

# The invisible **room cleaner**



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hygienius™

# For a healthier indoor environment

## Why indoor environment matters

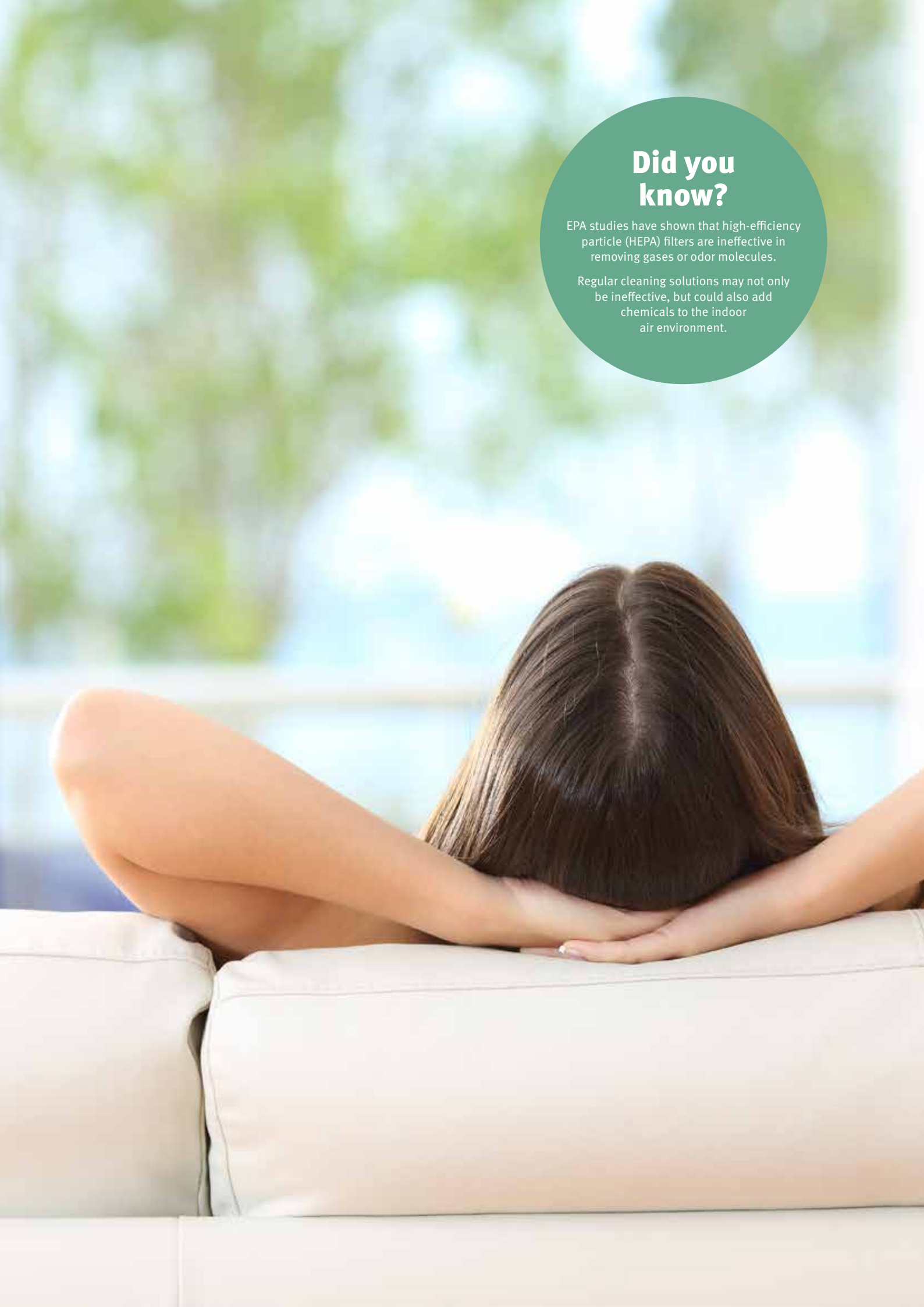
According to the Environmental Protection Agency, people spend nearly 90% of their lives indoors, yet air in building interiors is often more polluted than air outdoors. From respiratory illnesses and increased allergies to debilitating headaches and decreased lung function, we're plagued with potential problems when indoor air quality is poor. Studies show that the risk of catching COVID-19 and other respiratory pathogens is higher indoors than outdoors.

## The solution: a flooring additive

A floor with Hygienius integrated in its lacquer layer enables a natural photocatalytic process to take place when the floor is exposed to daylight or indoor light. This allows harmful emissions and unpleasant odors to be broken down as well as degradation of bacteria, fungi and virus on the surface. Hygienius contribute to make the floor surface cleaner, healthier and easier to clean. Hygienius is suitable for most types of floors (eg wood, lvt, spc) with a lacquered surface.

