

# ThermoSan® NQG®

High-end facade paint with integrated nano-quartz grid technology for clean, fast-drying facades.



## Product Description

Field of Application	<p>The premium facade paint with the decisive advantage: Organically networked nano-quartz structures form a dense, mineral-hard, three-dimensional nano-quartz grid against the dirt and thus keep facades clean for longer.</p> <p>The special combination of silicone resin binders creates rain-repellent, highly water-vapor-permeable facade coatings that ensure quick drying after rain and dew.</p> <p>ThermoSan® NQG® is suitable for common ETICS finishing coatings such as synthetic resin, silicone resin, lime and lime-cement plasters. Can be used on mineral and dispersion-bound plasters, coated or uncoated.</p>
Material Properties	<ul style="list-style-type: none"> <li>■ Dirt-repellent thanks to the nano-quartz grid</li> <li>■ Highest color stability</li> <li>■ Maximum protection against algae and fungal attack</li> <li>■ Highly CO<sub>2</sub> permeable</li> <li>■ Micro-porous (non-film-forming)</li> </ul>
Material Base / Vehicle	Combined silicone resin emulsion and innovative type of hybrid binder on an inorganic/organic basis.
Packaging/Package Size	<p>Standard product: 12.5 litres</p> <p>ColorExpress: 1.25 litres, 7.5 litres and 12.5 litres</p>
Colours	<p>White.</p> <p>Other colors can be tinted via ColorExpress. When purchasing 100 liters and more in one color and order, also available tinted at the factory on request. In order to identify possible tinting errors, please check the color shade accuracy before processing. Only use shades of one production (batch) on contiguous surfaces. ThermoSan® NQG® can also be tinted with suitable AmphiColor-Volltonfarbe tinting colors with an addition amount of a maximum of 20%. In the case of self-tinting, mix the required total amount with each other in order to avoid color differences. Intense color tones may have a lower hiding power. It is therefore advisable to prepaint a comparable, opaque, white-based, pastel color for these colors. A second top coat may be necessary.</p>
Gloss Level	<p><b>Color resistance according to German BFS*-Merkblatt (Data Sheet) No. 26:</b>                  Class: A (binder)                  Group: 1 (pigmentation)</p> <p>*Bundesausschuss Farbe und Sachwertschutz                  (German committee dealing with paint and protection of properties)</p> <p>Matt G<sub>3</sub></p>



Storage  
Technical Data

Please store in a cool place and keep the container tightly closed.

Characteristics according to DIN EN 1062:

- Maximum particle (grit) size: < 100 µm, S<sub>1</sub>
- Density: Approx. 1.5 g/cm<sup>3</sup>
- Dry film thickness: 100 - 200 µm, Class: E<sub>3</sub>
- Water permeability (w-value): < 0.1 [kg/(m<sup>2</sup> · h<sup>0.5</sup>)] (low), Class: W<sub>3</sub>
- Water vapour permeability (sd-value): < 0.14 m (high), Class: V<sub>1</sub>

Suitability according to  
Technical Information No. 606  
Definition of Application Areas

Interior 1	Interior 2	Interior 3	Exterior 1	Exterior 2
-	-	-	+	+
(-) not suitable / (○) conditionally suitable / (+) suitable				

## Application

Suitable Substrates

The substrates must be free of dirt, separating substances and dry. Please note our Technical Information No. 650 "Substrates and their pretreatment" with regard to their suitability for different substrates and their necessary pre-treatment.

Substrate Preparation

In the event of algae or fungus infestation, the surfaces must first be cleaned with water jets, observing the legal regulations. Then wash the surfaces with Capatop or FungiGrund and allow to dry.

Only intact ETICS can be processed with facade paints. For areas that are not intact, we refer to the Capatect renovation system for ETICS. Solvent-based primers, with the exception of Dupa-Putzfestiger, must not be used on ETICS with polystyrene insulation. When applying colored paints, the lightness value (Hellbezugswert HBW) must be > 20. If the lightness value is <20, it is possible to use CoolProtect with a TSR value of ≥ 25%.

**New and existing, intact thermal insulation composite systems with surfaces made of dispersion, silicone resin, lime (Plc), lime-cement plaster (PII)/minimum compressive strength according to DIN EN 998-1 with at least 1N/mm<sup>2</sup>:**

Clean old plasters by a suitable wet cleaning method.

When cleaning with pressurized water jets: max. 60°C and max. 60 bar. Allow sufficient drying time after cleaning. Apply the coating with ThermoSan NQG in accordance with the existing type of finishing coat in accordance with the following substrate information.

**Plasters of mortar groups Plc, PII and PIII/minimum compressive strength according to DIN EN 998-1 with at least 1N/mm<sup>2</sup>:**

New plasters can be coated with an addition of 5% water after a sufficient waiting period, usually after 2 weeks at approx. 20°C and 65% rel. humidity.

