

NOxREDUx

POLLUTION REDUCTION TECHNOLOGY

CLEAN AIR
FOR EVERYONE

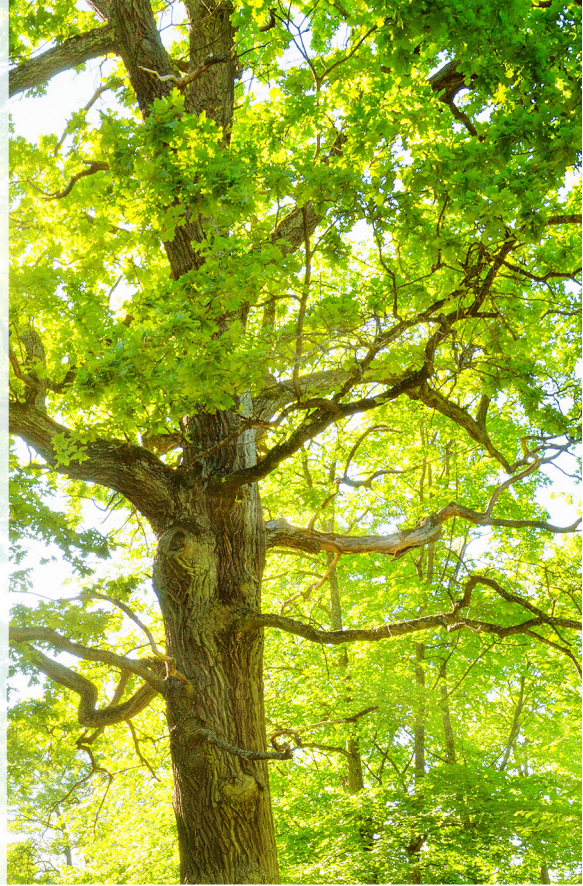


DEVELOPED BY **SINAK**



BUILDING A CLEANER, BETTER FUTURE

NOxREDUx™ is the latest advancement in pavement sealing technology by reducing GHG emissions and offering an extended life cycle for concrete and asphalt surfaces. NOxREDUx™ reduces the harmful effects of heat island in urban and rural areas. Heat islands can affect communities by increasing summertime peak energy demand, air conditioning costs, air pollution and greenhouse gas emissions, heat-related illness and mortality, and water quality.



COMPATIBLE SUBSTRATES

- Pavements
- Bridge Decks
- Parapet Walls
- PCC Paving
- Parking Decks
- Pre-Cast Concrete

MARKETS

- DOTs
- Airports
- Bridges
- Urban/Suburban Municipalities

POLLUTION REDUCTION

(ISO 22197-1/JIS TRZ0018) 39%
NOx Reduction Efficiency

ASTM E-274

(Skid Resistance)

FN40R Prior to Application: 43.4
FN40R 24hrs After Application: 49.6

ASTM E-1980

(Solar Reflectance Index)

