

VitrA

Hygiene solutions for public health



VitruA

We progressively invest in essentially
human spaces - the bathrooms.



The complete bathroom

Exploring physical and emotional needs, Vitra invests in design to produce every essential element in the bathroom.



It's all about inspiration

It all begins with questions posed by the design discipline to understand needs, desires and choices. Designed by Vitra, an extraordinary wealth of attractive combinations help satisfy these needs and desires.



High powered perfection

Seven cutting-edge factories and plants in Turkey and Russia, create sophisticated designs and maintain extremely high standards, whilst progressively reducing Vitra's ecological footprint.



Collaboration with designers

Vitra works with acclaimed industrial designers from around the world. Not only does the collaboration with these top talents improve product functionality, but it also introduces an entirely original range.



Vitra across the world

Bathroom designs greet customers around the world through 2000 sales points in over 75 countries, including 150 exclusive Vitra showrooms in Istanbul, London, Cologne, Moscow, Dubai, Mumbai, Delhi, and other major cities.



Technology lights up the future

The Vitra Innovation Centre serves as the headquarters of the brand's R&D activities with a strong engineering team, leading the bathroom industry with new solutions and technologies.



Improved personal hygiene

Vitra's continuous research into human health introduces new technologies for improved hygiene in the bathroom. These solutions raise the personal hygiene experience to a new level.



A pledge to the future

Vitra embraces Blue Life, a set of guidelines devised to mitigate our impact on the environment, and is held as a production, design and management philosophy.

We care about human health.

Our priority at VitrA has always been human health. That is why we have been pioneering for all these years to create the most salubrious bathrooms in every sphere, from homes through to schools, hospitals, hotels, restaurants and all other public spaces.





VitrA's role in protecting public health

Boğaç Şimşir

Innovation Director, Eczacıbaşı Building Products

Despite great improvements in living standards through the ages, the protection offered in sanitation and medicine by higher quality water and food, better waste management, and vaccinations is neither perfect nor impenetrable. Even in developed countries with elevated standards of public health, contagious diseases are still part of daily life. Understanding and implementing good practices for personal and environmental hygiene reduces exposure, preserves the hygiene barrier and helps diminish the risk of disease.

Nevertheless, research reveals that even when individuals know about good hygiene practices, they may not necessarily follow them. After the pandemic dies down, most of us will abandon the hygiene habits we adopted during the pandemic and go back to our old ways. A permanent change in everyday habits is essential. Just as we say in our Group-wide innovation statement, we can achieve this by offering new solutions that transform lifestyle habits for the good of all.

During the pandemic, health workers shouldered most of the burden, but from now on other sectors also have tremendous responsibilities. With our responsibility for bathrooms and toilets, VitrA would like to point to the four risks we face in this field.

4 risks that compromise the health barrier

1. Pathogen-carrying water droplets that are splashed each time the toilet is flushed.
2. Direct contact with contaminated objects and surfaces.
3. Inadequate personal hygiene habits.
4. Proliferation of pathogens due to ineffective hygiene practices in damp and dim bathroom and toilet environments.

At VitrA, we had started working on eliminating these risk factors many years ago. We have been offering innovative solutions to improve hygiene in the bathroom and public spaces by developing material technologies and more efficient waterflow in sensor taps. We have even endeavoured to promote Turkey's unique personal care practices in Europe. Today, we use over 20 technologies that serve to protect the hygiene barrier, half of which are our patents.

With the onset of the pandemic, we have prioritised hygiene projects we had already initiated. We have evaluated opportunities for joint projects with companies inside our Group as well as with external stakeholders. In order to reduce the risk of infection in public places, we are currently working on smart bathroom technologies that will enable completely touch-free use of the toilet. Products equipped with this technology are scheduled for launch in the near future. When we enter the cubicle, the toilet will sense us and raise the seat cover. The bidet nozzle will be activated by a sensor. When we stand up, the toilet will close the cover before flushing in order to prevent splashes by particle-carrying water droplets. Soap will be delivered by sensor-operated soap dispensers, water by sensor-operated taps and paper towels by sensor-operated towel dispensers. Surfaces will be pathogen-free in order to eliminate the risk of infection in public toilets.

