

THE ONLY ANTI-POLLUTION AND BACTERICIDAL CERAMIC MATERIAL IN THE WORLD CERTIFIED ISO.

ACTIVE™
CLEAN AIR & ANTIBACTERIAL CERAMIC

ISO 10678:2010
ISO 27448-1:2008
ISO 27447:2009
ISO 22196:2011
UNI 11484:2013

What is ACTIVE?

ACTIVE Clean Air & Antibacterial Ceramic™ is the only photocatalytic, anti-pollution and bactericidal ceramic in the world with **ISO 10678: 2010, ISO 27448-1: 2008, ISO 27447: 2009, ISO 22196: 2011 e UNI 11484: 2013** certifications. ACTIVE slabs purify the air from dangerous pollutants, eliminate bacteria that can cause serious illnesses, destroy the molecules responsible for bad smells, and are easier to clean thanks to their hydrophilic properties. All of this is possible because titanium dioxide (TiO₂) - a photocatalytic substance - is applied to ACTIVE Clean Air & Antibacterial Ceramic™ slabs, transforming them into a photocatalytic material. Photocatalysis on ACTIVE slabs means that, in the presence of air, humidity and light, a powerful oxidative process takes place that leads to the decomposition of organic and inorganic contaminants that come into contact with ACTIVE surfaces.

Titanium dioxide (TiO₂) is applied to ACTIVE slabs in the form of micrometric particles and by means of the digital printing technique, which allows for a completely homogeneous distribution of the particles of TiO₂ on the surface of the slabs. These particles are fixed on the slabs at high temperature (in the industrial kiln at 680° C). Upon leaving the kiln, the slabs are washed and brushed vigorously to remove any TiO₂ particles that might not have adhered to their surface. The micrometric (rather than nanometric) dimension of the TiO₂ used in this process prevents health and environmental risks during manufacture, application and end use. In addition, the ink's composition and the fixing at high temperature of the TiO₂ on ACTIVE Clean Air and Antibacterial Ceramic™ slabs make the surface of these slabs unaltered and extremely resistant to abrasion caused by traffic (even by heavy traffic). This guarantees a long-term photocatalytic efficacy.

ACTIVE 2.0, now more effective and powerful

ACTIVE 2.0 maintains ACTIVE's four photocatalytic properties (bactericidal, anti-pollution, self-cleaning and anti-smell). However, the addition of silver to titanium dioxide in ACTIVE 2.0 reinforces these four properties. The presence of silver in ACTIVE 2.0 also ensures:

- Bactericidal activity even in the dark.
- Anti-pollution efficiency even under LED lights.



FIANDRE®
ARCHITECTURAL SURFACES

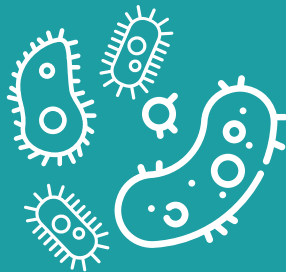
MORE INFORMATION_ WWW.ACTIVE-CERAMIC.COM

ANTIBACTERIAL EFFICIENCY

Eliminates up to 99.99% of bacteria

ACTIVE 2.0's photocatalytic process leads to the decomposition of up to 99.99% of the bacteria that come into contact with the slabs, from the most common bacteria, such as Escherichia Coli, to the most dangerous ones, such as Methicillin Resistant Staphylococcus Aureus (MRSA).

ACTIVE 2.0 has bactericidal properties even in the dark and under LED lights, thanks to the combination of titanium dioxide and silver, which improves and reinforces the bactericidal action.

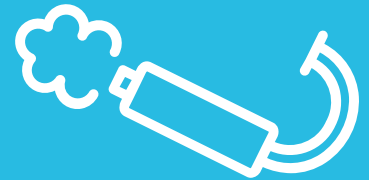


ANTI-POLLUTION EFFICIENCY

Purifies the air

The photocatalytic process converts the volatile molecules of dangerous pollutants, such as nitrogen oxides (NOx) and volatile organic compound (VOCs), into harmless substances.

ACTIVE 2.0 is capable of degrading the molecules of dangerous pollutants in a more effective and powerful way thanks to the use of the digital printing technology, which allows for a more homogeneous distribution of titanium dioxide and silver on the surface of the slabs.



SELF-CLEANING EFFICIENCY

Super hydrophilicity

Quick and easy cleaning, with consequent reduction in the use of aggressive and expensive detergents.

Thanks to the photocatalytic properties of ACTIVE 2.0, dirt adheres less to the slabs' surface, facilitating its cleaning. This property - called "self-cleaning" - allows for cleaning surfaces by simply using water and mild detergents, thus avoiding aggressive detergents, which are often toxic and more expensive.

On external facades, the action of the rain on ACTIVE 2.0 slabs is enough to keep them clean, with a dramatically reduced need for maintenance.



ANTI-ODOUR EFFICIENCY

Eliminates bad odours

Comfortable environments thanks to the elimination of bad odours.

ACTIVE is able to degrade the main molecules responsible for bad odours. Indeed, the photocatalytic process leads to the degradation of odorous organic molecules that come into contact with ACTIVE surfaces.

In ACTIVE 2.0, anti-odour properties were also strengthened thanks to the use of the digital printing technology - which allows for a more homogeneous distribution of titanium dioxide on the surface of the slabs - and thanks to the presence of silver, which is added to the micrometric TiO₂ since always used in ACTIVE Clean Air and Antibacterial Ceramic™.

