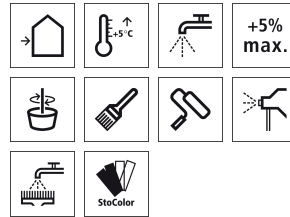


Technical data sheet

StoColor Lotusan®

Facade paint with Lotus-Effect® Technology, natural protection against algae and fungal attacks, without biocide film protection



Characteristics

- Areas of application**
- exterior
 - for paint coats with reduced adhesion of dirt particles, suitable for mineral and organic, non-elastic substrates
 - not suitable for surfaces that are horizontal (e.g. including joint areas in masonry) or sloping and subject to weathering

Properties

- texture-retaining
- very high CO₂ and water vapour permeability
- reduced wettability with water
- Lotus-Effect® Technology: reduced adhesion of dirt particles and self-cleaning when exposed to rain
- dirt runs off with the rain
- natural protection against algae and fungi
- without biocide film protection
- low-stress

Appearance

- matt

Technical data

Criterion	Standard / test regulation	Value/ Unit	Notes
Density	EN ISO 2811	1.4 - 1.6 g/cm ³	
Diffusion-equivalent air layer thickness	EN 1062 -3	0.01 m	V1 high

Technical data sheet

StoColor Lotusan®

Water permeability rate w	EN 1062 -3	0.05 kg/(m ² *h ^{0.5})	W3 low
Water vapour diffusion resistance factor μ	EN ISO 7783-2	50	average value
Gloss	EN 1062-1	matt	G3
Dry layer thickness	EN 1062-1	220 μm	E4 > 200; ≤ 400
Grain size	EN 1062-1	< 100 μm	S1 fine

The characteristic values stated are average values or approx. values. We use natural raw materials in our products, which means that the stated values can vary slightly in the same delivery batch; this does not affect the suitability of the product for its intended use.

Substrate

Requirements

The substrate must be firm, dry, clean, and load-bearing, as well as free from sinter layers, efflorescence and release agents. Damp or not fully cured substrates can lead to defects in following layers, such as bubble formation or cracks.

Preparations

Check existing coatings for their load-bearing capacity. Remove any non load-bearing or structurally weak coatings.

Application

Application temperature

Lowest temperature of substrate/air: +5 °C
Highest temperature of substrate/air: +30 °C

Material preparation

Intermediate coat diluted with max. 5% water.
Finish diluted with max. 5 % water.

Use as little water as possible to achieve application consistency. Stir well before

Technical data sheet

StoColor Lotusan[®]

application. For machine application, the amount of water to add depends on the requirement of the respective machine/pump. As a rule, strong colour shades need less added water to achieve the optimum application consistency. Diluting the material too much will make application more difficult and will result in poorer characteristics (e.g. hiding power, colour shade).

Consumption	Type of application	Approx. consumption	
	per paint coat	0.17 - 0.20	l/m ²
	for 2 coats	0.34 - 0.40	l/m ²

Material consumption depends on the application, substrate, and consistency, among other factors. The stated consumption values are only to be used as a guide. If required, determine precise consumption values on the basis of the specific project.

Coating procedure	<p>Substrate coating: Depends on the type and condition of the substrate. A substrate coating of Sto-HydroGrund is generally recommended.</p> <p>Intermediate coat: StoColor Lotusan[®]</p> <p>Finish: StoColor Lotusan[®]</p> <p>Two paint coats are always necessary for attaining an optimal water-repellent effect.</p>
--------------------------	---

Application	<p>by paint brush, by roller, by airless spray-gun</p> <p>Sprayable without producing major mist: Nozzle: 4/17 - 4/25 Pressure: 100 - 150 bar</p> <p>Use a nozzle extension and a flexible whip hose to achieve optimum results.</p>
--------------------	--

Drying, curing, ready for next coat	<p>High humidity and/or low temperatures prolong drying.</p> <p>During unfavourable weather conditions it is very important to apply suitable protective measures (e.g. protection against rain) to the work in progress and freshly completed facades.</p>
--	---

Technical data sheet

StoColor Lotusan[®]

At +20 °C temperature (air and substrate) and 65 % relative air humidity: over-coatable after approx. 8 hours.

Cleaning the tools

Clean tools with water immediately after use.

Indications, recommendations, special information, miscellaneous

The water-repellent effect can vary in strength depending on weathering and colour shade.

The water-repellent effect only acts on oily/greasy dirt to a limited extent, due to its reduced wettability with water.

