

VitrA

V-Safe

Joyful moments with smart surface technologies



VitrA



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.

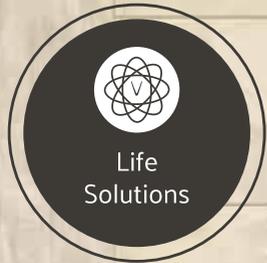


A pledge to the future

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



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





Enjoy the moment with Vitra V-Safe.

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



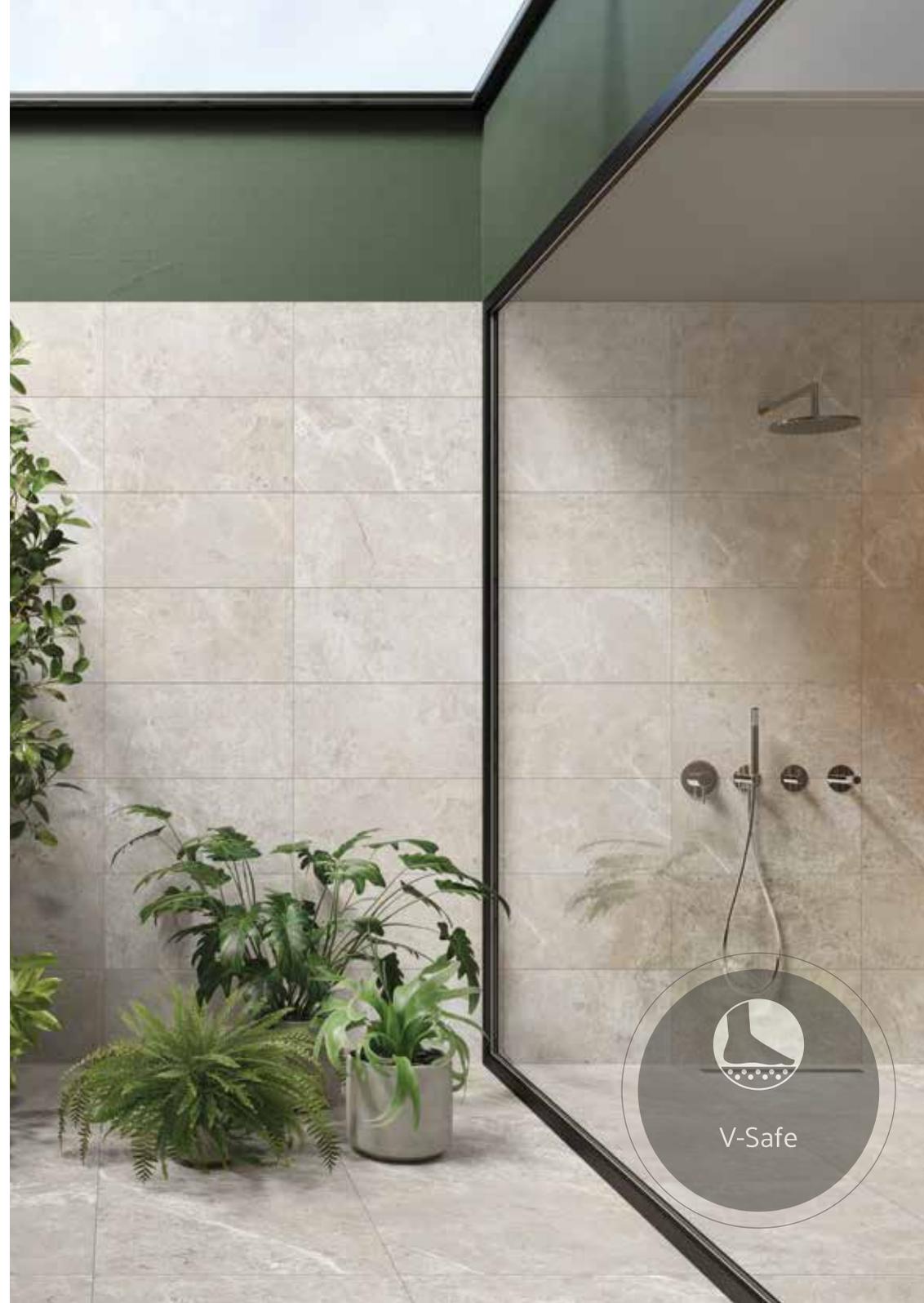


What is V-Safe?

