Building with conscience.

Sto facade paints

All you need for the perfect wall

Facade

Facade paints

Sto paints are more than just a coating. They can protect your facade against algae, fungi, mould, and mildew. They can prevent it from heating up, and they can reduce harmful substances. We offer an extensive selection of intelligent, innovative, and high-quality paints to suit any requirement you might have.

Student residence,
Münster, DE
Design: Kresings Architektur GmbH, Münster, DE
Photo: Guido Erbring, Cologne, DE

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.

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The perfect coating

Sto paints don't just look great – they do great things too. We have the ideal solution to suit whatever you need a Sto paint to do.

Gone are the days when all paint did was add a touch of colour. Today's paints can protect surfaces against algae, fungi, mould, and mildew, and can prevent them from heating up. They can reduce harmful substances, and they can get rid of odours. A specialist in coatings for facades and interiors, Sto offers an extensive range of intelligent, innovative, and high-quality paints to suit all kinds of requirements.

This brochure is designed to provide specific product recommendations for five requirements that frequently crop up in projects involving interior coatings. The final few pages contain an overview of the entire product range and provide additional information about special substrates and companion products. Discover a range of paint that adds real value. Bring function, aesthetic appeal, and sustainability together. And do your part in achieving our aim of building with conscience.

Private house in Vaihingen an der Enz, DE
Exterior: StoTherm Vario with an insulation thickness of 160 mm, mineral finishing render, and two coats of the biomimetic facade paint StoColor Dryonic® was the ideal external wall insulation system for meeting the building owners' specific wishes for a feel-good climate and sound insulation. Dryonic® Technology enables targeted water drainage and fast drying after rain, fog, and dew – for truly dry and permanently attractive facades.

Interior: The interior paint StoColor Rapid Ultramatt, which is not affected by glancing light, was applied to bright rooms flooded with light and ultra-smooth substrates. What helped the project achieve outstanding surface results were specifically chosen components such as a low-texture nonwoven for painting with even absorbency, plus the Sto-FineCoat Roller application tool for a delicate, virtually textureless coating.

Clinic in Nürtingen, DE
Exterior: A specific request in this project was a mineral system build-up with a silicate finish. Combining StoTherm Mineral and its mineral wool insulation board with StoSil® silicate finishing render and a facade paint on a StoColor Sil silicate base provided the ideal solution.

Interior: StoColor Opticryl was used on the corridors and staircases in these areas. StoColor Opticryl features a texture-retaining, mechanically resistant coating with wet-scrub resistance class 1. The high-quality, preservative-free silicate paint StoColor Sil In was used in patient rooms. The photocatalytically active paint StoColor Climasan, which uses the effects of light to remove odours, was applied to special areas requiring frequent cleaning intervals (such as isolation wards).

Image below:
Detached house, Vaihingen, DE
Design: Stecher architecture firm, Vaihingen, DE
Execution: Hettich GmbH, Vaihingen, DE
Sto expertise: StoColor Dryonic®, StoColor Supermatt
Photo: Martin Duckek, Ulm, DE

Image on right:
Nürtingen clinics, DE
Design: HSP Hoppe Sommer Planungs GmbH, Stuttgart, DE
Execution: Anton Geiselhart GmbH & Co. KG, Pfullingen, DE
Sto expertise: StoColor Sil In, StoColor Climasan
Photo: Martin Duckek, Ulm, DE

Facade paints

Paints can do more than just add colour. Much more, in fact. Facade paints have the ability to develop valuable properties based on their composition. And when these deliver real benefits to users, that's the definition of intelligent paint. The intelligent facade paints in the new iQ – Intelligent Technology product generation are all equipped with sophisticated technology and provide advantages that normal paints simply cannot.

Tigh Na Cladach, Dunoon, GB
Design: Professor Gökay Deveci, Aberdeen, GB
Sto expertise: StoColor Silco
Photo: Andrew Lee Photographer, Glasgow, GB

If the facade works, everything works

For tradespeople, our facade paints are able to deliver the perfect solution in any situation. For building owners, they're a smart long-term investment.

Facade paints have to fulfil all kinds of requirements in areas including protection, durability, colour stability, and sustainability. iQ – Intelligent Technology paints are designed to equip tradespeople with the right solution for any project.

