



# ColoRex<sup>®</sup> SD/EC

**HOMOGENEOUS CONDUCTIVE TILE**  
PROJECT VINYL





# Table of contents



|   |    |
|---|----|
| Introduction                            | 4  |
| Electronic industry                     | 8  |
| Pharma & Biotech                        | 10 |
| Healthcare environments                 | 12 |
| Colours collection                      | 14 |
| Performance data                        | 19 |
| Installation and seam welding           | 20 |
| Coved skirting, inner and outer corners | 21 |
| Maintenance and repair                  | 22 |
| Accessories                             | 23 |
| Other ColoRex® solutions                | 24 |



## Let's make it clear!

Conductivity is not a random matter.

4

Even if comparing the mere conductivity values might not provide much of an informative basis at first sight, conductive floor coverings are often showing significant differences in performance. These are, for example, the way static charges are grounded, the factors influencing this process and most important of all, the ability to long time performance. As a matter of fact, the performance of a conductive floor covering is closely linked to the manufacturing process.

## Outdated technology

Conductivity by antistatic additives  
(mostly applying to sheet products)

### Disadvantages:

- Conductivity is dependant from ambient humidity and decreases over time.
- The antistatic additives generate volatile emissions.
- Oily surface, dirt retention, cleaning problems.

water particles

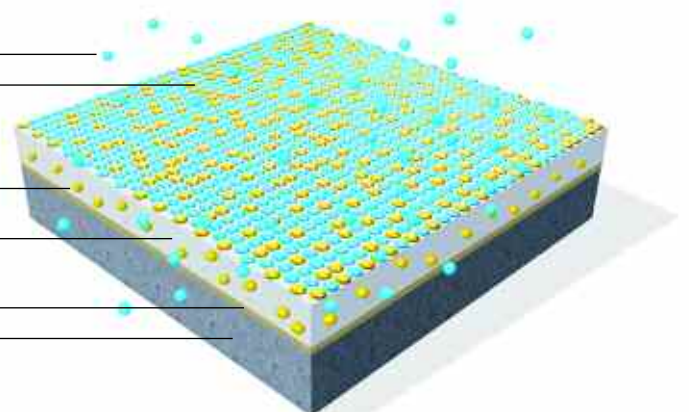
"antistatic" film

migrating additives

floor covering

regular glue

subfloor





## Play it safe with ColoRex®

Conductive floor coverings made of conductive coated chips show a definitely better and long lasting performance.

**Conductive coated chips are forming a solid , homogeneous compound which is stable in size and dimensions, a far better solution than “liquid” chemical additives like antistatic surfactants. This is the reason why the electrical properties of ColoRex® tiles are constant, permanent and not influenced by either ambient humidity or aging of the product. This is a most important selection criterion, considering that the properties of a floor covering are required to be permanent and that performance to specifications will be subject to regular inspection.**

5

### Modern technology

Chips with conductive coating  
(pressed tiles such as ColoRex®)

#### Advantages:

- Conductivity is not dependant from ambient humidity.
- Permanent conductivity over the entire life time of the tiles.
- No chemical additives.
- No cleaning and maintenance problems.

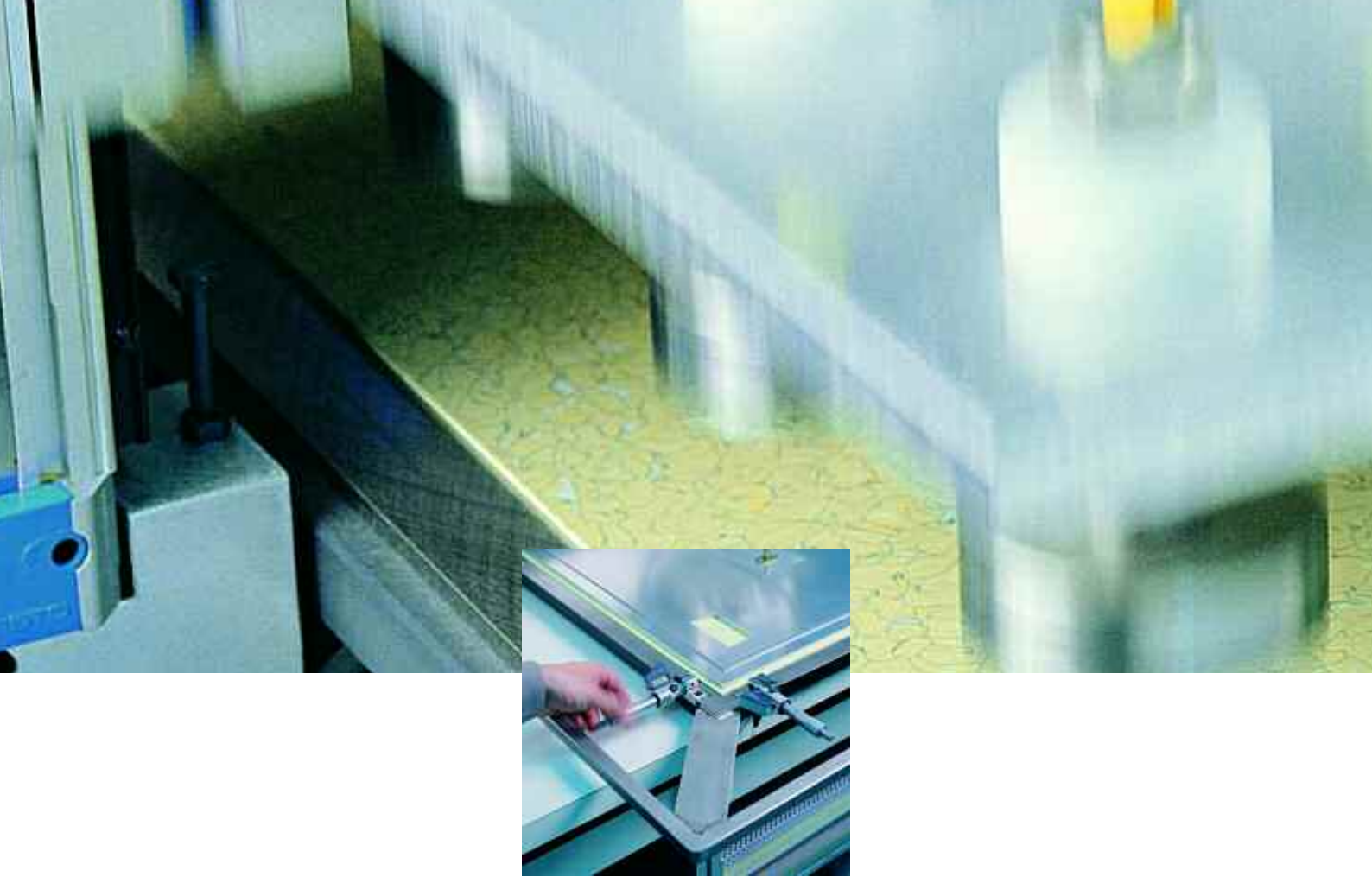
conductive “veins”

