



The Invisible Room Cleaner



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.

THE SOLUTION: A FLOORING ADDITIVE

A floor with the transformative additive ACTiO₂® integrated in its lacquer layer enables a natural photocatalytic process to take place when exposed to daylight or indoor light. This allows harmful emissions and unpleasant odors to be broken down, in turn improving indoor air quality and letting everyone breathe fresher air.

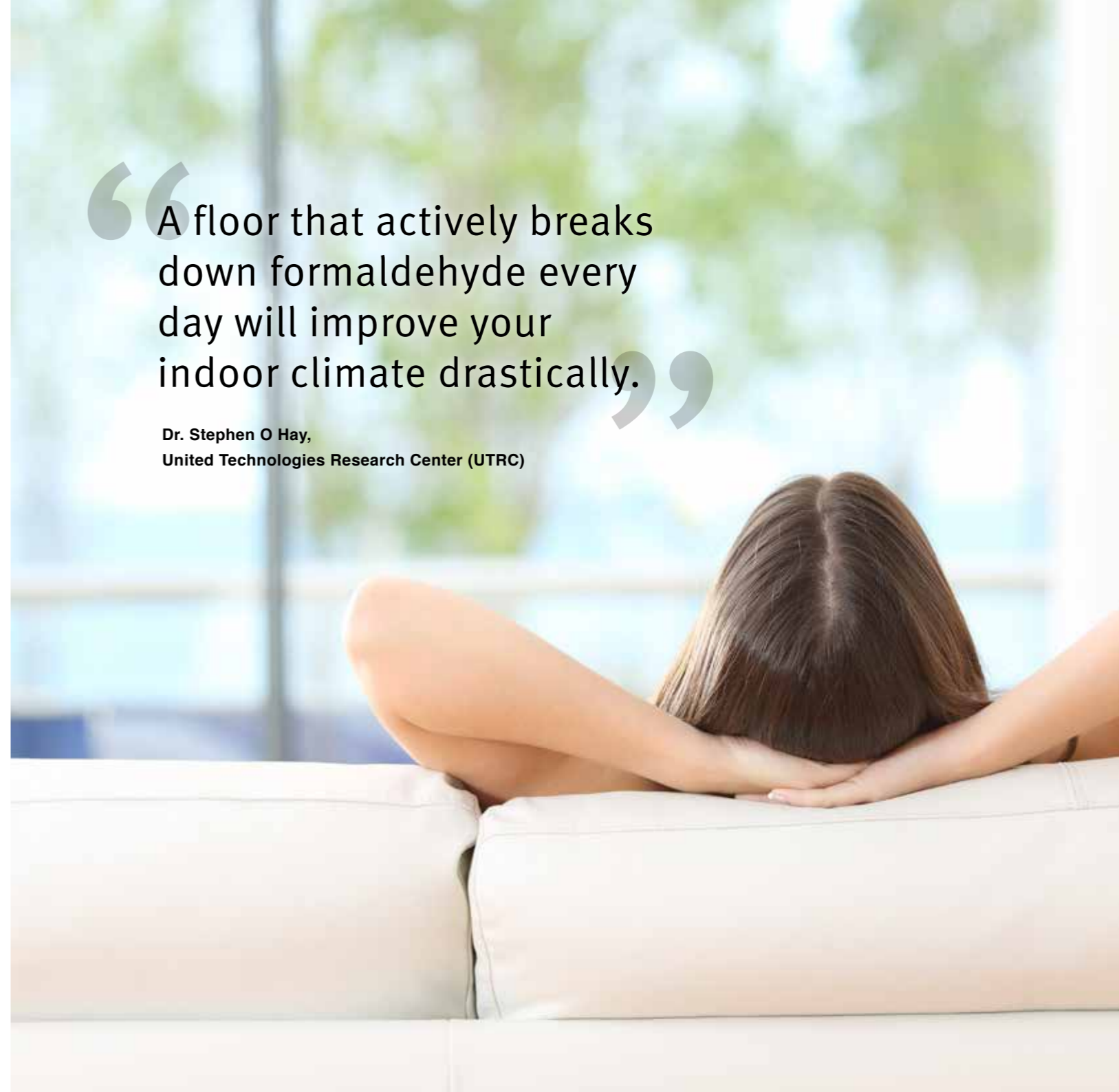
Floors with ACTiO₂ also contribute to make the floor surface cleaner and healthier. The photocatalytic process that takes place on the floor surface assists in breaking down and decomposing bacteria and fungi. By changing the behaviour of water and liquid on the floor surface, ACTiO₂ makes it easier to remove dirt and unattractive moisture streaks are minimized.

DID YOU KNOW THAT...

EPA studies have shown that high-efficiency particle (HEPA) filters are ineffective in removing gases or odor molecules as well as that regular cleaning solutions may not only be ineffective but may introduce more problematic chemicals into the indoor air environment.

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

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



Documented Performance

Several laboratory tests, both in our own laboratory and by respected international bodies, have confirmed the positive effect ACTiO2® has on indoor air quality. In addition, we have simulated the effect on high formaldehyde levels in a 89 m² 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/m³. In fact, they were even close to zero.

Cleaner Indoor Air

DEGRADING VOCs

Volatile Organic Compounds (VOCs) emitted from interior surfaces adversely affect indoor air quality and pose potential health problems. The light-induced powers of ACTiO2® literally make indoor air fresher, free from harmful VOCs and unpleasant odors.