Our formulations provide additional surface properties that add genuine value. Gone are the days when paint was just about adding some colour – today's intelligent facade paints are a smart long-term investment.

The requirements placed on a facade
- Dry
- Stays clean for longer
- A natural principle without biocide film protection
- Extra protection against algae and fungi
- Dark colour shades that hardly heat up
- Colour brilliance/intense colour shades
- Mineral/silicate surfaces
- Reduction of harmful substances

Bring function, aesthetic appeal, and sustainability together. And do your part in achieving our aim of building with conscience.

The Sto iQ – Intelligent Technology brand characterises products whose innovative functions provide clear added value.

Sto iQ
Intelligent Technology

Detached house, Dettingen/Teck, DE
Execution:
A. Baumann & Sohn GmbH Co. KG, Heubach, DE
Sto expertise:
StoColor Dryonic® S
Photo: Martin Baitinger, Böblingen, DE

Dry facades that stay clean for longer

StoColor Lotusan®, StoColor Dryonic®

The first major breakthrough in biomimetic building products came 20 years ago. These days, high-performance coatings inspired by nature – such as StoColor Lotusan® or StoColor Dryonic® – are used all around the world.
They create surfaces with maximum resistance to soiling and are extremely unlikely to become home to microorganisms – and do it all without the need for biocidal film protection.

Biomimetics is a scientific field that aims to understand biological phenomena and transfer the findings to technical applications. This concept of learning from nature also led to the discovery of the lotus effect®. Scientists observed that the leaves of lotus plants are always clean after it rains. This is down to the water-repellent – that is, unwettable – surface texture of the leaves.
This amazing property is based on tiny microtextures. The result is that dirt sits on the leaves without sticking, meaning that it can be rinsed away.
In-depth research made it possible for this effect to be transferred to StoColor Lotusan® facade paint.

StoColor Lotusan®
Hi-tech solutions straight from nature. Equipped with Lotus-Effect® Technology, StoColor Lotusan® paints protect facades in a highly sustainable way. Their self-cleaning ability guarantees active, moisture-regulating weatherproofing to protect against algae and fungi. The result: dirt runs off with the rain. The facade stays clean and pristine for longer. So it's hardly surprising that StoColor Lotusan® is part of Sto iQ – Intelligent Technology, the paint generation of the future.
For aesthetic reasons, modern architecture often opts to go without the tried-and-tested protection offered by a projecting roof. Yet with StoColor Lotusan®, algae, fungi, and dirt still don't stand a chance.

StoColor Dryonic®
The intelligent facade paint guarantees that the facade dries quickly after rain, fog, and dew formation. Its biomimetic principle inhibits algae and fungal attack on a long-term basis – and all without biocidal film protection. The result: dry and beautiful facades that stand the test of time.
The inspiration for StoColor Dryonic® was a small desert beetle. The facade paint has a hydrophilic and hydrophobic microstructure, just like the shell on the fog-basking beetle. The advantages of this surface were used to develop innovative Dryonic® Technology, which allows water on the facade resulting from rain, dew, and fog to run off almost instantly. StoColor Dryonic®: beautifully dry, come what may.

Düren Paper Museum extension
Design: Hollenbeck Architektur, Cologne, DE
Execution: Hubert Schleicher GmbH, Aachen, DE and Anstrich Wilden GmbH & Co. KG, Aachen, DE
Sto expertise: StoColor Dryonic®
Photo: Guido Erbring, Cologne, DE

At a glance

StoColor Lotusan®

- Maximum resistance to soiling
- Natural protection against algae and fungal attack
- Without biocidal film protection
- Moisture-regulating
- Structural weatherproofing not very important, therefore more design freedom

StoColor Dryonic®

- Very quick drying after rain and dew formation
- Biomimetic principle for dry facades against algae and fungal attack
- Without biocidal film protection
- Extremely wide colour shade variety and high level of colour stability
- Minimal extender material breakdown (not easily scuffed)
- Can be applied to virtually all conventional construction substrates

A natural principle without biocide film protection

StoColor Lotusan®, StoColor Dryonic®, StoColor Solical

Natural protection against algae and fungi refers to passive product properties that have been deliberately developed for the products and are also based on physical processes. They curb potential growth and do not wear out.