conductive adhesive

grounding strip

subfloor





## 6 Absolute homogeneity

### **Advantages:**

- No visible wear signs, possibility of abrasive cleaning.
- Total appearance retention also in case of strong abrasion.
- Material properties remain constant over the entire time of use.
- Completely repairable without optical or functional impairment of the floor.
- Neat transitions from floor to walls with the same flooring material.

## Uniform high density

### **Advantages:**

- Compact and pore-free surface, meeting highest hygiene requirements.
- Resistant against chemical and mechanical strains.
- Abrasion resistant surface, suitable for repeated, intensive cleaning procedures.
- Resistance to indentation and dynamic loads far better than conventional synthetic or rubber floor coverings.
- Possibility to completely remove discolorations caused by iodine based disinfectants.





## Electronic industry

### 8 **Permanent, lifetime conductivity**

With ColoRex®, static charges are securely drained throughout the entire thickness of the tile by a dense network of tiny conductive veins. No antistatic additives or surfactants are used. Conductivity is therefore independent from ambient conditions and will not decrease over time, remaining constant and stable throughout the entire lifetime of the tiles.

### **Guaranteed Electrical Resistance**

The electrical resistance values of ColoRex® are continuously monitored by our ISO 9001 certified quality control laboratory, thereby delivering a certificate of electrical resistance measurement for each production batch. Forbo is the only manufacturer offering this unique service to customers. The electrical resistance range reported in the certificate is guaranteed for the entire lifetime of the tiles.

### **Unigridd® – a unique feature**

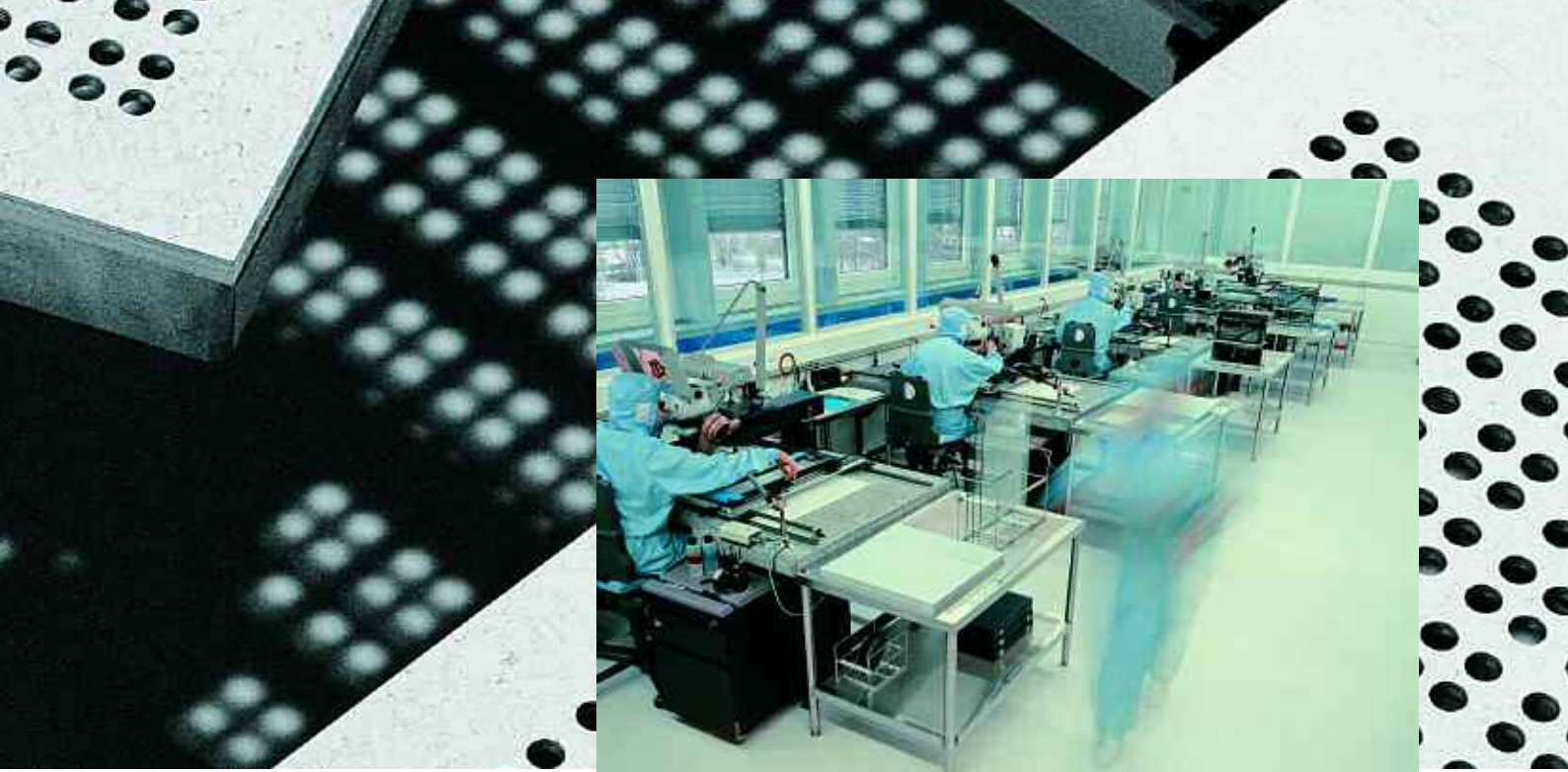
The Unigridd® is a conductive mesh printed on the back side of the ColoRex® tiles, designed to secure perfect electrical contact between the tiles and the conductive adhesive. It contributes to consistent and reliable electrical resistance values over the whole surface of the tiles.

