

VitroA

Life Solutions

The design raised with functionality



VitruA



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.

VitrA Life Solutions

The design raised with functionality

We bring the innovative solutions that we have developed by the inspiration we get from you and from the life itself into our designs so that you can feel safe and comfortable at every new step and create pleasant living spaces.

Life is now more comfortable and joyful with **VitrA V-Safe, V-Agent, Clean 2.0, Block** and **GlowSafe** Technologies.

V-Safe: Guaranteed safety with anti-slip surface technology

V-Hygiene: Smart surface technologies for hygienic living spaces

VitrA Glowsafe: Glow in the dark for a safe walk in all living areas

VitrA realLook: The most refined state of design to living spaces for ever-lasting look

VitrA Solid: Long-lasting quality and performance





VitrA Life Solutions

The design raised with functionality



V-Safe



Guaranteed safety with anti-slip surface technology



V-Safe Mini

Anti-slip, soft-touch and hygienic surface technology providing safe living areas for babies and children



V-Safe Wet

Anti-slip, easy to clean and hygienic surface technology for wet areas



V-Safe Outdoors

High anti-slip performance with wear resistant and weatherproof technology designed for outdoor areas



V-Safe Industrial

High level of slip resistance for industrial areas

V-Hygiene



Smart surface technologies for hygienic living spaces



V-Agent

No room for viruses



VitrA Shield

Self-cleaning technology that inhibits the growth of harmful bacteria



VitrA Clean 2.0

Ultra-easy to clean floor and wall tiles



VitrA Glowsafe

Glow in the dark for a safe walk in all living areas

Stair tiles that harvest the day light and reflect its energy in the night for a safe walk both in indoor and outdoor areas



VitrA reaLook

The most refined state of design to living spaces for ever-lasting look

Pure concrete - Combining the simplicity, architectural profoundness and endurance

Stone code - The secret of nature, which will never fade away

Marble dream - Nature's most precious treasure that combines modern life passion with prominent classical taste

Wood obsession - Warm and light-weighted lifelike texture



VitrA Solid

Long-lasting performance and quality



VitrA Protect+

Very fine glaze application against abrasion and colour fading



VitrA Block

Like the first day. Protection against yellowing



VitrA Professional

Fullbody and colorbody tiles that are extra resistant to harsh conditions in industrial and commercial areas

Brochures



V-Safe





V-Safe



Enjoy moving around safely with Vitra V-Safe Technology.

You can enjoy every moment in all living spaces thanks to Vitra V-Safe anti-slip surface technology.







What is Vitra V-Safe Technology?

V-Safe is a surface technology that provides slip-resistant and easy-to-clean surfaces. It also provides soft touch surfaces for V-Safe Mini and V-Safe Wet.

V-Safe is suitable for both indoor and outdoor areas, especially for all kinds of living spaces that require extra safety, hygiene and durability such as baby and children rooms, bathrooms, kitchens, swimming pools and SPAs and industrial areas.

Thanks to its non-slip surface, Vitra V-Safe allows you to step without worry across all ceramic surfaces.







V-Safe Mini Technology beneath the happy, little steps

V-Safe Mini offers safe and enjoyable areas for your babies and children thanks to its non-slip, hygienic and soft-touch surface technology.

* Please refer to our main catalogues to see our R10A tiles
<https://www.vitraglobal.com/brochures/tile-brochures/general-brochures/>







V-Safe Wet Technology for safe and enjoyable moments in the water

V-Safe Wet provides a safe and comfortable environment in wet spaces thanks to its non-slip, hygienic and easy-to-clean technology.

* Please refer to our main catalogues to see our R10B tiles:
<https://www.vitrageglobal.com/brochures/tile-brochures/generalbrochures/>





V-Safe
Wet

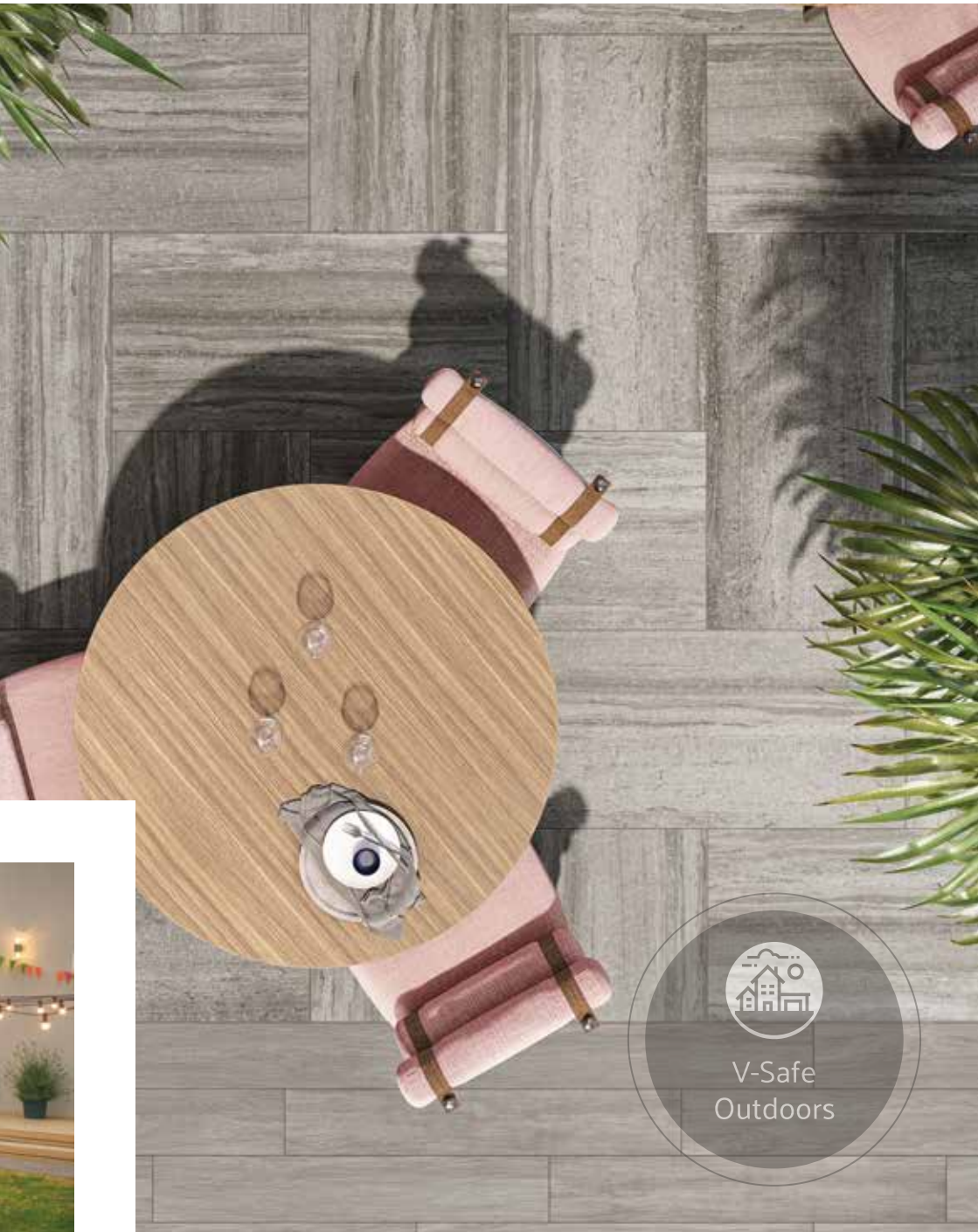


V-Safe Outdoors Technology for joyful moments in outdoor areas

V-Safe Out allows you to spend joyful moments in outdoor areas thanks to its high anti-slip performance and wear resistant and weatherproof technology.

* Please refer to our main catalogues and 20mm catalogue to see our R11 tiles:
<https://www.vitrageglobal.com/brochures/tile-brochures/general-brochures/>
<https://www.vitrageglobal.com/brochures/tile-brochures/collection-brochures/>





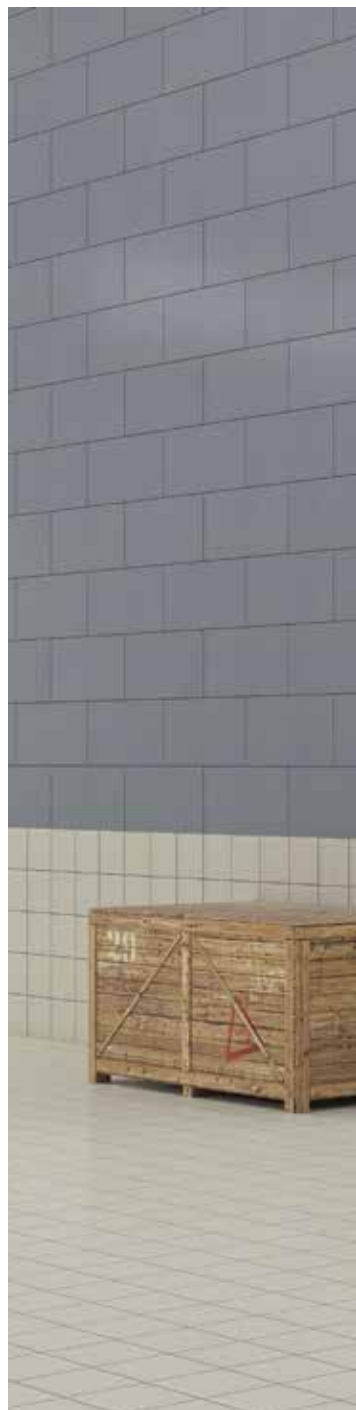
V-Safe
Outdoors



V-Safe Industrial Technology for industrial areas

V-Safe Industrial provides a very high level of slip resistance, designed specifically for industrial area surfaces. V-Safe Industrial can also be used in outdoor areas for extra slip resistance.