We are all too aware that our best contribution to a permanent change in behaviour will come from developing hygiene-enhancing products which require minimum effort. At VitrA, we will continue to spearhead the effort to protect public health with new products that eliminate the risk of infection through the development and use of smart and touch-free technologies.



Pathogens: Pathogens are disease-causing microbes.

Contaminated: Not pure

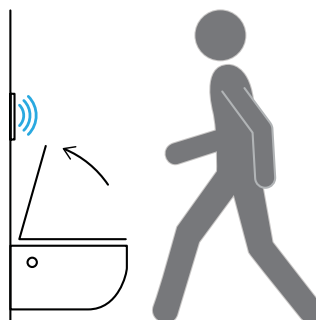
Contamination: The process of making something dirty or poisonous.





Toilet areas

Touch-free toilet experience



Approach

The Vitra Touch-free Toilet Lid lifts when the V-Care Smart Panel sensor has detected the user.

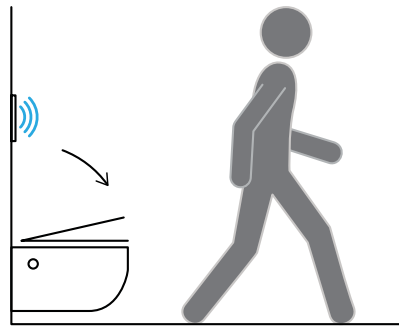
The WC is ready for use without the need to touch any surface.



Use

The VitrA Touch-free Bidet starts the wash when the sensor detects the user's hand, and stops on detecting the hand a second time.

This means there is no need to worry about who may have used the WC before you.



Flushing

The VitrA Touch-free WC Seat closes automatically when the user stands up and moves away, and the toilet flushes only after the lid is shut.

This prevents the risk of bioaerosol contamination via inhalation or contact with surfaces. It also guarantees a clean WC pan, ready for the next user.



Touch-free auto and periodic flush

An indispensable element in the VitrA smart bathroom products ecosystem, the V-Care Smart Panel undertakes a major role in creating a hygienic environment and protecting public health. With twenty-two patented technologies, the V-Care Smart Panel's auto flush feature prevents the need to touch the panel and reduces the risk of cross-contamination.

Even when a manual flush is required, there is no need to touch the panel; it is enough to bring the hand to 10 mm away from the panel. In case a second flush is necessary to clear the bowl, the V-Care Smart Panel waits until the cistern is completely full to ensure a more effective flush.

A period of inactivity could lead to bacterial proliferation, backflow through the waste pipes and even a build-up of minerals and other deposits. The periodic flush mode regularly washes the bowl to minimise the risk of dirt, stains, odours and bacterial growth, thereby greeting users with a hygienically clean toilet every time. The default setting is ON, but it can be turned OFF via the mobile app.

The mobile app offers additional benefits such as comfort, usage data display, remote control and updating. Thanks to the network connection, the V-Care Smart Panel firmware always remains up to date. The dashboard enables remote monitoring of all installed plates, statistics viewing, and function control for commercial enterprises and institutions.





Touch-free toilet seat to prevent the spread of pathogens

VitrA's Touch-free Toilet Seat opens and closes the lid automatically to reduce the risk of pathogen cross-contamination.

Designed to be used with the V-Care Smart Panel, the lid lifts on detecting the user, preparing the WC pan without the need to touch.

The spread-free feature of the V-Care Smart Panel automatic mode closes the lid once the user has stood up and left before flushing in order to prevent the risk of bioaerosol contamination via inhalation or sticking to surfaces. It also guarantees a clean WC pan, ready for the next user. In the manual mode, the lid and flushing operations are determined by the user.

Manufactured from hygienic duroplast material, the VitrA Touch-free Toilet Seat prevents the growth of microorganisms on its surface. Sleek look and compact structure ensure uncompromising comfort and hygiene at the same time.