### **Low triboelectric charge and body voltage generation**

In most ESD protected areas, just the presence of static charges is a concern, whether discharges occur or not. By its own material structure, ColoRex® effectively contributes to preventing the generation and accumulation of static charges in moving personnel and mobile equipment.

### **Outgassing and contamination control in cleanrooms**

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 outgassing. Thanks to its outstanding outgassing performance resulting from our continuous investments in R&D, leading device manufacturers and cleanroom contractors have qualified ColoRex® for unrestricted cleanroom use.



## The opinion of:

**Michael T. Brandt**  
Lakewood, CO USA



*In most electronics manufacturing environments people are the single, major cause of static problems. When even the simple movement of arms or hands or walking across the floor can generate electrostatic charges as high as several thousand volts, reducing personnel-generated static charges is a primary objective of static control programs.*

*Although wrist straps are often considered as a primary tool in the controlling of personnel-generated static, companies are turning to the use of flooring materials (and footwear) as an effective static control component. Floor materials (and proper footwear) perform two primary static control functions: they reduce the generation and accumulation of electrostatic charges at the interface of the shoe with the floor and they dissipate existing charges from personnel and moving equipment that are in contact with the floor material.*

*Various studies, tests and practical experience have shown that the combination of static control flooring and footwear can reduce static gene-*

*ration from several thousand volts to less than a hundred volts. Also, the combination dissipates static charges from the body very rapidly when a person steps or walks on the flooring material. Static control flooring and footwear can control static problems throughout the work area, especially in areas where personnel have to be quite mobile. Also, floor materials can help control static on carts or other similar movable equipment as well as on people.*

*Because static control flooring and appropriate footwear tend to be passive control methods and require less frequent monitoring, employees do not need to take any additional actions to assure that the system is functioning properly.*

*Floor materials can be used in most areas, especially those requiring high employee mobility. These include receiving and inspection; stores and warehouses; clean rooms and assembly, test and inspection; packaging; field service repair; offices and laboratories.*

*Like all static control procedures, flooring (and footwear) is part of a*

*complete program that also may include packaging and materials handling, ionization, wrist straps, or garments. In combination with appropriate footwear as part of an overall static control program, static control floor coverings can significantly reduce static control problems resulting from personnel-generated static.*



## Pharma & Biotech

10

### **Aseptic areas**

ColoRex® tiles are cut from homogeneous blocks of material pressed at very high pressure. Additionally, the surface of each tile is mechanically treated in various steps so as to achieve a completely smooth and absolutely pore free surface, without the use of any finishing product which might be worn out by intensive cleaning procedures. The outstanding bacteriostatic properties of ColoRex® have been certified by independent testing institutes.

### **Bacteriostatic, cohesive seam welding**

Tiles with welded seams are usually a concern in aseptic or hygiene critical areas. Our welding rods are made from the same base material as ColoRex®, so that hot seam welding will produce a true material cohesion between the tiles. Welded seams are watertight, free of micro-pores and resistant to dynamic or static mechanical stress. Antibacterial activity tests of heat welded ColoRex® tiles carried out by independent organisations have proved that no micro organisms can live or grow onto or across the welded seams.

### **Complete cGMP compliance**

Current GMP regulations also require that interfaces of the floor with vertical surfaces such as walls and partitions must be accessible for cleaning and disinfection. With ColoRex®, coved and seamless skirting, as well as inner and outer corners can be realised as a standard, taking advantage of the outstanding surface quality of the product also for critical, usually hard to reach areas within an aseptic environment.

### **Chemical resistance**

ColoRex® shows excellent resistance and chemical stability against a wide number of strong acids and alkalis in any concentration, even after extended exposure. This will ensure that intensive and repeated cleaning or exposure to etching chemicals will not affect the surface quality and performance of the tiles.



