

# Sylitol Facade Paints

Silicate-based, weatherproof exterior coatings.



## Product Description

### Product Properties

Sylitol paints are ready-made facade coating materials, based on potassium silicate and organic stabilisers. The composition of Sylitol paints complies with the specifications of DIN 18 363, paragraph 2.4.1.

Sylitol paints are weatherproof, offer a high opacity/covering power, a high degree of whiteness, light-resistant pigmentation, and they are highly capable of capillary diffusion. Sylitol paints are suitable for coatings on unpainted mineral renders/plasters, solid natural stones without efflorescence, sand-lime brick masonry, and for the renovation of sound existing silicate-based paints and renders/plasters.

- Weatherproof
- Allows sorption
- CO<sub>2</sub> -permeable
- Doubly-silicificating, quartz-reinforced
- Proper adhesion due to silicification on mineral substrates
- Easy to apply
- Non-combustible, A2 according to DIN 4102 (Sylitol Facade Paint)

### Packaging/Package Size

- **Sylitol-Fassadenfarbe**  
5 litres and 12.5 litres
- **Sylitol-Finish**  
1.25 litre, 7.5 litres and 10 litres

### Colours

- **Sylitol-Fassadenfarbe:**  
White and antique white  
Can be tinted with Histolith-Colorants in any ratio.
- **Sylitol-Finish:**  
Sylitol-Finish can be tinted to all current colour collections via ColorExpress tinting machine system limitedly. Check tinted product prior to the application to avoid colour differences. Use always tinted product of the same batch, when applying on continuous surfaces. Brilliant, intensive colour shades may have a lower opacity (hiding/covering power). It is therefore advisable to apply a first coat in a similar hiding pastel tint, based on white.

### Colour Resistance according to BFS Data Sheet No. 26:

Binder: Class B  
Pigmentation: Group 1

### Gloss Level

Matt, G<sub>3</sub>

### Storage

Cool, but frost-free, in tightly closed plastic buckets. Keep product only in plastic containers.  
Shelf life: approx. 12 months.



## Technical Data

### Characteristics according to DIN EN 1062:

- Maximum particle (grit) size: < 100 µm, S<sub>1</sub>
- Density: Syllitol-Fassadenfarbe, Syllitol-Finish: approx 1.5 g/cm<sup>3</sup>
- Dry film thickness: 100–200 µm, E<sub>3</sub>
- Water permeability (w-value): (w-value): ≤ 0,1 (Syllitol-Fassadenfarbe: 0.07) [kg/(m<sup>2</sup> · h<sup>0.5</sup>)] (low), W<sub>3</sub>  
(w-value): ≤ 0,1 (Syllitol-Finish: 0.1) [kg/(m<sup>2</sup> · h<sup>0.5</sup>)] (low), W<sub>3</sub>
- Water vapour permeability (sd-value): (sd-value): < 0.14 (Syllitol-Fassadenfarbe: 0.01) m (high), V<sub>1</sub>  
(sd-value): < 0.14 (Syllitol-Finish: 0.02) m (high), V<sub>1</sub>  
Tinting may cause variations.

## Supplementary Product

Syllitol-Konzentrat 111  
Syllitol-Minera  
Syllitol-Compact

## Application

### Syllitol-Fassadenfarbe:

*siloxan reinforced*

Silicate based coating material for exceptional chalking resistant and opaque facade coatings with high resistance against acidic pollutants.

Suitable especially for the renovation of old buildings, historical monuments, mineral thermal insulation renders/plasters as well as fair-faced sand-lime brick masonry.

### Syllitol-Finish:

Modified dispersion-silicate paint to be tinted via ColorExpress tinting machine system for colored, matt, highly opaque coatings on mineral plasters/renders and coatings.

## Suitable Substrates

The substrates must be sound, dry, clean, and free from all materials that may prevent good adhesion. In Germany: Follow VOB, part C, DIN 18 363, paragraph 3.

## Substrate Preparation

To achieve uniformly coloured coatings it is necessary to provide for a constantly absorbent substrate. Weathered spray and scratch renders/plasters require - in addition to the priming coat with Syllitol-Konzentrat, thinned 2 : 1 with tap water - a texture levelling intermediate coat of Syllitol-Minera, applied with a paint roller. Intensively repaired and slightly cracked surfaces also require one or two liberally applied intermediate coats of Syllitol-Minera. Apply Syllitol-Minera with a brush on smooth substrates and use a paint roller on rough textured substrates. To avoid lapping, care should be taken to have a sufficient number of hands on the job. Apply the product wet-on-wet without interruption. For self-tinting purposes the entire required quantity of product must be prepared and mixed in advance in order to prevent colour differences.

