement: offset, cross, or freely arranged



Surface design

- Colour shade
- Silkscreen or digital printing
- Reflection
- Mattification/etching, across whole surface or specific areas



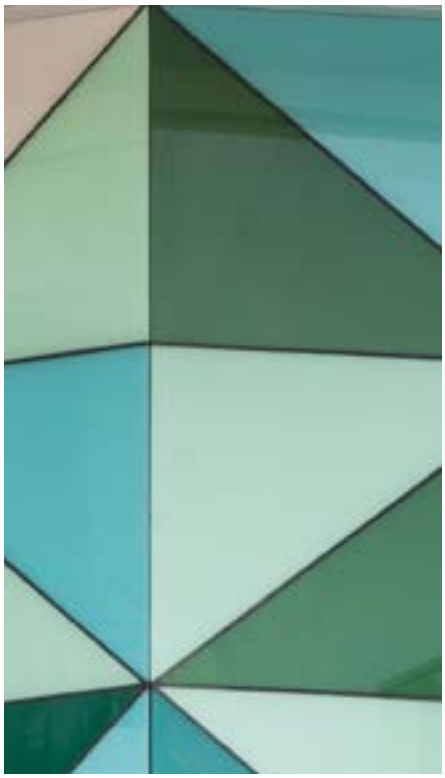


StoVentec Glass: tried and tested

Bavarian-Bohemian Cultural Centre, Schönsee-Freyung, DE
Building owner: Municipal administration centre, Schönsee, DE
Planning: Brückner & Brückner Architekten GmbH, Tirschenreuth, DE
Execution: Faco Metallbau, Plößberg, DE
Sto expertise: StoVentec G, glass printed on rear
Photo: Guido Erbring, Cologne, DE

Poolhaus, AT
Planning: architekt dipl.ing. reinhard muxel, Wien, AT
Execution: Heidenbauer Aluminium GmbH, Bruck an der Mur, AT
Sto expertise: StoVentec Glass, mirror glass
Photo: Sto Ges.m.b.H./Christian Schellander

Construction d'un bâtiment HQE à l'institut la Persagotière, Nantes, FR
Building owner: Institut La Persagotière, Nantes, FR
Planning: Forma 6, Nantes, FR
Execution: Engie Axima (formerly Cofely Axima) Nicolas Terrien, conducteur de Tx, FR
Sto expertise: StoVentec Glass
Photo: Photographe à La Baule/Nantes-Hadrien Brunner, Loire-Atlantique, FR



Residence Unik residential complex – Zac Seguin, Paris, FR
Building owner: Nexity, Paris, FR
Planning: BECKMANN N'THEPE ARCHITECTS, Paris, FR
Execution: Astec Projects Ltd, Reading, UK
Sto expertise: StoVentec Glass, StoVentec R, StoTherm Classic®
Photo: Manuel Panaget, FR

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