As the touch-free seat draws power from the control panel, no additional wiring is needed, a point which makes installation safe and easy. With an IP44 rating, it is protected from dust and water spray, thereby facilitating routine WC pan cleaning. The V-Care Smart Panel takes over in the case of a power cut to provide power for up to ten washes. A further safety measure is the lid motor which automatically shifts to idle in case of anything getting caught, thereby protecting both the user and the seat/lid.

Having passed the 200,000 cycles test, the VitrA Touch-free Seat offers problem-free operation even under the most intense usage conditions.





Touch-free bidet function

Controlled by a built-in sensor, VitrA Touch-free Bidet enhances personal hygiene in toilets and reduces the risk of pathogen cross-contamination.

Available in two built-in types (WC pan and renovation platform), the touch-free bidet is suitable for both new projects and refurbishment.

Connected to the V-Care Smart Panel, the touch-free bidet is activated once the sensor in the control panel has detected the user in order to prevent accidental operation.

The touch-free bidet is illuminated by LED lights when the user enters the cabin, and starts a 30-second wash when the user's hand is detected. It offers a comfortable wash with the ideal water pressure (3 l/min) as determined by user tests. The flow stops automatically unless the user moves a hand to the touch-free bidet again. This limit also contributes to a water saving.

Since the touch-free bidet draws power from the control panel, no additional wiring is needed, a point which makes installation safe and easy. With an IP64 rating, it is protected from dust and water spray, thereby facilitating routine WC pan cleaning. The V-Care Smart Panel takes over in the case of a power cut to provide power for up to ten washes.

Having passed the 250,000 cycles test, the VitrA Touch-free Bidet offers problem-free operation even under the most intense usage conditions.





Touch-free flushing technology

The control panel with VitrA Touch-free technology improves hygiene in public toilets. As there is no need to touch a flush button, the risk of pathogen cross-contamination is reduced.

Once the control panel with VitrA Touch-free technology has detected the user and monitored the amount of time spent in front of it, it flushes the bowl with the appropriate volume of water, thereby saving water. A button on the panel gives the option of mechanical operation in case of a power cut.



A platform to simplify toilet refurbishment with touch-free products

RenoForm is a refurbishment platform which enables the installation of electronic and smart products without the need for wall and infrastructure renovation, thereby simplifying the installation of touch-free products.

Power is carried into the platform through one single cable before updating the toilet area to a touch-free one. The integrated power unit in the platform converts mains 220 V A/C to 6 V D/C for safe feed into every touch-free product via the V-Care Smart Panel or the VitrA Touch-free Control Panels.



In addition to simplifying installation, RenoForm also allows for rapid and easy maintenance thanks to a service hatch at the side.

The RenoForm range supports solutions suitable for all refurbishment needs in a variety of spaces. Three alternatives make it easy for transforming toilet areas of any type: floor-standing or wall-hung WCs, with or without Vitra concealed cisterns.

Slim body RenoForms for wall-hung WCs with Vitra concealed cisterns use the existing concealed cistern infrastructure, whilst the cistern in other types of WCs is fitted into the platform.

Made of aluminium composite material, the platform exterior is resistant to cleaning chemicals and corrosion.