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.vitraglobal.com/brochures/tile-brochures/generalbrochures/>





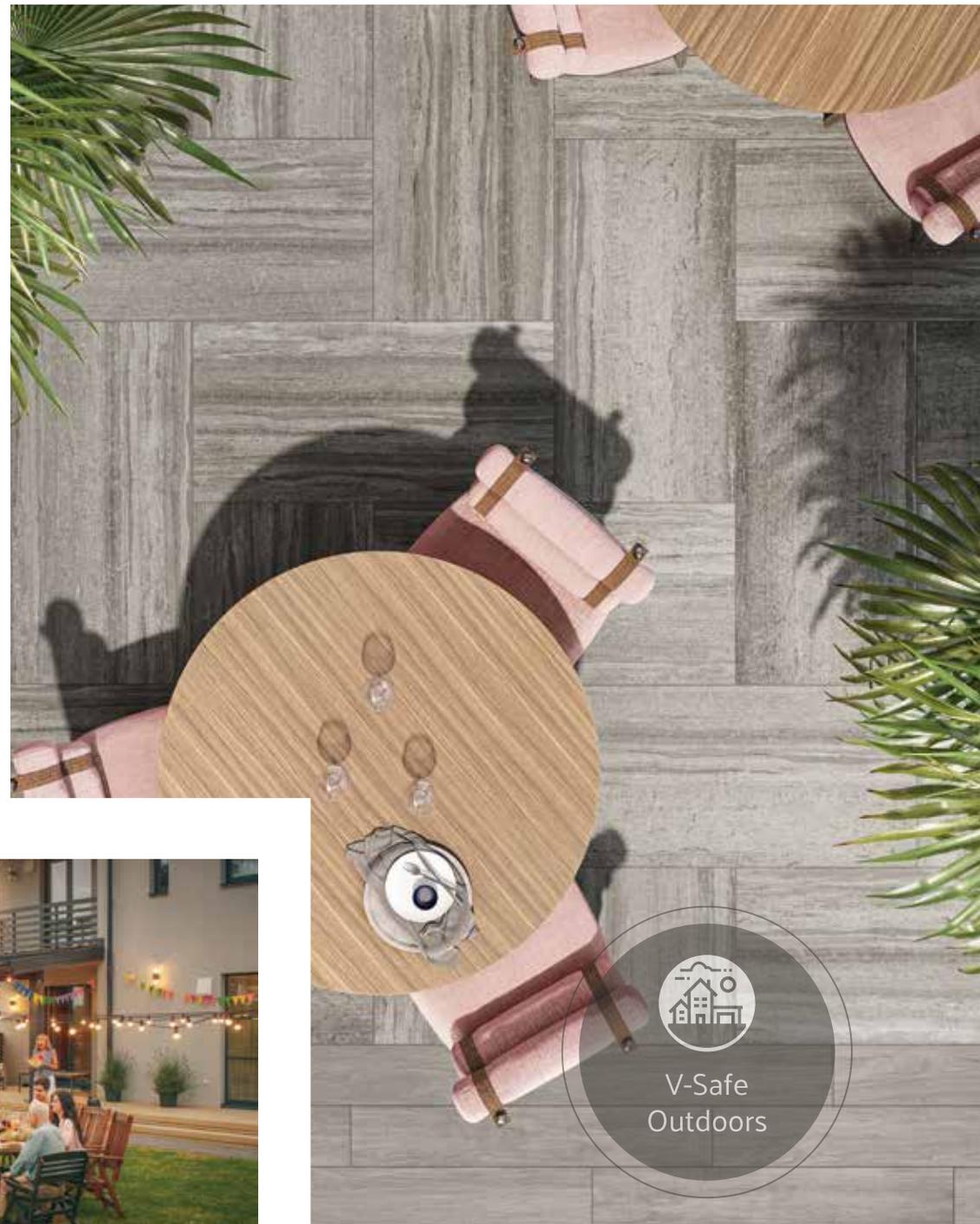
V-Safe
Wet



V-Safe Outdoors technology for enjoyable 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/>