## The opinion of:

*Dr. sc. techn.*

**Hans H. Schicht**

*Contamination control consultant  
Zumikon, Switzerland*

*Floors for cleanrooms are required to meet a most exacting combination of requirements: they should be free of pores, non-slippery, abrasion-resistant, electrically conductive if required, easy to clean and durable against chemical, static and dynamic loads. Floors for pharmaceutical and other life science applications do not only have to attend these rigid technical performance standards. In addition, they must fulfil and meet the hygienic and microbiological safety determinations of the regulatory authorities and inspectorates as established in their Good Manufacturing Practice (GMP) guides.*

*The GMP guide for medicinal products of the Pharmaceutical Inspection Convention (PIC) and of the European Union establish, for instance, the following criteria for floors installed in facilities employed for the manufacture of sterile pharmaceuticals: floors should be smooth, impervious and unbroken in order to minimize the shedding or accumulation of particles or micro-organisms and to permit the application of cleaning agents and disinfectants.*

*Similar requirements are to be found in the guidance documents of the U.S. Food and Drug Administration FDA: floors should have smooth, hard surfaces that are easily cleanable. Floors in the pharmaceutical industry must be capable of resisting the strains and stresses to which they are continually submitted in their operational environment - especially those of spillages of aggressive substances, and those due to heavy transport movement. The impeccable initial surface quality is to be maintained throughout the entire life cycle of the facility.*

*Similar combinations of performance criteria are to be met in other life science areas: manufacturing of active pharmaceutical ingredients by chemical or biotechnological processing, the hospital field, the food and beverages industry, and laboratories of all kinds.*

*ColoRex® floors have been specifically optimized for attending the needs of the pharmaceutical and life science fields. They maintain their characteristics over extended periods.*

*With their high-density, homogeneous and smooth surface, they offer excellent mechanical and chemical resistance, are easy to clean and to disinfect, resilient to the stresses of material transport movements, and remain 100% repairable even after many years of use - without impairing their original properties and their optical appearance. They offer permanent electrostatic control without antistatic chemical additives independently of room temperature and air humidity. In case of emergency, they are distinguished by low flame spread, smoke generation and out-gassing.*



## Healthcare environments

12

### Hospital hygiene

The surface quality of ColoRex® is subject to rigorous, real time monitoring by quality control already during production. The surface is not only pore free, its smoothness is precisely defined to stay within exacting and measurable parameters, adding remarkable soil resistance to the certified antibacterial properties. ColoRex® is very easy to clean and to disinfect, allowing for unconditionally clean and hygienic floors in any hospital area at sustainable costs.

### Safety

Modern medical care technologies are heavily dependent on sophisticated and sensitive equipment. ESD events, which are usually accompanied by the release of electromagnetic radiation, may put the safety of patients and medical care personnel at serious risk. Protection from ESD is a prime feature of ColoRex®, the first choice flooring solution for critical treatment areas.

### Infection control

Hospital hygiene managers are increasingly placing great emphasis on infection control. ColoRex® tiles and welded seams have certified antibacterial properties. Thus, they will effectively contribute to prevent the spreading of infections throughout healthcare facilities.

### Mechanical resistance

Many hospital areas are subject to intense traffic by beds on wheels. Resistance of both the floor and the welded seams against dynamic loads are a major concern in this respect. ColoRex® tiles are cut from highly compressed homogeneous blocks, resulting in superior indentation resistance properties. The seams are heat welded using the same base material as ColoRex®, so that a true material cohesion between the tiles can be produced. Welded seams will therefore resist any dynamic load without cracking or opening up, even at typically critical points like curves or doorways.



## The opinion of:

PD Dr. med.  
**Christian Ruef**  
Head of Hospital Epidemiology  
University Hospital of Zurich  
Switzerland

*The term healthcare environment includes a wide variety of establishments related to medical care and particular areas within these establishments. These areas typically include surgery rooms, intensive care units, diagnostic facilities for imaging procedures and outpatient treatment units, where both patients and medical care personnel are expected to receive and provide medical attention under conditions of absolute safety. Therefore, the selection of adequate floor surfaces is an important part of the safety measures in a healthcare environment.*

*One source of potential hazard for patients, medical personnel and equipment is represented by electrostatic discharges (ESD) which may occur during surgery or intensive care activities. In addition, ESD events are accompanied by the release of electromagnetic radiation (EMI, electromagnetic interference), which could seriously interfere with sensitive medical care equipment. These hazards can be prevented by the use of electrically conductive floor coverings, which will prevent the generation of electrostatic charges*

*and will securely drain static from personnel, patients and equipment. Furthermore, floor surfaces in a healthcare environment should be easy to clean and to disinfect. While floor surfaces are most likely to play a minor role in the transmission of micro-organisms in a hospital, it is nevertheless generally accepted that the characteristics of floor surfaces in hygiene critical areas such as surgery rooms and intensive care units should permit easy and effective cleaning and disinfecting. This will only be possible if the floor surface is free of crevices and pores where bacteria and dirt may accumulate and remain inaccessible to conventional surface cleaning treatments.*

*Seamless and perfectly covered skirting as well as inner and outer corners will be equally important to make all areas of the floor easily accessible for cleaning, especially where single disk machines are used. As disinfectants and cleaning solutions may often contain strong chemicals, floor surfaces should also offer a good resistance against them. But cleaning with strong chemicals may not be sufficient to remove stubborn stains*

*typically produced by the spillage of iodine during surgery activities. In these cases, harsh cleaning by abrasion will be necessary. Floor surfaces in these areas should therefore be viable for abrasive cleaning techniques, which should not alter their surface characteristics and appearance. A further aspect to be considered are the heavy dynamic loads applied on the floor by beds on wheels, as these rolling loads may leave more or less deep indentation marks on the floor. Mechanical resistance to heavy dynamic stress is therefore another important characteristic.*