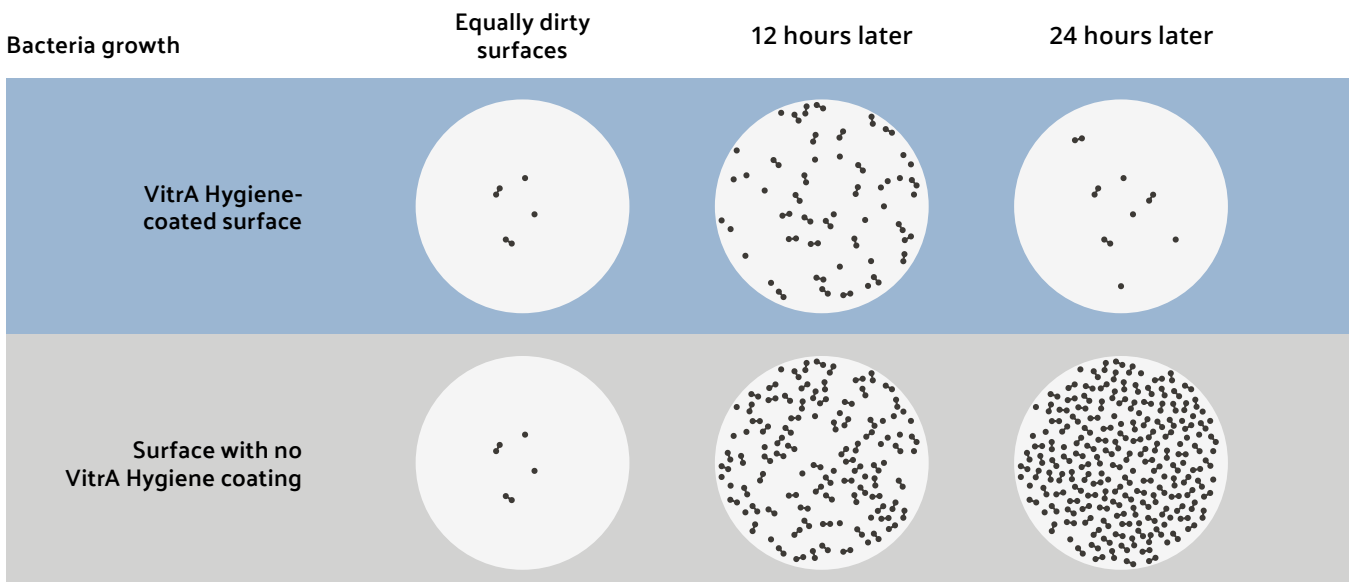
Ion-rich technology that inhibits the growth of harmful bacteria

VitrA Hygiene, which coats all VitrA ceramicware, inhibits the growth of harmful bacteria by 99.9%. By disrupting the cellular structure of bacteria that cling to the surface during use, this proprietary glaze prevents them from proliferating into a colony.

Tests in accordance with the national and universal ISO 22196, JIS Z 2801, ASTM E 3031-15, and TSE 13420 protocols have verified the efficacy of VitrA Hygiene against gram negative (*Escherichia coli*) and gram positive (*Staphylococcus aureus*) strains.

The VitrA Hygiene glaze coats all external and internal surfaces prior to firing in a process that ensures lifetime VitrA Hygiene protection for VitrA ceramic sanitaryware even under the most intense usage conditions.

Fewer chemicals and better hygiene with VitrA Hygiene









Hygienic coating that inhibits the growth of harmful bacteria

Your health is better protected as every touch is now safer, thanks to the special VitrA Hygiene control panel coating, which prevents finger marks and inhibits by 99.9% the growth of gram negative (*Escherichia coli*) and gram positive (*Staphylococcus aureus*) bacteria.



Rimless WC that leaves no room for dirt

The VitrA Rim-ex system flushes every part of the VitrA wall-hung WC bowl, leaving bacteria nowhere to hide. Free of the channels that can harbour harmful bacteria and micro-organisms, the VitrA Rim-ex toilet is easier to clean and 95% more hygienic than standard pans. The triple-nozzle diverter and the smooth curvature of the bowl give a thorough and 25% more hygienic flush each time.



Channel-free WC bowl



Standard WC bowl with a channel



Easy-to-clean technologies for better hygiene



Surface that repels dirt and dirty water

VitrA Clean has hydrophobic finish over the entire ceramic surface, which repels dirt and dirty water and simplifies cleaning without the need for aggressive agents.

VitrA Clean causes water to form droplets that slide down the sloping ceramic surface. As they are pulled down by gravity, these globules carry away any clinging dirt, thereby cleaning the surface.

Developed by the VitrA innovation team and constituting of long chains of molecules, VitrA Clean is suitable for all ceramicware surfaces such as washbasins, WC bowls and bidets in any colour or specification. VitrA Clean's protection lasts for the lifetime of the ceramicware under even the most intense use conditions.



