

ThermoSan® NQG® Nespri

A novel silicone resin-binder combination with integrated nano-quartz-matrix structure for efficient façade coating using the Nespri spraying method. ThermoSan® NQG® Nespri is protected against algae and fungal attack.



Product Description

Field of Application

For efficient application within the special, mist-free Nespri spraying method. The paint with an 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 produces rain-repellent, highly water-vapor permeable facade coatings that ensure rapid re-drying after precipitation and dew. Can be used on mineral renders as well as for renovation coatings on firmly adhering silicate paint and matt dispersion paint coats, dispersion renders and intact external thermal insulation composite systems.

Material Properties

- Dirt-repellent due to nano-quartz-matrix
- Highest color stability
- Protected against algae and fungal attack
- Highly CO₂-permeable
- Microporous

Material Base / Vehicle

Combination of silicone resin emulsion and special synthetic resin dispersion/emulsion.

Packaging/Package Size

- **Standard Product:** 25 l hobbock, 120 l paint barrel
- **ColorExpress:** 12.5 l

Colours

- Weiß.
- Further color shades are tintable via ColorExpress.
 - Factory tinting is available for orders of > 100 liters in one color & order.
 - In order to detect possible tinting errors, please check for color shade exactness before processing. Only use color shades of one production (batch) on continuous surfaces.
 - Brilliant, intensive color shades may have a lower hiding power. It is therefore advisable to apply a comparable, opaque, white-based, pastel shade before using these shades. A second top coat may be necessary.

Colour Stability as per German BFS-Merkblatt (Data/Fact Sheet) No. 26:

Class: A
Group: 1

Gloss Level

Matt, Class: G₃

Storage

Keep in a cool, but frost-free place. Shelf life: 12 months.



Technical Data

Characteristics according to DIN EN 1062:

- Maximum particle (grit) size: < 100 µm, Class: S₁
 - Density: Approx. 1.5 g/cm³
 - Dry film thickness: 100 - 200 µm, Class: E₃
 - Diffusion-equivalent air layer thickness s_dH₂O: (sd-Value): < 0.14 m (high), Class: V₁
 - Water permeability (w-value): < 0.1 [kg/(m² · h^{0.5})] (low), Class: W₃
- Deviations in the technical characteristics are possible due to tinting.

Supplementary Product

"CapaGrund Universal /-W"

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. Germany: Follow VOB, part C, DIN 18363, section 3. Prime coat according to our Technical Information No. 650 "Substrates and their pretreatment".

Substrate Preparation

In case of algae or fungal infestation, the surfaces must first be cleaned by wet blasting in compliance with the legal regulations. Then wash surfaces with "Capatox" or "FungiGrund" and allow to dry.

When painting on ETICS, please observe "BFS-Merkblatt Nr. 21". Only intact ETICS can be recoated with paint. For non-intact surfaces, please refer to the Capatec renovation system for ETICS. On ETICS with polystyrene insulation, no solvent-based primer coatings, except Dupa-Putzfestiger, may be used. When applying colored coatings, the lightness value must be > 20. If the lightness value is < 20, it is possible to apply Muresko CoolProtect with a TSR value of ≥ 25 %.

New and existing intact thermal insulation composite systems with surfaces of dispersion, silicone resin, lime (Plc), lime-cement plaster (PII)/minimum compressive strength according to DIN EN 998-1 with min. 1N/mm²:

Wet-clean old render using a suitable method.

When cleaning, use pressure water jets with a max. temperature of 60 °C and a max. pressure of 60 bar.

After cleaning, allow sufficient drying time. Apply coating with ThermoSan® NQG® according to the existing top coat (render) in accordance with the following substrate specifications.

Renders of mortar groups Plc, PII and PIII/minimum compressive strength according to DIN EN 998-1 with min. 1N/mm²:

New renders can be coated after sufficient standing time, usually after 2 weeks, at approx. 20 °C and 65 % relative humidity, with an addition of 5 % water.

In unfavorable weather conditions, e.g. influenced by wind or rain, considerably longer standing times must be observed. An additional priming coat of "CapaGrund Universal" reduces the risk of lime efflorescence on alkaline finishing renders of render groups P Ic, P II or P III, so that coating can be applied after a standing time of 7 days.

Old renders:

Repaired render areas must be well set and dried. Coat normally absorbent renders directly with ThermoSan® NQG®, with an addition of max. 5 % water. On coarsely porous, absorbent, slightly sanding renders, prime with OptiSilan TiefGrund. On heavily sanding, flouring renders, apply a priming coat of Dupa-Putzfestiger.

New silicate finishing renders:

Coat with Syllitol® NQG®-W Facade Paint.