### New Renders/Plasters Class P I c Hydraulic Lime Plasters Class P II Lime-Cement Mortars Class P III Cement Mortars:

New renders/plasters must be left untreated for a sufficiently long time, normally for 2 weeks at 20 °C and 65% relative humidity. Adverse weather conditions, influenced e.g. by wind or rain, extend the curing process and a correspondingly longer idle period must be respected.

### Chalking Renders/Plasters:

Remove the powdery debris/fines layer on the surface with Histolith® Fluat (to ensure good adhesion) and rinse with tap water.

### Rendering with Sintered Layers:

Remove sintered layers - recognisable by a slightly glossy sheen - with fluosilicate Histolith® Fluat, then rinse with tap water.

### Repairs of Renders/Plasters:

Mortars used for surface repairs and filling cracks should match the original render/plaster in strength and texture.

Especially suitable for repairs are ready-mixed Trass-lime/Trass-cement based mortars. Repair patches must be allowed to set and dry completely before the application of any paint. The treatment of repaired areas with fluosilicate Histolith® Fluat should never be omitted, always taking care to work in 1–2 widths of the brush beyond the repaired area in order to prevent the formation of efflorescence. Rinse treated surfaces thoroughly with tap water. Where repairs cover relatively large surfaces, the treatment with fluosilicate and rinsing should be extended to the complete surface of existing and new renders/plasters.

**Existing Coatings of Mineral Paint:**

Clean sound, adherent coatings dry or wet. Remove unsound, weathered, poorly adherent mineral paint coatings by abrasion, scraping or cauterise and rinse the complete surface thoroughly with tap water. Apply a priming coat of Syllitol Concentrate 111, thinned in a 2 : 1 ratio with tap water.

**Unsound Existing Coatings of Dispersion Paints:**

Remove unsound coatings by suitable means, e.g. mechanically or with a suitable paint stripper and high pressure steam-jet according to local regulations. Non-absorbent substrates, treated with a paint stripper: Prime coat with Syllitol-Minera. Highly absorbent substrates: Apply a solidifying priming coat of Syllitol Concentrate 111, thinned in a 2 : 1 ratio with tap water. Apply an intermediate coat of Syllitol-Minera.

**Sound Existing Coatings of Matt Dispersion Paint:**

Remove all soiling and clean slightly chalking surfaces thoroughly with a high pressure water-jet (hydraulic blasting) or by similar suitable means in compliance with the regulations. Apply an intermediate coat of Syllitol-Compact.

**Sanding Render/Plaster Surfaces:**

Clean by dry wire brushing and treat the complete surface with a high pressure water-jet (hydraulic blasting), in compliance with the regulations.

**Sound Existing Renders / Plasters Mortar Classes P I, P II and P III:**

Soiled surfaces must be thoroughly brushed manually or mechanically in compliance with the regulations and subsequently cleansed with e.g. water-jet or high pressure water-jet with sand add-on. Only renders/plasters of mortar classes P II and P III can be treated with wet sand-blasting. Substrates infested with algae or fungi must be cleaned by wet-blasting in compliance with the regulations and then be treated with biocidal solution Capatox according to the manufacturer's recommendations. Coat with ThermoSan, if required (T.I. No. 156).

**Silicate-/Mineral-Based Thermal Insulation Renders/Plasters:**

Clean soiled substrates and surfaces infested with algae carefully by water-jet with low pressure, in compliance with the regulations. Use a cleaning agent, if necessary. Do not clean by mechanical means. Treat algae or fungi attacked surfaces with biocidal solution Capatox or FungiGrund according to the manufacturer's recommendations. Coat with fungicidal and algicidal special paint ThermoSan, if required (Technical Information No. 156).

**Fair-Faced Sand-Lime Brick Masonry:**

Only frost-resistant bricks, free of foreign inclusions, e.g. clods of loam/clay or sand, minerals causing discolouration, etc., are suitable substrates for applying coatings. Jointing must be free of cracks and free from any adhesion diminishing sealing materials or other materials preventing good adhesion. Salty efflorescence must be removed by dry wire brushing. Chalking surfaces must be completely fluated with Histolith® Fluat and subsequently thoroughly rinsed with tap water. All joint-areas (connections of roof, windows, floors) should comply with current specifications for the use of sand-lime bricks. In Germany: Follow BFS Data Sheet No. 2.

