



ColoRex[®]welltech

HOMOGENEOUS CHLORINE FREE TILE





Modern ecology

Properties

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Fire safety

ColoRex®welltech is rated "hardly ignitable / low smoke development" according to the specifications of all major European and international burning behaviour standards. Moreover, in case of fire it does not produce any corrosive gases or substances rated as dangerous by the IMO (International Maritime Organisation), such as sulphur dioxide or nitrous gases.

Lowest VOC emissions practicable for a healthier indoor air quality

VOC stands for Volatile Organic Compounds. Most VOCs, if present indoor in sufficient quantities, can have negative effects on health and comfort or cause contamination problems in a cleanroom environment. The innovative composition of ColoRex®welltech is based predominantly on dry raw materials, releasing practically no VOCs into the air.

Outstanding dimensional stability

ColoRex®welltech contains no plasticisers, resulting in a dimensional stability exceeding the specifications of applicable industrial standards.

Compressed, pore free surface

The surface of ColoRex®welltech is absolutely pore free. This will prevent dirt particles, bacteria or moulds to penetrate, accumulate and grow on the surface of the product.

No floor finish necessary

ColoRex®welltech comes with such a smooth, high density surface that no initial treatment is required. Also the recurrent application of floor dressings or polish are unnecessary, resulting in a significant reduction of maintenance costs. The no-polish property is a permanent feature of ColoRex®welltech, unlike other products that use a coating which may wear off.

No problems with chemicals

ColoRex®welltech is perfectly resistant against aggressive acids and alkalis in any concentration, including etching process chemicals used in certain cleanroom application that could be spilled out by accident. Persistent stains caused by strongly colouring substances, such as iodine for example, can be easily removed by abrasive methods, without altering the original appearance and without affecting the performance of the floor.



ColoRex®welltech is the first homogeneous floor covering product on polyester basis. It is chlorine-free and contains no plasticisers, meeting the highest standards and expectations of modern environmental science.

Permanent conductivity for long term performance

With ColoRex®welltech, static charges are securely drained through the whole thickness of the tile by a dense network of tiny conductive veins. This feature guarantees that the conductivity is not dependant from operating conditions and that it will not decrease over time, remaining stable throughout the entire lifetime of the floor.

Tested and certified conductive properties

In an ESD protected area, conductivity cannot be a random matter. This is why the electrical resistance values of every single batch of ColoRex®welltech are tested and certified by our quality control laboratories. Forbo is proud to be the only manufacturer capable to issue such a certificate, stating detailed resistance values with lifetime guarantee.

Perfect indentation resistance

The high density material structure of ColoRex®welltech makes it an ideal flooring solution also for heavy traffic areas. The indentation resistance and residual indentation values of ColoRex®welltech are exceeding those of comparable synthetic or rubber floor covering products.

Wear resistance

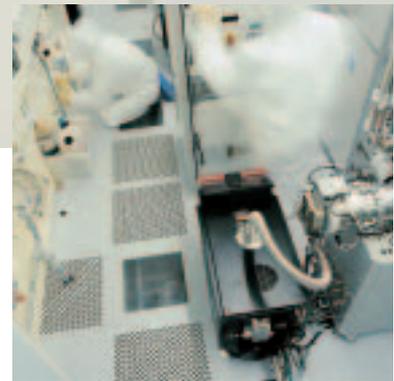
ColoRex®welltech tiles are sliced from homogeneous blocks of highly compressed material and are not treated with any kind of factory coating, which could be subject to wear over time. ColoRex®welltech is classed in wear class P according to the European classification standard, one step above the industry's average class M.

Ideal cleaning methods for sterile areas

Thanks to its pore-free and exceptionally smooth surface texture, ColoRex®welltech can be easily cleaned and effectively disinfected with simple methods, like one way tissues or damp mopping. ColoRex®welltech is also perfectly resistant against typical cleaning and disinfecting agents such as potassium hydroxide, hydrogen peroxide or isopropyl alcohol.

