

# Nespri-TEC System AmphiSilan Nespri-TEC and Nespray Airless Equipment

**Matt, silicone resin based facade paint, especially for quick and efficient application using the Nespri-TEC spraying method. AmphiSilan Nespri-TEC is protected against algae and fungal attack. The consequent further development of the Caparol Clean Concept.**



## Product Description

### Field of Application:

For efficient application in the special, mist-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. 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 paints, synthetic resin renders/plasters, and intact external thermal insulation composite systems (ETICS / EWI systems).

### Properties:

- Mist-free application using the special Nespri-TEC spraying method.
- Low surface tension, non-thermoplastic.
- Non-film-forming, micro-porous.
- Permeable to CO<sub>2</sub>.
- Resistant to aggressive air pollutants.
- Provided with film preservative.
- Provided with special photo-catalytic reactive pigments

### Characteristics to DIN EN 1062:

- **Gloss level:** Matt G<sub>3</sub>
  - **Dry film thickness:** 100 – 200 µm E<sub>3</sub>
  - **Maximum particle size:** <100 µm S<sub>1</sub>
  - **Water vapour permeability:** V<sub>1</sub>
    - (s<sub>d</sub>-value): 0.12 m (high)
  - **Water permeability:** W<sub>3</sub>
    - (w-value): 0.07 [kg/(m<sup>2</sup> · h<sup>0.5</sup>)] (low)
- Tinting may cause variations.

### Vehicle:

Combination of silicone resin emulsion and special synthetic resin dispersion.

### Container Size / Standard Material:

- 25 litres hobbock
- 120 litres barrel
- 220 litres Quick-Box

**ColorExpress:** 15 litres

### AmphiSilan-Grundierfarbe Nespri-TEC:

- 25 litres hobbock
- 120 litres barrel

**ColorExpress:** 15 litres

### Density:

Approx. 1.5 g/cm<sup>3</sup>

### Colour:

White. Factory-made individual tints on request. Check the tinted material before application to avoid colour differences in the applied coating. Do not use materials of different batches for coating large surfaces. **AmphiSilan Nespri-TEC** can be tinted via the ColorExpress tinting machine system in limited shades of current colour collections. Brilliant, intensive tints may show a lower opacity/coverage. 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.

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

Class: B Group: 1

### Special Risks and Safety Advice (Status as at Publication):

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Keep out of the 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 water and soap. Do not empty into drains, water courses and onto the ground. Protect eyes and skin against 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. Further information: See Safety Data Sheets.

### Storage:

Cool, but frost-free. Shelf life: 12 months.



### 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.

### Product Code Paints and Enamels:

M-SF01F

### Substances of Content · Declaration:

Silicone resin, acrylic resin dispersion, titanium dioxide, calcium carbonate, silicates, water, film forming agent, additives, preservative, film preservative.

### Supplementary Materials:

#### AmphiSilan-Grundierfarbe Nespri-TEC

Waterborne, pigmented priming paint to improve adhesion of prime coats on compact, smooth substrates. Solidifies slightly weathered synthetic renders/plasters using the Nespri-TEC spraying method. **AmphiSilan-Grundierfarbe Nespri-TEC** can be tinted via the ColorExpress tinting machine system in pastel (light-coloured) shades of all current colour collections up to a luminosity of approx. 70.

### Product Code Paints and Enamels:

M-GP01

### Substances of Content · Declaration:

Silicone resin, acrylic resin dispersion, titanium dioxide, calcium carbonate, silicates, water, film forming agent, additives, preservative.



## Application

### Surface Coating System:

Remove fungal or algae attack by wet-blasting in compliance with the regulations. Then treat the surface with Capatox or FungiGrund and allow to dry thoroughly. Apply a first or intermediate and finishing coat of AmphiSilan Nespri-TEC with special Nespray airless equipment and treat evenly with a standard facade roller. On sound existing coatings one restorative coating (min. 350 ml/m<sup>2</sup>) is sufficient in many cases, but two coats are necessary to achieve an adequate protection against algae and fungal attack. Observe a minimum drying time of 12 hours between the coats.

### Method of Application:

Only to be applied with special Nespray airless equipment.

### Spray application:

AmphiSilan Nespri-TEC and AmphiSilan-Grundierfarbe Nespri-TEC  
Spray angle: 30° / Nozzle: Special Nespray 0.016" – 0.019" double nozzle.  
The material temperature is automatically controlled by the Nespray airless unit. Closure pressure (closed pistol) should be set on device in the blue marked field of indicator. Spray pressure (opened pistol) is then in the green marked field. Clean tools immediately after use with water. 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.

### Consumption:

Consumption values are indicated per coat on smooth substrates. Rough-textured surfaces require correspondingly more material. The exact rate of consumption is best established by a trial application. AmphiSilan Nespri-TEC approx. 250 ml/m<sup>2</sup>  
AmphiSilan-Grundierfarbe Nespri-TEC approx. 150 – 250 ml/m<sup>2</sup>

### Lower Temperature Limit for Application and Drying:

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

### Drying Time:

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

### Note:

The materials should not be applied under a glaring sun, during strong wind, fog, high relative humidity, or imminent rain or frost. To avoid lapping on large surfaces, the material should always be applied wet on wet and without interruptions. Do not use on wood, metal, enamels, etc. Do not apply on horizontal surfaces exposed to rain or moisture. Protective tarpaulins should be used, if required (depending on weather conditions). Facade plates, also if covering some levels of scaffolding, are to be coated plate by plate (wet on wet), then follow up by uniform rolling in one direction to avoid the forming of different textures, visible in adverse lighting conditions (sidelight). For colourful AmphiSilan coatings it is recommended to thin the original material with 10% of AmphiSilan Tiefgrund LF, if the visibility of repairs has to be diminished.

