Sylitol® Minera

Silicate-based, quartz-filled priming and finishing coat for exterior and interior use – as per DIN 18363, section 2.4.1.

Product Description

Field of Application	Suitable for filling, texture levelling and crack filling coatings, for exterior and interior use. Applicable as priming, intermediate or finishing coat. Sylitol® Minera is perfectly suitable for adhesion promoting priming coats on surfaces on which coatings have been etched away by paint stripper. Highly suitable as priming coat before applying silicate-based coatings. Sylitol® Minera can also be used for filling small joints or surface defects and fine cracks in renders/plasters, before the application of Sylitol® paints and renders/plasters. Sylitol® Minera is particularly suitable as fine textured intermediate coating in interiors before applying creative silicate translucent glazing/scumbling coat techniques. Sylitol® Minera is suitable for protective coatings on AAC wall panels and complies with the requirements of AAC manufacturers. Caparol interior thermal insulation systems: Suitable for use on Capatect IDS Aktiv and Capatect IDS Mineral.
Material Properties	■ Free of preservatives, solvent-free, unplasticized. ■ Weather-resistant. ■ Crack filling, high filling capacity. ■ Allows sorption. ■ Permeable to CO_2 ■ Highly adherent to mineral substrates due to silicification. ■ Ecologically compatible. ■ Fire classification: "Nichtbrennbar" (non-combustible), A2 as per German standard DIN 4102. ■ Free of fogging-active substances.
Material Base / Vehicle	Potassium silicate (waterglass) with organic additives, according to DIN 18 363, section 2.4.1.
Packaging/Package Size	■ **Standard Product:** 8 kg, 22 kg
Colours	White. Tintable to a max. of 10 % with Histolith-Volltonfarben (colourants). The desired texture and filling power cannot be obtained, if a higher amount of colourants is added. If more than one bucket is manually tinted, all product must be thoroughly mixed before use in order to avoid colour differences. Quantities of 200 kg or more in individual colours may be ordered ready-tinted ex factory. Sylitol® Minera can be tinted to all current colour collections via the ColorExpress tinting & mixing machine system, in light colours up to luminosity/lightness index (LI) approx. 70. Check tinted product before applying to avoid colour differences. Always use tinted product of same batch, when applying on seamless surfaces. For AAC coatings the LI (reflection factor) should be above 40. Brilliant, intensive colours 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. Possibly a second finishing coat may be necessary.

CAPAROL

Colour Resistance according to BFS Data Sheet No. 26: Class: B Group: 1

Gloss Level: Matt (flat)

Storage: Keep in a cool, but frost-free place. Store product only in plastic containers and keep partially used buckets tightly closed. Shelf life: approx. 12 months.

Technical Data: **Characteristics according to DIN EN 1062:** Tinting may cause variations.

- Maximum particle (grit) size: < 1500 µm, S_3
- Density: Approx. 1.7 g/cm^3
- Dry film thickness: 200 - 400 µm, E_4
- Water permeability (w-value): ≤ 0.1 (0.09) [kg/(m^2·h$^{0.5}$)] (low), W_3
- Crack bridging classes: **Surface coating system:** 2 x 400 g/m^2 Sylitol® Minera, Class: A1 (> 100 µm)
- Water vapour permeability (sd-value): ≤ 0.14 (0.015) m (high), V_1

Supplementary Product: ■ Sylitol® Konzentrat 111 (Concentrate)

Suitability according to Technical Information No. 606 Definition of Application Areas

Interior 1	Interior 2	Interior 3	Exterior 1	Exterior 2
+	+	+	+	+
(–) inapplicable / (○) of limited suitability / (+) suitable				

Application

Suitable Substrates: The substrate must be sound/stable, dry, clean, and free from all substances that may prevent good adhesion. In Germany: Follow VOB, part C, DIN 18 363, section 3.

Substrate Preparation:

Exterior Surfaces

Renders/Plasters in Mortar Groups/Classes PIc (Hydraulic Lime-Plasters), Class PII (Lime-Cement Mortars), Class P III (Cement Mortars) / Minimum Compressive Strength according to DIN EN 998-1: 1 N/mm²:
New renders/plasters must be left untreated for a sufficiently long time, normally for min. 7 days 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 holding time must be respected.
Clean soiled surfaces of existing stable render/plaster thoroughly, manually or mechanically, in compliance with the regulations by e.g. high-pressure water jet or high-pressure cleaner with sand add-on. Only renders/plasters of mortar classes PII and PIII can be treated with wet sand-blasting.