*To summarize, it can be said that the ideal flooring material for healthcare environments should combine ESD/EMI protection characteristics while meeting hygienic and optical properties of the highest standard together with excellent resistance to mechanical stress and dynamic loads.*

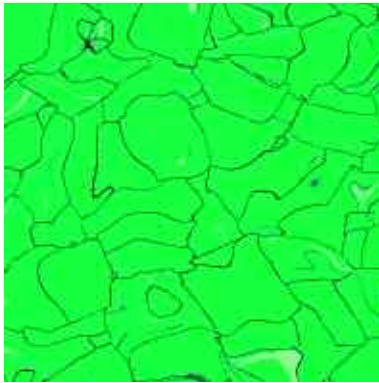
# ColoRex<sup>®</sup> SD/EC

Colours collection



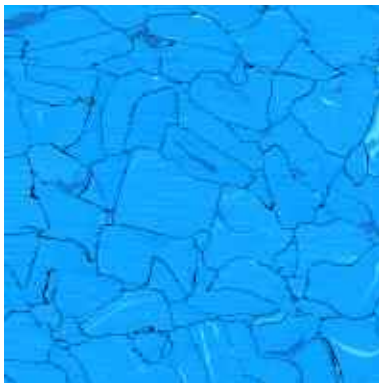
sole

SD 15 02 31



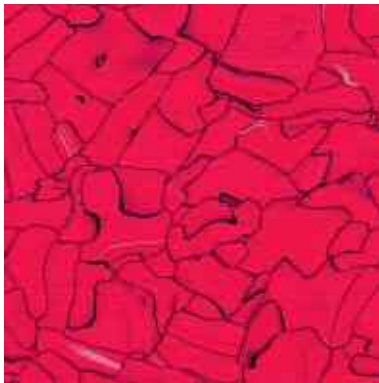
amazonas

SD 15 02 37



azzurro

SD 15 02 35



fuego

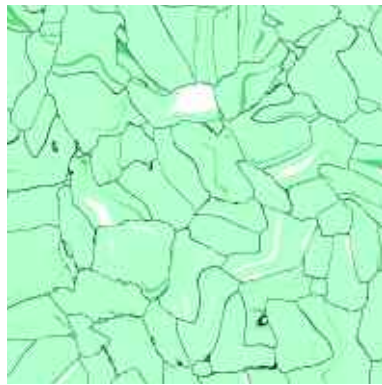
SD 15 02 33



SD 15 02 12

EC 25 02 12

lux



SD 15 02 25

EC 25 02 25

kiwi



SD 15 02 21

EC 25 02 21

pacific



SD 15 02 15

EC 25 02 15

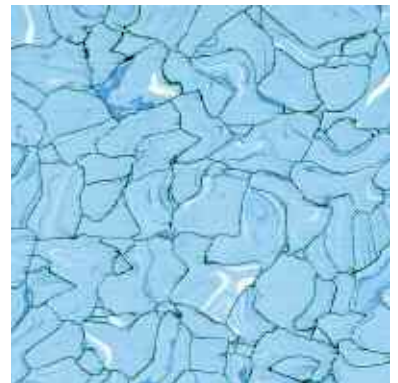
oasis



SD 15 02 28

EC 25 02 28

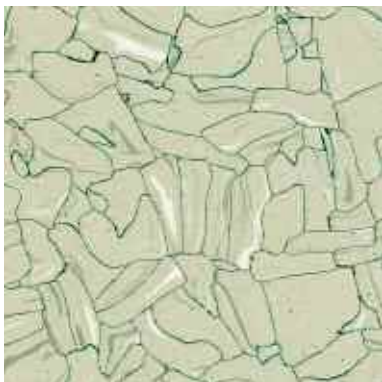
basil



SD 15 02 22

EC 25 02 22

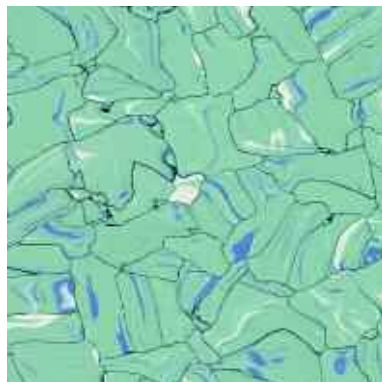
niagara



SD 15 02 13

EC 25 02 13

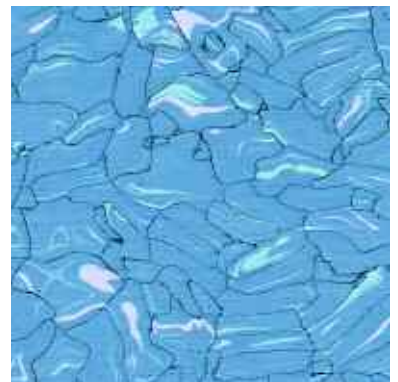
sahara



SD 15 02 27

EC 25 02 27

jasmine



SD 15 02 23

EC 25 02 23

atlantic



SD 15 02 11

EC 25 02 11

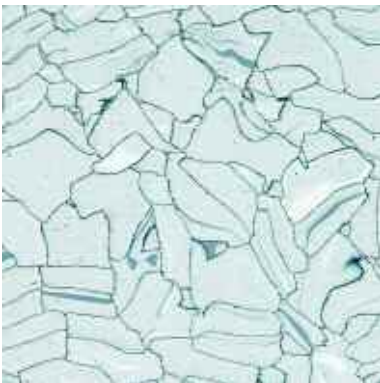
gobi



SD 15 02 01

EC 25 02 01

everest



SD 15 02 04

EC 25 02 04

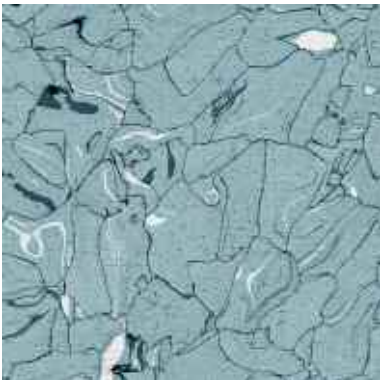
montblanc



SD 15 02 05

EC 25 02 05

adula



SD 15 02 07

EC 25 02 07

quartz






















SD 15 02 09




















EC 25 02 09

basalt

## Colours reference and welding rods

|           | Colours reference     |                             | Welding rods   |
|-----------|-----------------------|-----------------------------|--|
|           | SD Static Dissipative | EC Electrostatic Conductive |  |
| everest   | SD 15 02 01           | EC 25 02 01                 | 15 09 01    |
| adula     | SD 15 02 05           | EC 25 02 05                 | 15 09 05    |
| basalt    | SD 15 02 09           | EC 25 02 09                 | 15 09 09    |
| gobi      | SD 15 02 11           | EC 25 02 11                 | 15 09 11    |
| montblanc | SD 15 02 04           | EC 25 02 04                 | 15 09 04    |
| quartz    | SD 15 02 07           | EC 25 02 07                 | 15 09 07    |
| pacific   | SD 15 02 21           | EC 25 02 21                 | 15 09 21    |
| niagara   | SD 15 02 22           | EC 25 02 22                 | 15 09 22  |
| atlantic  | SD 15 02 23           | EC 25 02 23                 | 15 09 23  |
| kiwi      | SD 15 02 25           | EC 25 02 25                 | 15 09 25  |
| basil     | SD 15 02 28           | EC 25 02 28                 | 15 09 28  |
| jasmine   | SD 15 02 27           | EC 25 02 27                 | 15 09 27  |
| lux       | SD 15 02 12           | EC 25 02 12                 | 15 09 12  |
| oasis     | SD 15 02 15           | EC 25 02 15                 | 15 09 15  |
| sahara    | SD 15 02 13           | EC 25 02 13                 | 15 09 13  |
| sole      | SD 15 02 31           |                             | 15 09 31  |
| amazonas  | SD 15 02 37           |                             | 15 09 37  |
| azzurro   | SD 15 02 35           |                             | 15 09 35  |
