

AmphiSilan NQG

Capillary-hydrophobic, mineral matt, silicone resin based facade paint. Innovative silicone resin binder combination with integrated nano-quartz particles for clean facades. Fast drying after rainfall.



Product Description

Field of Application	<p>Paint with essential benefit: Organically cross-linked nano-quartz particles form a compact, mineral-hard, three-dimensional quartz matrix structure against soiling and keep facades clean for a longer period.</p> <p>The special silicone resin/binder combination provides water-repellent, highly vapour permeable paint coatings on exterior renders and mineral substrates, thus fast-drying after rainfall and when moist with dew. Also suitable for renovation of adherent silicate paints, matt dispersion/emulsion paints or synthetic renders and stable external thermal insulation composite systems (ETICS/EWI).</p> <p>AmphiSilan NQG combines the advantages of approved emulsion paints and classic silicate paints. These properties make AmphiSilan NQG an ideal choice for coatings on listed buildings and lime plasters.</p>
Material Properties	<p>Low surface tension, no thermo-plasticity, non-film-forming, micro-porous. Forms a capillary active dry zone. Permeable to CO₂ Resistant to aggressive air pollutants. Contains special pigments with photocatalytic effect. Reduces visible marks on dark colours which may occur on mechanically stressed surfaces.</p>
Material Base / Vehicle	<p>Combined silicone resin emulsion and new hybrid binder, on an inorganic/organic basis.</p>
Packaging/Package Size	<p>■ Standard Product: 12.5 litres</p> <p>■ ColorExpress: 1.25 l, 2.5 l, 7.5 l and 12.5 litres</p>
Colours	<p>White.</p> <p>AmphiSilan NQG is tintable with AmphiSilan colourants. If more than one bucket is manually tinted, all product must be thoroughly mixed before use in order to avoid colour differences.</p> <p>Quantities of 100 litres or more in individual colour shades can be ordered ready-tinted ex factory. AmphiSilan NQG can be tinted to all current colour collections via the ColorExpress tinting & mixing machine system (in limited shades). Check tinted product before applying in order to avoid colour differences. Always use paint of same batch, when applying on seamless surfaces.</p> <p>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. Possibly a second finishing coat may be necessary.</p> <p>Colour Resistance as per German BFS-Merkblatt (Data Sheet) No. 26: (Binder) Class: A (Pigmentation) Group: 1</p>
Gloss Level	<p>Matt (flat), G₃</p>
Storage	<p>Keep in a cool, but frost-free place.</p>



Technical Data

Characteristics according to DIN EN 1062:

Tinting may cause variations.

■ Maximum particle (grit) size:	< 100 µm, S ₁
■ Density:	Approx. 1.5 g/cm ³
■ Dry film thickness:	100 - 200 µm, E ₃
■ Diffusion-equivalent air layer thickness s _d H ₂ O:	(sd -value): < 0.14 m (high) V ₁
■ Water permeability (w-value):	≤ 0.1 [kg/(m ² · h ^{0.5})] (low) W ₃

Supplementary Product

AmphiSilan-Tiefgrund
 AmphiSilan-Putzfestiger
 AmphiSilan-Grundierfarbe
 AmphiSilan-Compact
 AmphiSilan-Volltonfarben (colourants)

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 18363, section 3.

Substrate Preparation

New and Existing, Sound/Stable ETICS/EWI Systems with Surfaces of Synthetic (Organic) Render, Silicone Render, Lime Plaster (Class Plc), Lime Cement Plaster (Class PII) / Minimum Compressive Strength according to DIN EN 998-1: 1 N/mm²:

Clean existing renders by suitable wet cleaning method. Maximum temperature for high-pressure water jet: 60 °C. Pressure: max. 60 bar. Allow to dry thoroughly. Coat with AmphiSilan products according to the type of existing finish render and details as mentioned below.

Exterior Renders in Mortar Groups/Classes Plc (Hydrated Lime Mortar), PII (Lime-Cement Mortars), PIII (Cement Mortars) / Minimum Compressive Strength according to DIN EN 998-1: 1 N/mm²:

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

The risk of calcareous efflorescence on alkaline renders (Plc, PII, PIII) can be minimised by an additional priming coat of CapaGrund Universal and the finishing render may be coated after a holding time of 7 days.

Existing Renders:

Repairs must have adequate time to cure and dry. Prime highly porous, absorbent, slightly sanding renders with AmphiSilan-Tiefgrund. Prime highly sanding, chalking renders with AmphiSilan-Putzfestiger.

New Silicate Finishing Renders:

Coat with products of the silicate-based Sylitol® product range. In the field of listed/landmarked buildings suitable Histolith® products may also be used.

Existing Coatings of Silicate Paints and Renders:

Clean adherent coatings mechanically or with high-pressure water jet, in compliance with the regulations. Remove unstable (poorly adherent), weathered coatings by abrading, sanding/grinding or by scraping off. Apply one priming coat of AmphiSilan-Putzfestiger.

Sound/Stable Coatings of Synthetic (Organic) or Silicone Renders:

Clean existing renders by suitable means and allow wet cleaned surfaces to dry thoroughly before any further treatment. Apply one priming coat of AmphiSilan-Grundierfarbe or AmphiSilan-Putzfestiger. Coat new synthetic/organic or silicone renders without pre-treatment.

Sound/Stable Coats of Dispersion/Emulsion Paint:

Roughen the surface of slightly glossy coatings. Clean soiled or chalking coatings with a high-pressure water jet, in compliance with the regulations. Allow the surface to dry thoroughly and apply one priming coat of AmphiSilan-Grundierfarbe. Prime with AmphiSilan-Putzfestiger, if other cleaning methods are used (washing, wire brushing, hosing with water).

