



**SUNOX**<sup>®</sup>  
fiberglass mesh



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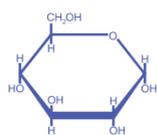
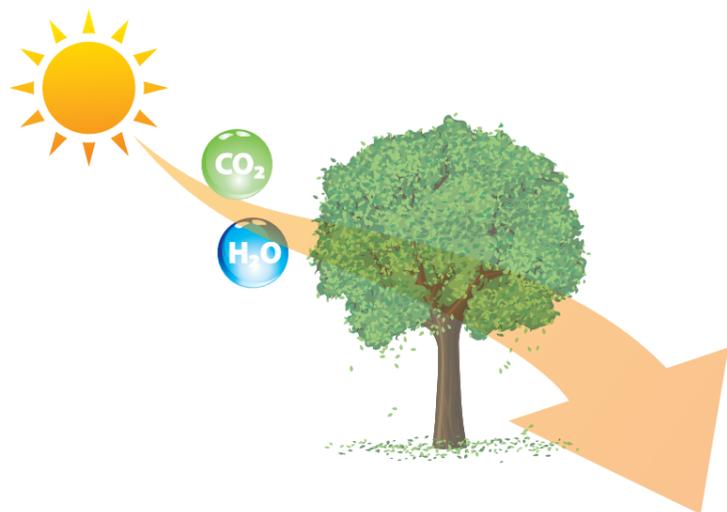
# The Antibacterial Screening

An **invaluable** ally  
for your **Well-Being**

SUNOX® is a registered trademark of NEXT TECHNOLOGY Tecnotessile. Patent EP1797936. - Patent pending WO20140135.

# As Nature Intended

SUNOX® is based on one of the most natural physical and chemical principles: photocatalysis. Photocatalysis is "the acceleration of the speed of a photoreaction in the presence of a catalyst". A catalyst neither changes nor becomes consumed by a chemical reaction.



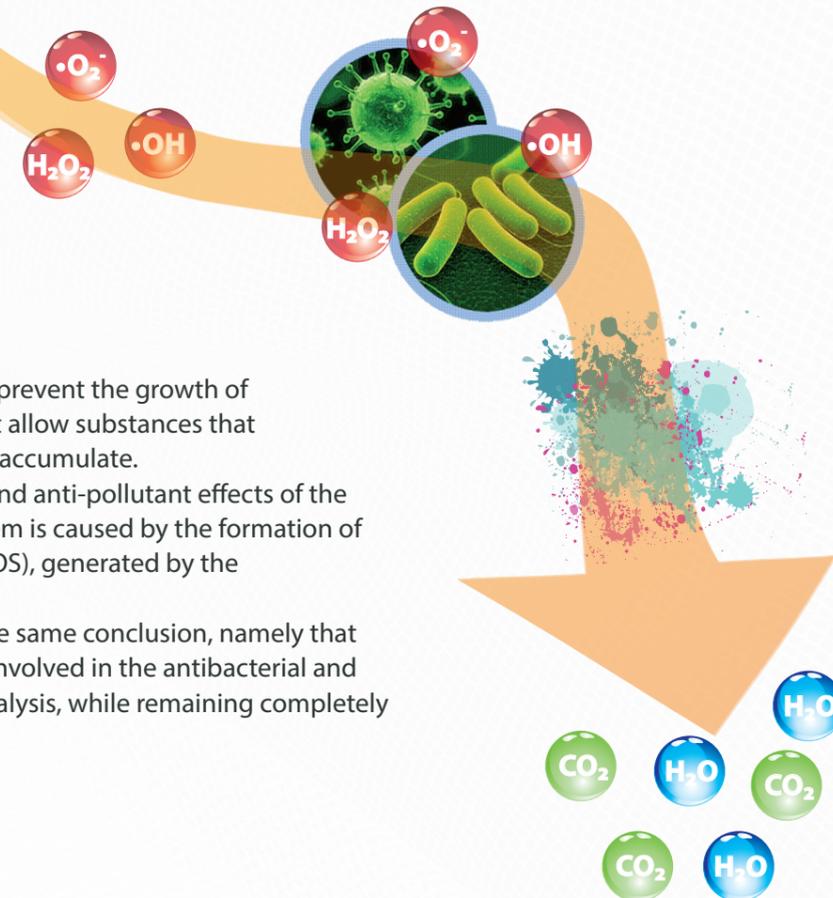
Like photosynthesis, in which chlorophyll captures sunlight to turn water and carbon dioxide into oxygen and glucose, the SUNOX® system (in the presence of light, humidity and oxygen) generates a strong purifying agent capable of transforming organic substances into carbon dioxide and water.

# A **Functional** Screening, Naturally



Photocatalysis is a process that is activated by light and air. The SUNOX® screenings, in the presence of these two elements, trigger a powerful purifying process leading to the decomposition and transformation of bacteria, viruses and fungi into harmless substances.

