TECHNICAL DATA SHEET

Code: 2720

DTOXGUARD® INT

DE-POLLUTING TREATMENT POWERED BY PHOTOCATALYSIS PURIFIES INTERIOR AIR

- ☑ **BREAKS DOWN POLLUTION WITH PHOTOCATALYSIS**
- ☑ **CLEANS THE INDOOR AIR**
- ☑ **EFFICIENT AGAINST FORMALDEHYDES, BTEX, NOX**
- ☑ **NON-FILM FORMING, ALLOWS SUBSTRATE TO BREATHE**
- ☑ **COLOURLESS**
- ☑ **READY TO USE**

DESCRIPTION

DToxGuard® Int is a colourless two-components treatment for vertical interior substrates and ceilings. Under the action of light (UV, halogen, LED), DToxGuard® Int cleans the air by breaking down pollution (nitrogen oxides - NOx) by photocatalysis.
DToxGuard® Int is efficient on the main pollutants present in indoor air: VOCs such as BTEX and formaldehydes and nitrogen oxides (NOx).
DToxGuard® Int penetrates the substrate without forming a film, so the substrate remains permeable to air and water vapour. Colourless the product does not alter nature of the treated substrate. It is also totally UV-resistant and does not yellow with time.

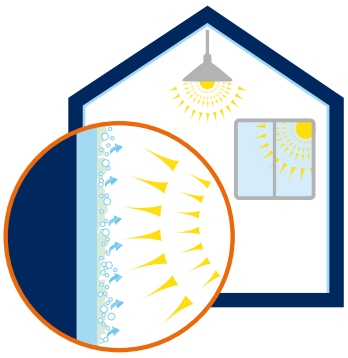
USE

DToxGuard® Int is for interior use on all light absorbents vertical porous surfaces and ceilings: plaster, acrylic or vinylic paints, renders, wallpaper, glass-fibre wallcovering, fir wood, concrete, mortar, glass reinforced concrete, non polished stone.

CHEMICAL NATURE

- A mixture of inorganic binder and photoactive titanium dioxide.

FUNCTIONING OF THE PRODUCT



DtoxGuard® Int contains titanium dioxide (TiO2) which acts as a catalyst.

Under the action of artificial and natural lighting, TiO2 is activated.

TiO2 breaks down the main pollutants present in indoor air: VOCs, NOx and Btex.

Pollutants are converted into molecules of oxygen, water and carbon dioxide and into minute quantities of nitrates.

ADVANTAGES AND CHARACTERISTICS

- Breaks down pollution and cleans the air.
- Non-film forming - allows substrate to breathe.
- UV-resistant, non-yellowing.
- Ready to use and easy to apply.

ENVIRONMENT

Environmentally friendly and ecological:

- Water-based product.
- No petroleum-based solvents.
- Safe and non-toxic.
- VOCs < 9 g/l*.

CONTAINERS

1 and 5 Kg kits (two-components product).

TECHNICAL DATA

Physical state at 20°C	: Liquid
Colour	: Milky
Odour	: Characteristic
pH	: 11.4 ± 0.5
Boiling point [°C]	: 100°C
Relative density	: 1.03 ± 0.02
Solubility in water [vol/vol]	: Total
Flashpoint [°C]	: Not applicable

HOW TO USE

Surface preparation:

- Apply the product to a surface that is clean, dust-free, grease-free and dry.
- Conditions of application and substrate preparation must comply with French unified code of practice DTU 59.1.

Application :

- Mix the two components of the product.
- Shake container well before use for 2 to 3 minutes.
- The mix should be used during the next 6 hours.
- Carry out a test first.
- The substrate must be applied in 2 to 3 coats. Time between coats : 20 min (at 20°C).
- On vertical surfaces, apply from bottom up.
- Avoid applying too thickly. Remove any excess before drying with a dry roller.
- Protected drying: 3 days.
- Optimal performance after 2 to 3 weeks.

APPLICATION TOOLS

- Apply with a terry towel type clothe, a brush or roller.

COVERAGE

Coverage depends on how porous the material is. The following values are for guidance only:

7 to 12 m² / litre.

CLEANING YOUR EQUIPMENT

- Clean tools and equipment after use with water.

STORAGE

- Keep in a dry place (between 5°C and 30°C).
- Storage: 12 months following the production date when kept in the original unopened container.

RECOMMENDATIONS

- Always clean off all atmospheric pollution and all stains from the surface before applying the product.
- Do not apply on glass and glass surfaces (risk of tampering, protect these surfaces well).
- Do not apply on non-absorbent substrates, metal, lacquer-type gloss paint ...
- DToxGuard® Int must be stirred first. It is also essential to use it when the temperature of the substrates is between 10°C and 30°C.
- Do not apply during rain or in very hot weather. Air temperature: between 10°C and 30°C.
- Hygrometry rate should be between 20% and 80%.
- Moisture of the surface should be less than 5% and less than 14% for wood.
- Do not dilute or mix with another product.
- On some surfaces, and if too much product is applied, white marks may appear. Always test on a small area first to check appearance. Remove all excess before drying.

HEALTH / SAFETY

- Respiratory protection: Wear a P3 mask.
- Hand protection: Wear latex gloves.
- Skin protection: Wear work clothes.
- Eye protection: If there is a real risk of splashing, wear protective goggles.
- If swallowed: Do not induce vomiting. Contact a doctor or a specialist.