Design that makes cleaning easy

Concealed installation is one of several ideas that ensure lasting hygiene for the Vitra wall-hung WC. The recessed installation detail and screws at the sides of standard wall-hung toilets are taken into the interior of Vitra wall-hung WC's. This leaves nowhere for dirt to hide and simplifies the cleaning of the entire surface.



WC with concealed installation



WC with standard installation

Easy-to-clean seat and lid

The screw-free fitting of the Quick Release Vitra WC Seat makes it easy to remove and refit after cleaning.





Urinal areas

Auto flush after every use

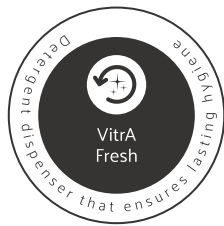
In public urinals with VitrA Touch-free technology, the bowl is washed automatically, reducing the risk of pathogen cross-contamination.

Once the VitrA sensor has detected the user and monitored the amount of time spent before the urinal, it washes the bowl with the appropriate volume of water in order to contribute to water saving.









Cleaning with detergent in every flush

WC bowls and urinals equipped with a VitrA Fresh detergent dispenser clean and prevent limescale and odours with each flush.

VitrA Fresh dispenses a pre-determined amount of cleaning fluid into the water every time the flush button is pressed. The dispenser can be filled with non-bleach cleaners, limescale reducers or fresheners. It gives a hygienic wash and freshens with each flush. Installed independent of the cistern, the VitrA Fresh dispenser presents no risk to internal parts.

The patented dosage system adds 1 ml of cleaning fluid into the wash with no need for additional wiring or batteries. The dispenser has a maximum capacity of 800 flushes in a WC and 400 in a urinal.





Washbasin areas





Touch-free hand wash technology

Controlled by a built-in sensor, the VitrA Touch-free Basin Mixer improves hygiene in public toilets and reduces the risk of pathogen cross-contamination.

The sensor detects the user and contributes to water saving by stopping the flow as soon as the user moves away from the detection area.

Double inlet Origin mixers allow management to set the ideal water temperature through a concealed adjustment system, thereby saving users from having to touch the controls to adjust water temperature. Thermostatic versions maintain temperature without the need for adjustment; in case of a cold water cut, the hot stream is also stopped to prevent scalding.

Powered by mains or batteries, these mixers are completely safe thanks to waterproof wiring conforming to IP 68 standards.





Soap Dispenser that reduces the risk of pathogen cross-contamination

VitrA's Touch-free Soap Dispenser improves hygiene in public toilets and reduces the risk of pathogen cross-contamination.

With built-in and countertop models, the dispensers are powered by mains or batteries and are perfectly safe thanks to waterproof wiring conforming to IP68 standards.

The one litre container offers 650 uses on average from one refill.



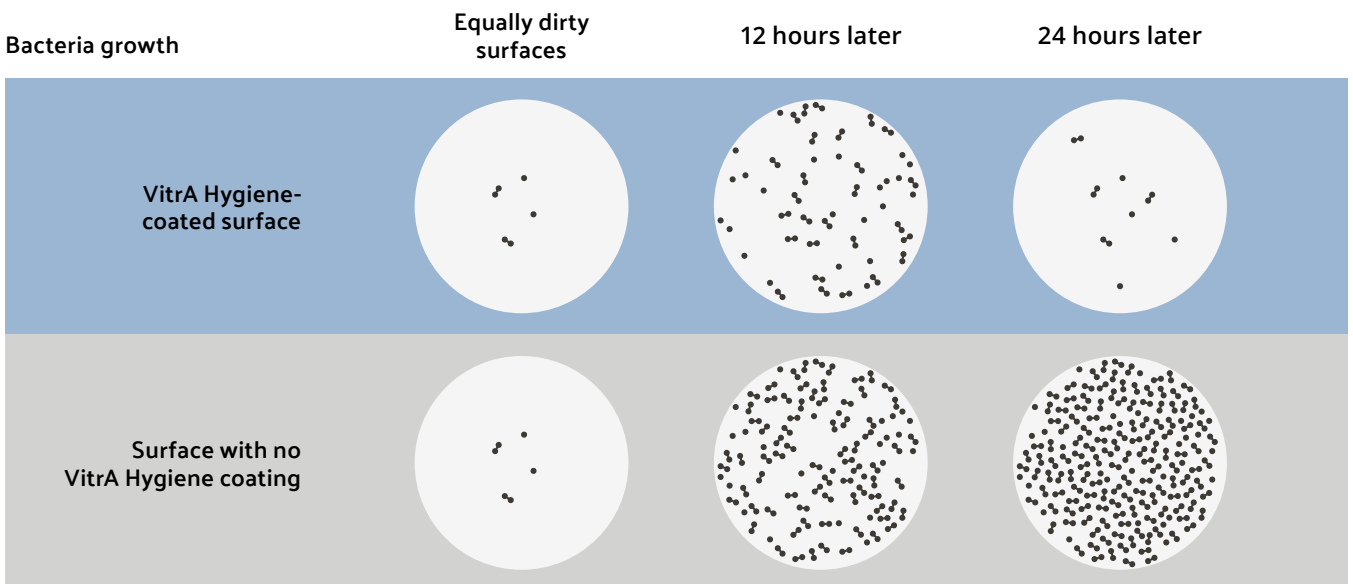
Ion-rich technology that inhibits the growth of harmful bacteria

