

# DTOXGUARD® EXT



## DE-POLLUTING TREATMENT POWERED BY PHOTOCATALYSIS PURIFIES EXTERIOR AIR

- BREAKS DOWN POLLUTION AND ORGANIC GRIME**
- CLEANS THE OUTDOOR AIR**
- COLOURLESS**

- NON-FILM FORMING, ALLOWS SUBSTRATE TO BREATHE**
- READY TO USE**
- EXTERIOR**

### DESCRIPTION

**DtoxGuard® Ext** is a colourless treatment for porous outdoor substrates. It cleans the air by breaking down pollution (nitrogen oxides - NOx) by photocatalysis. **DtoxGuard® Ext** also destroys organic grime and dirt. Treated surfaces are then rinsed by rain and therefore stay clean longer.

**DtoxGuard® Ext** penetrates the substrate without forming a film, so the substrate remains permeable to air and water vapour. Colourless, the product does not alter the nature of the treated substrate. It is also totally UV-resistant and does not yellow with time.

### USE

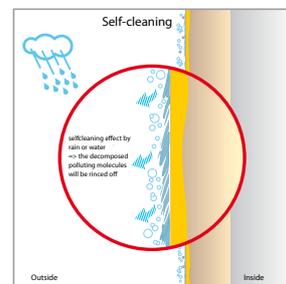
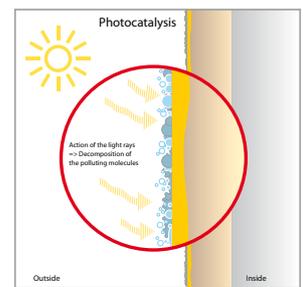
**DtoxGuard® Ext** is for exterior use on all vertical porous surfaces (walls, facades and roofs) such as renders, concrete, mortar, glass reinforced concrete, terracotta, non polished stone, slate, roof shingle, non mineral substrate.

### CHEMICAL NATURE

- A mixture of inorganic binder and photoactive titanium dioxide.

### FUNCTIONING OF THE PRODUCT

**DtoxGuard® Ext** contains titanium dioxide (TiO<sub>2</sub>) which acts as a catalyst. Under the action of UV light, TiO<sub>2</sub> is activated and breaks down pollutants (NOx). It also destroys organic dirt and grime.



Dirt and grime are washed away by the rain. Surfaces treated with **DtoxGuard® Ext** therefore become self-cleaning.

### ADVANTAGES AND CHARACTERISTICS

- Breaks down organic grime and cleans the air.
- Easy to clean.
- 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 < 1.5 g/l\*.

## CONTAINERS

1, 5 and 25 litres.

## TECHNICAL DATA

Physical state at 20°C	: Liquid
Colour	: Milky
Odour	: None
pH	: 11.3 ± 0.2
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. To remove stains and marks of pollution use **Guard Cleaner® Polluted facades**. For efflorescence, laitance or concrete bloom use **Guard Remover® Eco Efflorescence & Cement**.
- Conditions of application and substrate preparation must comply with French unified code of practice DTU 59.1.

### Application :

- Use product neat - do not dilute.
- Shake container well before use. Test first.
- The substrate must be applied in 2 to 3 coats. Time between coats : 20 min (at 20°C).
- Apply from bottom up.
- Avoid applying too thickly. Remove any excess before drying with a dry roller.
- Protect for 24 hours from rain and 48h from stains.
- Optimal performance after 7 days.

## COVERAGE

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

**7 to 10 m<sup>2</sup> / litre.**

## APPLICATION TOOLS

- Apply with a brush, roller or a low-pressure spray gun.



## 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).
- **DtoxGuard® Ext** 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.
- White marks may appear on some surfaces, and if too much product is applied. Always test on a small area first to check appearance. Remove all excess before drying.

## HEALTH / SAFETY

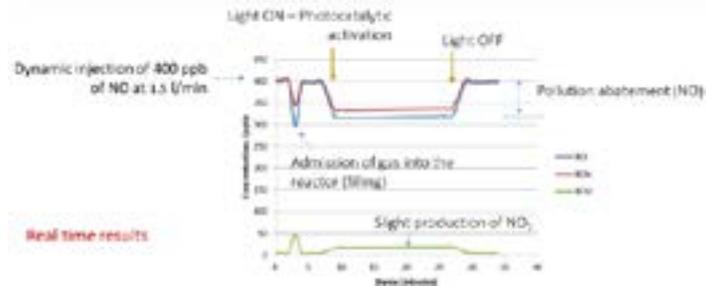
- Respiratory protection: Wear an ABEK P3 mask.
- Hand protection: Wear latex gloves.
- Skin protection: Wear protective clothing.
- Eye protection: If there is a real risk of splashing, wear protective goggles.
- If swallowed: Do not induce vomiting. Contact a doctor or a specialist.

KEEP OUT OF THE REACH OF CHILDREN

## TESTS

- **Reduction of NOx emissions**

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

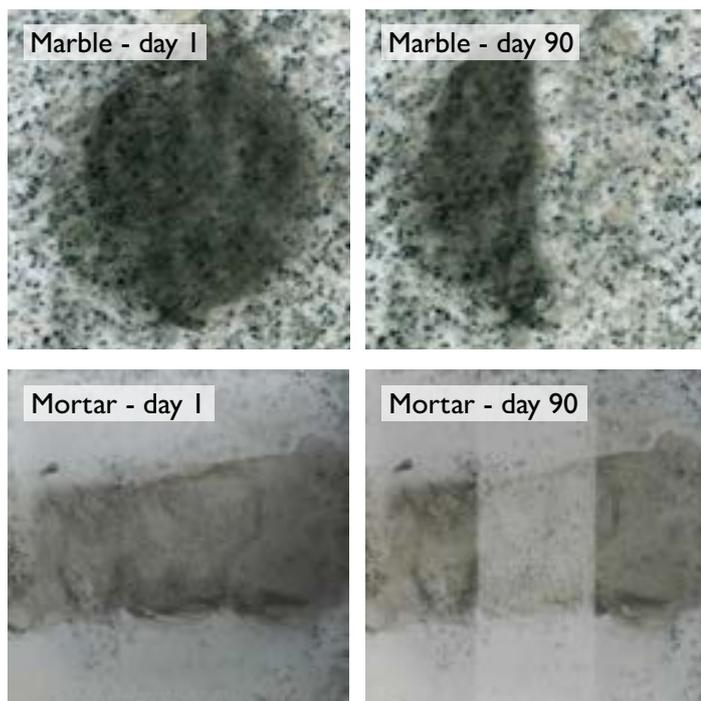


Polluted gas containing up to 400 ppb of NO is injected in the reactor. Light is then switched on. Several lights are tested: fluo UV, fluo visible, halogen, LED with different intensities. Pollution is calculated at the exit of the reactor thanks to an analyzer which detects residual NO, NO2 produced and NOX. The efficiency of the product is characterized by the reduction of NO. **Decrease from 38% to 72% can be observed.**

- **Self-cleaning test**

Self cleaning test is carried out in real conditions by the LMDC laboratory (Laboratoire Matériaux et Durabilité des Constructions).

One part of the material is treated with **DtoxGuard® Ext**, the other part remains untreated. Tested materials (marble and mortar) are then covered with soot. Samples are left outdoors. Results are observed after 90 days.



- **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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