This is all thanks to ingenious technology from nature that protects facades entirely without the need for biocidal film protection – the result of Sto's intensive research. StoColor Lotusan®, StoColor Dryonic®, and StoColor Solical reduce deposits of dirt particles and naturally inhibit algae and fungal attack.

StoColor Lotusan®
The secret behind StoColor Lotusan® lies in its bimodal surface, whose texture prevents the majority of dirt particles from adhering to it. This beneficial feature is backed up by the highly water-repellent properties of the facade paint – allowing dirt to simply run off with the rain, just like water running off a lotus leaf. And all without biocidal film protection.

StoColor Dryonic®
StoColor Dryonic® works according to a similar principle. The special combination of binding agents and extenders in StoColor Dryonic® gives its surface a special microtexture. This makes the facade extremely water-repellent and able to dry off in no time at all after rain, fog, or dew formation.

StoColor Solical
This facade paint with a sol-silicate base has a universal range of applications. The innovative facade paint is equally suitable for the renovation of historic buildings and for decorating the facade of new buildings. It can be used on both organic and mineral substrates, plus external wall insulation systems.

Natural heat cogeneration plant, Bad Mergentheim, DE
Design:
Architect: Gammel Engineering GmbH, Abensberg, DE
Sto expertise: StoColor Dryonic®
Photo: Martin Baitinger, Böblingen, DE

At a glance

StoColor Lotusan®

- Maximum resistance to soiling
- Natural protection against algae and fungal attack
- Without biocidal film protection
- Moisture-regulating
- Structural weatherproofing not very important, therefore more design freedom
- Meets the RAL-UZ 140 requirement and is therefore certified with the Blue Angel award along with StoTherm Mineral, StoTherm Mineral L, and StoTherm Classic® S1

StoColor Dryonic®

- Very quick drying after rain and dew formation
- Biomimetic principle for dry facades against algae and fungal attack
- Without biocidal film protection
- Extremely wide colour shade variety and high level of colour stability
- Minimal extender material breakdown (not easily scuffed)
- Can be applied to virtually all conventional construction substrates
- SunBlock Technology in StoColor Dryonic® S for maximum colour shade variety and stability
- Available with option of heat shield against solar heating (X-black Technology)
- Slight silk gloss visible depending on angle

StoColor Solical

- Without biocidal film protection
- Solvent-free
- Fire classification A2-s1, d0
- Excellent adhesion on organic substrates
- Uniform drying behaviour of colour shades (reduced mottling)
- Very easy to touch up
- Maximum colour stability in the area of silicate paints
- Equipped with X-black Technology, depending on the colour shade
- Meets the RAL-UZ 140 requirement and is therefore certified with the Blue Angel award along with StoTherm Mineral, StoTherm Mineral L, and StoTherm Classic® S1

Dark colour shades that hardly heat up

StoColor Dryonic® S, StoColor X-black

StoColor Dryonic® S
This intelligent facade paint is ideal for meeting the highest standards of colour shade variety, brilliance, and stability. StoColor Dryonic® manages to unite both freedom of design and functionality. A texture-retaining paint, its exceptional hiding power is truly impressive and it is available in every colour shade. The large colour shade variety opens up a whole host of colour design options. With integrated SunBlock Technology, StoColor Dryonic® S also protects the facade from fading in the sun due to UV rays. Even intense colours with sensitive pigments are retained over the long term. This gives the paint a radiant appearance that lasts – in all kinds of colour shades.

StoColor X-black
Direct sunlight heats up dark-coloured facades to a considerable extent. That's why in the past, strong tints could not be used on EPS insulation boards. But with StoColor X-black, new options are finally coming to light. Thanks to its X-black Technology, this near-infrared-reflective facade paint is able to keep temperature peaks caused by solar radiation reliably below 70 °C. This is made possible by innovative NIR (near-infrared) black pigments, which simply reflect a large proportion of solar radiation. To guarantee a high level of binding strength and colour stability, the matt facade paint is based on 100 % pure acrylate. This provides optimum protection for the facade against discolouration and chalking.

