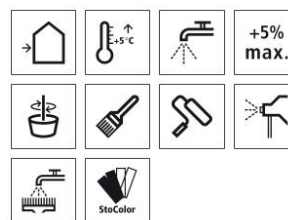


Technical Data Sheet

StoColor Lotusan®

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



Characteristics

- Area of application**
- exterior
 - for paint coats with reduced adhesion of dirt particles on mineral and organic substrates
 - not suitable for horizontal or sloping surfaces that are exposed to weathering, e.g. joint areas in masonry

Properties

- texture-retaining
- very high CO₂ and water vapour permeability
- reduced wettability with water
- also available with X-black Technology: heat shield against solar heating
- 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 fungal attack
- without biocide film protection
- low-tension

Appearance

- matt

Technical data

Criterion	Standard / test specification	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
Water permeability rate w	EN 1062-1	< 0.05 kg/(m ² h ^{0.5})	W3 low
Water vapour diffusion-equivalent air layer thickness μ	EN ISO 7783	50	average value
Gloss	EN 1062-1	Matt	G3
Dry layer thickness	EN 1062-1	220 μm	E3 > 100; ≤ 200
Grain size	EN 1062-1	< 100 μm	S1 fine

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The characteristic values stated are average values or approximate values. Due to the natural raw materials in our products, 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, load-bearing, and free from sinter layers, efflorescence and release agents. Damp or not fully cured substrates can lead to defects in the following coatings, e.g. bubble formation, cracks.

Preparations

Check whether existing coatings are load-bearing. Remove any non load-bearing or structurally weak coatings.
Facade surfaces affected by an algae and fungal attack must be carefully cleaned before overcoating. Depending on the level of infestation, disinfect the dry surfaces 1 - 2 times with StoPrim Fungal.
The use of StoColor Lotusan G is recommended for renovating surfaces heavily affected by an algae and fungal attack and/or for applications with an apparently high rate of infestation caused by microorganisms.

Application

Application temperature

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

Material preparation

Usage as an intermediate coat: dilute with max. 5 % water.
Usage as a finish: dilute with max. 5 % water.

Dilute with as little water as possible to achieve application consistency. Stir the material well before application. If applying the material by machine or pump, adjust the application consistency accordingly. Use only very little water to dilute intensely tinted material. Too much dilution impairs the properties of the material, e.g. with regard to application, hiding power, and colour shade intensity.

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 build-up

Substrate coating:
Mineral substrates must be primed, e.g. with Sto-HydroGrund.
Depending on requirements, prime organic, chalking, and/or strongly absorbent substrates with e.g. Sto-HydroGrund.

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	<p>Intermediate coat: StoColor Lotusan®</p> <p>Finish: StoColor Lotusan®</p> <p>Only a double paint coat gives an optimum water-repellent effect</p>
Application	<p>by paint brush, by roller, by airless sprayer</p> <p>Low-overspray application with an airless sprayer: Nozzle: 4/17 - 4/25 Pressure: 100 - 150 bar</p> <p>Recommendation: Use a nozzle extension and a flexible whip hose.</p>
Drying, curing, ready for next coat	<p>Higher humidity, lower temperatures, and low air exchange prolong the curing and drying times.</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> <p>At +20 °C temperature (air and substrate) and 65 % relative air humidity: over-coatable after approx. 8 hours.</p>
Cleaning the tools	Clean tools with water immediately after use.
Notes, recommendations, special information, miscellaneous	<p>The water-repellent effect can vary in strength depending on weathering and colour shade.</p> <p>The water-repellent effect is limited on oily/greasy dirt due to the reduced wettability with water.</p>
Delivery	
Colour shade	<p>white, limited tintability in accordance with the StoColor System</p> <p>The effects of weather, moisture, UV radiation, and deposits can alter the surface of the coating. Changes in colour shade are possible. The change process is dynamic and influenced by climatic conditions and exposure. National regulations, data sheets etc. apply.</p> <p>Extender material breakdown: Mechanical stress can damage the extenders in the material and lead to lighter marks. This does not influence the product quality or functionality.</p> <p>Colour accuracy:</p>

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Different weather and project conditions influence colour shade accuracy and colour shade uniformity. Avoid the following conditions (a - d) in every case:

- a) uneven absorbency of the substrate
- b) different levels of substrate moisture over an area
- c) partly very different alkalinity and/or substances in the substrate
- d) direct sunlight with sharp, clear shadows on a still-damp coating

Washout of processing aids:

If water such as condensation, fog, or rain comes into contact with not fully dry coatings, processing aids may be released from the coating and build up on the surface. Whether the effect is strongly visible or not depends on the intensity of the colour shade. This does not influence the product quality. The effects disappear when the surface is exposed to further weathering.

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 information is included in the batch number on the container.
Explanation of batch no.:
digit 1 = last digit of the year, digits 2 + 3 = calendar week
Example: 9450013223 - storage life ends week 45 in 2019

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 (timber frame construction - MW-L and StoLevell Uni/StoLevell Novo, fixing: bonded) European Technical Approval
ETA-08/0303	StoTherm Wood 1 (timber frame construction - soft wood fibre and StoLevell Uni/StoLevell FT/StoLevell Novo, fixing: anchor-fixed) European Technical Approval
ETA-03/0037	StoTherm Vario 5 (EPS and StoLevell Beta) European Technical Approval
ETA-09/0288	StoTherm Classic® 5 MW/MW-L (StoArmat Classic plus) European Technical Approval
ETA-09/0267	StoTherm Resol European Technical Approval
ETA-09/0304	StoTherm Wood 2 (timber frame construction - soft wood fibre and StoLevell Uni/StoLevell FT, anchor/adhesive) European Technical Approval
Test report P 1977-1	Lotus-Effect® for facade paints Soiling behaviour
Test report P 5086-4	Lotusan® - carbon dioxide permeability Test of carbon dioxide permeability

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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
titanium dioxide
silicate extenders
organic extenders
water
glycol ether
alcohols
hydrophobic agents
thickener
anti-foaming agents
dispersing agent
storage protection agent based on BIT/MIT (1:1)

Safety

Observe the Safety Data Sheet!
Safety instructions refer to the ready-to-use, unapplied product.

EUH210

Safety data sheet available on request.

EUH208

Contains 2-methyl-2H-isothiazol-3-one. May produce an allergic reaction.

These are preservatives.

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Special notes

The information 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. Users are nevertheless responsible for establishing the product's suitability and use.

Applications not specifically mentioned in this Technical Data Sheet are permissible only after prior consultation. Where no approval is given, such applications are at the user's own risk. This applies in particular when the product is used in combination 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.

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