| fuego     | SD 15 02 33           |                             | 15 09 33  |

## Performance data

|  |   | SD   | EC  |
|--|---|--|---|
|    | Classification                          | EN 649   | 34 / 43    |
|  | CE marking                              | EN 14041   | Compliant   |
|    | Collection size                         | 19   | 15  |
|    | Total thickness                         | EN 428   | 2.0 mm / 3.0 mm <sup>1)</sup>   |
|    | Tile sizes                              | EN 427   | 610 x 610 mm<br>615 x 615 mm <sup>1)</sup><br>613 x 1226 mm <sup>1)</sup>   |
|    | Weight                                  | EN 430   | 3.2 kg/m <sup>2</sup>   |
|  | Electrical resistance                   | IEC 61340-4-1<br>IEC 61340-4-5 <sup>2)</sup><br>EN 1081<br>ANSI/ESD STM 7.1<br>ANSI/ESD STM 97.1 <sup>2)</sup> | 10 <sup>6</sup> ≤ R ≤ 10 <sup>8</sup> Ω<br>–<br>R ≤ 10 <sup>8</sup> Ω<br>10 <sup>6</sup> ≤ R ≤ 10 <sup>8</sup> Ω<br>–   |
|  | Body voltage generation                 | IEC 61340-4-5<br>ANSI/ESD STM 97.2   | 5 × 10 <sup>4</sup> ≤ R ≤ 10 <sup>6</sup> Ω<br>7.5 × 10 <sup>5</sup> ≤ R ≤ 3.5 × 10 <sup>7</sup> Ω<br>R ≤ 10 <sup>6</sup> Ω<br>2.5 × 10 <sup>4</sup> ≤ R ≤ 10 <sup>6</sup> Ω<br>7.5 × 10 <sup>5</sup> ≤ R ≤ 3.5 × 10 <sup>7</sup> Ω |
|  | Outgassing                              | IDEMA M11-99   | TD-GC-MS results available upon request   |
|  | VOC Emissions                           | EN 13419 1-3   | SVOC < 100 µg/m <sup>3</sup> after 28 days  |
|  | Slip resistance                         | EN 13893 – dry surfaces<br>DIN 51131 – wet surfaces  | µ: 0.6<br>R <sub>9</sub>  |
|  | Burning behaviour                       | EN 13501-1<br>ASTM E648 / NFPA 253<br>ASTM E662 / NFPA 258   | B <sub>fl</sub> – s 1<br>Class 1 (1.13 W/cm <sup>2</sup> )<br>< 450   |
|  | Wear resistance                         | EN 660-1   | Group M   |
|  | Residual indentation                    | EN 433<br>ASTM F970-00   | 0.035 mm<br>0.005 inch at 1500 Lbs. (residual compression)  |
|  | Castor chair test                       | EN 425   | No effect   |
|  | Colour fastness                         | EN 20 105-Bo2 method 3   | 7- 8  |
|  | Thermal resistance <sup>3)</sup>        | ISO 5085-1   | 0.007 m <sup>2</sup> K/W (suitable for floor heating systems)   |
|  | Chemical resistance                     | EN 423   | Excellent (details available upon request)  |
|  | Dimension stability                     | EN 434   | 0.05% lengthwise/crosswise  |
|  | Bacteriostatic and fungicidal behaviour | SNV 195 920<br>SNV 195 921   | Pass  |

<sup>1)</sup> available upon request, restrictions may apply

<sup>2)</sup> with conductive ESD footwear

<sup>3)</sup> 2.0 mm



## Installation and seam welding



20

### Subfloor requirements

ColoRex® must be installed on a smooth, flat, level, clean and permanently dry subfloor. The moisture content of concrete subfloors should not exceed 2,5% CM. Apply an adequate moisture barrier if uprisng humidity is existent or to be expected. Levelling with a cement based self-levelling compound is recommended.