Boarding House FIT, Lupburg, DE
Building owner: FIT AG, Lupburg, DE
Design: Berschneider + Berschneider GmbH, Pilsach, DE
Execution: Max Mauderer, Neumarkt, DE
Sto expertise: StoColor Dryonic® S with X-black Technology
Photo: Gerhard Hagen, Bamberg, DE

At a glance

StoColor Dryonic® S

- Biomimetic principle to protect against algae and fungal attack
- Extremely wide colour shade variety and high level of colour stability thanks to SunBlock technology
- Very quick drying after rain and dew formation
- Without biocidal film protection
- Minimal extender material breakdown (not easily scuffed)
- Can be applied to virtually all conventional construction substrates
- Available with option of heat shield against solar heating (X-black Technology)

StoColor X-black

- Reflects the near-infrared parts of solar radiation
- Wide colour shade variety and high level of colour stability
- Especially for dark colour shades
- Dark colour shades with low light reflectance value possible on EPS

Mineral and silicate surfaces

StoColor Solical

Eco-friendly silicate paints are right on trend, both indoors and outdoors. Weather-proof, diffusion-open products create more precise mineral surfaces on facades and provide a healthy, natural form of protection against mould and mildew in interiors. Sto offers an extensive range of silicate building materials for both scenarios.

Equipped with a number of outstanding properties, StoColor Solical facade paint with a sol-silicate base has a universal range of applications. StoColor Solical is the perfect solution for maintaining the value of facades. This facade paint is just as suitable for renovating historic buildings as it is for facade designs on new buildings. It is ideal for use on both organic and mineral substrates, and is also highly suitable for use on external wall insulation systems. StoColor Solical is completely free from solvents and film protection agents, and stands for eco-friendly, sustainable construction.

H5 Bundesgartenschau horticultural show, Heilbronn, DE
Building owner: Stadtsiedlung Heilbronn GmbH, DE
Design: Finckh Architekten BDA, Stuttgart, DE
Execution: Schnabel GmbH & Co. KG, Mosbach, DE
Sto expertise: StoColor Solical
Photo: Finckh Architekten BDA, Stuttgart, DE

At a glance

- Without biocidal film protection
- Solvent-free
- Fire classification A2-s1, d0
- Excellent adhesion on organic substrates
- Uniform drying behaviour of colour shades (reduced mottling)
- Very easy to touch up
- Maximum colour stability in the area of silicate paints
- Available with option of heat shield against solar heating (X-black Technology)

Overview of our facade paints

	Product name	Description	Technology	Water vapour diffusion*	Liquid water permeability*
iQ – Intelligent Technology	StoColor Dryonic®	Facade paint with Dryonic® Technology, biomimetic principle for dry facades against algae and fungal attack, without biocidal film protection	Dryonic® Technology	0.5 m (V2 – medium)	W3 (low)
	StoColor Dryonic® S	Facade paint with Dryonic® Technology, biomimetic principle for dry facades against algae and fungal attack, without biocidal film protection	Dryonic® Technology, SunBlock Technology	0.5 m (V2 – medium)	W3 (low)
	StoColor X-black	Facade paint with X-black Technology to reduce solar heating with dark colour shades	X-black Technology	1.2 m (V2 – medium)	W3 (low)
	StoColor Lotusan®	Facade paint with Lotus-Effect® Technology, natural protection against algae and fungal attack without biocidal film protection	Lotus-Effect® Technology	0.01 m (V1 – high)	W3 (low)
Best standard: hard-wearing/ reliable	StoColor Silco	Genuine silicone resin facade paint, exceptionally fail-proof, hard-wearing	Genuine silicone resin paint	0.05 m (V1 – high)	W3 (low)
	StoColor Silco G	Genuine silicone resin facade paint with enhanced, encapsulated film protection, exceptionally fail-proof, hard-wearing	Genuine silicone resin paint	0.05 m (V1 – high)	W3 (low)
	StoColor Solical	Facade paint on a sol-silicate base without biocidal film protection	Silicate colloidal silica	0.01 m (V1 – high)	W3 (low)
	StoColor Top	Facade paint in universal corporate colour with strong adhesive bond, rust-inhibiting	Pure acrylate	1.9 m (V3 – low)	W3 (low)
Best standard: radiant/ colour-stable	StoColor Maxicryl	Facade paint for maximum colour shade variety and stability	Pure acrylate	1.2 m (V2 – medium)	W3 (low)
	StoColor Metallic	Effect coating with metallic effect for creative designs on interiors and exteriors; low-emission	Pure acrylate	0.6 – 0.7 m (V2 – medium)	W3 (low)
Basics	StoColor Jumbosil	Filled, silicone-modified facade paint on a dispersion base	Dispersion	0.13 m (V1 – high)	W3 (low)
	StoColor Crylan	Facade paint on a pure acrylate base	Dispersion	1.1 m (V2 – medium)	W3 (low)
	StoColor S fine/ StoColor S coarse	Filled facade paint on a dispersion base, with brush render appearance	Dispersion	Coarse: 0.19 m (V2 – medium) Fine: 0.3 m (V2 – medium)	W3 (low)
	StoColor Lastic	Facade paint on a dispersion base, cold-elastic	Dispersion	1.6 m (V3 – low)	W3 (low)
	StoColor Fibrasil	Facade paint for reliable filling of shrinkage and hairline cracks, fibre-filled, texture-imparting	Dispersion	1.3 m (V2 – medium)	W3 (low)
	StoColor Silco Fill	Genuine silicone resin facade paint, filled, texture-imparting	Silicone resin-enhanced	0.1 m (V1 – high)	W3 (low)
	StoColor Silco Elast	Facade paint on a silicone resin base	Silicone resin-enhanced	2.4 m (V3 – low)	W3 (low)
	StoColor Sil	Facade paint on a silicate base	Silicate	< 0.01 m (V1 – high)	W3 (low)