* Please refer to our PRO Technic catalogue to see our R11& R12 tiles:
<https://www.vitraglobal.com/brochures/tile-brochures/general-brochures/>





V-Safe
Industrial

Some of the Vitra Tiles Collections with V-Safe Technology:

V-Safe

R10A



Craft



MarmoMix
Craft



CementMix

R10B



Calacatta



Marmostone

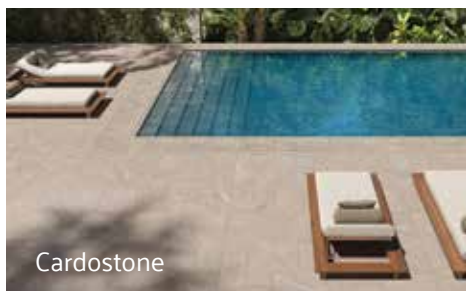


Ultra 2.0

R11



Newcon



Cardostone



Cardostone



V-Safe Mini



V-Safe Wet

White

British Stone
Calacatta
Canyon
Cardostone
Cement-Tech S
Marmorì
Newcon
PRO Color
Scale
SET6.0
Tech-Slate
Ultra 2.0
Urbancrete
Versus - M

Calacatta
Cardostone
Newcon
PRO Color
Tech-Slate
Ultra 2.0
Urbancrete
Vado

Earthy tones

Ash & Burn
Aspenwood
CementMix
Ceppostone
Craft
Metalcrete
Metro
Newcon
PRO Color
Scale
Softcrete
Stonelevel
Ultra 2.0
Urban Travertino
Urbancrete
Urbanwood

Ash & Burn
BetonX
Boscostone
Cementine
CementMix
Ceppostone
Flakestone
Lombardy
Marmostone
Metro
Newcon
PRO Color
retromix
Sense
Solidcrete
Ultra 2.0
Urbancrete
Vado

Cream tones

Ash & Burn
Aspenwood
British Stone
Canyon
Cardostone
Craft
Meridien
Metro
Newcon
Pietra Pienza
Softcrete
Stonelevel
Stoneway
Ultra 2.0

Ash & Burn
BetonX
Boscostone
Cardostone
Cementine
Lombardy
Meridien
Metro
Newcon
PRO Color
Sense
Ultra 2.0



V-Safe Outdoors

Urbancrete
Cardostone
Newcon



V-Safe Industrial

PRO Function

Aspenwood
Metro
Ultra 2.0
Cardostone
Newcon

Aspenwood
British Stone
Ceppostone
Metro
Ultra 2.0
Urbancrete
Newcon



V-Safe Mini



V-Safe Wet

Black

Aspenwood
British Stone
Canyon
MarmoMix
Marmorì
Meridien
Metalcrete
Metro
Newcon
Pietra Pienza
PRO Color
Stonelevel
Tech-Slate
Ultra 2.0
Urbancrete
Versus - M

BetonX
Flakestone
Lombardy
Metro
Newcon
PRO Color
retromix
Sense
Tech-Slate
Ultra 2.0

Grayscale

Aspenwood
British Stone
Canyon
Cardostone
CementMix
Cement-Tech S
Ceppostone
Craft
Ice & Smoke
Ice & Smoke - S
Lombardy
MarmoMix
Marmorì
Meridien
Metalcrete
Metro
Newcon
Oakland
Pietra Pienza
PRO Color
Scale
SET6.0
Softcrete
Stonelevel
Stoneway
Tech-Slate
Ultra 2.0
Urban Travertino
Urbancrete
Urbanwood

BetonX
Boscostone
Cardostone
Cementine
CementMix
Flakestone
Lombardy
Marmostone
Meridien
Metro
Newcon
Oakland
PRO Color
retromix
Sense
Tech-Slate
Ultra 2.0
Urbancrete
Vado

Vibrant colours

MarmoMix
Newcon
PRO Color

PRO Color



V-Safe Outdoors

Flakestone
Metro
Urbancrete
Newcon



V-Safe Industrial

PRO Function

Aspenwood
British Stone
Ceppostone
Craft
Flakestone
Metro
Ultra 2.0
Urbancrete
Cardostone
Newcon

PRO Color



V-Safe Mini



V-Safe Wet

Concrete

Ash & Burn
CementMix
Cement-Tech S
Ice & Smoke
Ice & Smoke - S
Metalcrete
Metro
Newcon
Scale
SET6.0
Softcrete
Ultra 2.0
Urbancrete

Ash & Burn
BetonX
Cementine
CementMix
Metro
Newcon
Sense
Solidcrete
Ultra 2.0
Urbancrete
Vado

Stone

British Stone
Canyon
Cardostone
Ceppostone
Lombardy
Meridien
Pietra Pienza
Stonelevel
Stoneway
Tech-Slate
Urban Travertino

Boscostone
Cardostone
Ceppostone
Flakestone
Lombardy
Marmostone
Meridien
Tech-Slate

Wood

Aspenwood
Craft
Oakland
Urbanwood

Oakland

Marble

Calacatta
MarmoMix
Marmorì
Versus - M

Calacatta

Ceramic

retromix

PRO Technic

PRO Color

PRO Color



V-Safe Outdoors

Metro
Newcon
Ultra 2.0
Urbancrete

British Stone
Cardostone
Ceppostone
Flakestone

Aspenwood
Craft



V-Safe Industrial

PRO Function



V-Safe Mini

Collection	Colour group	Texture	Surface
Ash & Burn	Cream tones	Concrete	R9
Ash & Burn	Earthy tones	Concrete	R9
Aspenwood	Black	Wood	R10A
Aspenwood	Cream tones	Wood	R10A
Aspenwood	Earthy tones	Wood	R10A
Aspenwood	Grayscale	Wood	R10A
British Stone	Black	Stone	R10A
British Stone	Cream tones	Stone	R10A
British Stone	Grayscale	Stone	R10A
British Stone	White	Stone	R10A
Calacatta	White	Marble	R9
Canyon	Black	Stone	R10A
Canyon	Cream tones	Stone	R10A
Canyon	Grayscale	Stone	R10A
Canyon	White	Stone	R10A
Cardostone	Cream tones	Stone	R10A
Cardostone	Grayscale	Stone	R10A
Cardostone	White	Stone	R10A
Cement-Tech S	Grayscale	Concrete	R9
Cement-Tech S	White	Concrete	R9
CementMix	Earthy tones	Concrete	R10A
CementMix	Grayscale	Concrete	R10A
Ceppostone	Earthy tones	Stone	R9
Ceppostone	Grayscale	Stone	R9
Craft	Cream tones	Wood	R10A
Craft	Earthy tones	Wood	R10A
Craft	Grayscale	Wood	R10A
Ice & Smoke	Grayscale	Concrete	R9
Ice & Smoke - S	Grayscale	Concrete	R9
Lombardy	Grayscale	Stone	R10A
Lombardy	Grayscale	Stone	R9
MarmoMix	Black	Marble	R10A
MarmoMix	Grayscale	Marble	R10A
MarmoMix	Vibrant colours	Marble	R10A
Marmorì	Black	Marble	R10A
Marmorì	Black	Marble	R9
Marmorì	Grayscale	Marble	R10A
Marmorì	Grayscale	Marble	R9
Marmorì	White	Marble	R10A
Marmorì	White	Marble	R9
Meridien	Black	Stone	R10A
Meridien	Cream tones	Stone	R10A
Meridien	Grayscale	Stone	R10A
Metalcrete	Black	Concrete	R9
Metalcrete	Earthy tones	Concrete	R9
Metalcrete	Grayscale	Concrete	R9
Metro	Black	Concrete	R10A
Metro	Black	Concrete	R9
Metro	Cream tones	Concrete	R10A
Metro	Cream tones	Concrete	R9
Metro	Earthy tones	Concrete	R10A
Metro	Earthy tones	Concrete	R9
Metro	Grayscale	Concrete	R10A
Metro	Grayscale	Concrete	R9
Newcon	Black	Concrete	R10A
Newcon	Black	Concrete	R9
Newcon	Cream tones	Concrete	R10A
Newcon	Cream tones	Concrete	R9
Newcon	Earthy tones	Concrete	R10A
Newcon	Earthy tones	Concrete	R9
Newcon	Grayscale	Concrete	R10A
Newcon	Grayscale	Concrete	R9
Newcon	Vibrant colours	Concrete	R10A