*“A floor that actively breaks down formaldehyde every day will improve your indoor climate drastically”*

Dr. Stephen O Hay,  
United Technologies Research Center (UTRC)



## Did you know?

EPA studies have shown that high-efficiency particle (HEPA) filters are ineffective in removing gases or odor molecules.

Regular cleaning solutions may not only be ineffective, but could also add chemicals to the indoor air environment.



## Documented Performance

The positive effect Hygienius has on indoor air quality has been confirmed both by internal testing and by third party testing. In addition, we have simulated the effect on high formaldehyde levels in a 89 m<sup>2</sup> classroom, using a light exposure corresponding to sunlight through a window. The original high formaldehyde levels were reduced to levels way below the recommended maximum of 0.1 mg/m<sup>3</sup>. In fact, they were even close to zero.

# Improved indoor air quality

**Hygienius removes over 99% of virus and bacteria**  
as well as breaks down harsh odors and hazardous substances



## Degrading VOCs

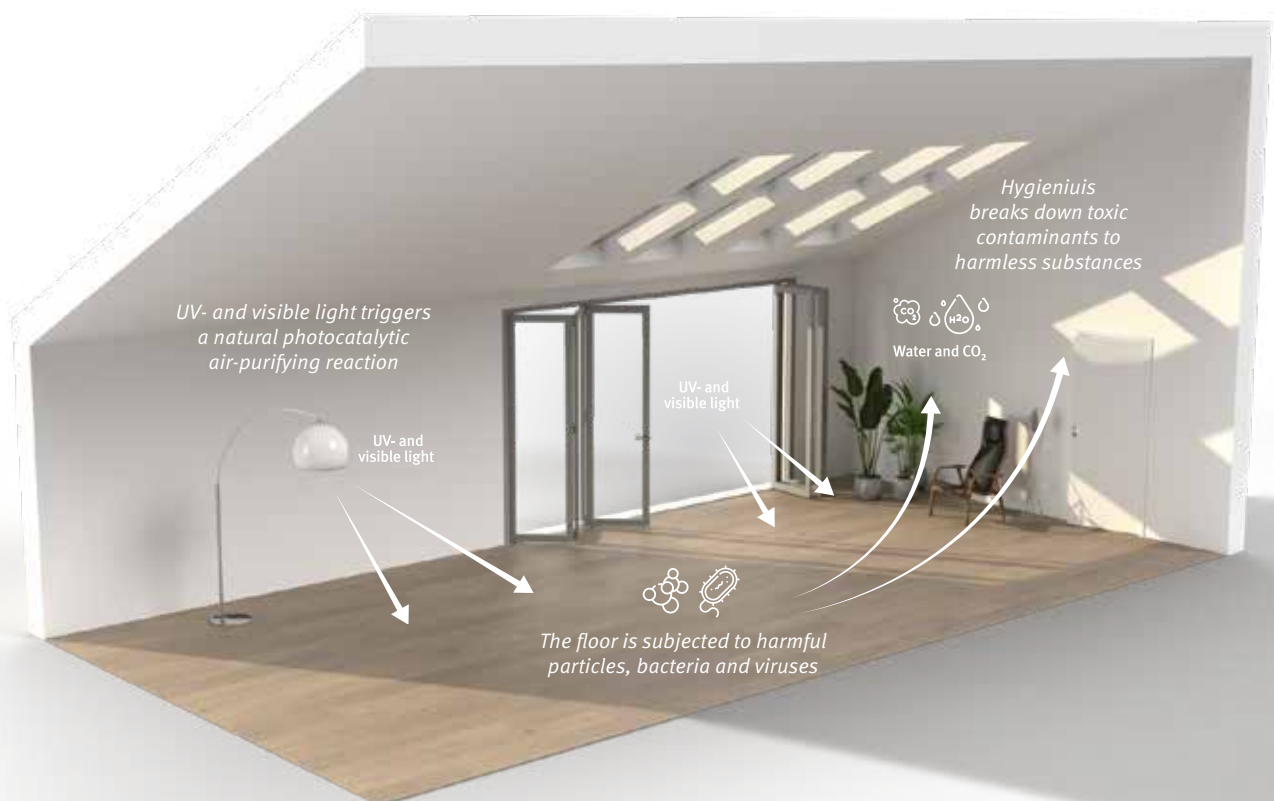
Volatile Organic Compounds (VOCs) emitted from interior surfaces have a negative impact on indoor air quality and pose potential health problems. The light-induced powers of Hygienius literally make indoor air fresher and harmful VOCs and unpleasant odors are practically eliminated.