* Class in accordance with DIN EN 1062-1
** Container sizes not available in QA quality

Tintable in accordance with the StoColor System
Limited tintability in accordance with the StoColor System or colour chart

With such an extensive range of Sto facade paints available, you can make any dream a reality – whatever kind of substrate you're working with, whatever function you need, and whatever look you want. The table below provides an overview of all the Sto facade paints available and their properties.

Carbon dioxide permeability*	Film protection (encapsulated)	Colour range	Filled	QuickSet Technology	Consumption	Packaging unit
C1	free		–	–	0.12–0.15 l/m² per coat	5/15 l
C1	free		–	–	0.12–0.15 l/m² per coat	5/15 l
C1	yes		–	–	0.15–0.18 l/m² per coat	5/15 l
C0	free		–	–	0.18–0.20 l/m² per coat	5/12.5 l
C0	yes		–	yes	0.18–0.20 l/m² per coat	2.5**/5/15 l
C0	enhanced		–	yes	0.18–0.20 l/m² per coat	10**/15 l
C0	free		–	–	0.15–0.20 l/m² per coat	5/15 l
C1	yes		–	–	0.17–0.19 l/m² per coat	5/15 l
C1	yes		–	yes	0.15–0.18 l/m² per coat	5**/10**/15 l
C1	free		–	–	0.15–0.20 l/m² per coat, covering; 0.10–0.15 l/m² as decorative lasure	2.5/5/10 l
C0	yes		–	yes	0.20–0.25 l/m² per coat	2.5**/5/15 l
C0	yes		–	–	0.15–0.20 l/m² per coat	5/10/15 l
C0	yes		yes	–	0.30–0.40 kg/m² per coat	25 kg
C0	yes		yes	–	0.40 l/m² per coat	15 l
C0	yes		yes	–	0.20–0.30 l/m² per coat	10/15 l
C0	yes		yes	–	0.35–0.40 kg/m² per coat	25 kg
C0	yes		yes	–	0.30–0.50 l/m² per coat	15 l
C0	free		–	–	0.15–0.20 l/m² per coat	2.5/5/10/15 l

Substrate testing

Substrate	Test	Description and cause
Chalking		Chalking occurs as a result of surface erosion (usually on existing paint coats). It can lead to a change in colour shade and reduce adhesion for subsequent paint coats. Cause: Surface weathering due to UV light/moisture (from weather). Actions/effects promoting chalking: • Too much dilution with water • Forced drying • Effect of frost during drying
Substrate strength		The strength depends on the type and quantity of binding agent used (cement and lime) and the intensity of the weather conditions to which the substrate is exposed during its useful life. Cause: Weather effects washing away binding agents on the surface. This results in exposed graining.
Absorption capacity		Excessively absorbent substrates can lead directly to changes in colour shade and problems when processing materials. Over the long term, this can result in reduced adhesion, an increased likelihood of algae and fungal attack, efflorescence, stripping, and damage due to frost from moisture. Cause: Substrate-related and weather effects (degradation of binding agents).