Collection	Colour group	Texture	Surface
Newcon	White	Concrete	R10A
Newcon	White	Concrete	R9
Oakland	Grayscale	Wood	R10A
Pietra Pienza	Black	Stone	R9
Pietra Pienza	Cream tones	Stone	R9
Pietra Pienza	Grayscale	Stone	R9
PRO Color	Black	PRO Technic	R10A
PRO Color	Earthy tones	PRO Technic	R10A
PRO Color	Grayscale	PRO Technic	R10A
PRO Color	Grayscale	PRO Technic	R9
PRO Color	Vibrant colours	PRO Technic	R10A
PRO Color	White	PRO Technic	R10A
PRO Color	White	PRO Technic	R9
Scale	Earthy tones	Ceramic	R9
Scale	Grayscale	Ceramic	R9
Scale	White	Ceramic	R9
SET6.0	Grayscale	Concrete	R10A
SET6.0	White	Concrete	R10A
Softcrete	Cream tones	Concrete	R9
Softcrete	Earthy tones	Concrete	R9
Softcrete	Grayscale	Concrete	R9
Stonelevel	Black	Stone	R10A
Stonelevel	Black	Stone	R9
Stonelevel	Cream tones	Stone	R10A
Stonelevel	Cream tones	Stone	R9
Stonelevel	Earthy tones	Stone	R10A
Stonelevel	Earthy tones	Stone	R9
Stonelevel	Grayscale	Stone	R10A
Stonelevel	Grayscale	Stone	R9
Stoneway	Cream tones	Stone	R9
Stoneway	Grayscale	Stone	R9
Tech-Slate	Black	Stone	R10A
Tech-Slate	Grayscale	Stone	R10A
Tech-Slate	White	Stone	R10A
Ultra 2.0	Black	Concrete	R10A
Ultra 2.0	Black	Concrete	R9
Ultra 2.0	Cream tones	Concrete	R10A
Ultra 2.0	Cream tones	Concrete	R9
Ultra 2.0	Earthy tones	Concrete	R10A
Ultra 2.0	Earthy tones	Concrete	R9
Ultra 2.0	Grayscale	Concrete	R10A
Ultra 2.0	Grayscale	Concrete	R9
Ultra 2.0	White	Concrete	R10A
Ultra 2.0	White	Concrete	R9
Urban Travertino	Earthy tones	Stone	R10A
Urban Travertino	Grayscale	Stone	R10A
Urbancrete	Earthy tones	Concrete	R10A
Urbancrete	Earthy tones	Concrete	R9
Urbancrete	Grayscale	Concrete	R10A
Urbancrete	Grayscale	Concrete	R9
Urbancrete	White	Concrete	R10A
Urbancrete	White	Concrete	R9
Urbancrete	Black	Concrete	R10A
Urbancrete	Black	Concrete	R9
Urbancrete	Earthy tones	Concrete	R10A
Urbancrete	Earthy tones	Concrete	R9
Urbanwood	Earthy tones	Wood	R10A
Urbanwood	Grayscale	Wood	R10A
Versus - M	Black	Marble	R9
Versus - M	White	Marble	R9



V-Safe Wet

Collection	Colour group	Texture	Surface
Ash & Burn	Cream tones	Concrete	R10B
Ash & Burn	Earthy tones	Concrete	R10B
BetonX	Black	Concrete	R10B
BetonX	Cream tones	Concrete	R10B
BetonX	Earthy tones	Concrete	R10B
BetonX	Grayscale	Concrete	R10B
Boscostone	Cream tones	Stone	R10B
Boscostone	Earthy tones	Stone	R10B
Boscostone	Grayscale	Stone	R10B
Calacatta	White	Marble	R10B
Cardostone	Cream tones	Stone	R10B
Cardostone	Cream tones	Stone	R11C
Cardostone	Cream tones	Stone	R11C 20mm
Cardostone	Grayscale	Stone	R10B
Cardostone	Grayscale	Stone	R11C
Cardostone	Grayscale	Stone	R11C 20mm
Cardostone	White	Stone	R10B
Cardostone	White	Stone	R11C
Cardostone	White	Stone	R11C 20mm
Cementine	Cream tones	Concrete	R10B
Cementine	Earthy tones	Concrete	R10B
Cementine	Grayscale	Concrete	R10B
CementMix	Earthy tones	Concrete	R10B
CementMix	Grayscale	Concrete	R10B
Ceppostone	Earthy tones	Stone	R11C
Ceppostone	Grayscale	Stone	R11C
Flakestone	Black	Stone	R10B
Flakestone	Earthy tones	Stone	R10B
Flakestone	Grayscale	Stone	R10B
Lombardy	Black	Stone	R10B
Lombardy	Cream tones	Stone	R10B
Lombardy	Earthy tones	Stone	R10B
Lombardy	Grayscale	Stone	R10B
Marmostone	Earthy tones	Stone	R10B
Marmostone	Grayscale	Stone	R10B
Meridien	Cream tones	Stone	R10B
Meridien	Grayscale	Stone	R10B
Metro	Black	Concrete	R10B
Metro	Cream tones	Concrete	R10B
Metro	Earthy tones	Concrete	R10B
Metro	Grayscale	Concrete	R10B
Newcon	Black	Concrete	R10B
Newcon	Black	Concrete	R11B
Newcon	Cream tones	Concrete	R10B
Newcon	Cream tones	Concrete	R11B
Newcon	Earthy tones	Concrete	R10B
Newcon	Earthy tones	Concrete	R11B
Newcon	Grayscale	Concrete	R10B
Newcon	Grayscale	Concrete	R11B
Newcon	White	Concrete	R10B
Newcon	White	Concrete	R11B
Oakland	Grayscale	Wood	PTV WET+36
PRO Color	Black	PRO Technic	R10B
PRO Color	Cream tones	PRO Technic	R10B
PRO Color	Earthy tones	PRO Technic	R10B
PRO Color	Grayscale	PRO Technic	R10B
PRO Color	Vibrant colours	PRO Technic	R10B
PRO Color	White	PRO Technic	R10B
retromix	Black	Ceramic	PTV WET+36
retromix	Earthy tones	Ceramic	PTV WET+36
retromix	Grayscale	Ceramic	PTV WET+36

Collection	Colour group	Texture	Surface
Sense	Black	Concrete	R10B
Sense	Cream tones	Concrete	R10B
Sense	Earthy tones	Concrete	R10B
Sense	Grayscale	Concrete	R10B
Solidcrete	Earthy tones	Concrete	R10B
Tech-Slate	Black	Stone	R10B
Tech-Slate	Grayscale	Stone	R10B
Tech-Slate	White	Stone	R10B
Ultra 2.0	Black	Concrete	R10B
Ultra 2.0	Cream tones	Concrete	R10B
Ultra 2.0	Earthy tones	Concrete	R10B
Ultra 2.0	Grayscale	Concrete	R10B
Ultra 2.0	White	Concrete	R10B
Urbancrete	Earthy tones	Concrete	R10B
Urbancrete	Grayscale	Concrete	R10B
Urbancrete	White	Concrete	R10B
Vado	Earthy tones	Concrete	R10B
Vado	Grayscale	Concrete	R10B
Vado	White	Concrete	R10B