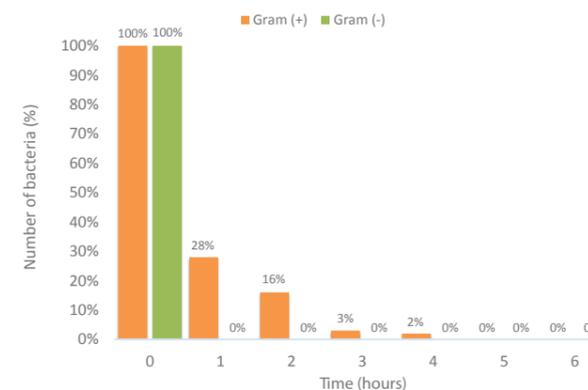
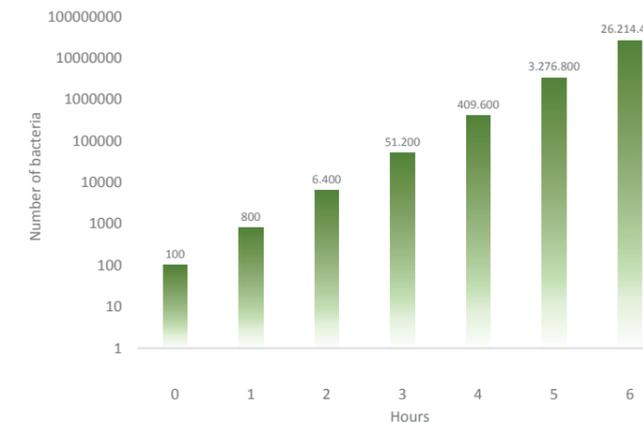
The photocatalytic surfaces prevent the growth of micro-organisms and do not allow substances that micro-organisms feed on to accumulate. The antibacterial, virucidal and anti-pollutant effects of the photocatalytic SUNOX® system is caused by the formation of Reactive Oxygen Species (ROS), generated by the SUNOX®-light system. Most of the studies led to the same conclusion, namely that these are the main Species involved in the antibacterial and virucidal effects of photocatalysis, while remaining completely harmless to people.



# Effective and Efficient

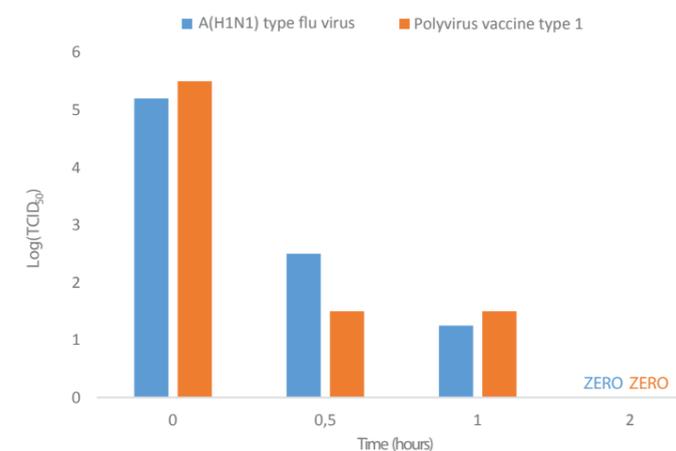
## Bacterial Growth

Under ideal conditions, the number of bacteria doubles every 20 minutes. In 6 hours at 37 °C, an initial population of 100 bacteria can replicate up to more than 26 million.



## Antibacterial Effects

SUNOX® has been widely validated through microbiological analyses, in accordance with the ISO standard 27447:2009, conducted by certified laboratories such as the Biochemie Lab in Florence and the Experimental Zooprophyllactic Institute in Teramo.



## Virucidal Effects

Research into the virucidal effects was conducted at the Department of Hygiene and Public Health at the University of Florence (tributary to the network of regional reference laboratories, certified for virological monitoring and validated by the National OMS Centre on behalf of the National Health Institute - Department of Infectious Diseases).

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## For your Well-Being

The screening, within "traditional" insect screens, still has the passive function of preventing annoying insects, dust, cottongrass and many other particles from entering into your home.

Like all screens, this filter should always be kept clean and in good working order to prevent the build up of impurities in front of our windows. T.I.E has always been involved in research, innovation and improvement and has now reworked this screening making it a revolutionary active filter that allows you to live in an environment where bacteria and viruses are filtered and their growth is greatly reduced. This is made possible by the SUNOX® technology: a patented cleaning treatment that, thanks to the interaction between light and modern nanotechnology, allows the screening to break down, in an extremely durable, purposefully and constant way, the growth of bacteria and viruses that are commonly present in the atmosphere and come into contact with your net both from the outside and from within your home.