To create a coating that is as effective and durable as possible, the composition of the substrate needs to be tested thoroughly before anything is applied. These simple test methods provide insights into aspects such as a substrate's resistance, absorption capacity, and alkalinity – and indicate whether any additional preparations need to be made.

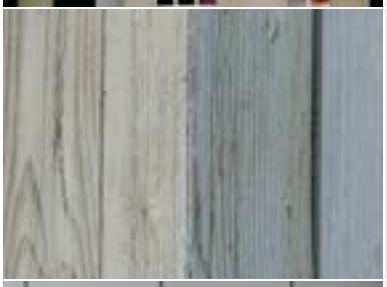
Test method and assessment	Measure	Product recommendation
Wiping a hand across the surface is enough to diagnose chalking. Assessment: A floury coating of dust is left behind on the hand.	Clean and/or prime	Choose the right primer for the subsequent coating: for example, Stoplex W, Sto-HydroGrund, StoPrim Plex
Scratch test for mineral mortars/renders: test the strength of the substrate; i.e. its subjective resistance. Wetting the substrate first will make the results of the scratch test more obvious. Assessment: If the render in the layer is still firm and only the surface is loose, this is referred to as crumbling. Wiping a hand across the material causes a crumbly residue to fall away from the surface only. If the render is brittle and relatively loose down to the lower layers, primers will not usually help the situation.	If the substrate is crumbling, remove loose components by mechanical means, brush the surface, or clean it using a high-pressure cleaner. Then prime.	Choose the right primer for the subsequent coating: for example, StoPrim Micro, Stoplex W, Sto-HydroGrund, StoPrim Plex, StoPrim Silicate, StoPrim Grundex
Wetting test with water Assessment: Highly absorbent substrates absorb water rapidly and discolour, ending up dark. As the absorption capacity reduces, water begins to run off the substrate more.	Priming	Choose the right primer for the subsequent coating: for example, Stoplex W, Sto-HydroGrund, StoPrim Plex

Substrate	Test	Description and cause
Resistance of existing substrate		The resistance of an existing coating is tested with a view to applying a subsequent coating.
Sinter skin on mineral substrates		Hard, brittle, glass-like skin; glossy; low water absorption. Sinter skin can result in the subsequent coating being stripped away. Cause: Accumulation of binding agents on the rendered surface due to extensive float-finishing/smoothing with excessive water. The surface is compacted with a glassy finish and is no longer suitable for use as a substrate.
Alkalinity		If the alkalinity is too high, the binding agents for the pigments and extenders in low-quality paint can become weakened. This can alter the colour and cause the coating to begin scaling or stripping away. Assessment: New mineral substrates with cement/lime or silicate binding agent content generally need to be classified as highly alkaline.

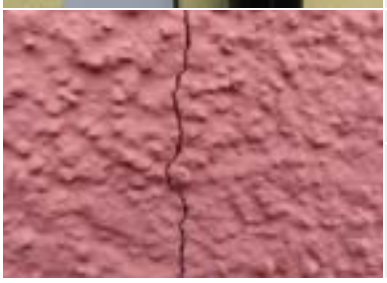
Test method and assessment	Measure	Product recommendation
Cross-cut test: Step 1: Use a sharp blade to make at least six cuts through the coating until the substrate is reached. The depth of the cut depends on how thick the coating is. Step 2: Make another six cuts at a right angle to the first cuts. Step 3: Apply strong adhesive tape tear it off sharply in a vertical direction. Assessment: This test looks at the number of coating quadrants that have been removed. Zero indicates that the adhesion strength is very good, and five that it is very poor.	If the adhesion strength is shown to be very poor, the coating must be removed without leaving any residue behind.	
Scratch test followed by wetting test with a spray water bottle. Assessment: The scratch absorbs water and turns dark in colour.	Roughen and, if applicable, remove sinter skin manually or by machine.	Choose the right primer for the subsequent coating: for example, Stoplex W, Sto-HydroGrund, StoPrim Plex
Alkalinity test: Wet the substrate with distilled water and test it using indicator paper. Visually estimate the pH value by comparing the coloured indicator against a colour chart. Assessment: At a pH value of ≥9, neutralise the substrate if necessary, isolate, and select an appropriate subsequent coating.	Prime and isolate.	Apply StoPrep QS as an undercoat if required for the subsequent coating.