**Treatment of Natural Stones:**

Natural stones must be solid, dry, and free of efflorescence. Weathered stone surfaces are to be adequately solidified by repeated treatments with stone sealer Histolith® Steinfestiger before a coating is applied. Clean soiled stone surfaces with a high pressure water-jet (hydraulic blasting) in compliance with the regulations. Natural stones should not be repaired with mortar but with suitable stone substitute materials. Allow repairs to set properly, treat professionally with fluosilicate and rinse with tap water.

**Rising Damp/Moisture:**

Humidity rising from the ground will cause a premature deterioration of coatings. Only cross-sectional insulation can be considered to constitute a reliable, durable remedy. Alternatively the application of a restorative render/plaster system is a long-lasting and successful solution (e.g. Histolith® Trass-Sanierputz-Programm). Especially for old buildings it is advantageous to create "drying zones", i.e. zones facilitating the evaporation of moisture by providing a filter stratum of filler gravels between the plinth masonry and the soil.

Method of Application

Facade paint Syllitol-Fassadenfarbe may be applied by brush, paint roller and spraying equipment. Syllitol-Finish may be applied by brush and paint roller.

**Airless application:**

Spray angle: 50°  
 Nozzle sizes: 0.023–0,027"  
 Spray gun pressure: 150–180 bar  
 Stir and sieve the paint thoroughly for airless application.

Surface Coating System

**Application:**

**Syllitol-Fassadenfarbe**

*On slightly and evenly absorbing renders/plasters, sound silicate coatings, on sound and efflorescence-free natural stones, stone substitutes and sand-lime brick masonry:*  
 After suitable pretreatment, apply a priming coat of the mixture: Syllitol-Fassadenfarbe and Syllitol-Konzentrat 111 in a 2:1 ratio. Apply a finishing coat diluted with Syllitol-Konzentrat, max 5%. Apply one intermediate coat with Syllitol-Minera on heavily exposed weather sides.

*On highly and unevenly absorbing renders/plasters, on sanding render/plasters as well as on existing sound silicate coatings:*

After suitable pretreatment, apply a priming coat of the mixture, Sylitol-Konzentrat 111 and water in a 2:1 ratio, liberally by rubbing with a brush. Prime two times wet-in-wet on highly absorbing renders/plasters. Apply one intermediate coat diluted with Sylitol-Konzentrat, max 5%. Apply one finishing coat undiluted or diluted with Sylitol-Konzentrat 111, max. 5%.

Sylitol-Finish

*On slightly and evenly absorbing renders/plasters, sand-lime brick masonry and primed substrates:*

After suitable pretreatment, apply a priming coat with Sylitol-Finish diluted with Sylitol-Konzentrat 111, max 10%. Apply one finishing coat, diluted with Sylitol-Konzentrat 111, max. 3%.

*On highly and unevenly absorbing renders/plasters, on sanding render/plasters as well as on existing sound silicate coatings:*

After suitable pretreatment, apply a priming coat of the mixture, Sylitol-Konzentrat 111 and water in a 2:1 ratio, liberally by rubbing with a brush. Prime two times wet-in-wet on highly absorbing renders/plasters. Apply one intermediate coat diluted with Sylitol-Konzentrat, max 10%. Apply one finishing coat undiluted or diluted with Sylitol-Konzentrat 111, max. 3%.

Consumption

**Sylitol-Fassadenfarbe:**

Approx. 150 ml/m<sup>2</sup> per coat, on an even substrate. On rough-textured surfaces correspondingly more.

**Sylitol-Finish:**

Approx. 150-200 ml/m<sup>2</sup> per coat on an even substrate. On rough-textured surfaces correspondingly more.

The exact rate of consumption is best established by a trial coating on site.

Application Conditions

**Minimum Temperature for Application and Drying:**

+8 °C for product, substrate, and ambient air.

Drying/Drying Time

**Drying Time between Coats:**

At 20 °C and 65% relative humidity allow to dry for at least 12 hours between coats. Rainproof after 24 hours. Lower temperature or a higher humidity extend the drying time.

Tool Cleaning

Clean immediately after use with water, adding detergents, if necessary. During breaks keep tools in the paint or in water.

Note

Sylitol materials should not be applied under a glaring sun (on sun heated surfaces), during strong wind, extremely high relative humidity (fog), imminent rain or impending night frost. Protective tarpaulins should be used, if necessary. Do not apply on enamels/varnishes, substrates with salty efflorescence, wood/timber or plastic materials. Sylitol paints are unsuitable for application on horizontal surfaces exposed to water/rain and moisture. For slightly inclined surfaces (low gradient) proper draining has to be provided. Mechanical loads/scratching on matt facade paints in dark shades may produce bright-toned stripes as a product specific property (no writing resistance).