Old silicate paints and renders:

Clean firmly adhering coatings mechanically or by pressure water jetting, observing the legal regulations. Remove non-sticking, weathered coatings by scraping, grinding, scraping off. Apply a primer coat of Dupa-Putzfestiger.

Fiber cement boards with and without asbestos fibers:

Observe "BFS-Merkblatt Nr. 14". For boards containing asbestos fibers, comply with TRGS 519. Prime coat according to our Technical Information No. 650 "Substrates and their pretreatment". Treat exposed boards including the back and edges. For new, highly alkaline fiber cement boards, apply a primer coat of Disbon 481 EP-Uniprimer to prevent lime efflorescence. Dilute ThermoSan® NQG® with 5 % water when applying an intermediate coat.

Cement-bonded particleboard:

Due to the high alkalinity of cement-bonded wood particleboard, a primer coat must be applied with Disbon 481 EP-Uniprimer to prevent lime efflorescence and ThermoSan® NQG® must be diluted with 5 % water during the intermediate coat.

Sound dispersion render or silicone resin render coatings:

Clean old renders by suitable method. In case of wet cleaning, allow surfaces to dry thoroughly before further treatment. Prime with CapaGrund Universal or Dupa-Putzfestiger. Coat new synthetic resin or silicone resin plasters without pretreatment.

Sound dispersion or silicone resin paint coatings:

Dirty, chalking old coatings: clean by pressure water jetting, observing the legal regulations. After drying, check the substrate for the following characteristics:

Weakly absorbent: Apply one priming coat of CapaGrund Universal diluted with max. 3 % water.

Medium to highly absorbent: Apply one priming coat of Caparol OptiSilan-TiefGrund undiluted.

Chalking or chalking (also under water load following BFS No. 20, B.13 "Surface strength, chalking"): Prime coat with Dupa-Putzfestiger.

Non-bearing paint and render coatings:

Remove residues by suitable method, e.g. by sanding, brushing, scraping, stripping and subsequent cleaning with pressurized water jets in compliance with legal regulations or other suitable measures. In case of wet cleaning, allow surfaces to dry thoroughly before further treatment. For chalking, sanding, absorbent surfaces, apply Dupa-Putzfestiger. Apply intermediate coat of Caparol PutzGrund 610.

Facing brickwork:

Only frost-resistant facing bricks or clinkers without foreign inclusions are suitable for painting. The masonry must have crack-free joints, be dry and free of salt. Prime with Dupa-Putzfestiger. In case of brown discoloration in the intermediate coat, continue with Duparol water-free facade paint.

Sand-lime brickwork:

Only frost-resistant facing bricks that do not contain any driving or discoloring foreign inclusions such as sand or clay are suitable for painting. The jointing must be free of cracks. Clean chalking/flouring surfaces. Brush off salt efflorescence dry.

Observe "BFS-Merkblatt Nr. 2" Prime with "OptiSilan-TiefGrund".

Surfaces with salt efflorescence:

Remove salt efflorescence dry by brushing. Prime with Dupa-Putzfestiger.

When coating surfaces with salt efflorescence, no guarantee can be given for the permanent adhesion of the coating or the suppression of the salt efflorescence.

Defects:

Repair small defects with "Caparol Fassaden-Feinspachtel". Large defects up to 20 mm should preferably be repaired with "Histolith-Renovierspachtel". Prime filler areas.

Observe technical information of the products mentioned.

Method of Application

Only to be applied with special Nespray airless equipment.

Spray application with Nespri nozzles for facade coating (spraying & re-rolling):

- 20° double nozzle 215 (for trimming work)
- 30° double nozzle 317 (for smooth substrates)
- 30° double nozzle 319 (for rough substrates)

The product temperature is automatically controlled by the Nespray airless unit.

Spray pressure (opened pistol) of "Nespri-Airless unit" is in the green marked field of indicator (manometer/pressure gauge).

When using the "NespriKIT-Schlauchtrommel" (hose reel) the spray pressure must be adjusted on the particular airless unit, on the responsibility of the workman.

Other coating materials, in particular primers, can 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

Remove fungal or algal attack by wet-blasting, in compliance with the regulations. Then use Capatop or FungiGrund and allow the surface to dry thoroughly.

Apply the first and/or intermediate and finishing coat of undiluted ThermoSan® NQG® Nespri with special Nespray airless equipment and immediately roll over very evenly with a standard facade roller. On proper (sound/stable) existing coatings, oftentimes one restorative coating is sufficient (consumption: min. 350 ml/m²).

Note: Two coats are necessary to obtain an adequate protection against algal and fungal attack. Observe a minimum drying time of 12 hours between coats.

Consumption

Approx. 250 ml/m² per coat on smooth surfaces. On rough surfaces, the exact consumption must be determined by trial coating.

