

PermaSilan

Elastic, silicone resin-based façade paint for renders/plasters with surface cracks - water vapour permeable.



Product Description

Field of Application	<p>Facade paint with a proper water vapour permeability. Covers surface cracks in render/plaster coatings. Also suitable for the treatment of non-stop cracks (through the render/plaster coating as per BFS Data Sheets no. 19), if combined with FibroSil. For use on mineral renders/plasters of mortar groups P II and P III, concrete, sound existing elastoplastic coatings, sound paint coatings and existing ETICS/EWI-Systems.</p>
Material Properties	<ul style="list-style-type: none"> ■ Water-thinnable, ecologically compatible, low odour. ■ Weather-resistant. ■ Easy to apply. ■ Mineral surface aspect. ■ Solvent-free. ■ Low tension. ■ Elastic even at low temperatures. ■ High adhesion. ■ Crack bridging. ■ Alkali-resistant, hence unsaponifiable. ■ PermaSilan is provided with a preservative against deterioration in the coating film due to algae and fungal attack.
Material Base / Vehicle	Combination of silicone resin and synthetic resin dispersion as per DIN 55 945.
Packaging/Package Size	<ul style="list-style-type: none"> ■ Standard: 12.5 l ■ ColorExpress: 12.5 l
Colours	<p>White</p> <p>PermaSilan can be tinted with CaparolColor and Amphibolin colourants. If more than one can/bucket is manually tinted, all product must be thoroughly mixed before use in order to avoid colour differences.. Quantities of 100 litres or more in individual shades may be ordered ready-tinted from the factory.</p> <p>PermaSilan can be tinted to all current colour collections via ColorExpress tinting machine system. Check the tinted product prior to the application to avoid colour differences. Always apply product of the same batch on large-scale, continuous surfaces. Brilliant, intensive colours may offer a lower covering power. It is therefore advisable to apply a first coat in a similar hiding pastel tint, based on white. A second finishing coat might be necessary.</p> <p>Colour resistance according to BFS Data Sheet No. 26: Class: B Group: 1 - 3, according to the shade</p>
Gloss Level	Matt, G ₃



Storage	Keep in a cool, but frost-free place.
Technical Data	<p>Technical Data Characteristics as per DIN EN 1062:</p> <p>Tinting may cause variations.</p> <ul style="list-style-type: none"> ■ Maximum particle (grit) size: < 100 µm, S₁ ■ Density: Approx. 1.4 g/cm³. ■ Dry film thickness: 100–200 µm, E₃ ■ Water permeability (w-value): (w-value): ≤ 0.1 [kg/(m² · h^{0.5})] (low), W₃ ■ Crack bridging classes: <ul style="list-style-type: none"> Crack bridging Surface coating system: 2 x 200 ml PermaSilan, class: A₂ (> 250 µm) 3 x 200 ml PermaSilan, class: A₃ (> 500 µm) 1 x 700 ml FibroSil and 2 x 200 ml PermaSilan, class: A₃ (> 500 µm) ■ Water vapour permeability (sd-value): ≥ 0,14 – < 1,4 m (medium), V₂