In unfavorable weather conditions, e.g. influenced by wind or rain, significantly longer waiting times must be observed. An additional key coat of CapaGrund Universal reduces the risk of lime efflorescence with alkaline finishing plasters of plaster groups P Ic, P II or P III, so that the paint can be applied after a waiting period of 7 days.

**Old plasters:**

Renewed plaster areas must be well set and dried out. Coat normally absorbent plasters directly with ThermoSan® NQG® with an addition of max. 5% water. Apply a key coat of OptiSilan TiefGrund on coarsely porous, absorbent, slightly sanding plasters. Apply a key coat of Dupa-Putzfestiger on heavily sanding, powdery plasters.

**New silicate finishing renders:**

Prime with Sylitol® NQG-W facade paint.

**Old silicate paints and renders:**

Clean adherent, stable 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. Apply a key coat of Dupa-Putzfestiger.

**Fibre cement boards (with or without asbestos fibres):**

Germany: Follow BFS-Merkblatt (Data Sheet) No. 14 or TRGS 519 for coatings on asbestos cement boards. Apply a key coat in accordance with our Technical Information No. 650 "Substrates and their pretreatment". Coat exposed panels including the back and edges. Prime with Disbon 481 EP-Uniprimer on new, strongly alkaline fiber cement boards to avoid lime efflorescence. Dilute ThermoSan® NQG® with 5% water for the intermediate coat.

**Cement-bonded chipboards:**

Due to the high alkalinity of cement-bound chipboards, a key coat of Disbon 481 EP-Uniprimer must be applied to avoid lime efflorescence, and ThermoSan NQG must be diluted with 5% water for the intermediate coat.

**Load-bearing dispersion plaster or silicone resin plaster coatings:**

Clean old plasters with a suitable method. In the case of wet cleaning, allow the surfaces to dry thoroughly before further treatment. Apply a key coat of "CapaGrund Universal" or "Dupa-Putzfestiger." Coat new synthetic resin or silicone resin plasters without pretreatment.

**Load-bearing dispersion, dispersion silicate or silicone resin paint coatings:**

Clean old coatings with high pressure water jets in compliance with the legal regulations.

Germany: Observe the substrate test in accordance with BFS-Merkblatt No. 20.

Old coatings with the following properties:

**Slightly absorbent, firm, dry, stable:** see point "Surface Coating System".

**Moderately absorbent:** CapaGrund Universal diluted up to 3% with water.

**Strongly absorbent:** OptiSilan TiefGrund or Dupa-Putzfestiger

**Old coatings on ETICS:**

**Strongly absorbent, firmly adhering, fine hairline cracks:**

Dupa-Putzfestiger

**Chalking or powdering (also under the action of water based on BFS No. 20, B.13 "Oberflächenfestigkeit, Kreidung"):**

First prime with Dupa-Putzfestiger

**Shiny and water-repellent (hydrophobic) surfaces:**

Roughen mechanically. First prime with CapaGrund Universal.

If there is still a water repellent effect after the mechanical roughening, we recommend a primer coat with Dupa-HaftGrund.

**Paint and render coatings that are not stable:**

Remove completely using a suitable method, e.g. by sanding, brushing, scraping, stripping and subsequent cleaning with high-pressure water jets in compliance with legal regulations or other suitable measures. In the case of wet cleaning, allow the surfaces to dry thoroughly before further treatment. Prime powdery, sandy, absorbent surfaces with Dupa-Putzfestiger.

Intermediate coat with Caparol PutzGrund 610.

**Brick exposed masonry:**

Only frost-resistant facing bricks or clinker bricks without foreign inclusions are suitable for painting. The masonry must be dry, free of salt and the joints free of cracks. First prime with Dupa-Putzfestiger. If there is brown discoloration in the intermediate coat, continue working with the water-free facade paint Duparol (solvent-based).

**Sand-lime brick masonry:**

Only frost-resistant facing bricks that do not contain any floating or discoloring foreign inclusions such as sand or clay are suitable for painting. The joints must be free of cracks. Clean chalking/ powdery surfaces. Brush off salt efflorescence when dry. Observe BFS-Merkblatt No. 2. First prime with OptiSilan TiefGrund.

**Areas with salt efflorescence:**

Remove salt efflorescence when dry by brushing. First prime with Dupa-Putzfestiger. When coating surfaces with salt efflorescence, no guarantee can be given for the permanent adhesion of the coating or the prevention of salt efflorescence.

**Defects:**

Repair small defects with fine filler "Caparol Fassaden-Feinspachtel". Repair big defects up to 20 mm preferably with "Histolith-Renovierspachtel". Prime the repaired areas subsequently.