Dry cleaning

In all those cases where wet or damp cleaning methods are not allowed or not possible, ColoRex®welltech can be dry polished with single disc machines and pads appropriate to the location. This will not only reduce costs but also the use of chemicals, in line with the ecological nature of this product.



Fields of application

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Clean rooms

ColoRex®welltech is particularly suited for cleanroom applications. It contains no plasticisers, no antistatics or any other chemical addition that might be released into the cleanroom air, causing contamination.

Electronic components and devices are getting increasingly smaller and faster but also more vulnerable to airborne molecular contamination. With every drop in size, cleanroom managers are tightening qualification requirements for cleanroom flooring as regards to contamination by VOC and SVOC emissions. ColoRex®welltech contains less than 2% of liquid raw materials, thus significantly reducing the risk of contamination by outgassing. Moreover, ColoRex®welltech is perfectly resistant against a wide number of acids and alkalis in any concentration, and especially etching process chemicals, an aspect not to be underestimated in case of accidental spillage. Cleaning of ColoRex®welltech floors in a cleanroom can be carried out without problems using specific cleanroom cleaners in appropriate deionized (DI) water solutions.

ESD protected areas

All relevant ESD protection parameters are optimised in ColoRex®welltech, providing a reliable, long term performance meeting the highest standards.

In most ESD protected areas, just the presence of static charges is a concern, whether discharges occur or not. A static control flooring material such as ColoRex®welltech, does not only securely dissipate existing charges from personnel and equipment, but it also reduces the generation and accumulation of electrostatic charges caused by moving personnel and mobile equipment. The conductive properties of ColoRex®welltech are already clearly defined when leaving the factory and they remain guaranteed for the entire lifetime of the floor. No antistatic additives are used in ColoRex®welltech, meaning that the conductivity is a permanent feature, it does not depend on operating conditions and it will not decrease over time.

Last but not least, ColoRex®welltech is featuring Unigridd®, a conductive mesh printed on the reverse side of the tiles, ensuring a perfect electrical contact between the back of the tiles and the conductive adhesive.

Raised access floors

New perspectives for raised floor manufacturers with the chlorine-free ColoRex®welltech

The requirement for chlorine-free floor coverings for raised floor panels is usually met with expensive plating, powder coating or rubber flooring products. ColoRex®welltech offers a new alternative: a homogeneous, pressed, conductive tile with all the mechanical advantages of a vinyl flooring without actually being one. ColoRex®welltech is an extremely dense material, the tiles do not chip while trimmed, punched, drilled or chamfered, an important factor in the panel lamination process for cleanroom applications. In addition to that, ColoRex®welltech tiles are dimensionally stable and perfectly viable for dry cleaning methods.



Health care environments and life science applications

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Perfect hygiene in hospitals and aseptic areas, thanks to a pore-free, bacteriostatic floor covering with a high material density.
ColoRex®welltech contains 98% of dry raw materials and is manufactured in a high pressure process: this product has therefore a high density structure and a perfectly smooth and pore free surface, where no dirt, bacteria or moulds can accumulate and grow. The homogeneous, plasticiser-free material structure will also allow for coved skirting and welded inner and outer corners, seamless and smooth floor-to-wall transitions for perfect hygiene and full GMP compliance.
ColoRex®welltech is a durable floor covering: intensive use and repeated cleaning and disinfection cycles will not alter the properties and the appearance of the floor, even after many years.
Furthermore, ColoRex®welltech will offer the best solution also in those critical hospital areas where ESD protection is required, like for example magnetic resonance imaging or high frequency surgery.

General industrial and commercial applications

ColoRex®welltech is not only a hard wearing floor covering, it also reflects our continuous endeavour to develop products that respect the environment and the people who live in it.
Whether used in logistic centres and distribution warehouses with frequent heavy traffic or in busy commercial areas, ColoRex®welltech has above average wear resistance properties, a high indentation resistance and excellent point resilience. In addition, the homogeneous material structure and the absence of any surface coating is resulting in outstanding appearance retention and durable surface quality over many years.
Damages to the surface like deep scratches, holes, burns etc. can be perfectly repaired with simple methods without leaving any trace. Extremely soiled industrial areas can be brought back to their like-new condition by abrasive restorative maintenance procedures, as often as you want and without impairing the original performance of the floor.
Also from a maintenance point of view, ColoRex®welltech has been developed with reduced life cycle costs and minimal environmental impact in mind: it can be cleaned and maintained with simple and tough effective methods renouncing nearly completely to the use of chemical products.

