Distribution Partner

StoSignature

Custom rendered surfaces

Facade

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Rehabilitation Centre, Bolzano, IT
Planning: MoDus Architects, Brixen, IT
Products: StoTherm Vario, StoLevell Novo, StoLevell Uni, StoColor Fibrasil, StoColor Maxicryl
Photo: René Riller,Schlanders, IT

It should be noted that the details, illustrations, general technical information, and drawings contained in this brochure are only general proposals and details which describe the functions. They are not dimensionally accurate. The applicator/customer is independently responsible for determining the suitability and completeness for the construction project in question. Neighbouring works are only described schematically. All specifications and information must be adjusted or agreed in the light of local conditions and do not constitute work, detail or installation plans. The technical specifications and product information included in the Technical Data Sheets and system descriptions/approvals must be observed.

The specific technical specifications and information on the products contained in the Technical Data Sheets and system descriptions/approvals must be observed.

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

 The specific technical specifications and information on the products contained in the Technical Data Sheets and system descriptions/approvals must be observed.

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.

 The specific technical specifications and information on the products contained in the Technical Data Sheets and system descriptions/approvals must be observed.

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.

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."

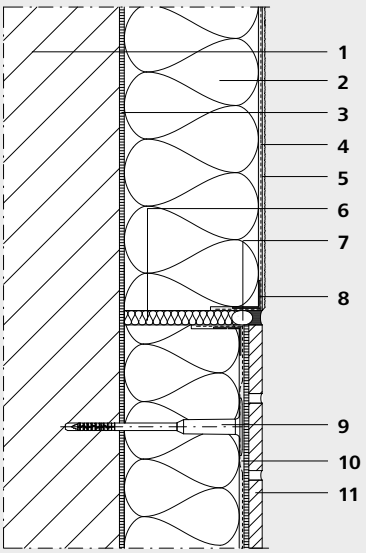
Mixing materials: the ingredients for success

- 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

StoSignature: customised rendered surfaces

20 StoSignature: unique rendering
22 StoSignature: form and function
24 StoSignature: the system
26 StoSignature: tried and tested

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.

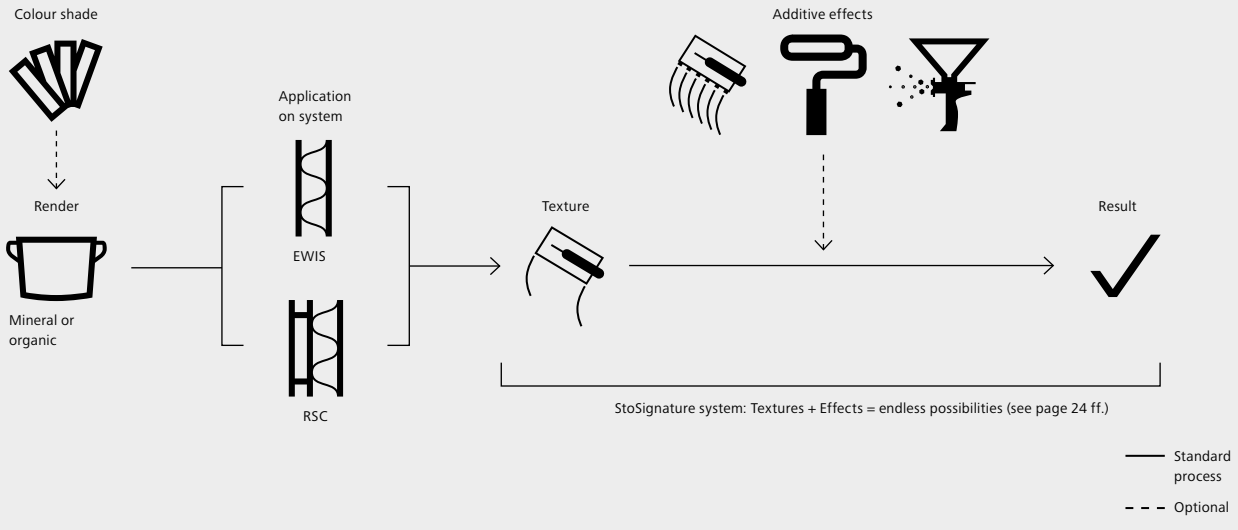
From a building physics perspective, render applied to the facade provides long-term protection against the effects of the weather and mechanical stress. The material can also be used to realise a wide range of unique architectural concepts. With the StoSignature system, render can be applied in many 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.

