

Nespri-TEC System AmphiSilan Nespri-TEC



Matt, silicone resin based facade paint, especially for efficient application using the Nespri-TEC spraying system. The consequent further development of the Caparol Clean Concept.

Product Description

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| Field of Application | <p>For efficient application in the special, mist free (dust-free) Nespri-TEC spraying method. 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 generates water-repellent, highly water vapour permeable facade paint coatings. AmphiSilan Nespri-TEC is suitable for coating mineral renders/plasters and for renovation of sound, adherent silicate paints, matt dispersion/emulsion paints, synthetic resin renders/plasters and intact external thermal insulation composite systems (ETICS/EWI systems).</p> |
| Material Properties | <ul style="list-style-type: none"> ■ Mist (dust-)free application using the special Nespri-TEC spraying method. ■ Low surface tension, non-thermoplastic. ■ Non-film-forming, micro-porous. ■ Permeable to CO₂. ■ Resistant to aggressive air pollutants. ■ Provided with special photo-catalytic reactive pigments. ■ reduced visible traces of mechanical stress on dark colours |
| Material Base / Vehicle | Combination of silicone resin emulsion and special synthetic resin dispersion/emulsion. |
| Packaging/Package Size | <ul style="list-style-type: none"> ■ Standard Material: 25 l hobbock, 120 l paint barrel ■ ColorExpress: 12.5 l |
| Colours | <p>White.</p> <p>Factory-made individual colours on request. Check tinted product before applying to avoid colour differences. Always use tinted paint of same batch, when applying on seamless surfaces.</p> <p>AmphiSilan Nespri-TEC is (limited) tintable to all current colour collections via the ColorExpress tinting & mixing machine system. Brilliant, intensive colour shades may have a lower opacity/hiding power. It is therefore recommended to apply a first coat in a similar hiding pastel tint, based on white. A second finishing coat may be necessary.</p> <p>Colour Resistance according to BFS Data Sheet No. 26: Class: A Group: 1</p> |
| Gloss Level | Matt (flat) G ₃ |
| Storage | Keep in a cool, but frost-free place. Shelf life: 12 months. |
| Technical Data | Characteristics according to DIN EN 1062: Tinting may cause variations. |



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| ■ 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: | < 0.14 m (high), V ₁ |
| ■ Water permeability (w-value): | < 0.1 [kg/(m ² · h ^{0.5})] (low) W ₃ |

Supplementary Product

AmphiSilan-Grundierfarbe

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

Clean existing renders/plasters 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 Nespri-TEC according to the type of existing finish render and details as mentioned below.

Renders/Plasters in Mortar Groups/Classes P Ic (Hydraulic Lime Plaster), PII (Lime-Cement Mortars), 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 2 weeks at 20 °C and 65 % relative humidity. Adverse weather conditions, e.g. influenced 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 Plc, PII and PIII can be minimised by an additional priming coat of CapaGrund Universal and the finishing render/plaster may be coated after an idle time of 7 days.

Existing renders/plasters:

Repairs must have adequate time to cure and dry. Highly porous, absorbent, slightly sanding renders/plasters: Apply one priming coat of AmphiSilan-Tiefgrund LF. Prime highly sanding, chalking substrates with AmphiSilan-Putzfestiger.

New Silicate Finish Renders: Coat with products of our silicate based Syllitol-Programme.

Existing Coatings of Silicate Paints & Renders:

Clean adherent, sound coatings mechanically or with high-pressure water jet, in compliance with the regulations. Remove unstable, weathered coatings by abrading, sanding/grinding or by scraping off. Prime with AmphiSilan-Putzfestiger.

Sound/Stable Coats of Matt (Flat) Emulsion Paint:

Clean soiled, chalking coatings by high pressure water jet, in compliance with the regulations. Prime with AmphiSilan-Putzfestiger, if other cleaning methods are used (washing, wire brushing, hosing with water).

Sound/Stable Coatings of Synthetic Resin-Bound (Organic) or Silicone Resin Render/Plaster:

Clean existing coatings by suitable means. Allow wet cleaned surfaces to dry thoroughly before further treatment.

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

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

Unsound Mineral Paint Coatings:

Remove the coating completely by sanding off, brushing off, scraping off, using high pressure water jet in compliance with the regulations, or treat with other suitable methods. Allow wet cleaned surfaces to dry thoroughly before further treatment. Prime with AmphiSilan Putzfestiger.

Fair-Faced Brickwork (Masonry):

Only bricks and clinkers of frost-resistant quality and free of foreign inclusions are suitable substrates for exterior coats of paint. Masonry must be dry and free of salts/salty efflorescence, jointing must be free of cracks. Apply one priming coat of AmphiSilan-Putzfestiger. If brown discolouration appears on the intermediate coat, then recoat with solvent-based façade paint Duparol.

Sand-Lime Brickwork (Masonry):

Only frost resistant bricks, free of foreign inclusions, e.g. sand or loam, are suitable for being painted. Jointing must be free of cracks. Clean chalking surfaces. Remove salty efflorescence by dry wire brushing. (In Germany: Follow BFS Data Sheet No. 2) Prime with AmphiSilan-Tiefgrund LF.