AmphiSilan Nespri-TEC is provided with a preservative against damage to the coating due to algae and mildew growth. The depot of agents offers a long lasting protection, but the algicidal & fungicidal effect is limited by the special facade conditions, e.g. intensity of organic growth and moisture. A durable 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.

### Compatibility with other Materials:

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

## Suitable Substrates and their Preparation

**The substrate must be sound, dry, clean, and free from all materials that may prevent good adhesion. Follow VOB, Part C, DIN 18 363, Para. 3.**

### New and existing intact external thermal insulation composite systems (ETICS/ EWI) with finishing coats of synthetic resin (organic), silicate based, silicone resin or lime-cement render/plaster (PII):

Clean existing renders/plasters by suitable means. While cleaning with high pressure cleaning equipment / pressure (power) washer, the temperature should not exceed 60 °C. Max. pressure: 60 bar. Allow to dry for a sufficiently long time after cleaning. Coat with AmphiSilan Nespri-TEC considering the type of existing top render/plaster in accordance with the below mentioned details for different substrates.

### Renderers/Plasters

**P Ic Hydraulic Lime Plaster**  
**Class P II Lime-Cement Mortars**  
**Class P III Cement Mortars**

### or Silicate Based:

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.

The risk of calcareous efflorescence can be reduced by an additional priming coat of CapaGrund Universal and the finishing render/plaster coat may be coated after an idle period of 7 days.

### Existing renders/plasters:

Repairs must have adequate time to cure and dry.

Prime highly porous, absorbent, slightly sanding renders/plasters with AmphiSilan-Tiefgrund LF.

Prime highly sanding, chalking renders/plasters with AmphiSilan-Putzfestiger.

### Sound Coatings of Dispersion Paint:

Clean soiled or chalking coatings with high pressure water jet, in compliance with the regulations. Apply a priming coat with AmphiSilan-Grundierfarbe Nespri-TEC. If other cleaning methods are used (washing, brushing off) apply AmphiSilan-Putzfestiger.

### Sound Synthetic Resin-Bound or Silicone Resin-Bound Renderers/Plasters:

Clean existing renders/plasters by suitable means. Allow wet surfaces to dry thoroughly before further treatment.

### Unsound Coatings of Dispersion Paint or Synthetic Resin-Bound Render/Plaster:

Remove existing coatings by suitable means, e.g. mechanically or with a paint stripper and subsequently cleaning with high pressure cleaning equipment, in compliance with the regulations.

Prime slightly absorbent or smooth surfaces with AmphiSilan-Grundierfarbe Nespri-TEC. Prime chalking, sanding, absorbent surfaces with AmphiSilan-Putzfestiger.

### Unsound Mineral Paint Coatings:

Remove the coating completely by sanding/ grinding, brushing off, scraping off, or high pressure cleaning equipment, in compliance with the regulations. In case of wet cleaning allow the substrate to dry thoroughly before further treatment. Prime with AmphiSilan-Putzfestiger.

### Fair-Faced Brick Masonry:

Only frost-resistant bricks and clinkers free of foreign inclusions are suitable for coatings.

The jointing must be dry, free of cracks and salts (salty efflorescence).

Prime with AmphiSilan-Putzfestiger.

If brown discolouration appear on the intermediate coat, solvent-based paint Duparol has to be used for the finishing coat. (Technical Information No. 150)

### Sand-Lime Brick Masonry:

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

### Surfaces with Salty Efflorescence:

Remove salty efflorescence by dry wire brushing. Priming coat with 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 defects up to 20 mm preferably with Histolith-Renovierspachtel and prime repairs subsequently. Follow Technical Information No. 710 and No. 1029.

## 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:

☎ (+49) 06154 / 71 17 10

Fax No.: (+49) 0 6154 / 71 17 11

e-mail: kundenservicecenter@caparol.de

### International Distribution:

Please see [www.caparol.com](http://www.caparol.com)

---

## Technical Information No. 146 - Revised: September 2009

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 146 Nespri-TEC-System · Issued: April 2009

**CAPAROL Farben Lacke Bautenschutz GmbH** · Roßdörfer Straße 50 · D-64372 Ober-Ramstadt · Tel. + 49 (061 54) 71-0 · Fax + 49 (061 54) 71 13 91 · Internet: [www.caparol.com](http://www.caparol.com)  
**Berlin Office** · Schnellerstraße 141 · D-12439 Berlin · Tel. +49 (030) 63 94 6-0 · Fax +49 (030) 63 94 62 88

DAW International Business: **Deutsche Amphibolin-Werke von Robert Murjahn Stiftung & Co KG** · P.O.B. 1264 · D-64369 Ober-Ramstadt · Tel. +49 (061 54) 71-12 74  
Fax +49 (061 54) 71-12 64 · E-mail [export@daw.de](mailto:export@daw.de) · Internet [www.caparol.com](http://www.caparol.com)