Chalking/Powdering Surfaces (Fines Layer):
Remove all adhesion diminishing chalking/fines layers with fluosilicate Histolith® Fluat and rinse thoroughly.

Sintered Renders/Plasters:
Remove sintered skin (recognizable by a slight, glossy shine) with fluosilicate Histolith® Fluat and rinse thoroughly.

Sanding Render/Plaster Surfaces:
Brush off with a dry wire brush and clean the complete surface by hydraulic blasting in compliance with the regulations.

AAC Wall Panels:
Brush off autoclaved aerated concrete thoroughly (wire brushing) and remove all soiling. Repair defects/spalling > 5 mm deep with repair mortar Disbofein 331 Reparaturmörtel. Repair cavities/shrink holes, defects and production related surface unevenness up to a depth of 5 mm with filler Disbofein 332 Spachtel.

Render/Plaster Repairs:
Mortars used for repairs of defective areas and widened cracks should match the original rendering in strength and texture. Particularly suitable for repairs are ready-mixed Trass-lime/Trass-cement-based mortars. Repairs must be allowed to set and dry thoroughly before the application of paint. The treatment of repaired areas with fluosilicate Histolith® Fluat is essential, always taking care to work about two widths of the brush beyond the repaired area. Subsequently rinse thoroughly with clean water. Where repairs cover relatively large areas, the use of fluosilicate should be extended to the full surface (existing and new render/plaster).

Existing Mineral Paint Coatings:
Clean stable, adherent coats dry or wet. Remove unstable, weathered coats of mineral paint (sand off, abrade or cauterise) and rinse the full surface thoroughly. Apply one priming coat of Sylitol® Konzentrat 111 (Concentrate).

Unstable Existing Coats of Emulsion Paint:
Remove by suitable means, e.g. mechanically or using a paint remover/stripper, then clean with high-pressure steam-jet, in compliance with the regulations. Apply one priming coat of Sylitol® Minera to stripped, non-absorbent substrates. Prime highly absorbent, paint stripped substrates with Sylitol® Konzentrat 111 (Concentrate).

Existing Sound/Stable Coats of Matt Emulsion Paint:
Remove soiling and slightly chalking surface effects to the sound substrate by hydraulic blasting or other suitable means, in compliance with the regulations. Apply one intermediate coat of Sylitol® Compact or Sylitol® Mineralgrund.

Fair-Faced Sand-Lime Brickwork:
Only frost-resistant bricks, free of foreign inclusions (e.g. clods of loam/clay or sand, minerals causing discolouration etc.), are suitable substrates for paint coatings. Jointing must be free of cracks and free of any sealing materials preventing adhesion. Salty efflorescence must be removed by dry wire brushing. Chalking surfaces must be completely fluated with Histolith® Fluat and subsequently rinsed with clean water. All connection joints (roof, windows, floors) should comply with standard procedures (guidelines) for using sand-lime bricks.

Treatment of Natural Stone:
Natural stones must be solid, dry, and free of efflorescence. Strenghten weathered stone surfaces by repeated treatment with Histolith Steinfestiger before a coating is applied. Clean soiled stone surfaces with a high-pressure water jet, in compliance with the regulations.
Do not repair natural stone with mortar but only with stone substitute materials. Allow repairs to set completely, then treat professionally with fluosilicate (e.g. Histolith® Fluat) and rinse with clean water.

Rising Damp/Moisture:
Moisture, rising from the ground, will cause a prematurely deterioration of coatings. Only cross-sectional insulation can be considered to constitute a reliable long-term remedy. An alternative and for a long time successful solution is the use of Histolith® Trass-Sanierputz-System (restorative render/plaster system). Especially for old buildings it is advantageous to create "drying zones", i.e. zones favouring the evaporation of moisture by providing a filter stratum of filler gravels between the plinth masonry and the soil.

Substrates with Salty Efflorescence:
Coating of substrates with salts or salty efflorescence must be considered a risk for which we cannot be held responsible, since even after the most thorough treatment the efflorescence may recur.

Interior Surfaces

Sintered or Chalking, Powdering Mineral Substrates:
Clean the surface intensively by mechanical means or treat with fluosilicate solution (e.g. Histolith® Fluat) and then rinse with clean water.