Substrate guide for facades

Professional tips for refurbishing problematic special substrates

	Substrates	Expert tip	Prime coating	Finish
	Powder-coated metal facades (coil Coating facades)	Airless spray, Fine-finish nozzles, e. g. 412, pressure: 150 – 200 bar. Select an appropriate airless sprayer for the scale of the project. Whip hoses and nozzle extensions are recommended for efficient application. USE METEX Reuse or a pail strainer. Data sheet no. 24 from BFS (German; Bundesausschuss Farbe und Sachwertschutz)	StoColor Dryonic®, 10 % diluted, StoColor Dryonic® S	StoColor Dryonic® StoColor Dryonic® S
	Algae and fungal attack	Before disinfection, clean the facade mechanically (with a high-pressure cleaner) using StoPrim Fungal and leave to dry. Data sheet no. 20 from BFS (German; Bundesausschuss Farbe und Sachwertschutz)	Stoplex W for StoColor Dryonic® G, StoColor Silco G, StoColor X-black; Sto-HydroGrund for StoColor Lotusan® G	StoColor Dryonic® G, StoColor Silco G, StoColor Lotusan® G, StoColor X-black (for refurbishing a facade that has a dark / intense colour shade and is affected by algae)
	Wood dimensionally stable to a limited extent	Pre-treatment with StoPrim Fungal in the event of microbiological attack. Can be used on intact existing paint coats without the need for primer; rust-inhibiting. Data sheet no. 18 from BFS (German; Bundesausschuss Farbe und Sachwertschutz)	Protection from blue stain: StoPrim Protect WN, option of StoAqua Allgrund	StoColor Top
	Fibre cement slabs (free from asbestos)	Apply using an airless sprayer in the opposite direction to the flow of water and rework with a roller. Data sheet no. 14 from BFS (German; Bundesausschuss Farbe und Sachwertschutz)	Finishing coat, 10 % diluted	StoColor Dryonic®, StoColor Silco, StoColor Silco G, StoColor Top, StoColor Dryonic® S

Every substrate is different. In addition to standard substrates, there are various qualities and, in particular, special substrates made from materials such as Alucobond®, fibre cement, zinc plate, or HPL (high pressure laminate) that require careful substrate testing to create the right basis for a high-quality, permanent coating.

	Substrates	Expert tip	Prime coating	Finish
	Sandstone	Prime sloping surfaces with StoPrim Active and coat with StoColor Dryonic® G.	StoPrim Silicate	StoColor Solical
	Concrete	Carbon dioxide permeability tested in accordance with DIN EN 1062-1, C1, scratch coat with StoLevell Deco for filling pores. Data sheet no. 1 from BFS (German Bundesausschuss Farbe und Sachwertschutz); OS for concrete members in accordance with DIN EN 1504/DIN V 18026: use of StoCretec GmbH systems	Stoplex W	StoColor Dryonic®, StoColor Dryonic® S
	Elastic existing paint coats	Scratch test with blade. Data sheet no. 20 from BFS (German Bundesausschuss Farbe und Sachwertschutz); assessment of substrate, classification in accordance with DIN EN 1062-7	Stoplex W	StoColor Lastic, StoColor Silco Elast
	Galvanised sheet metals and aluminium substrates	SE cleaning and direct coating with StoColor Top or StoColor Dryonic®. Check adhesion using cross cut, create defined test surfaces if necessary.	StoColor Dryonic®, 10 % diluted	StoColor Dryonic®, StoColor Top, StoColor Dryonic® S
	Crack-bridging, static (crack class A)	Prime cracks in targeted areas with StoPrim Micro (wet-on-wet). Data sheet no. 19, 19.1 from BFS (German Bundesausschuss Farbe und Sachwertschutz)	StoPrim Micro	StoColor Fibrasil, StoColor Silco Fill
	Crack-bridging, dynamic (crack class A1/A2)	Prime cracks in targeted areas with StoPrim Micro (wet-on-wet). Data sheet no. 19, 19.1 from BFS (German Bundesausschuss Farbe und Sachwertschutz)	StoPrim Micro	StoColor Silco Elast