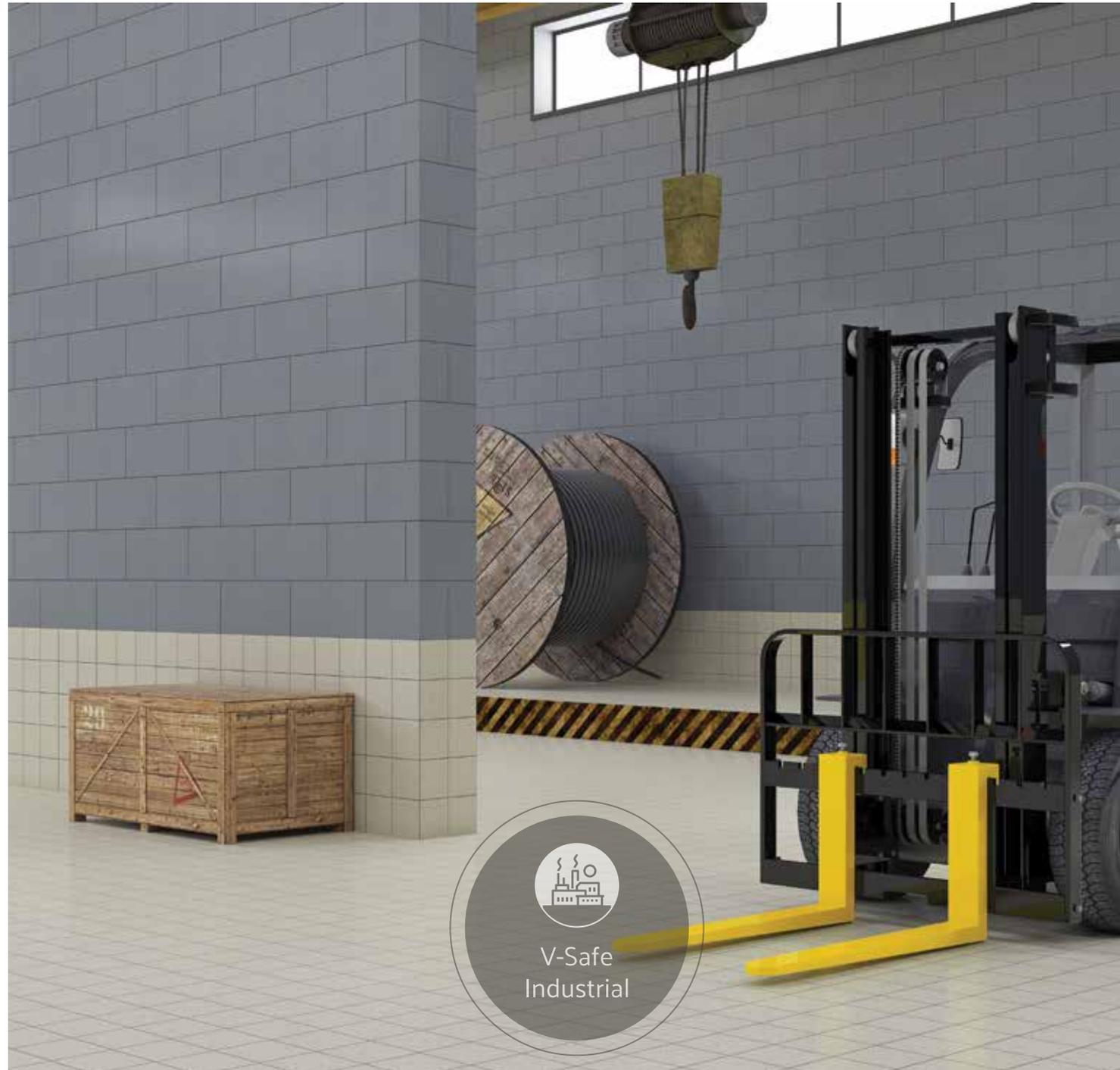




V-Safe Industrial technology for industrial areas

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.vitrageglobal.com/brochures/tile-brochures/general-brochures/>