New Plasters: Mortar Group/Class PI (Lime Plasters), Class PII (Lime-Cement Mortars), Class PIII (Cement Mortars) / Minimum Compressive Strength according to DIN EN 998-1: 1 N/mm²:
Coat solid, normally absorbent plasters without pre-treatment. Allow replastered areas to dry, then use fluosilicate solution (e.g. Histolith® Fluat) and rinse with clean water.

Gypsum Plasters (Mortar Class PIV) / Minimum Compressive Strength according to DIN EN 13279 S2: 2 N/mm²:
Prime solid/stable substrates with Caparol-Haftgrund or Sylitol® Mineralgrund.
Strengthen soft gypsum plasters with Caparol-Tiefgrund TB. Sand/grind sintered surfaces and remove sanding dust. Prime with Caparol-Tiefgrund TB.
In each case: Allow to dry and apply one intermediate coat of Caparol-Haftgrund or Sylitol® Mineralgrund.

Gypsum Plasterboards (Sandwich-Type Plaster Boards):
Sand/grind off filler burrs. Prime with Caparol-Haftgrund or Sylitol® Mineralgrund. Strengthen soft gypsum areas (repair patches) previously with Caparol-Tiefgrund TB. Boards with water-soluble, discolouring substances that leave marks must previously be treated with a priming coat of Caparol AquaSperrgrund and one intermediate coat of Caparol-Haftgrund or Sylitol® Mineralgrund.
(In Germany: Follow BFS Data Sheet No. 12).

Gypsum Building Boards / Wallboards:
Prime with Caparol-Haftgrund or Sylitol® Mineralgrund.

Concrete:
Remove residues of separating agents. Prime with Caparol-Haftgrund or Sylitol® Mineralgrund.

Fair-Faced Sand-Lime Brickwork:
Remove all salty efflorescence by dry wire brushing.

Facing Brickwork:
Apply one priming coat of Caparol-Haftgrund or Sylitol® Mineralgrund.

Stable, Matt (Flat) Coatings of Emulsion Paint and Synthetic Resin-Bound (Organic) Plasters:
Apply one priming coat of Caparol-Haftgrund or Sylitol® Mineralgrund.

Unstable Existing Coatings:
Remove unsound enamels and emulsion paints or synthetic-resin bound (organic) plasters and apply one priming coat of Caparol-Haftgrund or Sylitol® Mineralgrund.
Remove unstable coats of mineral paint by suitable mechanical means. Apply one priming coat of Sylitol® Konzentrat 111 (Concentrate).

Glue-Bound Distemper (Limewater Colour/Paint):
Carefully wash off all distemper to the stable substrate and allow to dry. Apply one priming coat of Caparol-Tiefgrund TB and one intermediate coat of Caparol-Haftgrund or Sylitol® Mineralgrund.

Mildewed Surfaces:
Remove all fungal attack (fungi/mildew/mould) by wet cleaning, then use Capatox or FungiGrund and allow substrates to dry well. Prime the surface according to substrate requirements. Use our products Indeko-W, Malerit-W or Fungitex-W on strongly infested surfaces, in compliance with the regulations (follow e.g. Ordinance on Biological Agents and Ordinance on Hazardous Substances).

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.

Method of Application

On smooth substrates Sylitol® Minera should be applied with a paint brush, on textured substrates with a paint roller. Spray application is possible with high-performance airless equipment.
AAC Wall Panels:
Roller application of the priming coat. Finishing coat: Apply the product on each panel using paint roller, then directly roll over the panel with a coarse cellular foam/moltoprene roller, always working evenly in one direction, avoiding lapping.
Filling:
Mix Sylitol® Minera with fine quartz sand, till an adequate consistency for filling is achieved.
Airless Application:
Spray angle: 50°, nozzle size: 0.029" - 0.035", spray pressure: 150 - 180 bar. Stir and sieve well before applying. Increased wearing of wear parts and increased clogging may occur, due to quartz-containing components.

Surface Coating System

Apply a **first coat of Sylitol® Minera**, thinned to a max. of 10 % with Sylitol® Concentrate 111.
When used as intermediate or finishing coat thin to a max. of 5 % with Sylitol® Concentrate 111.
Always apply liberally and evenly.
Highly/strongly and unevenly absorbent substrates must previously be primed with a liberally applied mixture of 1 - 2 parts by vol. of Sylitol® Concentrate 111 and 1 part by vol. of tap water (rub intensively to the substrate by paint brush).