### Acclimatisation

Prior to installation, the ColoRex® tiles must be acclimatised for at least 24 hours at a minimum temperature of 18°C. The tiles must be completely unpacked for acclimatisation and displayed on the floor in small and neat stacks of not more than 10 tiles.

### Laying of the tiles

The installation of ColoRex® 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. Use a self adhesive copper strip for earth connection. ColoRex® tiles must be installed in a wet adhesive bed, the use of a conductive acrylic dispersion adhesive from Forbo is recommended.

### Seam welding

Heat welding of the ColoRex® tiles is strongly recommended for those environments where wet cleaning methods will be used. Welding rods in ColoRex® matching colours are available in 100lm coils. Welding should not be carried out earlier than 24 hours after the installation is completed, observing a minimum room temperature of 16°C. Groove the tiles along the junction lines with an appropriate grooving machine or by hand for difficult to reach areas. Grooving depth must be at least  $\frac{3}{4}$  of the tile thickness. Use original ColoRex® welding rods (Ø 4mm) observing a welding temperature of 400-450°C. Best results are obtained by using automatic welding machines.



### **Coved skirting, inner and outer corner solutions**

Hygiene critical areas such as health-care environments or pharmaceutical production facilities will require seamless, watertight and optically satisfactory floor-to-wall transitions. Selecting the right transition solution is dependant on various criteria, such as room conceptual design, cleanliness requirements and aesthetical factors. The material properties of the flooring product are vital for the quality and performance of transition solutions. Differences usually become visible especially in the corner areas. They often look bad and dirty, an indication for poor quality.



21

#### **Coved skirting solution**

Skirting can be easily made with stripes cut from ColoRex® tiles, meaning that they will have the same material structure, surface quality and visual appearance. Owing to the thermoplastic properties of ColoRex®, skirting elements can be coved according to individual needs and heat welded with the floor tiles for smooth, easy to clean and aesthetically appealing floor-to-wall transitions. Pre-welded skirting stripes with invisible welding are available in rolls, for 100mm standard skirting height.

#### **Inner corner solution**

The concave radius of inner corners is of crucial importance and should be large enough to allow perfect cleaning by single disc machines. We provide special underlay profiles for that purpose, whose concave radius is matching the size of conventional cleaning pads. ColoRex® skirting can be installed onto the profiles and perfectly adapted to the coving shape by homogeneous welding techniques. An hygienic and neat solution, without visible seams or interruptions.

#### **Outer corner solution**

These details are typically exposed to mechanical damage by collision with patients' beds or cleaning machines. Sealing outer corners with a welding rod is a typical mistake and not a viable solution, resulting in welding rods being stripped away and open joints. With ColoRex®, outer corners can be sealed by homogeneous welding, obtaining a strong and visually appealing assembly. This solution guarantees long lasting stability and impact resistance along with perfect cleanability.

# Maintenance and repair

## Maintenance

Routine maintenance of ColoRex® 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 only and rinse well. For large areas with heavy traffic, the use of a scrubber drier machine with a specific detergent is indicated.

## Repair

Deep and long scratches, holes, burns and other more or less severe surface damages on ColoRex® can be effectively repaired by simple operations, without leaving any trace and without impairing the original floor performance. 100% reparability is a unique ColoRex® feature, made possible by the perfect homogeneity of the tiles and the low content of plasticizer.

22

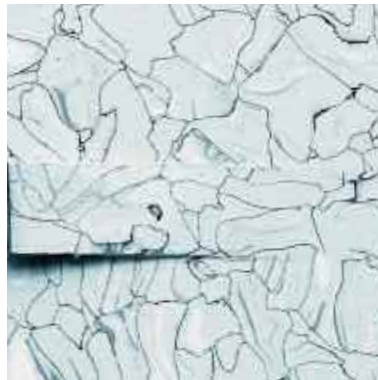
### Abrasive cleaning

Surface damages like burns, dulling or discoloration caused by chemicals, stubborn stains and alike can be perfectly removed by abrasion using a normal eccentric grinding machine. Proceed in several steps, starting with a coarse sand paper disk and finishing with a fine grade one. Complete the operation by polishing the repaired spot with a red pad, thereby restoring the original surface quality of ColoRex®.



### Homogeneous welding

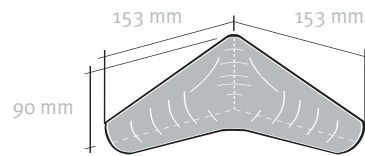
Deep scratches and other physical damages of the ColoRex® tiles can be repaired by homogeneous welding. Cut a stripe of ColoRex® from a tile of the same colour reference, slide the stripe into the flat welding nozzle of a hot air gun and firmly weld it straight into the damaged spot, setting a temperature of approx. 400-450°C. Remove the excess material with a sharp crescent shape knife and complete the operation by grinding and polishing the repaired spot.