Unstable Coatings of Enamel, Dispersion/Emulsion Paint or Synthetic (Organic) Render:

Remove completely by suitable means, e.g. mechanically or via paint stripper, followed by surface cleaning with high-pressure steam jet, in compliance with the regulations. Prime with AmphiSilan-Grundierfarbe. Apply one priming coat of AmphiSilan-Putzfestiger on chalking, sanding, absorbent surfaces. Apply one intermediate coat of AmphiSilan-Compact.

Facing Brickwork:

Only frost-resistant bricks and clinkers free of foreign inclusions are suitable for coatings. Jointing must be free of cracks and salts (salty efflorescence). Prime with AmphiSilan-Putzfestiger. If brownish discolouration appears on the intermediate coat of AmphiSilan NQG or AmphiSilan-Compact, apply Duparol for finishing coat.

Sand-Lime Masonry:

Only frost-resistant bricks, free of foreign inclusions like sand or clay/loam, are suitable for being coated. Jointing must be free of cracks. Clean chalking surfaces. Remove salty efflorescence by dry wire brushing. In Germany: Follow BFS Data Sheet No. 2. Apply one priming coat of AmphiSilan-Tiefgrund. Apply one intermediate coat of AmphiSilan-Compact.

Surfaces with Fungi or Algae Attack:

Coat with the fungicidal and algicidal special paint ThermoSan NQG.

Surfaces with Salty Efflorescence:

Remove salty efflorescence by dry wire brushing. Apply one priming coat of AmphiSilan-Putzfestiger. 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 fine filler Caparol Fassaden-Feinspachtel, deeper defects up to 20 mm preferably with Histolith-Renovierspachtel and prime repairs subsequently.

Method of Application

Apply with paint brush or roller.
For airless application the use of special AmphiSilan NQG product, adjusted to working consistency for efficient Nespri-TEC spraying method, is recommended.

Surface Coating System

First or intermediate coat of AmphiSilan NQG, diluted to a max. of 10 % with tap (potable) water. For intermediate and finishing coats on roughly textured substrates a somewhat higher dilution is required, depending on texture and absorbency (spread well). Determine the degree of dilution by a trial coating.

For equalising/levelling unevenly applied renders and for filling fine surface cracks, apply one intermediate coat of AmphiSilan-Compact, diluted max. 5 - 10 % with tap (potable) water.

Maintenance coating: An additional priming coat can be omitted in most cases, when max. 10 % of AmphiSilan-Tiefgrund is added.

Apply one finishing coat of AmphiSilan NQG, diluted max. 5 - 10 % with tap water. Particularly when intensive colours are used, a dilution of 10 % is necessary for finishing coat to obtain an even surface, free of streaks. Minimum drying time between coats: 12 hours.

Consumption

Approx. 150 - 200 ml/m² for one coat on smooth substrates. On roughly textured surfaces correspondingly more. Determine the exact amount of material required by coating a test area on site.

Application Conditions

Low 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 after 2 - 3 hours, recoatable after 12 hours. Completely cured after 2 - 3 days. Lower temperatures and higher humidity extend the drying time.

Tool Cleaning

Clean tools/equipment immediately after use with water.

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 on large-scale/seamless surfaces, always apply wet-on-wet and without interruption. Do not apply on horizontal surfaces exposed to rain/water or moisture.

Facades in special climatic conditions (high moisture content) or subjected to a higher influence of atmospheric exposure: It is recommended to apply our special product ThermoSan NQG, provided with a preservative against deterioration in the coating film due to algal and fungal attack to counteract organic growth (delaying infestation).

Mechanical loads (scratching) on matt facade paints in dark shades may produce bright-toned stripes as a product specific property (no writing resistance). The effect is reduced when applying AmphiSilan NQG.

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 having respected a short reaction time. An additional priming coat of CapaGrund Universal must be applied. The traces cannot occur when the paint is applied under suitable climatic conditions.

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

Copper ions in rain water react with ingredients of the AmphiSilan NQG formulation, thus all adjacent surfaces (copper plating) must be protected from oxidation to avoid brownish discolouration.
Alternatively our facade paint Muresko SilaCryl® can be applied.

Advice

German Certificates

■ AmphiSilan Fassadenfarbe NQG Wasserdampf-Diffusionsstromdichte (Water vapour transmission rate)

Please Note (Status as at Date of Publication)

AmphiSilan NQG White and CX AmphiSilan NQG:

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. Do not breathe spray dust. Contains: 1,2-benzisothiazol-3(2H)-one, 2-methyl-2H-isothiazol-3-one. May produce an allergic reaction.

In Germany: Advice for allergy sufferers: Hotline 0180/5308928 (0.14 €/minute from German landline, MTS max. 0.42 €/minute).

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 must 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/c): max. 40 g/l (2010). This product contains max. 30 g/l VOC.

Product Code Paints and Enamels

AmphiSilan NQG White, CX AmphiSilan NQG: M-SF01 (Germany)

Substances of Content - Declaration

White:

Hybrid binder (organo-silicate/acrylate), silicone resin, titanium dioxide, silicates, calcium carbonate, mineral fillers, water, film forming agent, additives, preservative (Methylisothiazolinone, Benzisothiazolinone).

Coloured/Tinted:

Hybrid binder (organo-silicate/acrylate), silicone resin, mineral pigments and fillers, water, film forming agent, additives, preservative (Methylisothiazolinone, Benzisothiazolinone).

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.

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