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The VitrA Hygiene glaze coats all external and internal surfaces prior to firing in a process that ensures lifetime VitrA Hygiene protection for VitrA ceramic sanitaryware even under the most intense usage conditions.

Fewer chemicals and better hygiene with VitrA Hygiene







Auto clean washbasin with touch-free control

Washbasins equipped with a VitrA Fresh detergent dispenser clean and prevent limescale and odours with each wash.

VitrA Fresh dispenses a set amount of cleaning fluid into the water running into the bowl every time the wash button is pressed or the sensor is activated. The dispenser can be filled with non-bleach cleaners, limescale reducers or fresheners. By preventing the proliferation of pathogens, it reduces the risk of cross-contamination in public use areas.

A maximum of 5 to 10 ml of cleaning fluid from the VitrA Fresh dispenser is mixed into 1 litre of water to clean the washbasin. The concealed water outlet in the VitrA Fresh washbasins prevents the build-up of dirt and ensures maximum hygiene.



Glossary

Cleaning:

It is the mechanical or chemical removal of dirt and soil from the human body, an object or an area. Normally, cleaning with soap or detergent followed by rinsing with water is adequate to remove visible dirt and allergens. By removing dirt, the number of germs will be considerably reduced. Hence, cleaning is a major step towards hygiene.

Hygiene:

Hygiene is a set of conditions and practices which are used to maintain or promote good health and prevent the spread of disease. Keeping oneself and one's surroundings clean, cleaning and – when needed – disinfecting surfaces, hands, units, surroundings, and items of personal use in order to break the chain of infection, all contribute to hygiene. Other hygiene measures are, for instance, keeping a certain distance from those who are sick.

Pathogens:

Pathogens are disease-causing microbes.

Bioaerosols:

Bioaerosols are natural or artificial particles of biological (microbial, plant or animal) origin suspended in the air. Bioaerosols may consist of bacteria, fungi (and spores and cell fragments of fungi), viruses, microbial toxins, pollen, plant fibres, etc. Their sizes vary between less than 1 μm to 100 μm in aerodynamic diameter; viable bioaerosol particles can be suspended in the air as single cells or aggregates of microorganism as small as 1-10 μm in size. Human bodies can generate bioaerosols directly through activities like talking, sneezing, and coughing, while other residential activities (such as washing, flushing the toilet or sweeping floors) can generate bioaerosols indirectly.

Disinfection:

It is preventing the spread of infection by deactivating/killing harmful organisms. In situations with a high risk of transmission of germs (for instance, when there is someone who is infected or is vulnerable to infection), the targeted use of a disinfectant helps prevent infections.

Cross-contamination:

It is transmission through a contaminated object – usually the hands, but also surfaces.

Contaminated:

Not pure

Contamination:

The process of making something dirty or poisonous.

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