



Photocatalytic Stone + Masonry Sealer

A self cleaning sealer that breaks down harmful pollutants, exhaust fumes, odours and harsh chemical particles in the air, converting it in to oxygen that can be washed away by rain drops, enabling cleaner air.

Proven and tested to reduce harmful pollution

Dirt Defence Photocatalytic Sealer can be applied to concrete, natural stone, brick, roofing slates etc. It is ideal for use on facades, path and pavements, motorway bridges, barriers and ramparts, neutralising harmful NOx gases with photocatalytic reaction of Titanium Dioxide and natural sunlight to create harmless substances: water, CO2 and nitrates.

- Invisible and environmentally friendly water based product which forms both a matrix of surface protection
- Dramatically reduces VOC's, Nitrous Oxide, odours and resists the growth of mould.
- Removes airborne spores and allergens to help prevention of asthma and breathing problems
- This unique formulation does not become 'clogged' due to its self cleaning properties and therefore retains its efficiency for 20+ years.

How to Use

Test a small inconspicuous area before proceeding, to ensure finish, compatibility and performance are acceptable. Ensure the surface to be treated is clean and free from dust, dirt, oil, efflorescence, organic growth, grease and old coating films. All cleaning detergents should be thoroughly rinsed away. Ensure all cracks are repaired using a concrete/mortar repair system.

- Apply using a low pressure spray, brush or roller.
- Applying the product from bottom to top on vertical surfaces taking care not to let the product run.
- All surfaces must be treated to saturation 'wet on wet' to ensure 100% product efficiency. This will vary dependant on the substrate and treating a small trial area is recommended to calculate true consumption.
- Allow to fully cure before subjecting to heavy use

Cleaning of Equipment

Remove as much product as possible from application equipment before cleaning. Clean tools and equipment immediately after use with water.

Precautions for use

For Health & Safety instructions, first aid measures, spillages and disposal instructions, see separate Health & Safety Data Sheet (MSDS).



Benefits

- Independently tested for weathering and NOx gas removal.
- Non-visible
- Does not effect slip resistance
- Non hazardous - solvent and silicone free
- Fully biodegradable
- UV resistant
- The treated surface is protected from algae growth due the self cleaning action of the product

Product Characteristics

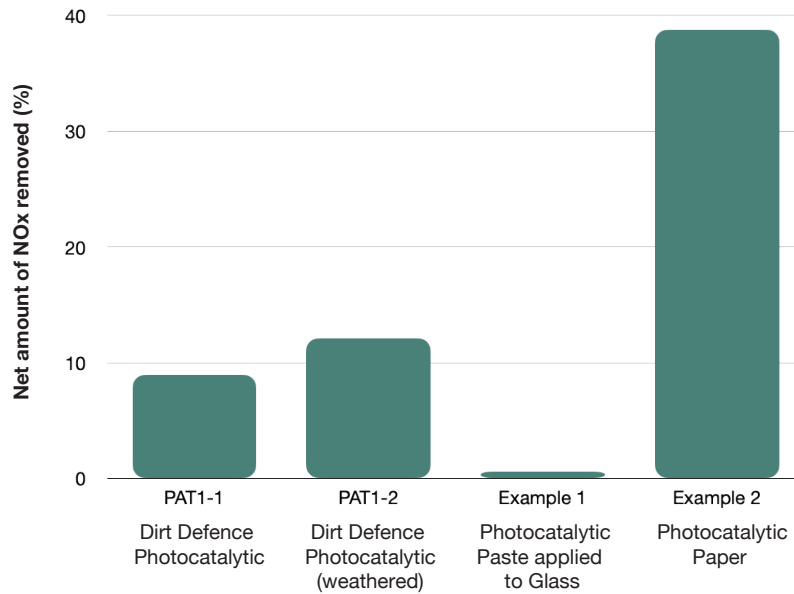
Colour	Clear
Odour	Low
Form	Liquid
Application Temperature	Between 10°C and 25°C
Shelf Life	24 Months from the date of manufacture in the original unopened container. Do not store below 5° c. Keep out of the reach of children.
PH	8
Specific Gravity @ 25 °C	1.00

Curing

Water repellancy is evident after initial curing but may take up to 7 days to reach 100% efficiency.

Coverage

Coverage depends on the porosity of the substrate. Below is an indication:
 Architectural Concrete 5 m² per litre
 Block Paving 5 - 8 m² per litre
 Natural Stone 2 - 5 m² per litre
 Granite 8 - 16 m² per litre



PAT1-1 was tested after standard preconditioning whilst PAT1-2 was subjected to 4 weeks (672 hours) of simulated weathering prior to testing. Comparison is made to 2 examples of other photocatalytic materials (photocatalytic paste applied to glass and photocatalytic paper)

Parameter	PAT1-2 Sample	Market Leading Alternative
Presence of smooth regions with cracks corresponding to coating film	Yes	Yes
Likelihood of encountering coating film with a Ti content more than 1 wt. %	Higher	Lower
Size of the areas covered coating film	Larger	Smaller
Detection of a region with no Ti content	No	Yes
Minimum Ti content detected (wt.%)	0.6	0.0
Maximum Ti content detected (wt.%)	17.9	6.8
Average Ti content of scanned areas (wt.%)	3.8	1.2
Presence of small needle-shaped features	Yes	No
Evidence of good correlation between Ti and Si distributions	Yes	No
Possibility of pooling effect during coating	Yes	Yes