Application

Suitable Substrates	The substrate must be sound/stable, 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	<p>New and Existing, Sound ETICS/EWI Systems with Surfaces of Synthetic Resin-Bound (Organic) Render/Plaster, Silicone Resin Render/Plaster, Lime Cement Plaster (PII): Clean by suitable wet cleaning method. Maximum temperature for high pressure water jet: 60 °C. Pressure: max. 60 bar. Allow to dry thoroughly. Coat with PermaSilan according to the type of finish render and details as mentioned below.</p> <p>Renders/Plasters of Mortar Groups/Classes 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 correspondingly longer idle times must be respected. The risk of calcareous efflorescence on alkaline finish renders of mortar classes PII and PIII can be reduced by an additional priming coat of CapaGrund Universal and the finishing render/plaster coat may be coated after an idle time of 7 days.</p> <p>Existing renders/plasters: Repairs must have adequate time to cure and dry. Prime with Dupagrund or use AmphiSilan-Putzfestiger on PS boards for ETICS/EWI systems.</p> <p>New Silicate Finish Renders: Coat using the products of our silicate based Syllitol-Programme.</p> <p>Existing Silicate Paints and Renders/Plasters: Clean adherent, sound coatings mechanically or with high-pressure water jet, in compliance with the regulations. Remove unsound, weathered coatings by abrading, sanding/grinding or by scraping off. Prime with AmphiSilan-Putzfestiger.</p> <p>Autoclaved Aerated Concrete (AAC) with Sound Existing Coatings: Clean sound existing surfaces. Apply a priming coat of CapaGrund Universal. See our Disbon program for the renovation of unsound AAC coatings.</p> <p>Concrete: Concrete surfaces with deposits of dirt or fines (sintered layer) must be cleaned mechanically or with high pressure water jet, in compliance with the regulations. Apply a priming coat of CapaGrund Universal on slightly absorbent or smooth surfaces. Prime chalking surfaces with Dupa-grund.</p> <p>Sound Dispersion Paint Coatings: Clean soiled, chalking coatings by high pressure water jet, in compliance with the regulations. Apply a priming coat of CapaGrund Universal. If other cleaning methods are used (washing, wire brushing, hosing with water), prime with Dupa-grund or apply AmphiSilan-Putzfestiger on PS insulation boards.</p> <p>Sound Existing Plasto-Elastic Dispersion Paint Coatings, e.g. Cap-elast Surfaces: Clean soiled, chalking coatings by high pressure water jet, in compliance with the regulations. Allow the substrate to dry thoroughly and apply a priming coat of CapaGrund Universal.</p> <p>Sound Coatings of Synthetic Resin-Bound (Organic) or Silicone Resin Render/Plaster: Clean existing coatings by suitable method. In case of wet cleaning, allow to dry thoroughly before any further treatment.</p> <p>Unsound Mineral Coatings: Remove completely (abrade, brush off, scrape off, use high pressure water jet in compliance with the regulations, or by other suitable means). In case of wet cleaning, allow the substrate to dry thoroughly before any further treatment. Prime with Dupa-grund.</p>

Unsound Coatings of Dispersion Paint or Synthetic Resin-Bound (Organic) Render/Plaster:

Remove completely by suitable method, e.g. mechanically or by stripping and subsequent cleaning by high pressure water jet, in compliance with the regulations. Apply a priming coat of CapaGrund Universal on slightly absorbent or smooth surfaces. Prime chalking, sanding, absorbent surfaces with Dupa-grund or apply AmphiSilan-Putzfestiger on PS insulation boards.

Surfaces Contaminated with Industrial Gases or Soot:

Clean by high pressure water jet, in compliance with the regulations and allow to dry thoroughly. Apply a priming coat of CapaGrund Universal on slightly absorbent or smooth surfaces. Prime chalking, sanding, absorbent surfaces with Dupa-grund or apply AmphiSilan-Putzfestiger on PS insulation boards.

Surfaces Infested with Organic Growth:

Remove algae or fungal attack (mildew/mould) by wet blasting in compliance with the regulations, then treat the surface with Capatox or FungiGrund and allow to dry thoroughly. Apply a priming coat of CapaGrund Universal on slightly absorbent or smooth surfaces. Prime chalking, sanding, absorbent surfaces with Dupa-grund or apply AmphiSilan-Putzfestiger on PS insulation boards.

Cracks Due to Substrate, Construction or Ground:

Coat with Cap-elast.

Surfaces with Salty Efflorescence:

Remove salty efflorescence by dry wire brushing. Prime with Dupa-grund. 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.

Defects:

Repair small defects with Caparol Fassaden-Feinspachtel. Deeper damages up to 20 mm should be repaired with Histolith-Renovierspachtel. Prime the repaired areas.