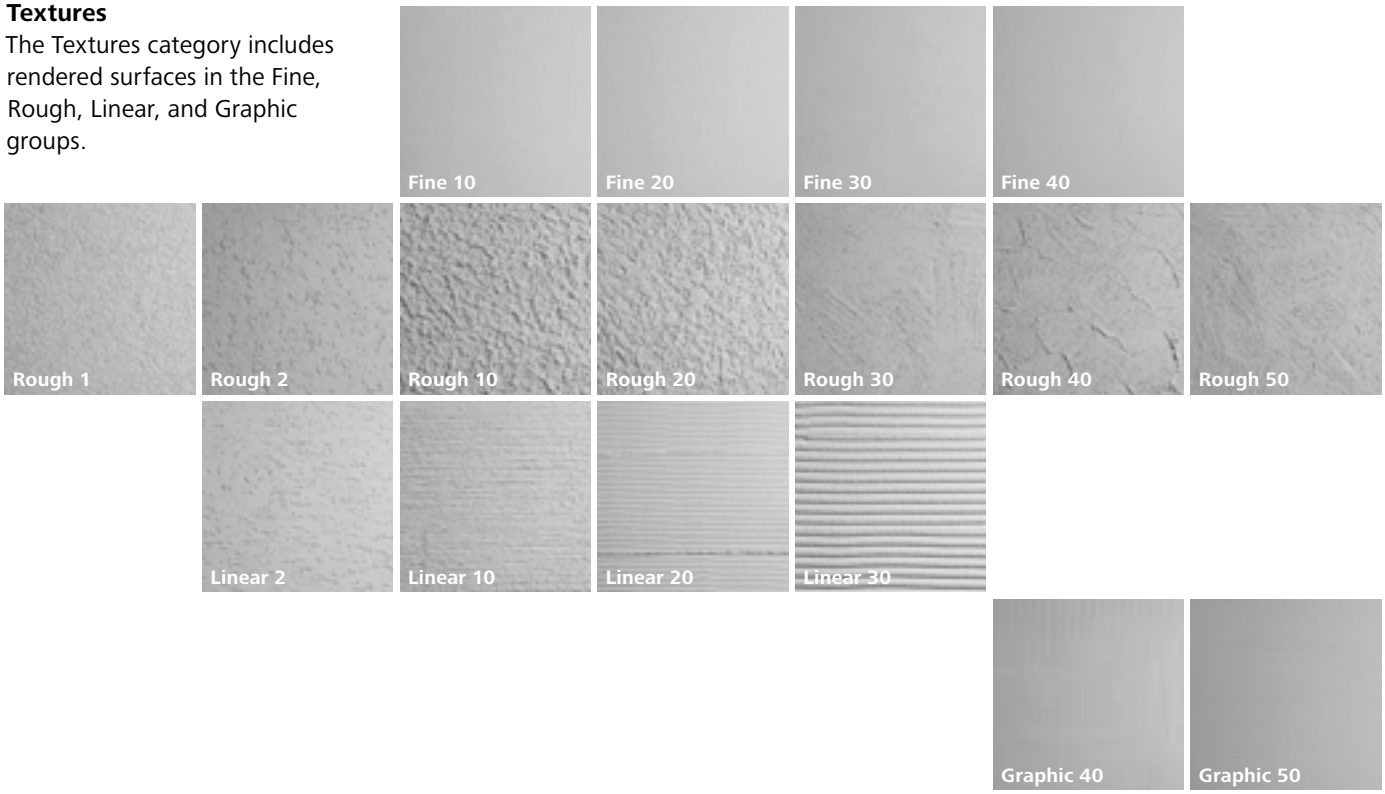
During construction, the linear-textured parts of the facade were created first. The first step involved applying a mineral base render to the facade using a smoothing trowel. A sponge float was then used to finely float-finish the render. Once the render had fully hardened, the chalk lines needed as 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

