

TECHNICAL SHEET

FUNCTIONAL COATING FN[®]3

The most efficient low-cost and silent “air purifier”.

Photocatalytic coating specially developed to create surfaces with maximum air purification efficiency and to protect against microorganism accumulation.

The self-cleaning surface creates a functional air purification tool with long-term efficiency.

USAGE:

The functional coating FN[®]3 is used exclusively indoors. It is used as a highly efficient low-cost technology to purify air from a wide range of pollutants and odors. It creates a functional layer on the walls and ceiling which, in addition to cleaning the air, effectively prevents the build-up of microorganisms. The product will be especially appreciated by those who have various allergies, asthma, etc., who will help to create a healthier and cleaner environment.

Functional coating FN[®] 3 can provide a healthier environment both in areas with large numbers of people (shopping centers, airport halls, office buildings) and in your home, school facilities and homes for the elderly. It is also a new, promising technology to increase the level of protection of patients and health care staff against resistant strains of dangerous bacteria and the spread of infections.

Our technology is also used to eliminate unpleasant odors and purify air from hazardous substances in industrial plants. It will also find application in improving protection against undesirable microorganisms in food production and against the spread of diseases in animal husbandry.

PRODUCT DESCRIPTION:

It is a special coating whose protective functions are based on the use of the physical phenomenon of photocatalysis and other physical properties of the materials contained therein. Unlike chemical products, the functionality of the coating is practically inexhaustible. The functional coating FN[®]3 is an aqueous suspension of patent protected minerals with a high content of photoactive titanium dioxide (TiO₂). The high TiO₂ content and the optimized mineral binder in the coating ensure extremely effective substrate protection. It is also intended for extreme conditions in health care, industrial production and toxic operations. It is supplied in basic white form and cannot be colored.

Video - [Application of FN[®] indoors](https://www.youtube.com/watch?v=ASAg1T-ZH8&t=84s) (https://www.youtube.com/watch?v=ASAg1T-ZH8&t=84s)

PROPERTIES:

- Cleans the air of allergens, viruses, bacteria, toxic substances and odors with maximum photocatalytic efficiency (most effective in the world)
- It reduces the risk of transmitting infectious diseases and reduces the risk of asthma
- Highly effective against fungi and microorganisms
- Prevents the establishment of viruses and bacteria
- Ecological solution without chemistry - purely physical effect

APPEARANCE:

FN[®]3 is white and has a relatively high hiding power. The coating thickness is optimally 10-40 microns. The created layer is white and relatively soft, **therefore we recommend applying the coating to the ceiling and areas where there is no risk of abrasion damage.**

The layer is active immediately after daylight or artificial light with a UVA share. Maximum coating efficiency at 365 nm

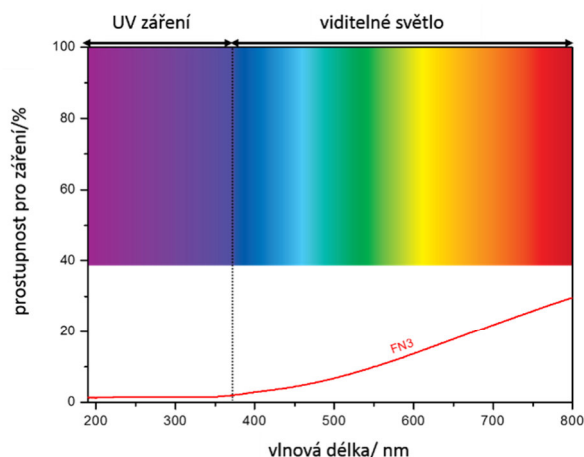
The coating is aged after 24 hours.

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

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

Photocatalysis does not deposit dirt, bacteria or other microorganisms on the surface created by the FN[®] 3 coating, which is activated by UVA light. It is a highly efficient technology for cleaning air and reducing the risk of transmitting infections indoors.

The optical properties of the functional coating FN[®]3 are illustrated by the attached graph, which illustrates how dramatically the shielding efficiency increases and the high absorption of UV radiation, whose energy is converted into a self-cleaning effect, is also shown.



**SUPER-STRONG
SELF-CLEANING
EFFECT**



**PREVENTS
GROWTH OF
BACTERIA**



**USES NO
CHEMICALS**



**LOW ENERGY
CONSUMPTION**



**GUARANTEE OF
EFFECTIVENESS**

COMPOSITION:

Aqueous composite suspension of untreated titanium dioxide and patented inorganic binders. It contains very high concentrations of 100-110 g / l photocatalyst, which ensures its long-term flawless protective function and also high self-cleaning efficiency.

The coating is in line with European and world trends and contains no organic compounds (ISO 16000, ISO 16100). **The applied coat is absolutely safe.**

RECOMMENDATIONS FOR USE:

It serves for the creation of the top mineral active photocatalytic layer ensuring the function of air purification and reduction of viruses and microorganisms. The layer is white and is suitable for all common types of plaster and masonry or plasterboard substrates.