**Observe the technical information of the products mentioned.**

Method of Application

Can be used with a paint brush or roller.  
For the airless application of ThermoSan® NQG®, we recommend ThermoSan® NQG® Nespri, processed using the Nespri spray method.

Surface Coating System

**First key coat:**

According to the specifications under the point "Substrate preparation".

**First key coat or intermediate coat:**

ThermoSan® NQG® diluted with max. 5% water or OptiSilan TiefGrund.

**Finishing key coat:**

ThermoSan® NQG® diluted with max. 5% water or OptiSilan TiefGrund.

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Consumption	<p>Approx. 150–200 ml/m<sup>2</sup> per application on a smooth surface. On rough surfaces, the exact consumption must be determined by applying a test coat.</p> <p>In order to achieve the best possible protection against algae and fungal attack, it is necessary to apply two coats of at least 400 ml/m<sup>2</sup> in total in order to achieve an average layer thickness of at least 200 µm. With a consumption of at least 200 ml/m<sup>2</sup> per coat, each additional coat increases the layer thickness by another approx. 100 µm. The consumption is correspondingly higher on rough surfaces.</p>
Application Conditions	<p><b>Temperature limits during processing and drying:</b> Material, air and substrate temperature: min. +5 °C to max. +30 °C</p>
Drying/Drying Time	<p>At +20 °C and 65 % relative humidity surface-dry after 2 - 3 hours and recoatable after 12 hours. Completely cured and ready for stress after approx. 3 days. Lower temperatures and higher humidity extend the drying time.</p>
Tool Cleaning	<p>Clean tools with water after use. Observe waste water regulations.</p>
Note	<p>To avoid laps, coat larger areas wet-on-wet in one go. Do not use on horizontal surfaces exposed to water.</p> <p>ThermoSan® NQG® is a product that is equipped with special active ingredients to prevent the formation of fungi and algae on the coating. This depot of active ingredients offers long-lasting, time-limited protection, the duration of which depends on building conditions, such as the strength of the infestation and the moisture load. It is therefore not possible to permanently prevent the growth of fungi and algae.</p> <p>In the case of dark colors, mechanical stress can lead to light stripes (writing effect).</p> <p>In the case of dense, cool substrates or if the drying time is delayed due to the weather, auxiliary substances can become visible on the surface of the coating as yellowish/ transparent, slightly shiny and sticky paint tears due to exposure to moisture (rain, dew, fog). These auxiliary substances are water-soluble and are removed automatically with sufficient water, e.g. after repeated heavy rainfall. This does not adversely affect the quality of the dried coating. Should a direct rework still take place, the paint tears/ auxiliary substances must be pre-moistened and washed off completely after a short exposure time. An additional key coat of CapaGrund Universal must be carried out. If the coating is applied under suitable climatic conditions, these paint tears do not occur.</p> <p>Markings of repairs/ touch-ups in the surface depend on many factors and are therefore unavoidable (BFS-Merkblatt No. 25).</p>

## Advice

### German Certificates

- ThermoSan® NQG® Wasserdurchlässigkeit (water permeability)
- ThermoSan® NQG® Pilz- und Algenbefall (fungal and algae infestation)
- ThermoSan® NQG® Wirksamkeit der Filmkonservierung (effectiveness of the film preservation)

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

May cause an allergic skin reaction. Harmful to aquatic life with long lasting effects. If medical advice is needed, have product container or label at hand. Keep Angaben zur Materialkennzeichnung (AMK) ThermoSan NQG  
Version 4.0 Überarbeitet am 28.09.2022 Druckdatum 28.09.2022  
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out of 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-methylisothiazol-3(2H)-one, octhiline (ISO), 4,5-dichloro-2-octyl-2H-isothiazol-3-one, reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist. According to European Regulation 528/2012 this product is defined as a "treated article" (not a biocidal product) and contains the following biocidal substances: octhiline (ISO) (CAS-No. 26530-20-1), 4,5-dichloro-2-octyl-2H-isothiazol-3-one (CAS-No. 64359-81-5), isoproturon (ISO) (CAS-No. 34123-59-6), terbutryn (CAS-No. 886-50-0).

### Disposal

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.

In Germany: 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.

### EU limit value for the VOC content

Category A/c: 40 g/l (2010). This product contains max. <40 g/l VOC.

### Product Code Paints and Enamels

Giscode: BSW50

### Substances of Content - Declaration

Polyacrylate resin, hybrid binder (organosilicate/ acrylate), silicone resin, polysiloxanes, silicates, titanium dioxide, mineral pigments/ fillers, water, glycol ethers, additives, film protection agents, preservatives.

# TECHNICAL INFORMATION NO. 156

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## Technical Information No. 156 · Issue: September 2022

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.156 · ThermoSan® NQG® · Issued: December 2021

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