V-Safe Outdoors



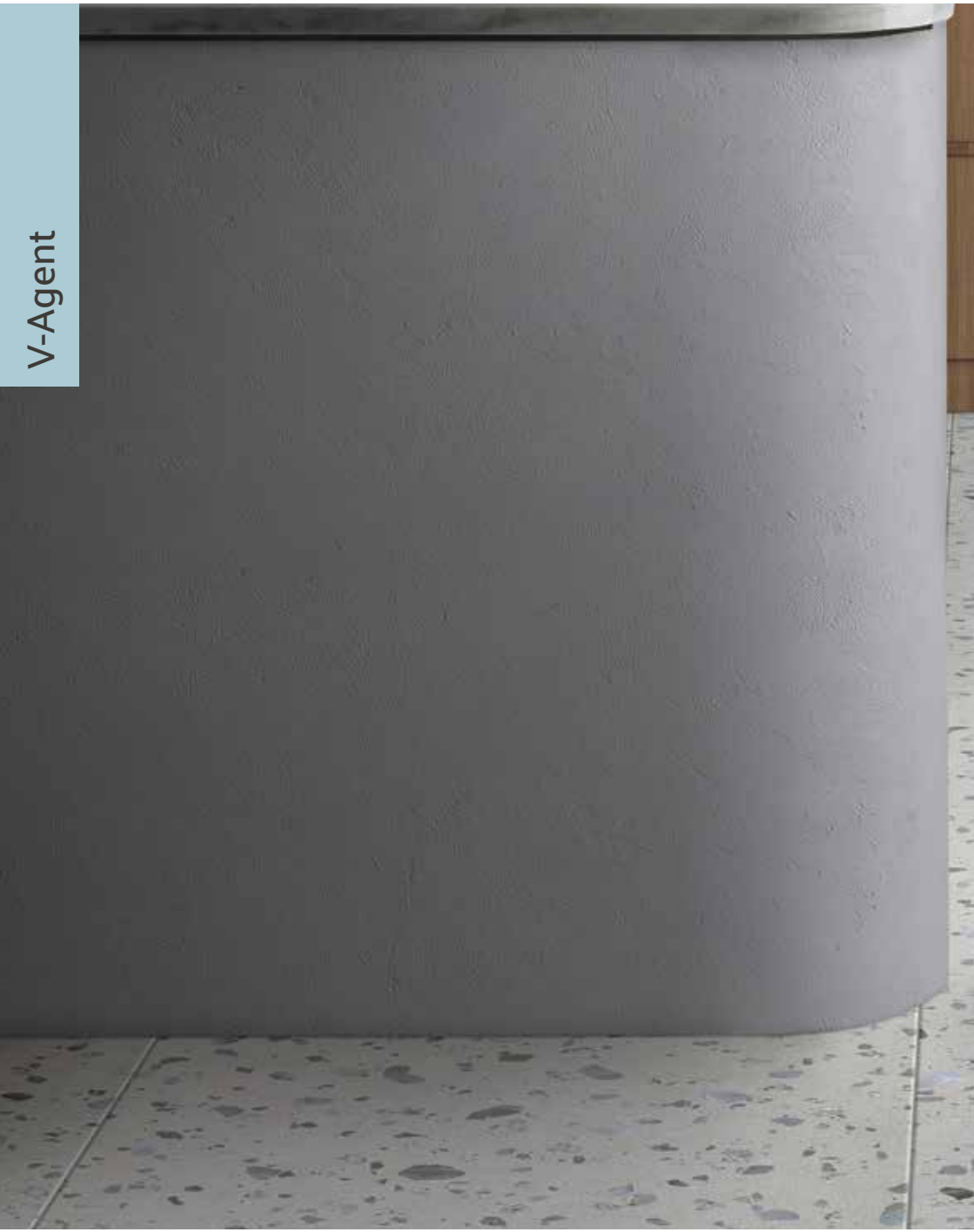
V-Safe Industrial

Collection	Colour group	Texture	Surface
Aspenwood	Cream tones	Wood	R11 20mm
Aspenwood	Earthy tones	Wood	R11 20mm
Aspenwood	Grayscale	Wood	R11 20mm
British Stone	Earthy tones	Stone	R11 20mm
British Stone	Grayscale	Stone	R11 20mm
Cardostone	Cream tones	Stone	R11C
Cardostone	Cream tones	Stone	R11C 20mm
Cardostone	Grayscale	Stone	R11C
Cardostone	Grayscale	Stone	R11C 20mm
Cardostone	White	Stone	R11C
Cardostone	White	Stone	R11C 20mm
Ceppostone	Earthy tones	Stone	R11 20mm
Ceppostone	Earthy tones	Stone	R11C
Ceppostone	Grayscale	Stone	R11 20mm
Ceppostone	Grayscale	Stone	R11C
Craft	Grayscale	Wood	R11B 20mm
Flakestone	Black	Stone	R11B 20mm
Flakestone	Grayscale	Stone	R11B 20mm
Metro	Black	Concrete	R11 20mm
Metro	Cream tones	Concrete	R11 20mm
Metro	Earthy tones	Concrete	R11 20mm
Metro	Grayscale	Concrete	R11 20mm
Newcon	Black	Concrete	R11B
Newcon	Cream tones	Concrete	R11B
Newcon	Earthy tones	Concrete	R11B
Newcon	Grayscale	Concrete	R11B
Newcon	White	Concrete	R11B
Ultra 2.0	Cream tones	Concrete	R11 20mm
Ultra 2.0	Earthy tones	Concrete	R11 20mm
Ultra 2.0	Grayscale	Concrete	R11 20mm
Urbancrete	Earthy tones	Concrete	R11 20mm
Urbancrete	Grayscale	Concrete	R11 20mm
Urbancrete	White	Concrete	R11 20mm
Urbancrete	Black	Concrete	R11 20mm

Collection	Colour group	Texture	Surface
PRO Function	Cream Tones	PRO Technic	R11B
PRO Function	Grayscale	PRO Technic	R11B
PRO Function	Grayscale	PRO Technic	R12V4



V-Agent







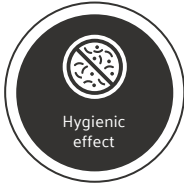
What is VitrA V-Agent Technology?

V-Agent Technology is a smart surface technology that reduces the effect of human coronaviruses and bacteria both on floor and wall tiles by 99.99%, through a special technique applied to the tile surfaces during the production phase.

* V-Agent technology is effective against human coronaviruses (Human Coronavirus 229E and OC43) and bacteria (E. coli ve S. aureus) and its effect on these viruses and bacteria has been proven through the tests conducted at TCNA - North American Ceramic Council laboratories.



V-Agent



Hygiene and safety in all living spaces

V-Agent provides hygienic protection on both wall and floor tiles with via its technology.

Thanks to V-Agent, you feel the comfort of hygiene and safety in domestic areas such as bathrooms, kitchens, living rooms, halls, and terraces; and in public areas such as schools, hospitals, restaurants, hotels, shopping malls, gyms and SPAs.





Hygienic effect



Environmentally friendly and reliable technology

V-Agent technology is environmentally friendly. Since it provides easy-to-clean surfaces, it reduces the effort, the amount of water, energy, chemical cleaning agents and labour required for cleaning indoor and outdoor surfaces.





Applicability

V-Agent can be applied to all products in all VitrA Tiles Collections. It ensures a hygienic safety along with the aesthetics and design in living spaces via its applicability to both wall and floor usage tiles.





No room for viruses, with V-Agent.

With V-Agent tiles, there is room for design in bathrooms, aesthetics in kitchens and hygiene on ceramic surfaces, but no room for viruses.

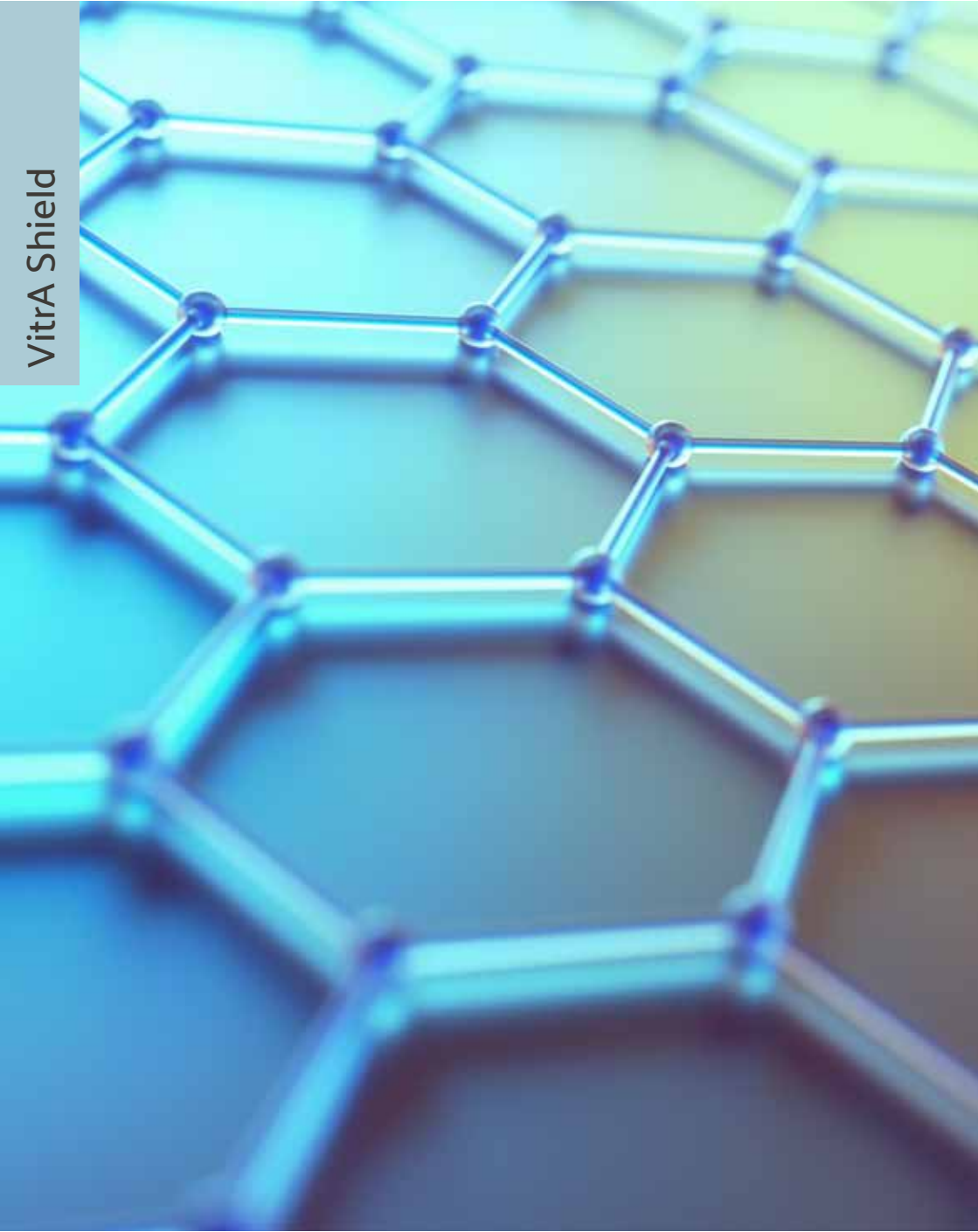
You can visit <https://vitraglobal.com/explore/v-agent/> for more information on V-Agent.

