

VitrA

VitrA Block

Clean and watermark-free wall tiles like the first day



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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.



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.



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.



The complete bathroom

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



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.



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.



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.



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.



What is VitrA Block?

Watermark is a general problem occurring on white wall tiles due to water absorption. Wall tiles produced with VitrA Block reduces water absorption on the wall tiles which provides clean and no watermark look on the tile surface.

A new engobe recipe has been developed with 0% water absorption without making any change on body recipe, firing cycle and tiling. Thanks to this new recipe, VitrA Block provides a clean and spotless look on the white wall tiles.



Water absorption of wall tiles

Wall tiles differ from porcelain and floor tiles with their higher water absorption properties. The water absorption rate of porcelain tiles is between 0.0 - 0.5% while the water absorption rate of wall tiles is between 10 - 20%. Wall tiles are much more porous and have lower density. Both characteristics are required for easy application on the walls, making tiles easy to hold on the walls during tiling and creating less vertical load.

As seen in the figure, glaze is a glassy phase that does not absorb water, but just below it engobe and body layers have water absorption of 8 - 15% for engobe and 10 - 20% for body side due to the porosity inside the structure.

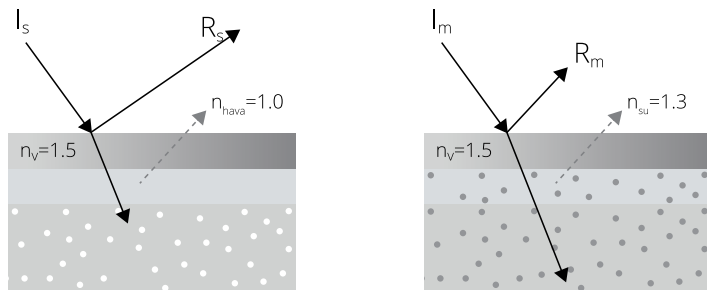


Watermark problem

Wall tiles high water absorption property is required for easy tiling on the walls, on the other hand this higher water absorption may create watermark problem especially on plain white and light colored wall tiles.

Watermark problem is darkening of color on glazed surface due to the absorption of water by porous body which causes customer complaints due to stain like plots on tiles. Especially at Scandinavian countries due to the application of backboards at laying of wall tiles, the watermark attend to form much more easily because all the water stay between the tile and backboard. Watermark formation is directly related to visualization on the glaze surface of porous body when it became wet as darkening in color. The mechanism of watermark formation is given in the gure. At the dry state, tile has porous structure where the pores are fullled with air and incident light does not penetrate inside the pores, but at wet state since the pores are lled with water and the dierence between the refractive index, incident light pass through the pores which is seen as darkening of colour at glazed surface.

Watermark formation of wall tile



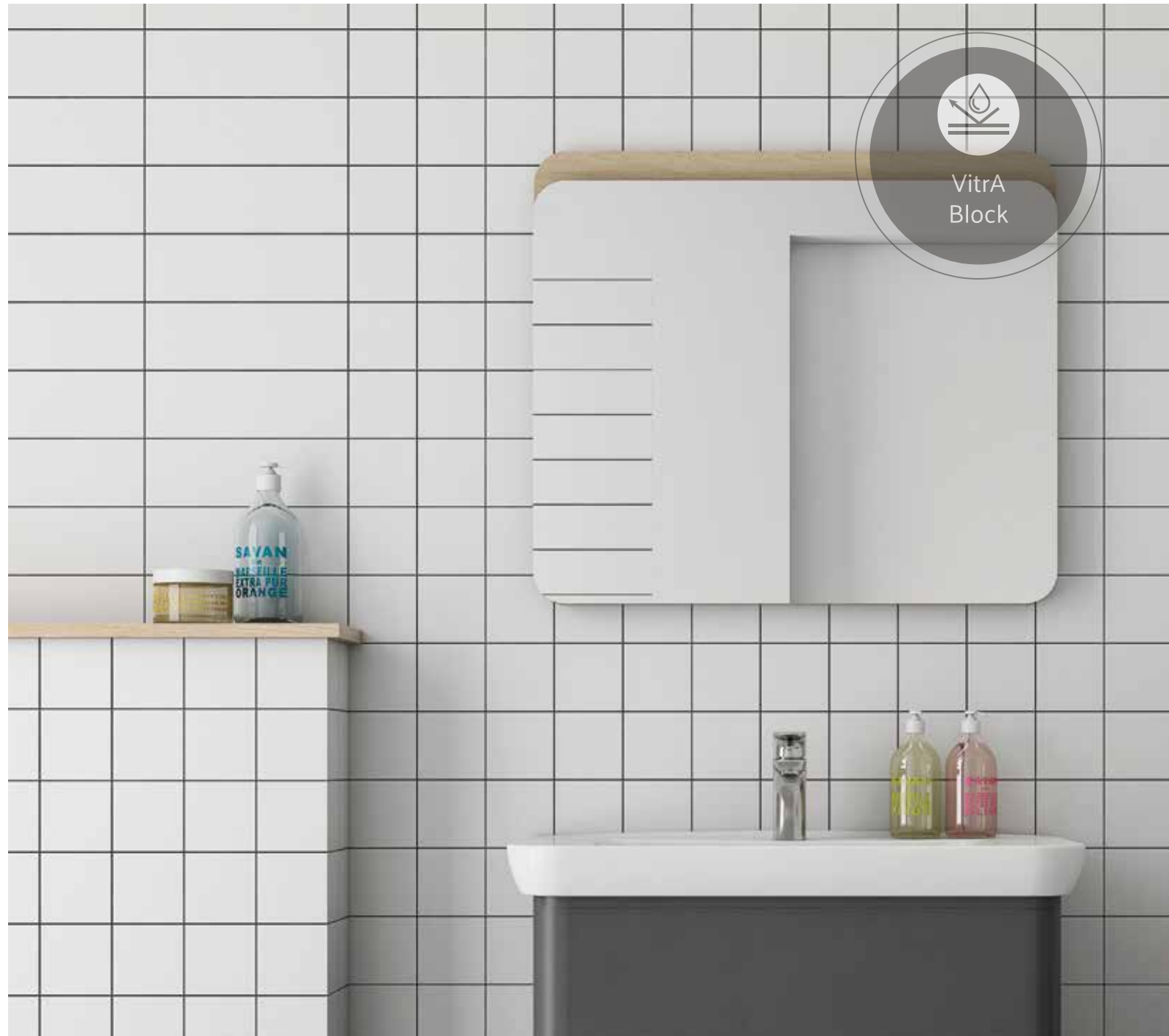
Dry tile

Wet tile



Watermark-free technology

The new engobe recipe of VitrA Block with 0% water absorption provides watermark-free surface technology ensuring much lower water absorption and therefore no sign of watermark can be seen on the tile surface. The wall tiles remain clean and white like the first day.



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