## Reduces virus & bacteria

Tests with different bacteria have shown that floors with Hygienius can contribute to reduce both viruses and bacteria. Tests have shown that more than 99.9% of the viruses had disappeared after just 4 hours. And after a total of 8 hours — so had 99.6% of all bacteria.

## This is how Hygienius works





## Improved **Cleanability**



### MAKES YOUR FLOOR EASIER TO CLEAN

The unique properties of Hygienius change the way water and liquid cleaners behave on the floor surface. The Hygienius technology creates a hydrophilic surface that spreads water evenly and prevents water from forming droplets. The floor dries more quickly and thoroughly, eliminating the potential for unattractive streaks.

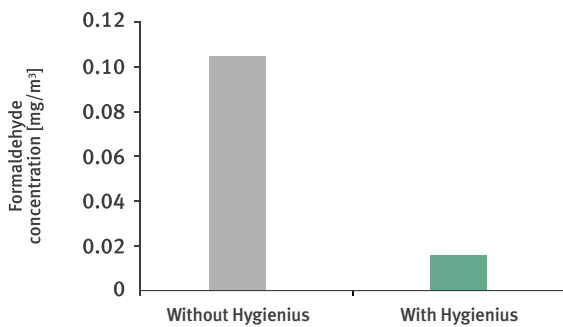
- Clean faster, with less effort — the floor air dries quicker
- Clean more thoroughly while using less water and detergents
- Enjoy more beautiful floors, without streaks after cleaning

### HOW IT WORKS

Hygienius creates a water-spreading (hydrophilic) surface that makes the water slide under the dirt and lifts it from the surface.

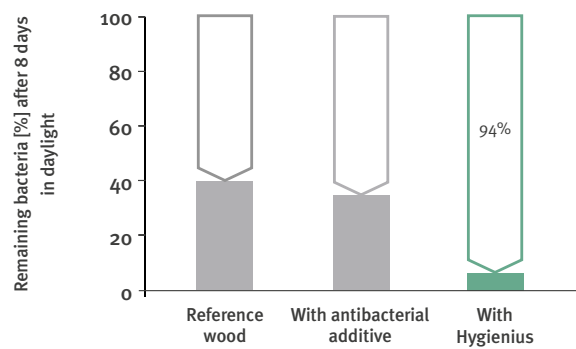
# The facts speak for themselves

Reduces VOC levels



Measurement performed in normal chamber with continuously emitting formaldehyde source. Tested according to a modified EN717-1.

Breaks down and decomposes bacteria



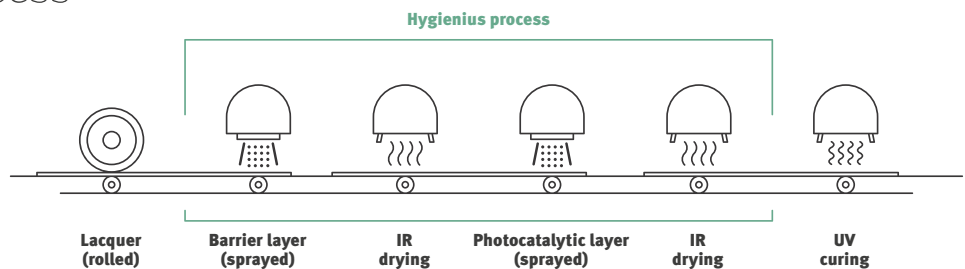
Measured according to hygiene standard DS 2451-10.

# 99.9% in 4 hours

*Determination of antiviral activity of semiconducting photocatalytic materials (ISO 18061:2014) have shown that after 4 hours 99.9% of all viruses had disappeared. Bacteria evaluations (according to ISO 27447:2009) have shown that Hygienius enhanced floors can contribute to reduced bacteria levels by more than 99.6% after 8 hours.*

## Production process

Adding Hygienius to the production process involves adding four additional steps after the lacquer has been applied and before the final UV curing step.



# Innovation – engrained in everything we do

Innovation has been the heart and soul of our business since the company was founded in 1993. Our progress is built on constantly challenging today's technological solutions with new ways of thinking. It was what led us to revolutionize the way people install and use floors, the development of highly durable and more sustainable flooring solutions, and groundbreaking methods to assemble furniture without any tools or fittings.

Today, our licensees can be found all over the world. All our development activities take place at our R&D center in Viken, Sweden – it's our high-tech hub for developing new concepts and providing pilot manufacturing, testing, and technical support.

Each day, we make sure our licensees get access to the latest flooring, furniture, and surface technologies used in people's everyday lives.



Välinge Innovation AB  
Prästavägen 513, 263 65 Viken, Sweden  
Phone: +46 (0)42 23 78 15  
Email: [flooring@valinge.se](mailto:flooring@valinge.se)