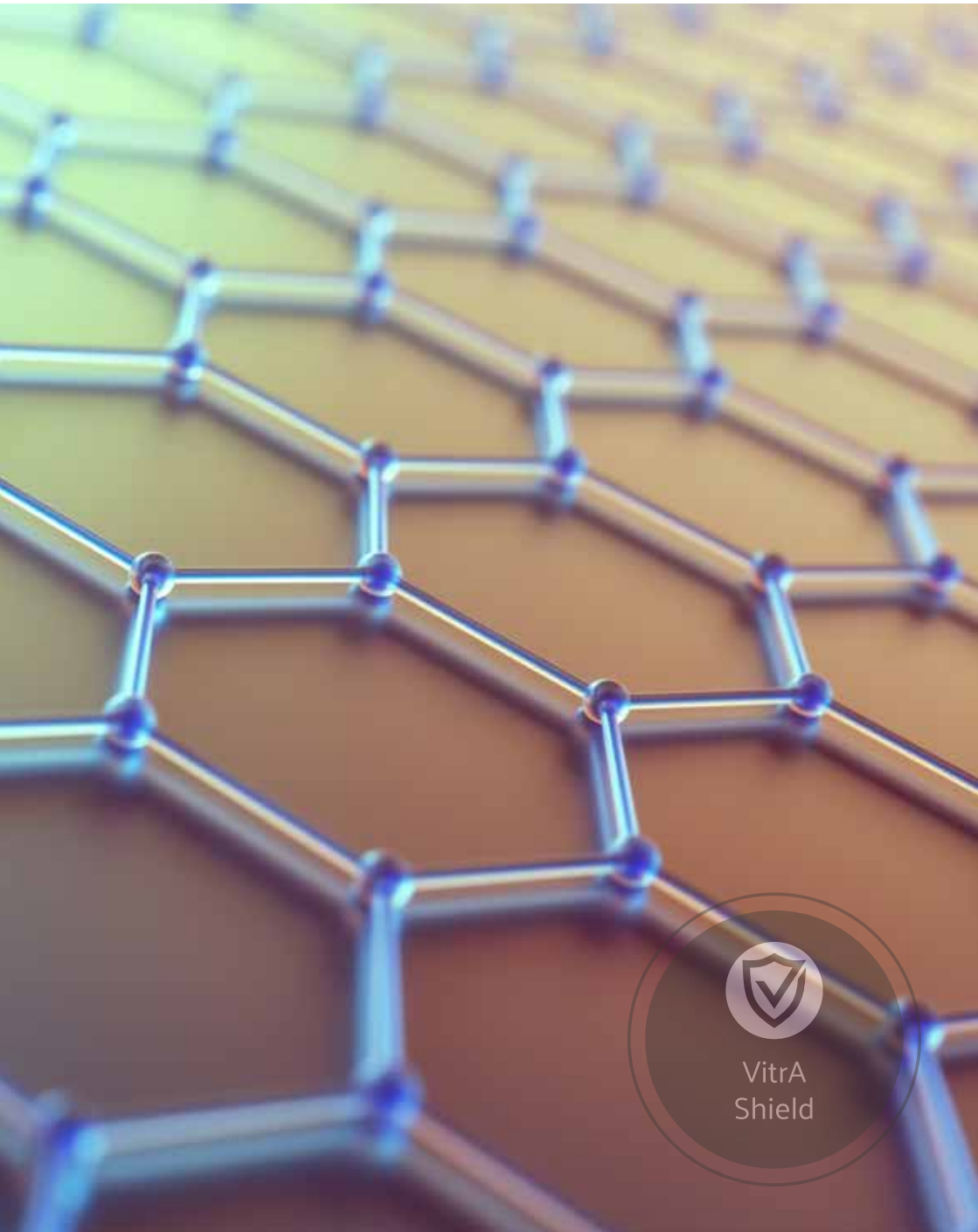


BON
appétit



Vitra Shield





VitrA
Shield



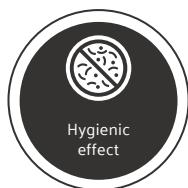
What is VitrA Shield Technology?

VitrA Shield is an application of nano titanium dioxide (TiO₂) coating on tiles. VitrA Shield technology applied tiles are self-cleaning thanks to the photocatalytic features activated by light and humidity in the air, inhibit the growth of harmful bacteria and eliminate impact of airborne unpleasant odours and dirt in the air in spaces where VitrA Shield applied tiles are used.

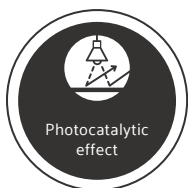
Thanks to all these powerful features, VitrA Shield offers a clean, healthy and safe solution for homes, schools, hospitals, sports centres, clinics, kindergartens and any living space where hygiene is important.



VitrA
Shield



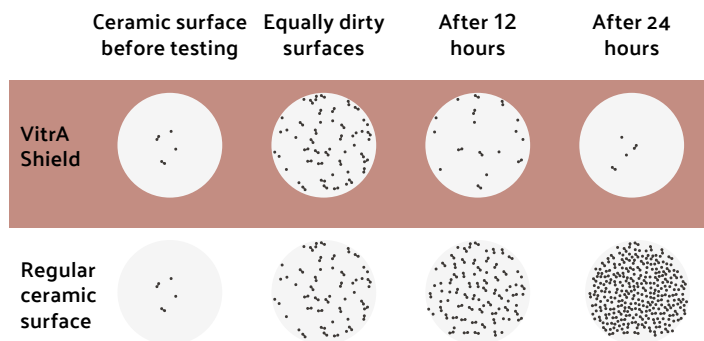
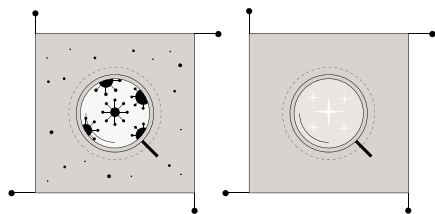
Hygienic effect



Photocatalytic effect

Technology that inhibits the growth of harmful bacteria

VitrA Shield applied tiles, that are produced with nano technology, inhibit the growth of harmful bacteria therefore provide long lasting and continuous hygiene in living spaces. Tests performed in national and international accredited laboratories show that VitrA Shield provides 99.9% hygienic protection.



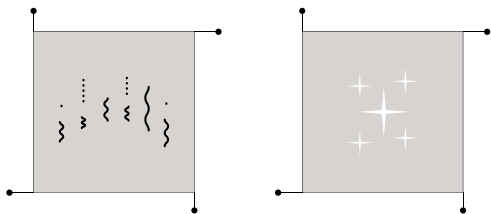




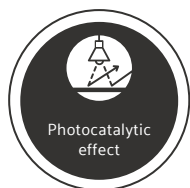
Technology that reduces unpleasant odours and dirt in the air

Thanks to its strong photocatalytic effect, VitrA Shield reduces unpleasant odours and the negative effects of airborne dirt such as nitrogen oxide, sulphur-oxide and exhaust fumes outdoors and sweat and cigarette smoke indoors. Thus, it provides a clean and fresh air.

It is also an excellent solution to lessen the effect of strong odours such as disinfectants.



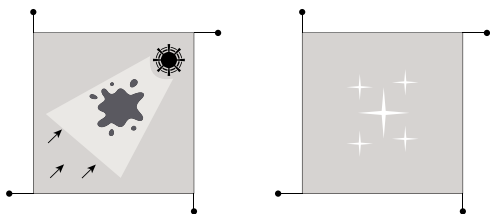




Self-cleaning technology

VitrA Shield technology decomposes and removes the organic dirt on the tile's surface when it gets in contact with its photocatalytic effect surface. It easily removes dust and other dirt particles from the surface through the help of rain outdoors and water indoors.

Thus, it significantly reduces the effort, the amount of water, energy, chemical cleaning agents and labour required for cleaning indoor and outdoor surfaces.







VitrA Shield in residential areas



VitrA Shield in public areas

You can watch our videos on the benefits of the **VitrA Shield** technology solution in different living spaces.

Applicability tables

Wall tile body

	7.5x30	10x30	15x15	20x20	20x25	20x30	20x40	25x40	20x60	30x60	30x90	33x100
Vitra Clean												
Vitra Shield	√*				√		√		√	√	√*	
Vitra Block						√	√	√	√	√	√	

* Vitra Shield technology can only be applied to these sized products in the mode series within the wall tiles.

Floor body

	5x5	5x10	5x20	10x10	10x20	10x30	15x15	20x20	30x30	33x33	60x60
Vitra Clean				√	√	√		√	√		
Vitra Shield				√*	√*	√*	√*	√*	√*	√	

* Vitra Shield technology can only be applied to these sized products in the PRO Color & miniworx series within the floor tiles.

Colorbody & glazed porcelain body wall tile body

	2.5x2.5	2.5x5	5x5	7.5x30	12.5x25	15x15	30x30	30x60	45x45	40x80	45x90	60x60	80x80	20x120	30x120	40x120	60x120
Vitra Clean								√									
Vitra Shield		√**	√*					√*		√*		√*	√*				

* Vitra Shield technology can only be applied to these sized products in the mode series within the glazed porcelain body.

* Vitra Shield technology can only be applied to these sized products in the PRO Color series in glazed porcelain.

* Vitra Shield technology can be applied in PRO Nature products in colorbody, fullbody and glazed porcelain.

Fullbody porcelain

	5x5	10x10	15x15	20x20	30x30	30x60	60x60	80x80
Vitra Clean								
Vitra Shield			√*	√*		√*	√*	

* Vitra Shield technology can be applied to these sized products in the PRO Technic series within the fullbody.

* Vitra Shield technology can be applied to these sized products in the PRO Nature series within the fullbody.