Untreated: 24 SRI
Treated: 38 SRI

X-RAY FLUORESCENCE

(Depth of Penetration)>26mm

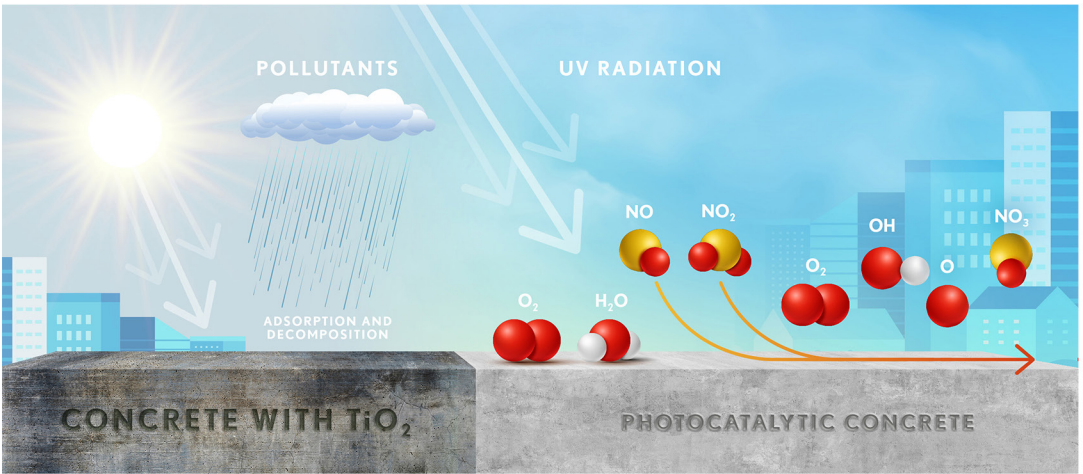
GREEN SCIENCE AT ITS BEST

SINAK NOxREDUx™ is a pollution-remediating concrete redoxing agent formulated to reduce vehicular exhaust pollutants by up to 68%. NOxREDUx™ creates an air purifying surface, resists weathering & staining, and will not be affected by traffic related wear while contributing to compliance with U.S. EPA's stringent National Ambient Air Quality Standard (NAAQS).

NOxREDUx™ is a water-based inorganic carrier containing anatase titanium dioxide that remediates airborne pollutants. It contains no VOCs or solvents. NOxREDUx™ is nonhazardous to fish and wildlife. NOxREDUx™ delivers photocatalytic anatase titanium dioxide (TiO2) deep into the concrete capillary structure. The resulting air-purifying surface reduces pollutants related to vehicular exhaust by up to 68% in laboratory testing.

FEATURES & BENEFITS

- Provides a self-cleaning, self-regenerating, air-purifying surface that removes nitrogen oxides (NOx), volatile organic compounds (VOCs), and other airborne pollutants from the atmosphere.
- Treated surfaces will not be affected by traffic related wear.
- Compatible with joint sealants, patching materials, lane markers, traffic paint, striping, cementitious toppings, and crack repair processes.
- Protects treated surfaces against oil & chemical staining and damage.
- Reduces Green House Gas Emissions by 320,000 VMT per lane mile
- Cool Pavement Technology reduces harmful Heat Island effects



SUSTAINABLE BUILDING SOLUTION

The near-road microenvironment (ME) is a major concern to urban planners, regulators, and sustainability managers due to vehicle emissions that concentrate in the vicinity of road surfaces. These emissions are a primary source for airborne toxins, such as nitrous oxides (NO_x) and volatile organic compounds (VOCs), and form the nucleus of unhealthy photochemical smog. NO_xREDUx™ for use on concrete and asphalt provides near-pavement toxin removal thereby attacking the environmentally damaging effects of vehicle emissions at their source.

SINAK's NO_xREDUx™ for concrete and for asphalt consists of a proprietary formulation that removes NO_x and VOC's from the air in near road ME's. NO_xREDUx™ is sprayed on pavement surfaces and includes titanium dioxide (TiO₂) in a liquid carrier compound that embeds the TiO₂ in the pavement. Once embedded, the TiO₂ remains in place and acts as an effective NO_x and VOC removal agent.



TiO₂ removes NO_x and VOC's from the air at the pavement surface by a photochemical process known as photocatalytic oxidation (PCO). The PCO efficiency of TiO₂ solutions in removing NO_x and VOCs from the air has long been known and appreciated, but their use in pollutant removal applications have been frustrated by their lack of durability once applied. Required frequent re-application makes their use impractical.

The proprietary formulation underlying SINAK's NO_xREDU_x[™] product solves this intractable problem by an application that has demonstrated durability under real world traffic and environmental conditions. Results from laboratory and field testing of NO_xREDU_x[™] have consistently shown a 68% reduction in vehicle NO_x emissions within the measured environments.

👉 FIELD TESTING OF NO_xREDU_x[™] HAS CONSISTENTLY SHOWN A 68% REDUCTION IN VEHICLE NO_x EMISSIONS 👉

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SINAK is a concrete chemical manufacturer committed to creating sustainable building solutions. With over 40 years experience in patented pavement treatment and preservation technologies, SINAK is excited to introduce NOxREDUx™ to its line of eco-friendly products.

MANUFACTURED IN THE U.S.A.  800.523.3147
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