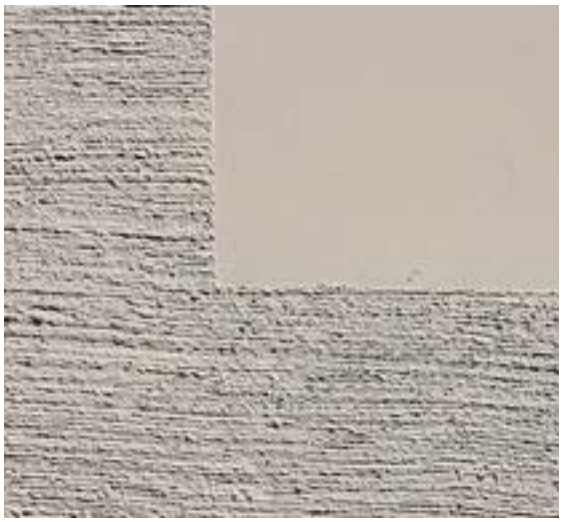
Coating 10 Partial

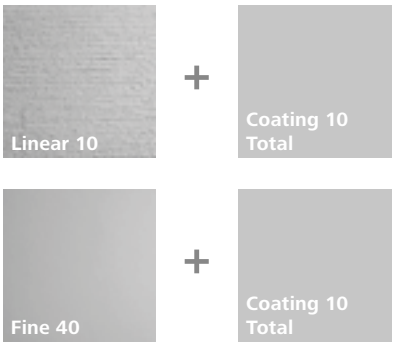
Effect: Coating 10 Partial (coating, partially applied)
Coating: coating texture elevations

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



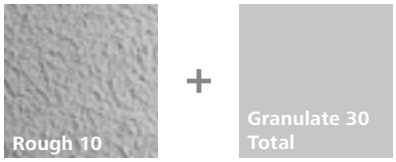


* Textures:
Linear 10= directional render texture, brushed
Fine 40= fine textured render, float-finished

+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



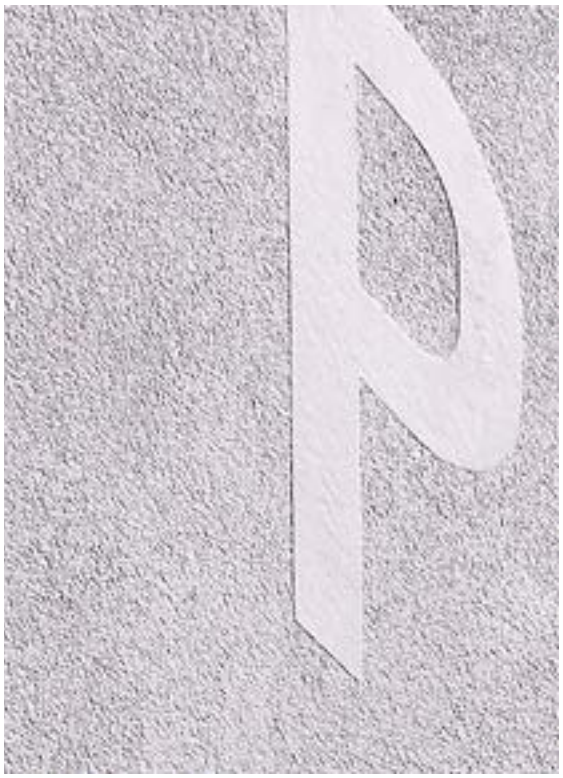
* Texture:
Rough 10 = coarse render texture, rolled

+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

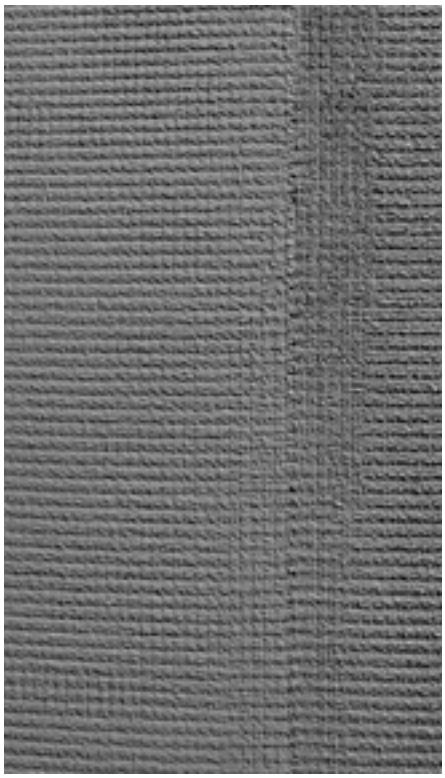
* Texture:
Rough 1 = stippled render texture, floated in all directions

+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

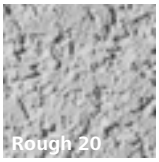
+Effect:
2.Texture Rough 1 Defined = finishing render, applied using a stencil

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

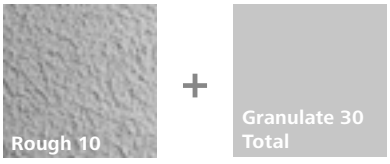
+Effect:
Coating 10 Partial = coating, partially applied

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

Notes

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Art.-no. 014013 rev.-no. 01/07.23 Printed in Germany