Delivery

Colour shade

white, limited tintability in accordance with the StoColor System

Colour stability:

The effects of the weather, humidity, UV radiation, and deposits can lead to changes in the coating surface over time. This can result in colour changes. This is a dynamic process, which varies according to climate conditions and the degree of exposure. National regulations, data sheets etc. apply.

Extender material breakdown:

When coated surfaces are exposed to mechanical impact it is possible that for darker, intense colour shades the areas of impact change to a lighter colour. This is due to the natural extenders used. This does not impair the quality and functionality of the product.

Colour accuracy:

It is not possible to give any warranty for uniform colour accuracy and freedom from stains due to chemical and/or physical curing processes and fluctuations in the weather and different substrate conditions, especially in the case of:

- a) uneven absorption behaviour of the substrate
- b) different substrate moisture levels over the entire the surface
- c) partially very different alkalinity/substances from the substrate
- d) direct solar radiation with sharply delineated shadowing on the freshly applied coating.

Emulsifier washouts:

In case drying is delayed and the coating layers have not fully dried through,

Technical data sheet

StoColor Lotusan[®]

surface effects (streaking) caused by dew, mist, water spray or rain can occur during initial stages of weathering because of water-soluble processing aids in the coatings. Depending on the intensity of the colour shade, this effect can occur to varying degrees. This does not constitute an impairment of product quality. These effects usually disappear with the following rainfall.

Tintable	With max. 3 % StoTint Aqua.
-----------------	-----------------------------

Packaging	pail
------------------	------

Storage

Storage conditions	Store tightly sealed in frost-free conditions. Protect from heat and direct sunlight.
---------------------------	---

Storage life	The quality of the product in its original container is guaranteed until the maximum storage life has expired. The storage life date can be deduced from the batch number of the container.
---------------------	---

Batch number explanation:

Number 1 = the last number of year, numbers 2 + 3 = a calendar week

i.e.: 5450013223 – storage life until week 45 of the year 2015

Certificates/approvals

ETA-12/0561	StoTherm Vario 7 (EPS and StoLevell FT) European technical approval
ETA-13/0901	StoTherm Mineral 5 (MW/MW-L and StoLevell FT) European technical approval
ETA-13/0581	StoTherm Mineral 8 (MW-L - System A / System B) European technical approval
ETA-08/0303	StoTherm Wood 1(HWF and StoLevell Uni, dowel/bracket) European technical approval
Test report P 1977-1	Lotus-Effect [®] for facade paints

Technical data sheet

StoColor Lotusan®

Soiling behaviour

Test report P 2371-1	Facade paints test Soiling behaviour
Test report P 3193	Soiling - long-term test Soiling behaviour
Test report P 5086-4	Lotusan® Testing carbon dioxide permeability
Microbiological testing of facade paints	Test report Microbiological test
Test report 139/2000	Lotusan® as impregnation
Test report AT 008/00	Physical characteristics - comparison of facade paints
IBP-Report FEB-5/1999	Comparison of surface wetting and drying Determining surface wetting and drying behaviour
Report - Lotus-Effect	Self-cleaning microstructured surfaces Professional journal

Identification

Product group Facade paint

Composition In accordance with the VdL directive (German Paint and Printing Ink Association) on coating materials for buildings, polymer dispersion, polysiloxane emulsion, titanium dioxide, silicon dioxide, water, additives

Safety Please observe the safety data sheet

Technical data sheet

StoColor Lotusan®

Special notes

The information or data in this technical data sheet serves to ensure the product's intended use, or its suitability for use, and is based on our findings and experience. Nevertheless, users are responsible for establishing the suitability of the product for its intended use.

Applications other than those explicitly mentioned in this technical data sheet are only permissible after prior consultation. Where no approval is given, such applications are at the risk of the user. This applies particularly to combinations with other products.

When a new technical data sheet is published, all previous technical data sheets are no longer valid. The latest version is available on the Internet.

Sto SEA Pte Ltd
159 Sin Ming Road
#06-02 Amtech Building
Singapore 575625
Phone : +65 6453 3080
Fax : +65 6453 3543
info.sg@sto.com
www.sto-sea.com

Sto SEA Sdn Bhd
No. 15 Jalan Teknologi PJU 3/3AA
Surian Industrial Park Kota Damansara,
47810 Petaling Jaya, Selangor Malaysia
Phone : +60 3 6156 7133
Fax : +60 3 6156 7133
info.sg@sto.com
www.sto-sea.com

Sto SE & Co. KGaA
Ehrenbachstr.1
D -79780 Stühlingen
Germany
Phone : +49 7744 57-0
Fax : +49 7744 57-2178
infoservice.export@sto.com
www.sto.com