To achieve the best possible protection against algae and fungal attack, it is necessary to apply two coats with a total of at least 500 ml/m² to achieve an average coating thickness of at least 200 µm. Each additional coat, at a consumption of at least 250 ml/m² per coat, increases the layer thickness by a further approx. 100 µm. On rough surfaces, the consumption is correspondingly higher.

Application Conditions

Lower temperature limit during processing and drying:

Material, circulating air and substrate temperature: min. + 5° C to max. + 30° C.

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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 relative humidity extend the drying time.
Tool Cleaning	Clean tools/equipment immediately after use with clean water.
Note	<p>To avoid lap, coat larger areas wet-on-wet in one go. Not suitable for coating wood, metal, paints, etc. Do not use on horizontal surfaces exposed to water. Depending on weather conditions, attach scaffold nets or tarpaulins if necessary. Facade panels, even over several scaffold bays, must be coated wet-on-wet, panel by panel, and carefully re-rolled evenly in one direction. Structural differences may otherwise become visible in grazing light.</p> <p>ThermoSan® NQG® Nespri is a product that contains special active substances to prevent the formation of fungi and algae on the coating. This depot of active ingredients provides long-lasting protection for a limited period of time. The duration of its effectiveness depends on object conditions, such as the severity of the infestation and the moisture load. Therefore, permanent prevention of fungal and algal growth is not possible.</p> <p>In the case of dark shades, mechanical stress may lead to light streaks (writing effect). ThermoSan® NQG® Nespri reduces this product-specific property of all matt facade paints.</p> <p>In the case of dense, cool substrates or in the case of drying delays due to weather conditions, auxiliary substances may form yellowish/transparent, slightly glossy and sticky run-off marks on the surface of the coating as a result of exposure to moisture (rain, dew, fog). These auxiliary substances are water-soluble and are removed independently with sufficient water, e.g. after several heavy rains. The quality of the dried coating is not adversely affected by this. If, nevertheless, a direct recoating is to be carried out, the runners/auxiliary materials must be pre-wetted and washed off completely after a short exposure time. An additional priming coat of CapaGrund Universal must be applied. If the coating is applied under suitable climatic conditions, these run-off marks will not occur.</p> <p>Markings of touch-ups in the surface depend on many factors and are therefore unavoidable ("BFS-Merkblatt Nr. 25").</p> <p>Compatibility with other coating materials. ThermoSan® NQG® Nespri must not be mixed with other coating materials.</p>

Advice

Special Risks (Hazard Note) / Safety Advice (Status as at Date of Publication)	<p>May cause allergic skin reactions. Harmful to aquatic life with long lasting effects. If medical advice is needed, have packaging or label at hand. Keep out of the reach of children. Do not get in eyes, on skin or on clothing. Avoid release to the environment. Wear protective gloves/eye protection. IF ON SKIN: Wash with plenty of soap and water. Contains: 1,2-benzisothiazol-3(2H)-one, 2-methyl-2H-isothiazol-3-one, octhiline (ISO), reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). Caution. Spraying may produce hazardous respirable droplets. Do not inhale aerosol or mist. This product is a "treated product" according to EU Regulation 528/2012 (not a biocidal product) and contains the following biocidal active ingredients: zinc pyrithione (CAS No. 13463-41-7), terbutryn (CAS No. 886-50-0), octhiline (ISO) (CAS No. 26530-20-1), isoproturon (ISO) (CAS No. 34123-59-6). Hotline for allergy inquiries: 0800/1895000 (free of charge from German landlines).</p>
Disposal	<p>Materials and all related packaging must be disposed of in a safe way in accordance with the full requirements of the local authorities. Observe the relevant national regulations. <u>In Germany:</u> Dispose of liquid material residues at the collection point for old paints/ varnishes, dispose of dried material residues as construction and demolition waste or as municipal waste or household waste.</p>
EU limit value for the VOC content	of this product (category A/c): 40 g/l (2010). This product contains max. 10 g/l VOC.
Product Code Paints and Enamels	GISCODE BSW50 (Germany)
Substances of Content - Declaration	Polyacrylate resin, silicone resin, polysiloxanes, hybrid binders (organo-silicate / acrylate), calcium carbonate, titanium dioxide, silicates, mineral pigments / fillers, water, glycol ethers, additives, film protectants, preservatives.
Further Details	See Safety Data Sheet (SDS).
Customer Service Centre	Tel.: +49 6154 71-71710 Fax: +49 6154 71-71711 e-mail: kundenservicecenter@caparol.de
	International Distribution: Please see www.caparol.com

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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 No. 1277 · ThermoSan® NQG® Nespri · Issued: April 2022