

**DISCOVER  
ACTIVE SURFACES,  
THE GREEN CHOICE  
FOR BETTER INDOOR  
AND OUTDOOR  
ENVIRONMENTS**





**Where design and science meet,  
beauty and wellbeing live.**

## DESIGN FOR WELL-BEING AND SAFETY

We all need to inhabit the spaces where we spend our daily lives safely and freely, without sacrificing design. The materials we choose for architectural and interior decoration projects must therefore guarantee maximum well-being and protection of our health in a simple and lasting way.

ACTIVE surfaces are the 100% Italian answer which, in addition to being aesthetically beautiful, fulfill the need for well-being and safety.

ACTIVE SURFACES is the only ISO-certified and internationally patented photocatalytic, antibacterial, antiviral and anti-pollution ceramic in the world, successfully used around the world over the last 10 years.

ACTIVE SURFACES products are high quality ceramic porcelain for floors and walls, suitable for indoor and outdoor areas and for cladding rooms and furnishings in personal care or food preparation and consumption settings like kitchen tops, tables, counters, and preparation surfaces.



## ANTIBACTERIAL ANTIVIRAL

## SELF-CLEANING

## ANTI-POLLUTION

## ANTI-ODOR

## THE FOUR ACTIONS OF ACTIVE SURFACES, THE FOUR WELL-BEING PILLARS

ACTIVE SURFACES exploits the photocatalytic properties of titanium dioxide combined with silver, which transforms simple ceramic porcelain into an eco-active material with new properties that are:

### ANTIBACTERIAL AND ANTIVIRAL ANTI-POLLUTION SELF-CLEANING ANTI-ODOR

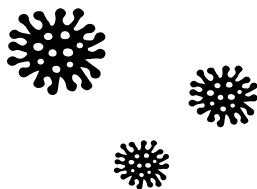
Thanks to the action of light (natural or artificial) and humidity naturally present in the air, ACTIVE surfaces are able to perform these four essential actions for safety and well-being both in our homes, in bathrooms, kitchens and living rooms, for workers and visitors in any public place, including hospitals, kindergartens, schools, libraries, airports, stations, bars, restaurants, hotels, swimming pools, and spas.

ACTIVE SURFACES is the only ceramic porcelain in the world to retain all its photocatalytic properties not only under UV light and sunlight, but also under LED lights, maintaining its antibacterial effectiveness even in the dark. The action of ACTIVE SURFACES is constant and lasting.



## ANTIBACTERIAL and ANTIVIRAL ACTION

Thanks to the oxidation process induced by photocatalysis, ACTIVE surfaces are certified to eliminate 99.99% of bacteria; from the most common, such as *Escherichia Coli*, to the most dangerous and antibiotic-resistant, such as *Staphylococcus Aureus* (MRSA). Recent ISO certifications also demonstrate the ACTIVE SURFACES antiviral activity. The tests were conducted on two particularly insidious and contagious viral strains such as the H1N1 flu virus and Enterovirus 71, demonstrating over 99% efficacy against viruses. The titanium dioxide combined with silver boosts the antibacterial and antiviral performances of ACTIVE SURFACES, making them effective under natural light, as well as LED lights, in low light conditions and even in the dark. The anti-mold and antifungal properties of the ACTIVE product are also certified.



**ELIMINATES  
VIRUSES AND  
BACTERIA OVER 99%**







## ANTI-ODOUR ACTION

ACTIVE surfaces are able to degrade the main molecules responsible for bad odours, making environments more pleasant.

Indeed, the photocatalytic process leads to degradation of the odorous organic molecules that come into contact with ACTIVE surfaces, maintaining a comfortable environment, free from bothersome sensory pollution.



## ELIMINATES BAD ODOURS

### BAD SMELLS

Bad smells come from the high concentration of odorant molecules present in the atmosphere. They cause annoyance and embarrassment especially if they are in public places such as swimming pools, restaurants, public baths ect, or in kitchens and bathrooms.

## SELF-CLEANING ACTION

Thanks to the photocatalytic properties of ACTIVE SURFACES, dirt adheres less to the ceramic porcelain surfaces, making them easier to clean. Quick and easy cleaning, with a consequent reduction in the use of expensive and aggressive detergents, often toxic to humans and harmful to the environment.

The super hydrophilic properties of ACTIVE SURFACES allow you to clean surfaces simply with water and mild detergents. On external façades, for example, the action of the rain on porcelain panels is sufficient to keep them clean, considerably reducing the usual maintenance.



**EASY  
TO CLEAN**

06







## ANTI-POLLUTION ACTION

ACTIVE SURFACES is able to convert volatile molecules of hazardous pollutants such as nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOCs) into harmless substances, with huge benefits for people's well-being, both outdoors and indoors. ACTIVE photocatalytic ceramic porcelain is able to permanently and continuously eliminate polluting molecules present in the air with the simple action of light.

ACTIVE SURFACES is the only photocatalytic ceramic in the world that works with any kind of lighting: natural or artificial, including the new low energy LED lamps.



**REDUCES TOXIC POLLUTANTS**

## WE ARE GREEN PRODUCERS

In occasion of the realization of the De Castilia 23 project in Milan, through laboratory calculations it was possible to verify that the 16,088 sq m. of ACTIVE surfaces laid outdoors eliminate 59 kg/year of nitrogen oxides, producing an effect equivalent to over 200,000 sq m. of green areas. The benefits of ACTIVE SURFACES are evident both for those who live in the building and for those who live in the neighbourhood.