VitrA Clean





VitrA
Clean



What is VitrA Clean 2.0 Technology?

VitrA Clean is a surface technology that makes VitrA Tiles easy to clean. The special glazing method increases the surface tension. Thus, water acts like mercury on the surface and allows dirt to easily separate from the surface.

Tiles can be easily cleaned with the help of a waterdamped wipe or with addition of mild cleaning agents, if needed.

This permanent feature provides great convenience to the users when cleaning both commercial and residential areas. With VitrA Clean 2.0, not only wall tiles but also floor tiles can now have VitrA Clean technology.

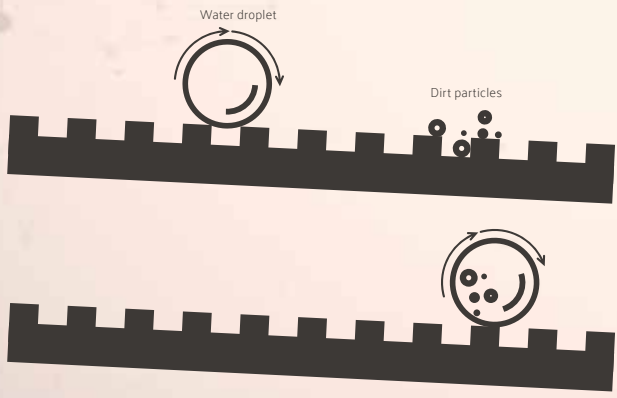




Super hydrophobic effect

VitrA Clean 2.0 is a special nanotechnology surface finish, to ensure easy cleaning of dust and dirt on tile surfaces. This coating which causes the water to form droplets on the surface very much like a mercury droplet, is applied by a spraying technique. These droplets collect dirt while moving along the surface and thus ensure and allow the surfaces to be easily cleaned.







Easy to care, effortless to clean, environmentally friendly technology

Wall and floor tiles with VitrA Clean 2.0 are easy to care and can easily be cleaned by mild wiping with less water, labor and cleaning material need.

VitrA Clean 2.0 tiles ensures the dirt not to adhere to the surface. In this way, the time, money and cleaning agent used for cleaning is saved.

As less amount of water and cleaning agents needed while cleaning VitrA Clean 2.0 technology tiles, it helps to protect the environment.



VitrA Block





What is VitrA Block Technology?

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.





Vitra
Block

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.





Glaze

Engobe

Body

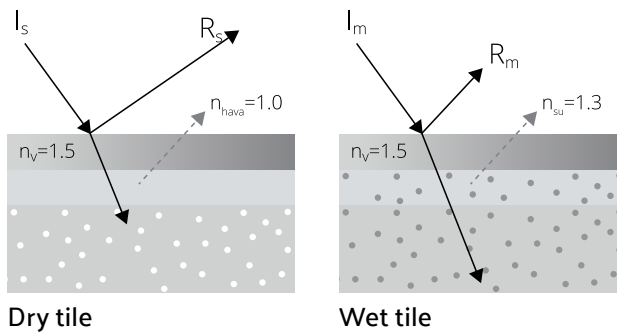


Watermark problem

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 fulfilled 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





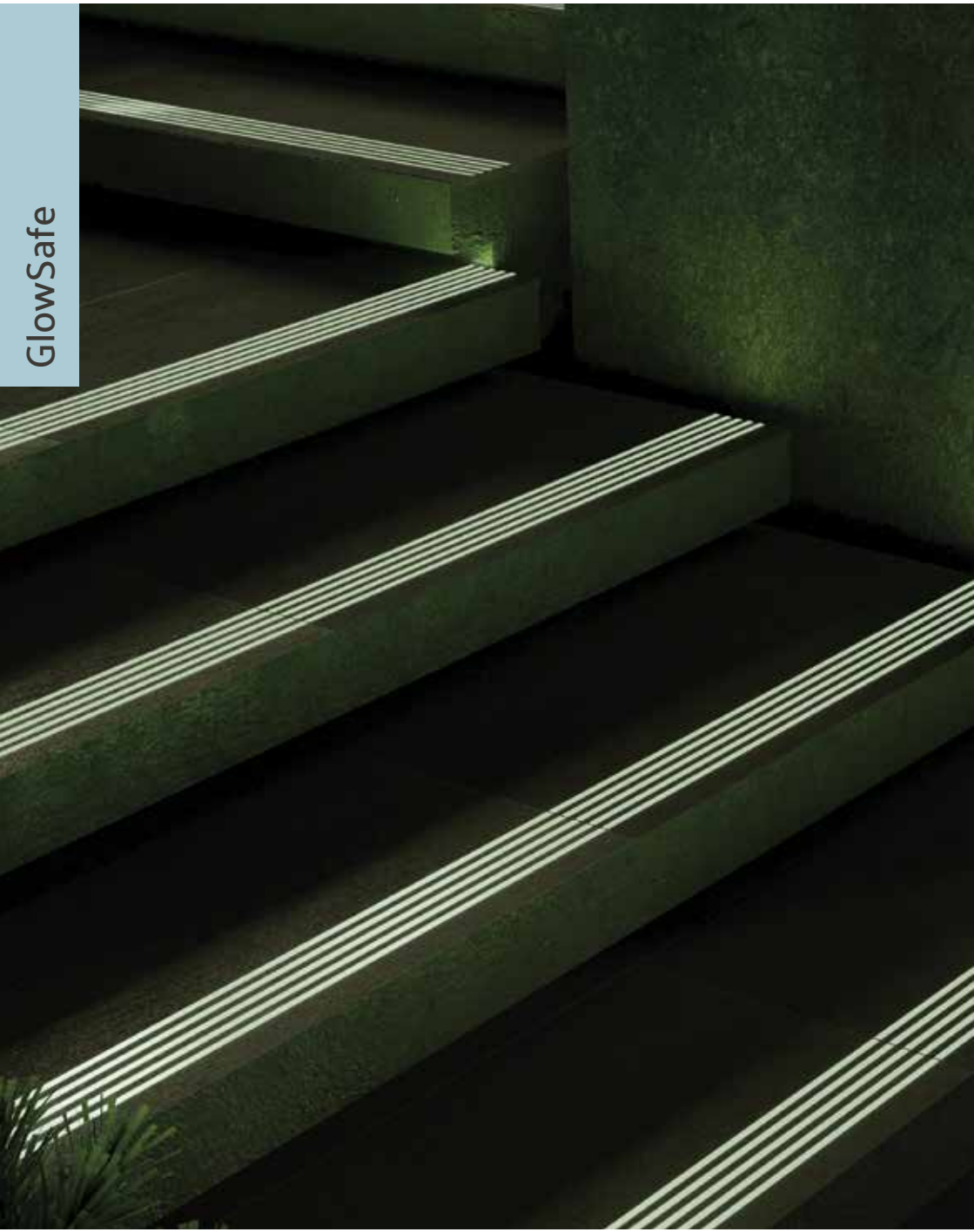
Watermark-free technology

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.





GlowSafe





Glow
Safe



What is VitrA GlowSafe Technology?

Thanks to VitrA GlowSafe technology, stair tiles accumulate daylight energy and reflect this energy stored in dark in the form of light, which allows safer walk in the dark.

Providing extra security for stair tiles, VitrA GlowSafe technology is designed to be used in indoor and outdoor areas.

It increases the visibility of the stairs with the phosphorescent light that it provides in the dark, it prevents possible accidents and reduces unnecessary lighting costs.





Glow
Safe



A specially developed phosphorescent polymeric formula

Thanks to its long-lasting structure, the special phosphorescent polymeric formula makes the Vitra safety strips safer.

The light and matt structure of Vitra GlowSafe provides a seamless appearance in daylight and provides a long-lasting green glare in the darkness even with a small amount of light captured.







Extra safety in every living space

Daylight and fluorescent lighting make VitrA GlowSafe accumulate light energy. It maintains the luminescence in the dark for a long time without losing the effect.

To be safely used both in indoor and outdoor areas, VitrA GlowSafe is available in different tile options for residential and commercial use.

Tiles with VitrA GlowSafe shine longer than the minimum level required by the emergency instructions. VitrA GlowSafe tiles maintain their visible level of luminescence for even after 45 minutes.



Residential



Commercial



Outdoors



V-Safe
technical
informations

VitrA slip resistance

1. Coefficient of friction / Slip resistance






Slip-resistant coverings in publicly accessible areas are distinguished according to those that are walked over barefoot or in footwear. Special protective measures against slipping are necessary where there is a risk due to use of water, oil, slush, grease or waste. This should be taken into consideration when choosing the surface material.

The slip resistance value of installed tiles can change over time as a result of wear and surface contaminants. In addition to regular cleaning, deep cleaning and traction-enhancing maintenance may be needed periodically to maintain the slip resistance values. (Ref: ANSI A137.1-2017)

There are many factors that affect the possibility of a slip occurring on a surface including by way of example, but not in limitation, the following: the material of the shoe sole and the degree of its wear; the presence and nature of surface contaminants; the speed and length of stride at the time of a slip; the physical and mental condition of the individual at the time of a slip; whether the floor is flat or inclined; how the hard surface flooring material is used and maintained, and the slip resistance classification of the material, how the flooring surface is structured, and how drainage takes place if liquids are involved. Because many variables affect the risk of a slip occurring, the slip resistance classification shall not be the only factor in determining the appropriateness of a hard surface flooring material for a particular application. (Ref: ANSI A326.3 April 2017)

1.1. Slip resistance properties in commercial applications

DIN 51130 is the test method that is used for determining slip resistance of floor coverings in work rooms and work areas subject to higher risk of slipping. Working rooms and areas are classified according to five assessment groups on the basis of size and the risk of slipping. The lowest slip resistance value is R9 whereas the highest one is R13 for industrial slip resistance of tiles. In table of industrial areas slip resistance classification and collection space, the application areas are indicated in accordance with "ASR 1.5/1.2 Technical Regulations for workplaces -Floors".