FN® 3 is certified as concrete protection.

It is not suitable for application on clay sized glued substrates!

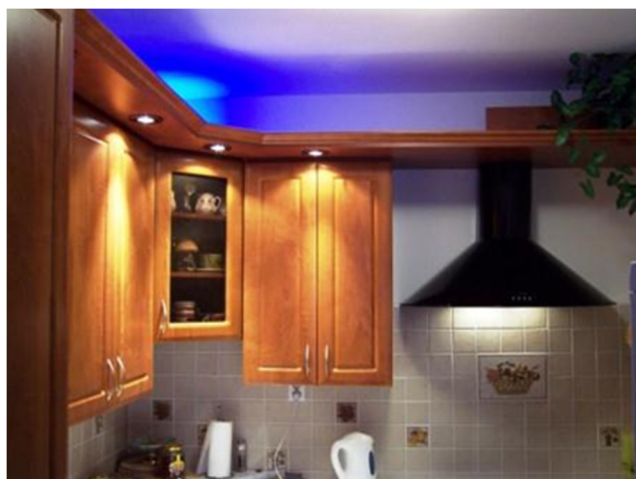
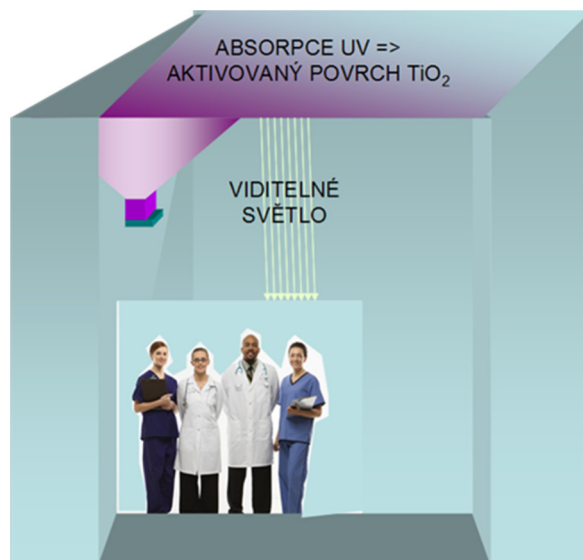
Do not allow to freeze!

INTERIOR:

For masonry and plasterboard substrates - for indoor air purification, FN® 3 functional coatings are usually applied to the ceiling of a room.

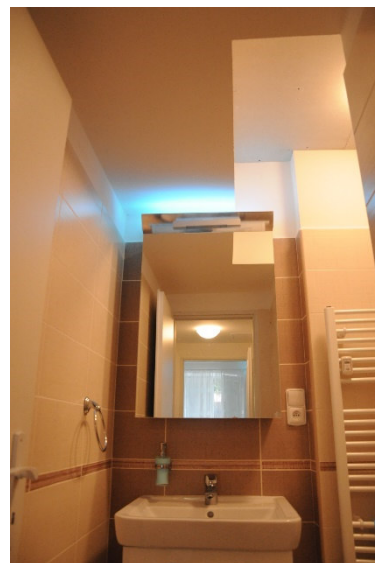
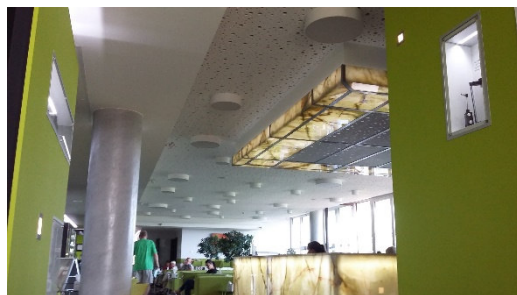
FN®3 cannot be colored, therefore it is only available in white.

Examples of FN®3 lighting to activate it indoors:



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 TiO₂ nanoparticles 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 on wet surfaces
- For better effect we recommend thorough cleaning of surfaces before application.

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

The applied layer is frost-resistant and highly vapor-permeable.

Dilution:

Do not dilute!

Consumption:

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

Cleaning tools:

Water - as soon as possible after use.

PACKAGING:

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.

SAFETY PRECAUTIONS FOR HANDLING FN®3 COAT:

Observe the safety precautions in accordance with the safety data sheet and applicable labor protection regulations. Keep out of reach of children. Do not eat or smoke while working. Wear respirator or other appropriate respiratory equipment when spraying. 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.

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:**Advanced Materials – JTJ s.r.o.**

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CZECH INVENTION-PROTECTED BY PATENT AND FN® TRADEMARK

VERIFIED BY MORE THAN TEN YEARS OF PRACTICAL APPLICATIONS