LIFE-LONG EFFECT

Unlike alternative air-cleaning technology, the active air-cleaning substance is not consumed. Embedded in the lacquer, ACTiO2 remains active during the entire lifetime of the surface.



Courtesy of Lauzon, Canada

HOW IT WORKS

- ACTiO2 with titanium dioxide (TiO₂) is integrated in the floor lacquer
- Natural or artificial light activates the TiO₂
- A natural photocatalytic process occurs which generates an active air-purifying reaction
- Toxic contaminants are decomposed and converted to water and CO₂.

Improved Cleanability

MAKES FLOORS EASIER TO CLEAN

The unique properties of ACTiO₂® change the way water and liquid cleaners behave on the floor surface. They create a hydrophilic surface that spreads water evenly and prevents water from forming droplets. In addition, the floors dry more quickly and thoroughly, eliminating the potential for unattractive moisture streaks.

- Clean faster, with less effort—let floors air dry
- Clean more thoroughly while using less water and detergents
- Enjoy more beautiful floors, without streaks after cleaning

HOW IT WORKS

ACTiO₂ creates a hydrophilic (water-spreading) surface by reducing the angle of the water droplets on the floor. The lower the angle, the easier the water “slides” under the dirt and lifts it from the surface.



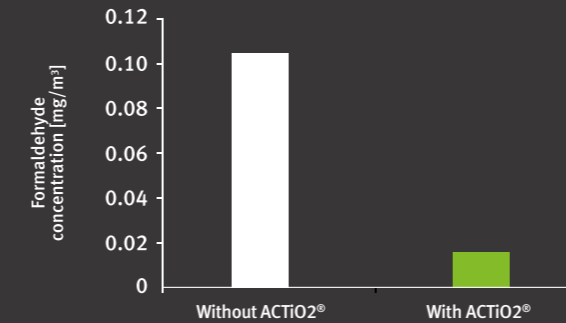
99.6% BACTERIA REDUCTION IN 8 HOURS

Bacteria evaluations (according to ISO 27447:2009) have shown that ACTiO₂ enhanced floors can contribute to reduce bacteria by more than 99.6% after 8 hours.

What The Tests Say

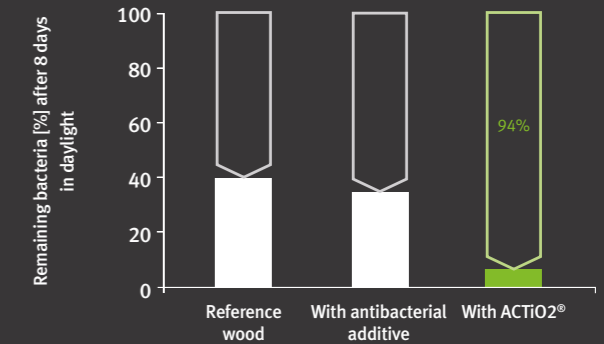
ACTiO₂® REMOVES UP TO 98% OF HAZARDOUS SUBSTANCES as well as breaks down and eliminates harsh odors - even persistent cigarette smells.

Degradation of VOC



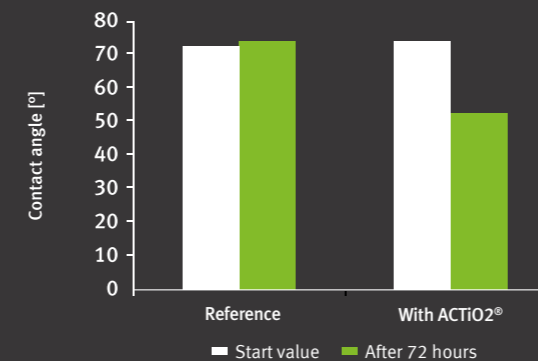
Measurement performed in normal chamber with continuously emitting formaldehyde source. Tested according to a modified EN717-1.

Breaks down and decomposes bacteria



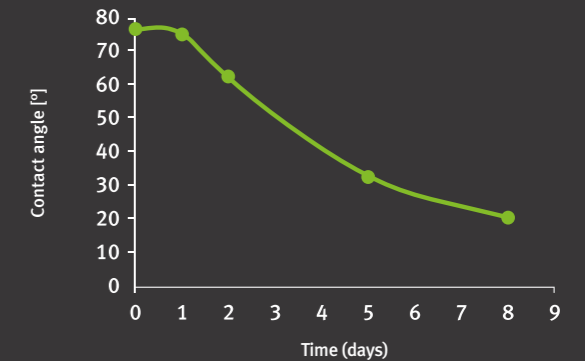
Measured according to hygiene standard DS 2451-10.

Reduction of contact angle



Results after 72h exposure to UVA 340 nm in lab environment.

Reduction of contact angle over time



Results after exposure to light from a Philips CDM-T 70W/942 light bulb. The light was positioned at a distance of 2.4m perpendicular to the sample.



Innovating Everyday

Innovation has been at the heart and soul of our business since the company was founded in 1993. Our progress is built on always challenging today's technological solutions with new ways of thinking. That's how we revolutionized the way people install and use floors. That's also the way we introduced a groundbreaking method to assemble furniture without any tools.

Today, our licensees can be found all over the world. All our development activities take place at our R&D center in Viken, Sweden. From here we develop new concepts and provide 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.

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