Installation

ColoRex®welltech must be installed on a smooth, level, clean and permanently dry subfloor. The moisture content of concrete subfloors should not exceed 2,5% CM. Prior to installation, the ColoRex®welltech tiles must be acclimatised for at least 24 hours at a minimum temperature of 18°C. The installation of ColoRex®welltech should not begin until the work of all other trades has been completed, especially overhead trades. Areas should be cleaned, fully enclosed and maintained at a minimum temperature of 18°C for 72 hours before, during and after installation is completed. For conductive floors, install one meter length of grounding copper strip every 40 m² and connect to earth. ColoRex®welltech must be installed in a wet adhesive bed, using a specific, conductive acrylic adhesive in water dispersion. Roll the tiles with a 50 kg roller immediately after installation. Hot seam welding, coved skirtings as well as welded inner and outer corners are optional according to the location.

Manuels: Please refer to the technical manuals of Forbo Flooring for complete installation and seam welding requirements

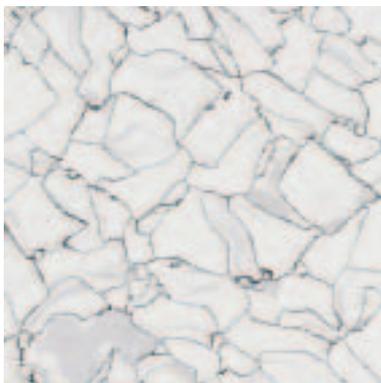
Floor care

Routine maintenance of ColoRex®welltech should consist in sweeping the floor with impregnated one-way tissues or spray buffing with a red pad at low speed, using a specific, neutral and wax-free cleaning solution. Spray buffing is also the ideal solution for raised access floors. If the wet method is preferred for routine maintenance, damp mop the floor with a neutral detergent and rinse well. For large areas with heavy traffic, the use of a scrubber drier machine with a specific detergent is indicated. Do not apply any wax, acrylic emulsions, floor finish etc. as this might reduce the conductive properties of ColoRex®welltech.

Manuels: Please refer to the technical manuals of Forbo Flooring for complete care procedures

Colours collection

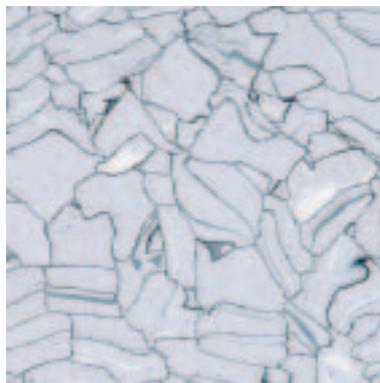
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everest