European standard

Basic information
EN 13300 and surface stress

European standard EN 13300
European standard EN 13300 describes the grading classification of wall and ceiling paints in interiors. The main criteria for this classification, which is binding throughout Europe, are described briefly below:

Classification in accordance with EN 13300

Wet-scrub resistance class	Class 1 – 5
Hiding power	Class 1 – 4
Gloss level	Dead-matt to gloss

Wet-scrub resistance

Class 1	< 5 µm at 200 strokes
Class 2	≥ 5 µm and < 20 µm at 200 strokes
Class 3	≥ 20 µm and < 70 µm at 200 strokes
Class 4	< 70 µm at 40 strokes
Class 5	≥ 70 µm at 40 strokes

Hiding power

Class 1	≥ 99.5	
Class 2	≥ 98 and < 99.5	
Class 3	≥ 95 and < 98	
Class 4	< 95	

Gloss level

Designation	Measurement angle	Reflectometer value
Gloss	60°	≥ 60
Mid sheen	60°/85°	< 60/≥ 10
Matt	85°	< 10
Dead-matt	85°	< 5

Surface stress – the difference between matt and gloss
The following basic rule applies when using intense colour shades: the glossier the paint, the more hard-wearing and cleanable the surface. Matt paints that are exposed to significant mechanical strain often develop spots that look greasy and transform into shiny, mirror-like areas. This is referred to as pigment breakdown. The images below explain how this happens and why gloss paints are not affected by pigment breakdown.

Matt interior paints
Mechanical stress presses down on exposed pigments and extenders, resulting in changes to the colour shade and gloss level.

Silk gloss interior paints
The binding agent layer protects the integrated pigments and extenders from mechanical stress.

Tested for harmful substances, low-emission, and free from
· solvents
· plasticisers
This label confirms that the relevant products have been tested by an independent test institute such as the TÜV and have been classified as safe.

Tested for harmful substances, resource-friendly, low-emission, and free from
· preservatives: 0.000 %
· solvents
· plasticisers
In addition to the confirmation that the relevant products have been tested for harmful substances by an independent test institute, this label confirms that they are free from preservatives.

TÜV certification
The TÜV certifications “Low-emission, tested for harmful substances, production monitored” and “Low-emission, nonyl phenol-free, production monitored” are credible, user-friendly credentials for industrial products and are not linked to any particular association or manufacturer. The entire process of certifying a product, from the production facility inspection to laboratory tests, is performed by the TÜV SÜD group, which also regularly conducts spot checks. Its testing covers more than 100 harmful substances including preservatives, aldehydes, hydrocarbons, acids, heavy metals, and terpenes.

All Sto interior paints that have been tested by the TÜV SÜD group are guaranteed to fulfil the criteria that classifies them as low-emission, tested for harmful substances, nonyl phenol-free, with monitored production, and free from substances that contribute to “black dust” on walls.

natureplus®
The natureplus® seal of quality is awarded to products that meet the very strictest criteria relating to the environment, health, and functionality. The International Association for Sustainable Building and Living uses it to promote environmental and health protection in construction projects. Interior paints with the natureplus® seal of quality are free from preservatives and made exclusively using resource-friendly raw materials, 85 % of which are from sustainable and / or mineral origins.

Headquarters

Sto SE & Co. KGaA
Market Development
Ehrenbachstrasse 1
79780 Stühlingen
Germany

Phone +49 7744 57-1131
Fax +49 7744 57-2428
infoservice.export@sto.com
www.sto.com

StoWerkstatt
International Project
Support Hub
153-157 Goswell Road
Clerkenwell
London EC1 7HD

Phone +44 20 7222 2221
werkstatt@sto.com
werkstatt.sto.com

Your Contact

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