Surfaces with Fungal (Fungi/Mildew/Mould) or Algal Attack:

Coat with fungicidal and algicidal special paint ThermoSan Nespri-TEC.

Surfaces with Salty Efflorescence:

Remove salty efflorescence thoroughly by dry wire brushing and 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 Caparol-Fassaden-Feinspachtel, deeper damages up to 20 mm preferably with Histolith-Renovierspachtel and prime repaired areas subsequently.

Method of Application

Spray application with special Nespray airless equipment:

Spray angle: 30°

Nozzle: Special NESPRAY 0.016" - 0.019" double nozzle

The material temperature is automatically controlled by the NESPRAYPLUS airless unit.

Spray pressure (opened pistol) is in the green marked field.

For NESPRAYKIT-Schlauchtrommel (hose reel) it should be set (self dependent) on the related airless unit.

Other coating materials, especially primers, may also be applied with the Nespray airless unit, but a spray dust reducing (mist free) effect cannot be guaranteed. Apply those materials with corresponding precautions.

Surface Coating System

Apply a first or intermediate and finishing coat of undiluted AmphiSilan Nespri-TEC with special Nespray airless equipment, then roll evenly over the surface with a standard facade roller. On sound/stable existing coatings very often one liberally applied restorative coat (min. 350 ml/m²) is sufficient. Minimum drying time between coats: 12 hours.

Consumption

■ **AmphiSilan Nespri-TEC**

Approx. 250 ml/m²

Consumption is indicated per coat on an even substrate. On rough-textured surfaces correspondingly more. The exact consumption is best established by a trial coating on site.

Application Conditions

Lower Temperature Limit for Application and Drying:

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

Drying/Drying Time

At + 20 °C and 65 % relative humidity surface-dry after 2–3 hours and recoatable after 12 hours. Completely dry after 2–3 days. Lower temperatures and higher relative humidity extend the drying time.

Tool Cleaning

Clean tools (paint rollers and Nespray airless equipment) immediately after use with water.

Note

To avoid lapping, the material should be applied wet-on-wet and without interruption. Do not use on wood, metal, enamels, etc.

Do not apply on horizontal surfaces exposed to rain or moisture. Scaffolding nets or protective tarpaulins should be used, if necessary, depending on weather conditions. Facade plates, also if covering some levels of scaffolding, are to be coated plate by plate and wet-on-wet, followed by very thoroughly and uniform rolling in one direction, thus avoiding texture irregularities which otherwise may be noticeable in adverse lighting conditions, e.g. sidelight.

For facades subjected more than usual to moisture (e.g. under special conditions or severe weathering) exists an increased risk of algal or fungal growth. In this case we recommend our special product ThermoSan Nespri-TEC. It contains substances that delay fungal and algal growth.

Mechanical loads on matt/flat facade paints in dark shades may produce bright-toned stripes as a product specific property (no writing resistance).

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.

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

Compatibility: Do not mix AmphiSilan Nespri-TEC with other paint materials.

Copper ions in rainwater react with ingredients of AmphiSilan Nespri-TEC and may cause a brownish discolouration. Thus all relevant copper surfaces must be protected against oxidation. Alternatively our products ThermoSan Nespri-TEC or Muresko Nespri-TEC can be used.

Advice

German Certificates

■ **AmphiSilan Nespri-TEC Wasserdampf-Diffusionsstromdichte (Water vapour permeability)**

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

CX AmphiSilan Nespri-TEC Base 3:

Harmful to aquatic life with long lasting effects. 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 allow product to enter drains, waterways or soil. 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.

AmphiSilan NespriTEC WHITE and CX AmphiSilan Nespri-TEC Base 1:

Keep out of reach of children. 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. Do not allow product to enter drains, waterways or soil.

In case of contact with eyes or skin, rinse immediately with plenty of water. Contains: 1,2-benzisothiazole -3 (2H) -one , 2- methyl -2H - isothiazol -3-one. May produce an allergic reaction. Advice for allergy sufferers: Hotline 0180/530 89 28 (0.14 € / minute from a German landline, mobile € 0.42 / min.).

Disposal

Materials and all related packaging must be disposed of in a safe way in accordance with the full requirements of the local authorities. 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. 10 g/l VOC.

Product Code Paints and Enamels

AmphiSilan Nespri-TEC Weiß (WHITE) and CX AmphiSilan Nespri-TEC Base 1: M-SF01
CX AmphiSilan Nespri-TEC Base 3: M-SF01F

Substances of Content - Declaration

WHITE:

Silicone resin, acrylic resin dispersion/emulsion, titanium dioxide, silicates, water, film forming agent, additives, preservative (methylisothiazolinone, benzisothiazolinone).

TINTED:

Silicone resin, acrylic resin dispersion/emulsion, titanium dioxide, calcium carbonate, silicates, water, film forming agent, additives, preservatives (methylisothiazolinone, benzisothiazolinone), film preservatives (terbutryne, zinc pyrithione, octylisothiazolinone).

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