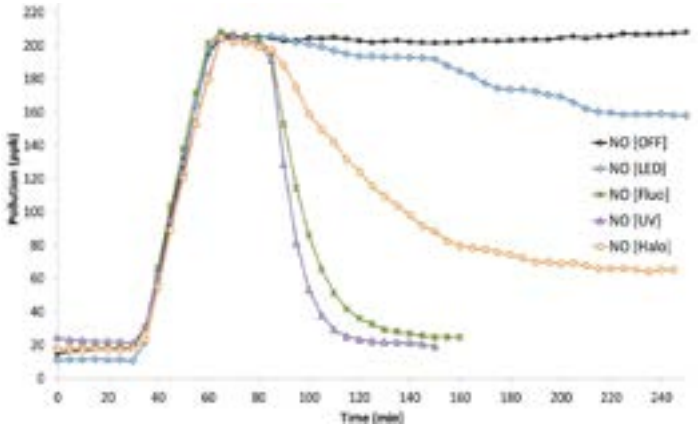
KEEP OUT OF THE REACH OF CHILDREN

* Calculation based on the components' data.

TESTS

- **Reduction of NOx emissions**

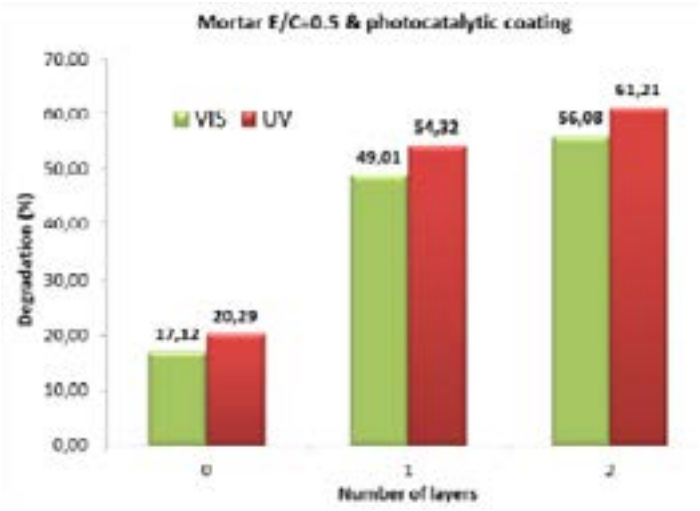
Test of reduction of NOx is carried out by the LMDC laboratory (Laboratoire Matériaux et Durabilité des Constructions) according to the standard ISO 22197.



Polluted gas containing up to 220 ppb of NO is injected in the reactor. Light is then switched on. Several lights are
tested: fluo UV, fluo visible, halogen, LED. Pollution is calculated at the exit of the reactor thanks to an analyzer. The efficiency of the product is characterized by the reduction of NO. **The following results are observed:**
fluo UV = decrease of 8 ppb / min
fluo visible = decrease of 6 ppb / min
halogen = decrease of 4 ppb / min
LED = decrease of 2 ppb / min

- **Reduction of formaldehydes**

Test of reduction of Formaldehydes is carried out by the LMDC laboratory (Laboratoire Matériaux et Durabilité des Constructions) according to the standard ISO 16000.

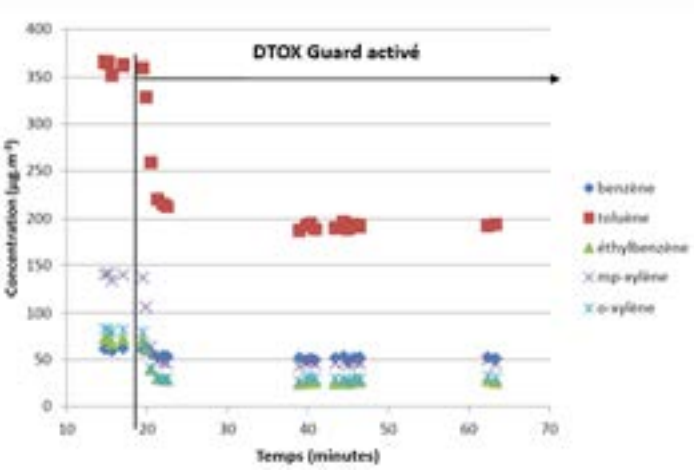


DtoxGuard® Int has a very strong efficiency on formaldehyde reduction. **The following results are observed:**
UV light: reduction of 61.21%
Visible light: reduction of 56.08%

- **Reduction of BTEX**

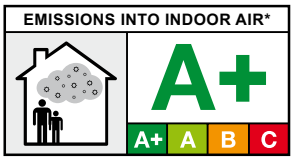
Test of reduction of BTEX is carried out by the LMDC laboratory (Laboratoire Matériaux et Durabilité des Constructions) according to the standard ISO 22197.

Polluted gas is injected in the reactor. DtoxGuard® Int is then activated. **Following results are observed:**



- **VOC emission test**

VOC emission test is carried out by the laboratory Eurofins according to standard ISO 16000.
DtoxGuard® Int is A+.



- **Other tests**

Tests	Methods	Results
Ecogenotoxicology	ISO 21427-1	Non genotoxic
Superhydrophily	LRV laboratory (Internal method)	Very light contact angle of water

TECHNICAL SUPPORT

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