



TECHNICAL SHEET

FUNCTIONAL COATING FN[®]2

Protective photocatalytic coating for efficient air cleaning and for permanently clean facades, walls, concrete and other surfaces.

Ensures active self-cleaning of the surface from dirt and color fastness. Protects surfaces against the build-up of microorganisms.

They form an impenetrable UV shield.

Guaranteed functionality on vertical surfaces - 10 years.

USAGE:

Functional coating FN[®]2 can be used both outdoors and indoors.

FOR PROTECTION AND SUSTAINABLY CLEAN APPEARANCE OF STRUCTURES: The surface coated with FN[®]2 is a permanently clean surface where no soot or other dirt from the air is deposited or blackened by microorganisms. It is mainly used for the protection of facades, walls and exposed concrete. It is particularly suitable as UV protection for insulated facades - it prevents color changes and breakdown of the binder of facade paints and plastered render.

FOR A CLEAN AND HEALTHY ENVIRONMENT: FN[®]2 is used to create a special wall surface that provides efficient, silent, low-cost and maintenance-free technology to improve indoor environments in buildings.

ECO-TECHNOLOGY FOR AIR CLEANING FROM EMISSIONS AND GREENHOUSE GASES: The functional surface created by FN[®]2 effectively cleans the air from a wide range of pollutants that are dispersed in the air, over a long period of time and at extremely low cost. 1000 m² removes, annually, hundreds of kilograms of nitrogen oxides (NO_x), methane (CH₄) and fine suspended particulate matter containing toxic and carcinogenic substances of organic character from the air. This technology enables construction investors, developers and designers to effectively offset the negative environmental impacts of buildings. Painting larger areas of noise barriers, walls, facades and road surfaces with FN[®]2 can compensate for the ecological footprint of thousands of cars with internal combustion engines.

Building owners, architects and designers will appreciate the possibility of coloring this paint in more than 350 pastel shades.



PRODUCT DESCRIPTION:

It is a very effective functional mineral coating for the protection of surfaces of buildings and sculptures, which works on the basis of a physical phenomenon called photocatalysis. The coating is activated by the ultraviolet component of daylight and has highly effective protective and self-cleaning properties. Effectively and long-term protects surfaces against dirt deposits (soot and dust particles), microorganisms (molds, algae) and against degradation by UV radiation (decomposition of binder paints, plasters and dyeing). Its protective and self-cleaning properties are inexhaustible, unlike chemical products.

It guarantees extremely effective substrate protection and is also often used as an effective technology to reduce the risk of transmitting infections indoors.

We supply it both in basic white form and in more than 350 shades of pastel colors. It is also possible to apply on "Venetian stucco".

The paint FN 2 is inert, does not contain any organic substances and does not release any undesirable chemicals into the environment.

Video - [How to create a self-cleaning facade](https://youtu.be/bkved-TNRFw) (https://youtu.be/bkved-TNRFw)

PROPERTIES:

- **Highly effective against fungi, fungi, algae and other microorganisms**
- **Prevents the establishment of viruses and bacteria - reduces the risk of transmitting infections**
- **High UV protection - against deterioration and degradation of paint**
- **Self-cleaning function - protects the surface from atmospheric dirt deposits and facade darkening / dirt**
- **High breathability and vapor permeability**
- **Used for creating anti-graffiti protection**

APPEARANCE:

FN®2 is partially transparent and suitable for all porous surfaces where we want to achieve a beautiful and clean appearance as long as possible, without being affected by algae, mold, fungi and other microorganisms. Photocatalytic titanium dioxide ensures the function of the coating even in minimal quantities. The coating thickness is optimally 5-30 microns. The layer is either white or colored to the desired pastel shade.

The layer is active immediately after daylight (exterior) or artificial light with UVA spectrum (interior). The optimal wavelength of UV light for illumination from an artificial source is 365 nm. The paint is matured after 24 hours and fully functional after the first rain or rinsing with water.

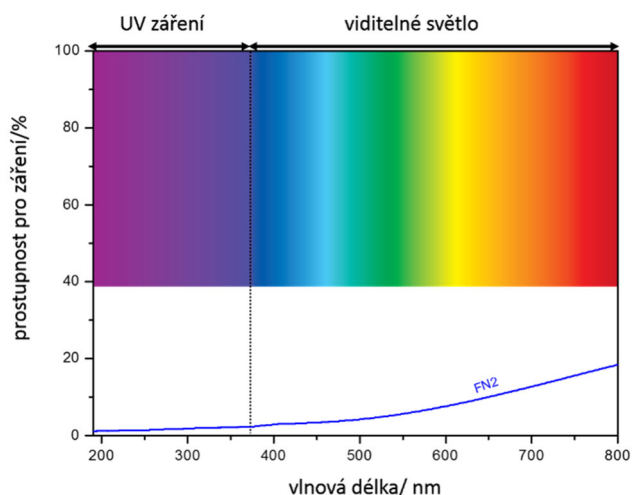


THE PHOTOCATALYTIC EFFECT IS PERMANENT, INEXHAUSTIBLE AND DOES NOT FADE WITH TIME.

ALL PROTECTIVE FUNCTIONS ARE PRESERVED FOR THE WHOLE EXISTENCE OF THE COATING COAT.

Dirt, bacteria or other microorganisms do not deposit on the surface created by the FN® 2 coating that is activated by UV light (it acts as a barrier against microorganisms). It is a highly efficient technology for air decontamination (exterior air purification and reduction of the risk of transmitting infections indoors).