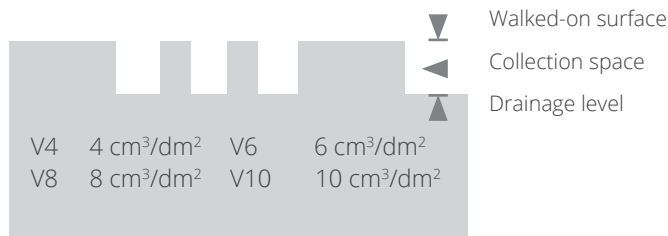
	$6^\circ < R9 < 10^\circ$	Low static friction
	$10^\circ < R10 < 19^\circ$	Normal static friction
	$19^\circ < R11 < 27^\circ$	Increased static friction
	$27^\circ < R12 < 35^\circ$	High static friction
	$R13 > 35^\circ$	Very high static friction

Open field test

Important Notice: The indicated angles of inclination helps to identify anti-slip classification of the product and cannot be related to the angles of inclination of slopes/ramps.

1.1.1. Working rooms and areas with risk of slipping (in accordance with ASR A1.5/1,2)

DIN 51130 is the test method that is used for determining slip resistance of floor coverings in work rooms and work areas subject to higher risk of slipping. Working rooms and areas are classified according to five assessment groups on the basis of size and the risk of slipping. The lowest slip resistance value is R9 whereas the highest one is R13 for industrial slip resistance of tiles. In table of industrial areas slip resistance classification and collection space, the application areas are indicated in accordance with "ASR 1.5/1,2 Technical Regulations for workplaces -Floors".



The displacement space (V4-V10) is the open space between the upper walked-on surface and the drainage level of profiled surfaces.

Industrial areas slip resistance classification and collection space - Application areas

Nr.	Working areas, walking corridors	Antislip groups (R classes)	Minimum collection space
0	General working rooms and areas		
0.1	Entrance areas (inside)	R 9	
0.2	Entrance areas (outside)	R 11 - R 10	V 4
0.3	Stairs (inside)	R 9	
0.4	Stairs (outside)	R 11 - R 10	V 4
0.5	Sloping ramps, inside* (e.g. for wheelchairs, leveling slopes, transport paths)		
0.6	Sanitary rooms		
0.6.1	Toilets	R 9	
0.6.2	Changing or washrooms	R 10	
0.7	Break rooms (e.g. dayrooms, canteens)	R 9	
0.8	First aid rooms and similar facilities (see ASR A4.3)	R 9	
1	Manufacture of margarine, edible fats and oils		
1.1	Melting of fat	R 13	V 6
1.2	Cooking oil refinery	R 13	V 4
1.3	Margarine production and packaging	R 12	
1.4	Cooking fat production and packing, oil bottling	R 12	
2	Milk processing, cheese production		
2.1	Fresh milk processing and butter production	R 12	
2.2	Cheese production, storage and packaging	R 11	
2.3	Icecream manufacturing	R 12	
3	Chocolate and confectionery production		
3.1	Sugar processing	R 12	
3.2	Cocoa production	R 12	
3.3	Production of raw mixtures	R 11	
3.4	Fabrication of chocolate bars, shells and filled chocolates	R 11	
4	Production of bread, cakes and pastries (bakeries, cake shops, production of long-life bakery products)		
4.1	Dough production	R 11	
4.2	Rooms in which predominantly fats or liquid mixtures are processed	R 12	
4.3	Washing-up rooms	R 12	V 4

VitrA slip resistance

Nr.	Working areas, walking corridors	Antislip groups (R classes)	Minimum collection space
5	Slaughtering, meat processing		
5.1	Slaughter house	R 13	V 10
5.2	Tripe processing room	R 13	V 10
5.3	Meat sectioning	R 13	V 8
5.4	Sausage kitchen	R 13	V 8
5.5	Boiled sausage unit	R 13	V 8
5.6	Raw sausage unit	R 13	V 6
5.7	Sausage drying room	R 12	
5.8	Smoking establishments	R 12	
5.9	Salting and curing rooms	R 12	
5.10	Poultry processing	R 12	V 6
5.11	Gut store	R 12	
5.12	Cold cuts and packaging unit	R 12	V 8
6	Fish processing, production of delicatessen		
6.1	Fish processing	R 13	V 10
6.2	Production of delicatessen	R 13	V 6
6.3	Manufacture of mayonnaise	R 13	V 4
7	Processing of vegetables		
7.1	Production of sauerkraut	R 13	V 6
7.2	Vegetable tinning	R 13	V 6
7.3	Sterilization rooms	R 11	
7.4	Rooms in which vegetables are prepared for processing	R 12	V 4
8	Food areas in food and beverage production (if not specifically mentioned)		
8.1	Storage cellars	R 10	
8.2	Beverage bottling, fruit juice production	R 11	
9	Catering establishments		
9.1	Kitchens in the catering trade (restaurant kitchens, hotel kitchens)	R 12	
9.1.1	Up to 100 meals per day		
9.1.2	More than 100 meals per day		
9.2	Catering kitchens serving to homes, schools, kindergartens, sanatoria	R 11	
9.3	Kitchens of hospitals and clinics	R 12	
9.4	Catering kitchens serving to universities and industrial canteens	R 12	V 4
9.5	Food preparation kitchens (fast-food kitchens, snack bars)	R 12	
9.6	Kitchens for heating up frozen meals	R 10	
9.7	Coffee and tea kitchens, hotel garni kitchens and ward kitchens	R 10	
9.8	Washing-up areas		
9.8.1	Washing-up areas for 9.1, 9.4, 9.5	R 12	V 4
9.8.2	Washing-up areas for 9.2	R 11	
9.8.3	Washing-up areas for 9.3	R 12	
9.9	Dining rooms, guest rooms, canteens including serving counters	R 9	
10	Cold stores, deep freeze stores		
10.1	For unpacked goods	R 12	
10.2	For packed goods	R 11	
11	Sales outlets, shops		
11.1	Reception of goods, meats		
11.1.1	For unpacked goods	R 11	
11.1.2	For packed goods	R 10	
11.2	Reception of goods, fish	R 11	
11.3	Serving counters for meat and sausage		
11.3.1	For unpacked goods	R 11	
11.3.2	For packed goods	R 10	
11.4	Serving counters for bread, cakes and pastries, unpacked goods	R 10	
11.5	Serving counters for cheese and cheese products, unpacked goods	R 10	
11.6	Serving counters for fish		
11.6.1	For unpacked goods	R 12	
11.6.2	For packed goods	R 11	
11.7	Serving counters from Nr.11.3 to 11.6	R 9	
11.8	Meat preparation rooms		
11.8.1	For meat preparation, except for no.5	R 12	V 8

Nr.	Working areas, walking corridors	Antislip groups (R classes)	Minimum collection space
11.8.2	For meat processing, except for no.5	R 11	
11.9	Florists shops	R 11	
11.10	Sales areas with stationary ovens		
11.10.1	For the production of bread, cakes and pastries	R 11	
11.10.2	For the warming-up of refabricated bread, cakes and pastries	R 10	
11.11	Sales areas with stationary chip pans or grills	R 12	V 4
11.12	Shops, customer rooms	R 9	
11.13	Preparation areas for food and self-service shops	R 10	
11.14	Cash register areas, packing areas	R 9	
11.15	Outdoor sales areas	R 11 - R10	V 4
12	Health service rooms		
12.1	Disinfection rooms (wet)	R 11	
12.2	Pre-cleaning areas of sterilization	R 10	
12.3	Faeces disposal rooms, discharge rooms, unclean nursing work rooms	R 10	
12.4	Pathological facilities	R 10	
12.5	Rooms for medical baths, hydrotherapy, fango preparation	R 11	
12.6	Washrooms of operating theatres, plastering rooms	R 10	
12.7	Sanitary rooms, ward bathrooms	R 10	
12.8	Rooms for medical diagnosis and therapy, massage rooms	R 9	
12.9	Operating theatres	R 9	
12.10	Wards with hospital rooms and corridors	R 9	
12.11	Medical practices, day clinics	R 9	
12.12	Pharmacies	R 9	
12.13	Laboratories	R 9	
12.14	Hairdressing salons	R 9	
13	Laundries		
13.1	Rooms with continuous-flow washing machines	R 9	
13.2	Rooms with washing machines or with spin-drier	R 11	
13.3	Ironing rooms	R 9	
14	Fodder concentrate production		
14.1	Dried fodder production	R 11	
14.2	Fodder concentrate production using fat and water	R 11	V 4
15	Leather productions, textiles		
15.1	Wet areas in tanneries	R 13	
15.2	Rooms with fleshing machines	R 13	V 10
15.3	Areas where leather scraps accumulate	R 13	V 10
15.4	Rooms for making leather impermeable by means of grease	R 12	
15.5	Dye mills for textures	R 11	
16	Paint shops		
16.1	Wet grinding areas	R 12	V 10
17	Ceramic industry		
17.1	Wet grinding mills (processing of ceramic, raw materials)	R 11	
17.2	Mixers; handling of materials like tar, pitch, graphite and synthetic resins	R 11	V 6
17.3	Presses (shaping); handling of materials like tar, pitch, graphite and synthetic resins	R 11	V 6
17.4	Casting / die casting areas	R 12	
17.5	Glazing areas	R 12	
18	Glass and stone processing		
18.1	Stone cutting, stone grinding	R 11	
18.2	Glass moulding of hollow glass, container glass, structural glass	R 11	
18.3	Grinding areas for hollow glass ware, flat glass	R 11	
18.4	Insulating glass manufacture; handling of drying agents	R 11	V 6
18.5	Packaging, shipping of flat glass; handling of anti-adhesive agents	R 11	V 6
18.6	Etching and acid polishing facilities for glass	R 11	
19	Cast concrete factories		
19.1	Concrete washing areas	R 11	
20	Storage rooms		
20.1	Storage areas for oils and fats	R 12	V 6
20.2	Storage areas for packed food	R 10	
20.3	Outdoor storage areas	R 11 - R 10	V 4
21	Chemical and thermal treatment of iron and metal		
21.1	Pickling plants	R 12	
21.2	Hardening shops	R 12	