First-time coating of autoclaved aerated concrete (AAC):
Thin the bucket content (22 kg) of Sylitol® Minera with approx. 1.6 to 2.0 litres (8 to 10 % by weight) of Sylitol® Concentrate 111 for the first coat and thin with approx. 0.4 to 0.6 litres (2-3 % by weight) of Sylitol® Concentrate 111 for finishing coat.

Consumption

400 - 500 g/m^2 per coat. Consumption depends on substrate requirements (e.g. absorbency and texture). For first-time coating of AAC wall panels a consumption of 900 - 1000 g/m^2 must be respected for each coat (priming and finishing coat). The given values are guide values. Determine the exact amount of material required by coating a test area on site.

Application Conditions

Lower Temperature Limit for Application and Drying: +8 °C for product, substrate and ambient air. Do not apply in direct sunlight, on sun-heated surfaces, during rain, extremely high relative humidity (fog), strong wind or imminent rain or frost. Cover the scaffolding with tarpaulins, if necessary (protect against night frost).

Drying/Drying Time

At 20 °C and 65 % of relative humidity allow to dry for at least 12 hours between coats. For first-time coating on AAC wall panels: at least 24 hours. Lower temperatures or higher relative humidity extend the drying phase.

Tool Cleaning

Clean tools immediately after use with water, add detergent (washing-up liquid), if necessary.
During breaks keep the tools dipped in water or paint.

Note

To avoid lapping, a sufficient number of hands/craftsmen must work on the job and the product should be applied wet-on-wet without interruption.
Do not apply on horizontal surfaces exposed to rain or moisture. When using Caparol-Tiefgrund TB in interiors, a typical solvent odour is released, hence proper ventilation must be provided during application and drying. Use non-aromatic, low-odour AmphiSilan-Putzfestiger in sensitive areas.
Tinted Sylitol® Minera coatings may show an uneven visual (clouding) effect after curing. Apply a top-coat of Sylitol® Finish 130 in the desired colour shade, if an even appearance of the surface is favoured.
Touching up surfaces is depending on many parameters and may be visible after drying.
In Germany: See BFS Data Sheet No. 25.
On gypsum based fillers/surfacers: Apply one intermediate coat of Caparol-Haftgrund or Sylitol® Mineralgrund to the full surface to minimise the risk of colour deviation.
Compatibility with other Coating Materials:
Do not mix Sylitol® Minera with other coating materials to retain the specific properties.
Protective Measures:
The areas adjoining the surface to be painted must be carefully masked, in particular glass, ceramics, enamel/varnish coatings, clinkers, natural stone, metals, untreated or glazed/stained wood. Wash off paint splatters immediately with plenty of clean water.

Preventive Measures during Construction:
Projecting or overhanging components of buildings, such as cornices, masonry wall crowns, window sills, etc., should always be professionally covered to prevent the formation of dirt marks and penetration of rain/moisture into masonry.

Advice

German Certificates

■ Sylitol® Minera · Rate of water vapour permeability and rate of water permeability

Please Note (Status as at Date of Publication)

Keep out of reach from children. Ensure good ventilation during use and drying. Do not eat, drink or smoke while using the product. In case of contact with eyes or skin, immediately and thoroughly rinse with water. Do not allow product to enter drains, waterways or soil. Clean utensils immediately after use with soap and water. Do not breathe spray dust.
Due to its potassium silicate content, the reaction of silicate based coatings is highly alkaline. Hence protect skin and eyes from paint. The areas adjoining the surface to be coated must be carefully masked, in particular glass, ceramics, enamel/varnish coating, clinkers, natural stones, wood and metals. Wash splashes immediately and completely with plenty of clean water.
Further information: See Material Safety Data Sheet (MSDS).

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 empty containers should be handed in for recycling. Dispose containers with residues of liquid product via waste collection point accepting old paints and enamels. Dispose dried/hardened product residues as construction site/demolition/municipal or domestic waste.

EU limit value for the VOC content

of this product (category A/a): max. 30 g/l (2010). This product contains max. 10 g/l VOC.

Product Code Paints and Enamels

M-SK01 (Germany)

Substances of Content - Declaration

Potassium silicate, acrylic resin dispersion/emulsion, mineral pigments and fillers, water, additives.

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