**16.088 sq m.**

ACTIVE SURFACES



OVER

**200.000 sq m.**

GREEN AREAS



# ACTIVE SURFACES TRANSFORMS A FAÇADE INTO A FOREST



UNIVERSITÀ DEGLI STUDI DI MILANO  
DIPARTIMENTO DI CHIMICA

Progetto CMR  
Corso Italia 78  
20122 Milano

**I materiali Active™ per la TORRE**

...ad utilizzare i materiali ceramici



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Siamo abituati ad utilizzare i materiali ceramici per le loro caratteristiche tradizionali di robustezza, facilità di manutenzione, durabilità. In particolare le lastre in grès porcellanato sono sinonimo di resistenza agli agenti atmosferici, al fuoco in caso di incendio senza rilascio di sostanze tossiche nell'aria ed anche alla rottura per sbalzi termici.

Del punto di vista tecnologico, Active™ è un'applicazione per le superfici in grès porcellanato, a base di biossido di titanio micrometrico fotocatalitico, che trasforma le semplici lastre ceramice, tradizionalmente inerte, in un materiale non solo economico, ma anche ecologico. Le ceramiche Active™ sono frutto della ricerca italiana e sono state sviluppate tenendo conto della più moderna expertise scientifica e tecnologica utilizzando metodiche applicative all'avanguardia.

Le ceramiche fotocatalitiche hanno la caratteristica, unica al mondo, di poter giocare un ruolo attivo nel migliorare la qualità della vita dell'uomo. Infatti, grazie all'azione della luce e dell'umidità presenti nell'aria, le ceramiche Active™ risultano ancora più facilmente pulite grazie alla proprietà di self-cleaning, ma soprattutto sono in grado di degradare gli inquinanti più comuni presenti nell'aria che respiriamo. Questo risultato rappresenta un rischio per il nostro benessere e la nostra salute ed è sempre più importante trovare rimedi efficaci per ridurre l'impatto ambientale che l'inquinamento dell'aria può arrecare al territorio.

Le ceramiche Silver ground/Clouds core Active™ e Anticlic ground /Sharp core Active™ sono state scelte per le facciate e la pavimentazione di balconi e aree esterne per la Torre Unipol SAI di Milano, nell'intento di coniugare estetica ed ecosostenibilità, sfruttando le proprietà ecologiche di questi materiali, utili per il nostro benessere.

Due costi in laboratorio per le Torre Unipol SAI verranno utilizzati 16088 mq di grès porcellanato Active™. Abbiamo quindi verificato l'efficacia dei materiali Silver ground/Clouds core Active™ e Anticlic ground /Sharp core Active™ nella fotodegradazione degli ossidi di azoto (inquinante di riferimento per l'Organizzazione mondiale della Sanità), con 8 ore di luce.



**materiali in grado di compensare 59 kg/anno di ossidi di azoto**

**equivalenti a oltre 200000 mq di aree verdi**

Milano, 21 settembre 2016

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Prof. Claudia L. Bianchi

**materials capable of  
compensating for 59 kg/year of  
nitrogen oxides  
equivalent to over 200,000 sq m.  
of green areas.**



Prof. Claudia L. Bianchi

## ACTIVE SURFACES AN ECO-SUSTAINABLE ICON

The philosophy behind ACTIVE SURFACES and all the products made in our factories is to care deeply for the environment. All Iris Ceramica Group brand ceramics are produced through careful selection of raw materials and are recyclable. Many of our products are made with over 40% recycled content, in accordance with the LEED requirement. Laboratory tests and literature analysis have determined that 1 sq m. of ACTIVE SURFACES takes only 2 years to offset the NOx emissions required to produce it. This means that ACTIVE SURFACES then continues to work for our well-being. The same cannot be said for materials which, being inert, are unable to offset the substances emitted to produce them.



THE VALUE OF  
ACTIVE SURFACES IS  
SCIENTIFICALLY PROVEN  
AND **PATENTED.**





## **SUSTAINABILITY AND ETHICS ARE NO LONGER OPTIONAL FOR US**

Furthermore, with ACTIVE SURFACES, Iris Ceramica Group has shown that photocatalytic processes can be activated, using micrometric particles, not only nanometric ones (1 micrometer = 1,000 nanometers), as in conventional titanium dioxide (TiO<sub>2</sub>) products on the market. The decision to use larger TiO<sub>2</sub> particles stems from our intention to protect our workers. In fact nano particles are not recognized by the human body and they can penetrate practically undisturbed. This conscious choice to protect workers is part of a complex and ambitious program undertaken by Iris Ceramica Group to limit water consumption by promoting circular recovery, reducing energy consumption and greenhouse gas emissions.

The ACTIVE SURFACES brand is not available for import, purchase or distribution in the United States of America and territories. Any and all product claims and descriptions contained on this website or in other sales or promotional materials regarding the ACTIVE SURFACES brand, including claims and descriptions of its public health benefits and antimicrobial or antibacterial effects, are not applicable in the US states and territories.





A BRAND OF  IRIS  
CERAMICA  
GROUP

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SURFACES  
**ACTIVE**™  
design for a better life

more information

[www.active-ceramic.com](http://www.active-ceramic.com)