VitrA slip resistance

Nr.	Working areas, walking corridors	Antislip groups (R classes)	Minimum collection space
21.3	Laboratory rooms	R 11	
22	Metal processing, metal workshops		
22.1	Galvanizing shops	R 12	
22.2	Grey cast iron processing	R 11	V 4
22.3	Mechanical processing areas (turnery, milling shop), punching room, pressroom, drawing shop (pipes, wires) and areas exposed to increased stress by oil and lubricants	R 11	V 4
22.4	Parts cleaning areas, exhaust steam areas	R 12	
23	Vehicle repair workshops		
23.1	Repair and servicing bays	R 11	
23.2	Working and inspection pits	R 12	V 4
23.3	Car washing halls, washing areas	R 11	V 4
24	Aircraft repair workshops		
24.1	Aircraft hangars	R 11	
24.2	Repair hangars	R 12	
24.3	Washing halls	R 11	V 4
25	Sewage treatment plants		
25.1	Pump rooms	R 12	
25.2	Rooms for sludge draining facilities	R 12	
25.3	Rooms for screening equipment	R 12	
25.4	Stands of workplaces, scaffolds and maintenance platforms	R 12	
26	Fire brigade buildings		
26.1	Vehicle parking places	R 12	
26.2	Rooms for hose maintenance equipment	R 12	
27	Functional rooms in the breathing apparatus training facility		
27.1	Preparation room	R 10	
27.2	Conditioning room	R 10	
27.3	Training room	R 11	
27.4	Air lock	R 10	
27.5	Mock-up dwelling	R 11	
27.6	Heat acclimatization room	R 11	
27.7	Control station	R 9	
28	Schools and day nurseries		
28.1	Class rooms, group rooms	R 9	
28.2	Stairs	R 9	
28.3	Toilets, washrooms	R 10	
28.4	Instructional kitchens in schools (also see no.9)	R 10	
28.5	Kitchens in kindergartens (also see no.9)	R 10	
28.6	Machine rooms for wood processing	R 10	
28.7	Special rooms for handicrafts	R 10	
28.8	Schoolyards	R 11 - R 10 V 4	
29	Banks		
29.1	Bank counter	R 9	
30	Plant traffic routes in outdoor areas		
30.1	Footpaths	R 11 - R 10 V 4	
30.2	Loading platforms		
30.2.1	Covered	R 11 - R 10 V 4	
30.2.2	Not covered	R 12 - R 11 V 4	
30.3	Sloping ramps (e.g. for wheel-chairs, loading platforms)	R 12 - R 11 V 4	
30.4.1	Covered	R 11	
30.4.2	Not covered	R 12	
31	Parking areas		
31.1	Garages, multi-storey and underground car parks not subject to the effects of the weather	R 10 R 11 - R 10 V 4	
31.2	Garages, multi-storey and underground car parks subject to the effects of the weather		
31.3	Parking areas outdoors	R 11 - R 10 V 4	

1.2. Slip-resistance properties in barefoot areas

DIN 51097 is the test method that is used for determining slip resistance of floor coverings in wet barefoot areas subject to risk of slipping. According to DIN 51097, there are three assessment groups on the basis of size and the risk of slipping in wet barefoot areas. The lowest slip resistance value is A, whereas the highest one is C for classification of barefoot slip resistance of tiles.

In the following table of barefoot areas slip resistance classification, the application areas are indicated in accordance with the leaflet "DGUV Information 207-006 - Floor coverings for wet barefoot areas".

Wet barefoot areas slip resistance classification and application areas

Slip	Min. degree of slope	Areas
A	12°	<ul style="list-style-type: none">- Barefoot passages and sanitary areas (mainly dry)- Individual and common dressing rooms- Pool floors in non-swimmer areas if the water depth is more than 80 cm in the entire area- Sauna and relaxation areas (mainly dry)
B	18°	<ul style="list-style-type: none">- Barefoot passages and sanitary areas, if not classified in group A- Showers- Steam baths- Area of disinfecting spray facilities- Pool surrounds- Pool floors in non-swimmer areas if the water depth is less than 80 cm in certain areas- Non-swimmer sections of wave-action pools- Movable floors- Paddling pools- Ladders and stairs outside the pool area, if not classified in group C- Accessible surfaces of diving platforms and diving boards, if not classified in group C- Sauna and relaxation areas, if not classified in group A
C	24°	<ul style="list-style-type: none">- Ladders and stairs leading into the water- Stairs up to diving facilities and water slides- Surfaces of diving platforms and diving boards over the length reserved for the diver (the slip-resistant surface of the diving platforms and diving boards must cover the front edge where the hands and the toes of the divers grip)- Walk-through pools- Inclined pool edge designs- Kneipp pools, water-treading pools- Ramps in the pool surround area with an inclination > 6 %

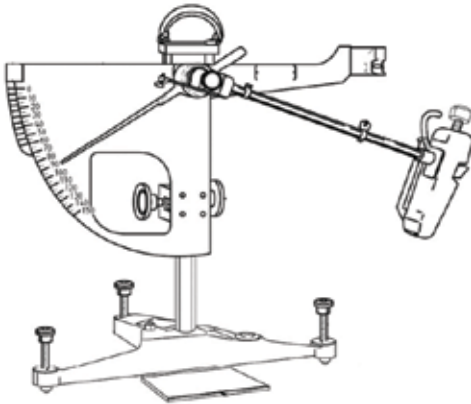
Important notice: The indicated angles of inclination helps to identify anti-slip classification of the product and cannot be related to the angles of inclination of slopes/ramps.

VitrA slip resistance

2. Pendulum

The pendulum CoF test (also known as the portable skid resistance tester, the British pendulum, and the TRRL pendulum) is the subject of a British Standard, BS 7976: Parts 1-3, 2002.

Information generated by the pendulum using Slider 96 rubber, also known as Four-S rubber (Standard Simulated Shoe Sole) is sufficient for assessing slipperiness in most circumstances. However, for assessing barefoot areas, unusually rough or profiled floors, the use of Slider 55 rubber, also known as TRRL rubber (a similar but softer, more malleable compound) may be advantageous.



Pendulum CoF Test (Diagram adapted from BS 7976-1:2002 Pendulum testers – Part 1: Specification)

Slip Potential Classification, based on pendulum test values (PTV) (from UKSRG, 2011)	
	PTV
High Slip Potential	0-24
Moderate Slip Potential	25-35
Low Slip Potential	36 +

3. DCOF

DCOF is the ratio of the force necessary to keep a surface already in motion sliding over another divided by the weight (or normal force) of an object. This force is a materials property of the two surfaces. Contaminants such as dirt, water, soap, oil or grease can change this value. The test is done according to standards of ANSI A137.1 and ANSI A326.3.

Unless otherwise specified, tiles suitable for level interior spaces expected to be walked upon when wet shall have a wet DCOF of 0,42 or greater when tested using SLS solution. However, tiles with a DCOF of 0,42 or greater are not necessarily suitable for all projects. The specifier shall determine tiles appropriate for specific project conditions, considering by way of example, but not in limitation, type of use, traffic, expected contaminants, expected maintenance, expected wear and manufacturers' guidelines and recommendations. (Ref: ANSI A137.1-2017)

Notes

A series of horizontal dashed lines for writing notes.

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Attention

When ordering ceramic tiles specify the areas of use.
Before tile setting, verify the tonality and calibration numbers, claims regarding these indications cannot be accepted after tile setting.
Crazing of glass borders is a nature of the ceramic tiles.
It is recommended to use VitrA Fix grout and adhesive materials with VitrA Ceramic Tiles.
The colours of tiles in the catalogue may not reflect the exact colours of the products.
For the compatibility of the products to be used with complementary parts, a special order note should be added requesting the simultaneous production of all tiles. There may be a colour tone difference in products produced at different times.
VitrA Karo San. ve Tic. A.Ş. reserves the right to change the products and technical specifications.

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