The optical properties of the functional coating FN®2 are illustrated by the enclosed graph, which illustrates how the shielding efficiency increases dramatically when it passes into ultraviolet (UV) radiation. At UV wavelengths, photocatalyst nanocrystals absorb virtually all of the energy and convert it into a cleansing effect and an active barrier against the build-up of microorganisms.



COMPOSITION:

Pure water-based composite paint. Contains uncoated photocatalyst and inorganic binders. Color variants also contain mineral pigments. It contains high concentrations of photocatalyst (70 - 100 g / l), which ensures its long-term flawless protective function and also especially high self-cleaning efficiency.

The coating does not contain any organic compounds in accordance with European and worldwide environmental and health protection trends. The applied FN®2 coating is inert and completely safe. It does not release any substances into the environment.

RECOMMENDATIONS FOR USE:

EXTERIOR:

Certified for concrete protection and also suitable for all common types of plasters and walls. In new buildings we recommend applying FN®1 as a first protective coat to protect the surface and reduce the concentration of viruses, bacteria, fungi and prevent growth of lichens and other eroding microorganisms. Subsequently, we recommend using FN®2 functional coating for the next 2 layers either in the white base version or in the desired color shade.

In case of already dirty and contaminated facade with microorganisms, we recommend first washing it, penetrating it and then applying our functional coating FN® 1 for the first layer. Then apply 2 layers of FN®2.



Viditelná účinnost po aplikaci FN® NANO ochrany (vpravo), po 5 letech od aplikace.

Viditelný efekt aplikace FN® NANO (vpravo), po 5 letech od aplikace.

Viditelný efekt aplikace FN® NANO (vpravo), po 5 letech od aplikace.

INTERIOR:

For masonry and plasterboard substrates - in the case of problems with mold, fungi, etc., we recommend that you first treat the surfaces with a mildew agent, allow them to dry and then apply one coat of FN® 1 to prevent the build-up of microorganisms. Subsequently apply two more layers with FN® 2 functional coating to create active antimicrobial protection and self-cleaning air nanopurifier. Here, a sufficient light source must be provided to activate the coating for long-term functionality.



METHOD OF APPLICATION:

Prior to each application, the coating should be thoroughly shaken in the package in which it is supplied. Perfect shaking is required to achieve even mixing of the insoluble dust component in the coating. This is necessary to ensure the proper functioning of the protective coating. Before applying FN® technology, it is important to have the primer perfectly matured. FN® coatings can be applied to the primer after 24 hours at the earliest. This is important for correct functionality of the coating.

It is therefore important that the paint is always in motion. In practice, this means that only a small amount of the already thoroughly mixed paint is poured and then applied. Shake again before pouring.

To achieve a nice appearance, we always apply as thin as possible, but continuous and even layer, which is allowed to dry before the next coat.



Spraying - optimally three coating layers. On smooth surfaces, the manufacturer recommends spraying to create a thin, even layer.



Roller application optimally in three coats is suitable for virtually all surfaces. Even application requires some skill.



Brush application (for hard-to-reach areas) optimally in three coatings is suitable for hard-to-reach areas, deeper diffusion of the active substance and for the treatment of areas that may be affected by mold, for example.

- Cover all areas that are not treated with FN
- The layer should be allowed to dry between individual layers
- Do not apply during rain
- For better effect we recommend thorough cleaning of surfaces before application.

Do not apply to water-repellent (hydrophobic) surfaces.

The method of application, aids and equipment used must correspond to the specific conditions, condition and requirements of the object on which the coating is to be applied.

During application of the coating, nanoparticles of the active substance penetrate into the porous structure of the substrate, where they bind in the layer of inorganic binders. An islet-like layer of only 200 nanometers is capable of providing a photocatalytic function of approximately fifty percent, which guarantees many years of functionality and efficiency of this coating even in outdoor environments. The applied layer is frost-resistant and highly vapor-permeable - in winter, the substrate is not damaged by so-called de-icing.

Dilution:

Do not dilute!

Consumption:

Typically 1 liter = 10m² of protective surface in three coats.

On the smooth surface in the interior of 10-12m², on the facades and walls of houses according to the structure of the surface we have to count with higher consumption - about 6-10m² of painted surface of 1 l in 3 paint layers on average.

Cleaning tools:

Water - as soon as possible after use.

Plastic containers 1 and 5 liters

STORAGE:

Maximum 3 years from date of manufacture at 10-25°C, in unopened original packaging. Before use, mix thoroughly by shaking in the original container. For color variations, it is recommended to mix the suspension (paint) with a stick mixer after thorough mixing in the

bottle (canister) for more than 2 months from the date of manufacture to ensure perfect pigment distribution in the liquid. Do not allow to freeze!

SAFETY PRECAUTIONS FOR HANDLING FN2 COAT:

Observe safety precautions in accordance with the safety data sheet and applicable regulations, wear a respirator or other suitable respiratory equipment. Do not breathe spray mist, wear respirator, safety goggles and helmet or other means to protect eyes, face and skin. In case of contamination, rinse thoroughly with water and treat with cream. In case of irritation, consult a doctor.

WASTE DISPOSAL:

Dispose of the used empty packaging to a collection point for packaging waste. Dispose of packaging with product residues at a place designated by the municipality for the disposal of hazardous waste or hand over to a person authorized to handle hazardous waste. Observe the safety data sheet and local regulations.

NOTICE:

The information given is based on the current state of knowledge and experience and has been compiled to the best of our knowledge, but in no case can it be construed as a legal guarantee of any kind.

OWNER OF PATENT AND MANUFACTURER:

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CZECH INVENTION-PROTECTED BY PATENT AND FN® TRADEMARK

VERIFIED BY MORE THAN TEN YEARS OF PRACTICAL APPLICATIONS