Method of Application

Apply with paint brush or roller. Clean tools immediately after use with water.

Surface Coating System

Priming Coat

Apply Dupa-grund or CapaGrund Universal, depending on the substrate. Further details: See paragraph headed »Suitable Substrates / Substrate Preparation«.

Intermediate Coat

For renders/plasters with surface cracks: Apply PermaSilan, undiluted. For render/plaster piercing cracks: Priming or intermediate coat with FibroSil according to Technical Information No. 166. Second intermediate coat with PermaSilan.

Finishing Coat

Apply PermaSilan, undiluted. To obtain a crack bridging effect, an intermediate and a finishing coat with PermaSilan must be applied.

Consumption

Minimum 200 ml/m² per coat on smooth substrates. On rough-textured surfaces accordingly more. The exact rate of consumption is best established by a trial coating.

Application Conditions

Lower Temperature Limit for Application and Drying:

+5 °C for product, substrate and ambient air.

Drying/Drying Time

At +20 °C and 65% relative humidity surface-dry and recoatable after 12 hours. Completely dry and ready for stress after approx. 3 days. Lower temperatures and higher humidity extend the drying time.

Note

Do not apply on sun heated substrates, during strong wind, fog or rain, high relative humidity or imminent rain and frost. To avoid lapping, the material should be applied wet-on-wet and without interruption.

Do not apply on horizontal surfaces exposed to rain or moisture. Do not use on calcareous substrates and lightweight renders/plasters. Seal joints of windows, doors and window sills professionally with a permanent elastic sealant and inspect them at regular intervals. Static cracks are liable to extreme movements. Therefore a life-long and invisible crack covering treatment by paint material cannot generally be guaranteed.

This product is provided with a preservative against deterioration in the coating film due to algae and fungal attack for prolonged - but not unlimited - protection, depending on the degree of moisture and intensity of organic infestation. A permanent protection cannot be guaranteed. Mechanical loads/scratching on matt facade paints in dark shades may produce bright-toned stripes as a product specific property (no writing resistance). They disappear under the influence of moisture, e.g. rain.

In case of moist weather conditions (rain, dew, fog) yellowish transparent traces of additives, showing a slightly glossy shine and stickiness, may occur on the surface of compact, cool substrates or by means of delayed drying caused by the weather.

The traces of additives are water-soluble and will disappear under the influence of a sufficient water quantity, e.g. repeated intensive rainfalls. The quality of the dried coating will not be affected by these changes. In case of direct reworking, all traces of additives must be pre-wetted and completely removed after a short reaction time. An additional priming coat of CapaGrund Universal must be applied. The traces cannot occur when the material is applied under suitable climatic conditions.

Traces of repairs depend on many parameters and may be visible after drying. (In Germany: BFS Data Sheet No. 25)

Advice

German Certificates

- PermaSilan Wasserdurchlässigkeitsrate
- PermaSilan Wasserdampfdiffusionsstromdichte

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

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Keep out of reach of children. If swallowed, seek medical advice immediately and show the container or label (intestinal bacteria can be affected). Do not empty into drains, water courses or into the ground. Apply by brush or paint roller only. Use P2 dust filter for grinding. Ensure good ventilation during use and drying. Do not eat, drink or smoke while using the paint. In case of contact with eyes or skin, immediately and thoroughly rinse with water. Clean utensils immediately after use with soap and water.

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

of this product (category A/c): max. 40 g/l (2010). This product contains max. 5 g/l VOC.

Product Code Paints and Enamels

M-SF01F

Substances of Content - Declaration

Polyacrylate resin, silicone resin, titanium dioxide, barium sulphate, silicates, calcium carbonate, water, additives, preservative agent, film preservative

Further Details

See Material 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

Tel.: (+49) 0 61 54 / 71 17 10
 Fax: (+49) 0 61 54 / 71 17 11
 e-mail: kundenservicecenter@caparol.de

International Distribution: Please see www.caparol.com