Yellowish/transparent traces with a slightly glossy shine, somewhat sticky, may occur in case of compact, cool substrates or delayed drying caused by the weather (rain, dew, fog). These additives are water-soluble and disappear under the influence of water, e.g. after some intensive rainfalls. The functional capability of the dried coating will not be affected. If such surfaces must be directly coated, the traces should be pre-wetted and, after a short reaction time, completely washed off. Apply a priming coat of CapaGrund Universal. The traces do not occur when the coating is applied during suitable climatic conditions.

Touching up surfaces is depending on many parameters and may be visible after drying. (In Germany: See BFS Data Sheet No. 25)

**Compatibility with other coating materials:**

Sylitol products should not be mixed with other coating products, in order to keep its special properties.

**Covering measures:**

Cover surrounding areas of the coating surfaces, especially enamel coatings, glass, ceramics, metal, clinker, natural stones, varnished or unvarnished wood, carefully. Remove splashes immediately with tap water. Use scaffolding-nets during strong wind and especially during application with roller or spraying equipment.

## Construction measures:

Cover overhanging building elements as cornices, window ledges, capstones professionally, to prevent soiling or moisture penetration through the walls.

## Impregnation:

Continuous exposure to splash water affects the durability of the coating. The durability of the endangered areas can be increased extensively by their hydrophobization with Disboxan 452 Wetterschutz. Execute the impregnation after a waiting time of 10 days. Siloxan impregnation with Disboxan 452 also protects cleaned stones surfaces against premature growth of algae, penetration of pollutants as well as against high splash water exposure.

## Surfaces with Salty Efflorescence:

Coating of such surfaces must be considered a risk for which we cannot accept responsibility, since even after the most thorough treatment the efflorescence may recur.

## Advice

German Certificates

- Sylitol-Fassadenfarbe Nichtbrennbarkeit
- Sylitol-Fassadenfarbe Bestimmung der Wasserdampfdiffusionsstromdichte, der Wasserdurchlässigkeitsrate und des organischen Anteils

Special Risks (Hazard Note) / Safety Advice (Status as at Date of Publication)

### (only for Sylitol-Finish)

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Keep out of reach of children. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of soap and water. Do not empty into drains, water courses and onto the ground. Protect eyes and skin from paint splashes. If swallowed, seek medical advice immediately to avoid harm to the intestinal bacteria. In case of spray application: Do not breathe spray dust. Cover the surrounding to protect from splashes. Wash off splashes on enamels, glass, ceramics, metals and natural stones immediately. Further information: See Material Safety Data Sheets.

Please Note (Status as at Date of Publication)

Keep out of reach of children. Protect eyes and skin from paint splashes. On contact with eyes or skin, immediately rinse with plenty of water. In case of spray application: Do not breathe spray dust. Do not empty into drains, water courses and onto the ground. Wash off splashes on enamels, glass, ceramics, metals and natural stones immediately. Further information: See Material Safety Data Sheets.

Disposal

Materials and all related packaging must be disposed of in a safe way in accordance with the full requirements of the local authorities. Particular attention should be made to removing wastage from site in compliance with standard construction site procedures. In Germany: Only completely emptied containers should be given for recycling. Dispose containers with residues of liquid material as remnants of water-based paints and dried material as hardened paints waste or via domestic waste.

EU limit value for the VOC content

- **Sylitol-Fassadenfarbe (Category A/c):**  
max. 40 g/l (2010). This product contains max. 10 g/l VOC.
- **Sylitol-Finish (Category A/c):**  
max 40 g/l (2010). This product contains max. 15 g/l VOC.

Product Code Paints and Enamels

- **Sylitol-Fassadenfarbe:**  
M-SK01
- **Sylitol-Finish:**  
M-SK01F

Substances of Content - Declaration

Potassium waterglass, acrylic resin dispersion, mineral pigments and fillers, water, additives.

Further Details

See Safety Data Sheet (MSDS).

Technical Assistance

As it is impossible to list herein the wide variety of substrates and their specific problems, please request our technical assistance in case of queries. We will describe appropriate working methods, if a substrate not specified above is to be coated.

Customer Service Centre

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## Technical Information No. 195 · Issue: August 2011

All suggestions and application instructions herein are based on our latest technical experience. Due to the wide variety of individual project conditions, we cannot be held responsible for their content. These instructions do not release the purchaser/ applicator from his responsibility to determine the suitability of the product in consideration of the project characteristics. These instructions are to be considered void when a new edition is released. Our general conditions of sale and delivery in their latest edition apply. This document is a translation of our German Technical Information No. 195 · Sylitol Facade Paints · Issued: May 2011

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