SD 85 02 01

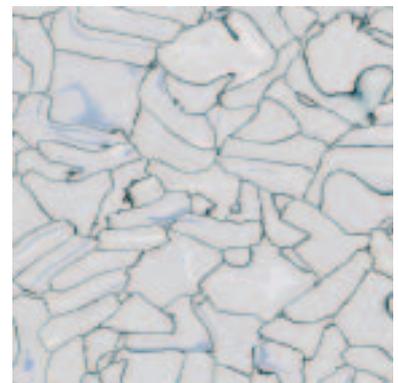
EC 95 02 01



montblanc

SD 85 02 04

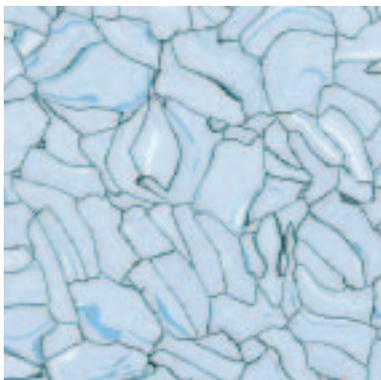
EC 95 02 04



gobi

SD 85 02 11

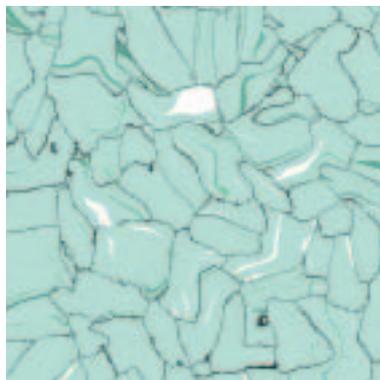
EC 95 02 11



pacific

SD 85 02 21

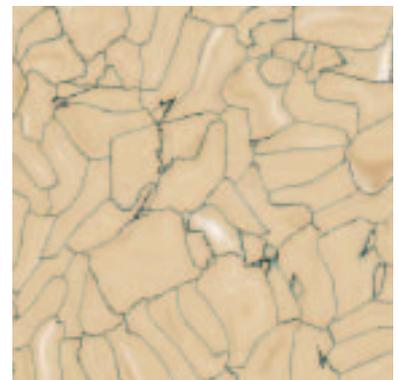
EC 95 02 21



kiwi

SD 85 02 25

EC 95 02 25



oasis

SD 85 02 15

EC 95 02 15

ColoRex[®]welltech

Performance data

		SD	EC
 Classification	EN 649	34 / 43 	34 / 43 
CE marking	EN 14041	Compliant	Compliant
 Collection size		6	6
 Total thickness	EN 428	2.0 mm	2.0 mm
 Tile sizes	EN 427	610 x 610 mm 615 x 615 mm	610 x 610 mm 615 x 615 mm
 Weight	EN 430	3.2 kg/m ²	3.2 kg/m ²
 Electrical resistance	IEC 61340-4-1	$10^6 \leq R \leq 10^8 \Omega$	$5 \times 10^4 \leq R \leq 10^6 \Omega$
	IEC 61340-4-5*	–	$7.5 \times 10^5 \leq R \leq 3.5 \times 10^7 \Omega$
	EN 1081	$R \leq 10^8 \Omega$	$R \leq 10^6 \Omega$
	ANSI/ESD STM 7.1	$10^6 \leq R \leq 10^8 \Omega$	$2.5 \times 10^4 \leq R \leq 10^6 \Omega$
	ANSI/ESD STM 97.1*	–	$7.5 \times 10^5 \leq R \leq 3.5 \times 10^7 \Omega$
 Body voltage generation	IEC 61340-4-5*	< 25 V	< 15 V
	ANSI/ESD STM 97.2*		
VOC Emissions	EN 13419 1-3	SVOC < 100 µg/m ³ after 28 days	
 Outgassing	IDEMA M11-99	TD-GC-MS results available upon request	
 Slip resistance	EN 13893 – dry surfaces	µ: 0.6	µ: 0.6
	DIN 51131 – wet surfaces	R9	R9
 Burning behaviour	EN 13501-1	C _{fl} – s 1	C _{fl} – s 1
	ASTM E648 / NFPA 253	Class 1 (1.13 W/cm ²)	Class 1 (1.13 W/cm ²)
	ASTM E662 / NFPA 258	< 450	< 450
 Wear resistance	EN 660-1	Group P	Group P
 Residual indentation	EN 433	0.010 mm	0.010 mm
 Castor chair test	EN 425	No effect	No effect
 Colour fastness	EN 20 105-Bo2 method 3	Up to 6	Up to 6
 Chemical resistance	EN 423	Excellent (details available upon request)	
 Dimension stability	EN 434	0.05% lengthwise/crosswise	0.05% lengthwise/crosswise
 Bacteriostatic and fungicidal behaviour	SNV 195 920	Pass	Pass
	SNV 195 921		

* with conductive ESD footwear

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creating better environments