





# HARNESS NATURAL LIGHT FOR NATURAL CLEAN ARCHITECTURE

Materials Science has traditionally responded to the needs of designers, engineers and construction professionals causing technology to evolve. As a result, the advances in technology are now not only accelerating the development of new construction but also act as a catalyst for innovative architectural design.

## **NawKote-PC**

NawKote-PC: a coating system designed to provide self-cleaning properties to surfaces. It uses a unique formulation of high quality, photocatalytic active  $\text{TiO}_2$  nanoparticles to achieve a long-lasting protective barrier. Using only sunlight and water, it shields surfaces from the harmful effects of environmental pollutants, while removing these contaminants from the air.

## **Titanium Dioxide**

Titanium Dioxide ( $\text{TiO}_2$ ): a nontoxic compound, able to form chemically stable nanoparticles with photocatalytic properties. Upon exposure to light,  $\text{TiO}_2$  produces oxidizing agents that decompose organic matter (such as microbes and mold) and remove air pollutants (such as smog and VOCs).

## **Photocatalyst**

Photocatalyst: a substance that activates upon light irradiation to accelerate the rate of the chemical reaction. The Photocatalyst is not a sacrificial component and continues to aid in the process.







NawKote-PC is a specially formulated, high quality, invisible coating that can be applied to concrete, glass or solar panels — even when these surfaces have been painted or stained. Treated surfaces carry no electric charge and therefore reduce the absorption of dust. Sunlight activates NawKote-PC causing air-born pollutants, viruses, bacteria, mold, VOCs, CFCs, allergens, and smog to decompose. The coating also attracts water when it rains, allowing it to get under any dirt deposits

or decomposed matter, and wash them from the surface. These particles, suspended or dissolved in water, now provide trees and plants around the building with nutrients, supporting their growth.

NawKote-PC transforms buildings into self-cleaning, environmentally positive structures that are constantly purifying the air. While these characteristics already make this technology desirable, NawKote-PC also prevents carbonation

of concrete. Concrete that undergoes carbonation suffers from erosion and increased water ingress, which leads to corrosion of its steel reinforcement.

NawKote-PC will extend the overall life of the structure without the use of harmful chemicals.

The effectiveness and efficiency of NawKote-PC have already been proven on a range of projects in Japan and Australia.





An area of 25m<sup>2</sup> coated with NawKote-PC has the same air purifying function as 1 tree, which can remove the equivalent of NO<sub>x</sub> emitted by 2 automobiles.

"We wish to help our clients to lessen negative environmental impacts in measurable ways, including more efficient use of resources and reduced use of harmful chemicals. We aim to unlock the power of nature to reduce the carbon footprint of buildings and infrastructure. Moreover, we want to take it a step further and help to make a POSITIVE environmental impact by purifying the air — the air we all breathe."

- Kasia Purzycka, President & Chief Science Officer







**Color?** Yeah, we've got that, too! We carefully select lightfast, inorganic pigments that enable us to create a wide range of colors with NawTone-K. This mineral stain is designed to form a permanent chemical bond with concrete. NawTone-K is water-based, penetrating, nonhazardous and has zero-VOC content. It is optimized for use in conjunction with NawKote-PC. Together, they provide an unmatched combination of zero-maintenance, durable color, and long-lasting protection. Nawkaw's Certified Stain

Applicators will help finish your projects with color and coatings that protect them and keep them looking new for years to come! Our products are rigorously tested and backed by a product and labor warranty.

We are here to help you reach your sustainability goals.







NawTone-K and NawKote-PC were chosen as the coatings for the prestigious SkyTrain project in Sydney, Australia. Known for its harsh climate, Sydney faces both high heat and high UV index. These colors and photocatalyst coatings are ideally suited for such conditions and will keep the SkyTrain looking pristine for years to come – saving

tens of thousands of dollars in maintenance and cleaning fees. Using only natural elements; sunlight and rainfall, the NawKote-PC photocatalyst coating system is a giant step forward for green construction. Keeping architecture looking new while improving air quality is something we can all get on board with.

# Nawkaw®

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