Some of the VitrA Tiles Collections with V-Safe technology:

R10A



Craft



MarmoMix
Craft



CementMix

R10B



Calacatta



Marmostone



Ultra 2.0

R11



Newcon



Cardostone



Cardostone



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° < R9 < 10°

Low static friction



10° < R10 < 19°

Normal static friction



19° < R11 < 27°

Increased static friction



27° < R12 < 35°

High static friction



R13 > 35°

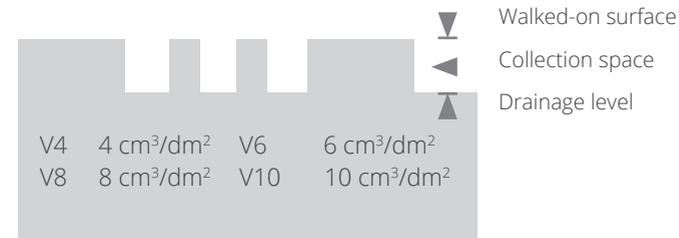
Very high static friction

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	R 9	
0.6.1	Toilets	R 10	
0.6.2	Changing or washrooms	R 9	
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	Nr.	Working areas, walking corridors	Antislip groups (R classes)	Minimum collection space
5	Slaughtering, meat processing			11.8.2	For meat processing, except for no.5	R 11	
5.1	Slaughter house	R 13	V 10	11.9	Florists shops	R 11	
5.2	Tripe processing room	R 13	V 10	11.10	Sales areas with stationary ovens		
5.3	Meat sectioning	R 13	V 8	11.10.1	For the production of bread, cakes and pastries	R 11	
5.4	Sausage kitchen	R 13	V 8	11.10.2	For the warming-up of refabricated bread, cakes and pastries	R 10	
5.5	Boiled sausage unit	R 13	V 8	11.11	Sales areas with stationary chip pans or grills	R 12	V 4
5.6	Raw sausage unit	R 13	V 6	11.12	Shops, customer rooms	R 9	
5.7	Sausage drying room	R 12		11.13	Preparation areas for food and self-service shops	R 10	
5.8	Smoking establishments	R 12		11.14	Cash register areas, packing areas	R 9	
5.9	Salting and curing rooms	R 12		11.15	Outdoor sales areas	R 11 - R10	V 4
5.10	Poultry processing	R 12	V 6	12	Health service rooms		
5.11	Gut store	R 12		12.1	Disinfection rooms (wet)	R 11	
5.12	Cold cuts and packaging unit	R 12	V 8	12.2	Pre-cleaning areas of sterilization	R 10	
6	Fish processing, production of delicatessen			12.3	Faeces disposal rooms, discharge rooms, unclean nursing work rooms	R 10	
6.1	Fish processing	R 13	V 10	12.4	Pathological facilities	R 10	
6.2	Production of delicatessen	R 13	V 6	12.5	Rooms for medical baths, hydrotherapy, fango preparation	R 11	
6.3	Manufacture of mayonnaise	R 13	V 4	12.6	Washrooms of operating theatres, plastering rooms	R 10	
7	Processing of vegetables			12.7	Sanitary rooms, ward bathrooms	R 10	
7.1	Production of sauerkraut	R 13	V 6	12.8	Rooms for medical diagnosis and therapy, massage rooms	R 9	
7.2	Vegetable tinning	R 13	V 6	12.9	Operationg theatres	R 9	
7.3	Sterilization rooms	R 11		12.10	Wards with hospital rooms and corridors	R 9	
7.4	Rooms in which vegetables are prepared for processing	R 12	V 4	12.11	Medical practices, day clinics	R 9	
8	Food areas in food and beverage production (if not specifically mentioned)			12.12	Pharmacies	R 9	
8.1	Storage cvellars	R 10		12.13	Laboratories	R 9	
8.2	Beverage bottling, fruit juice production	R 11		12.14	Hairdressing salons	R 9	
9	Catering establishments			13	Laundries		
9.1	Kitchens in the catering trade (restaurant kitchens, hotel kitchens)	R 12		13.1	Rooms with continuous-flow washing machines	R 9	
9.1.1	Up to 100 meals per day			13.2	Rooms with washing machines or with spin-drier	R 11	
9.1.2	More than 100 meals per day			13.3	Ironing rooms	R 9	
9.2	Catering kitchens serving to homes, schools, kindergartens, sanatoria	R 11		14	Fodder concentrate production		
9.3	Kitchens of hospitals and clinics	R 12		14.1	Dried fodder production	R 11	
9.4	Catering kitchens serving to universities and industrial canteens	R 12	V 4	14.2	Fodder concentrate production using fat and water	R 11	V 4
9.5	Food preparation kitchens (fast-food kitchens, snack bars)	R 12		15	Leather productions, textiles		
9.6	Kitchens for heating up frozen meals	R 10		15.1	Wet areas in tanneries	R 13	
9.7	Coffee and tea kitchens, hotel garni kitchens and ward kitchens	R 10		15.2	Rooms with fleshing machines	R 13	V 10
9.8	Washing-up areas			15.3	Areas where leather scraps accumulate	R 13	V 10
9.8.1	Washing-up areas for 9.1, 9.4, 9.5	R 12	V 4	15.4	Rooms for making leather impermeable by means of grease	R 12	
9.8.2	Washing-up areas for 9.2	R 11		15.5	Dye mills for textures	R 11	
9.8.3	Washing-up areas for 9.3	R 12		16	Paint shops		
9.9	Dining rooms, guest rooms, canteens including serving counters	R 9		16.1	Wet grinding areas	R 12	V 10
10	Cold stores, deep freeze stores			17	Ceramic industry		
10.1	For unpacked goods	R 12		17.1	Wet grinding mills (processing of ceramic, raw materials)	R 11	
10.2	For packed goods	R 11		17.2	Mixers; handling of materials like tar, pitch, graphite and synthetic resins	R 11	V 6
11	Sales outlets, shops			17.3	Presses (shaping); handling of materials like tar, pitch, graphite and synthetic resins	R 11	V 6
11.1	Reception of goods, meats			17.4	Casting / die casting areas	R 12	
11.1.1	For unpacked goods	R 11		17.5	Glazing areas	R 12	
11.1.2	For packed goods	R 10		18	Glass and stone processing		
11.2	Reception of goods, fish	R 11		18.1	Stone cutting, stone grinding	R 11	
11.3	Serving counters for meat and sausage			18.2	Glass moulding of hollow glass, container glass, structural glass	R 11	
11.3.1	For unpacked goods	R 11		18.3	Grinding areas for hollow glass ware, flat glass	R 11	
11.3.2	For packed goods	R 10		18.4	Insulating glass manufacture; handling of drying agents	R 11	V 6
11.4	Serving counters for bread, cakes and pastries, unpacked goods	R 10		18.5	Packaging, shipping of flat glass; handling of anti-adhesive agents	R 11	V 6
11.5	Serving counters for cheese and cheese products, unpacked goods	R 10		18.6	Etching and acid polishing facilities for glass	R 11	
11.6	Serving counters for fish			19	Cast concrete factories		
11.6.1	For unpacked goods	R 12		19.1	Concrete washing areas	R 11	
11.6.2	For packed goods	R 11		20	Storage rooms		
11.7	Serving counters from Nr.11.3 to 11.6	R 9		20.1	Storage areas for oils and fats	R 12	V 6
11.8	Meat preparation rooms			20.2	Storage areas for packed food	R 10	
11.8.1	For meat preparation, except for no.5	R 12	V 8	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	
31.2	Garages, multi-storey and underground car parks subject to the effects of the weather	R 11 - R 10	V 4
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