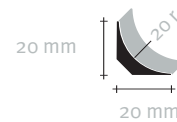
# Accessories



**Underlay inner corner profile**  
 Material: Glass fibre, reinforced  
 Order No.: 1400 00  
 Shipping unit: 1 piece



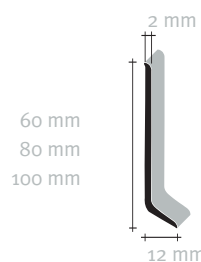
**Underlay profile for covered skirting**  
 Material: Extruded PVC  
 Order No.: 1500 00  
 Length: 25 lm  
 Shipping units: 2 pieces/carton



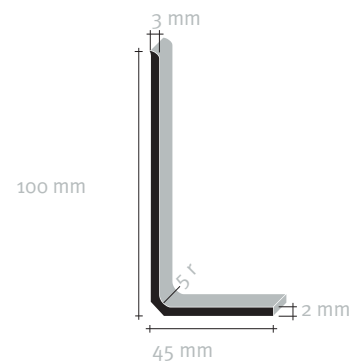
**Pre-welded skirting stripe, invisibly welded, available in various colours**  
 Material: ColoRex® SD 2.0 mm  
 Order No.: 1600 xx  
 Length: 12.20 lm  
 Height: 150 mm  
 Shipping units: 2 pieces/carton

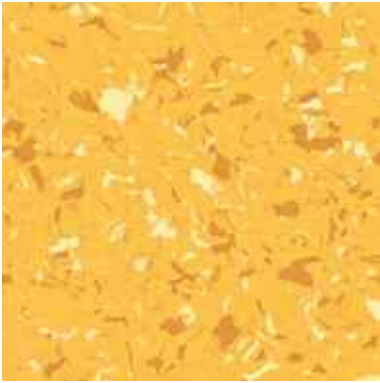


**Traditional skirting, available in various colours and heights**  
 Material: extruded PVC  
 Order No.:  
 60 mm: 1060 xx  
 80 mm: 1080 xx  
 100 mm: 1100 xx  
 Length: 50 lm  
 Shipping units: 1 to 2 pieces/carton



**Traditional skirting, available in various colours and fixed size**  
 Material: extruded PVC  
 Order No.: 1200 xx  
 Length: 25 lm  
 Shipping unit: 1 piece





## Other ColoRex® solutions



ColoRex®plus  
ColoRex®concept  
ColoRex®welltech

26  
28  
30

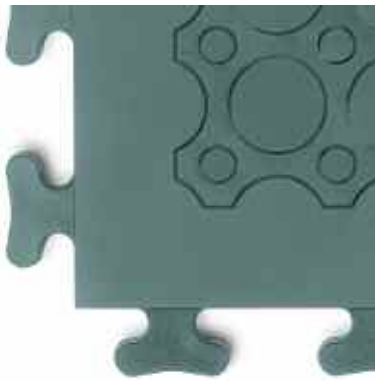




# ColoRex<sup>®</sup>plus

**HOMOGENEOUS LOOSE LAID TILE**  
PROJECT VINYL





ST tile, surface



EC/AS tile, surface



Honeycomb structure, back side

## a unique flooring solution

**ColoRex®plus is a high performance floor covering system in tiles for all those areas of application where other flooring products would simply be overstressed, making expensive subfloor preparation and production downtimes necessary.**

27

ColoRex®plus is a homogeneous floor covering system that can be loose laid on nearly every kind of subfloor, regardless of their condition. ColoRex®plus comes in three different versions, meeting a large variety of performance requirements: the standard ST tiles with a studded and slip resistant surface, the AS version featuring a genuine ColoRex® surface in various colours and the EC version with specific conductive properties. All three versions can be seamlessly combined together. As an addition, tiles can be heat welded for hygiene critical applications. ColoRex®plus can be loose laid and it is immediately accessible. Tiles are dovetailed, with the dovetail connection system remaining invisible under the surface. Due to the unique structure of this product, electrical conductivity is guaranteed for the first time also on a loose laid flooring system. ColoRex®plus is a patented solution from Forbo.

### Combined added values

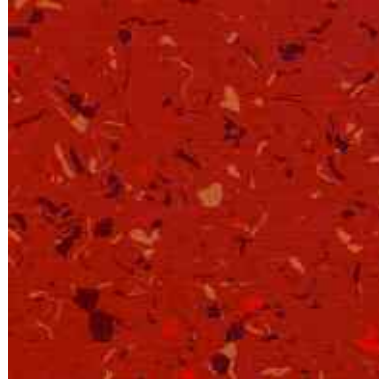
- Avoids expensive restorations.
- Quick and easy loose laid installation without downtimes, disturbing odours and dust.
- Immediately trafficable after installation, with high point resilience. Suitable for heavy loads.
- Slip resistant and comfortable to walk on.
- Can be installed on defective, scruffy or oily subfloors.
- Invisible dovetailing system and suitable for heat welding.
- Electrostatic conductive (EC version).
- Reusable.
- Suitable for installation on subfloors with high moisture, thanks to the ventilated honeycomb backing structure.
- Easy machine cleaning for cost effective maintenance.



# ColoRex<sup>®</sup>concept

**HOMOGENEOUS TILE**  
PROJECT VINYL





## function and emotion

**Colour always has a function – Colour is always an emotion! The all-new ColoRex®concept collection meets both aspects. ColoRex®concept is a homogeneous, general purpose vinyl tile, issued from our well known pressing technology and celebrating the 100th anniversary of Forbo Flooring Giubiasco.**

29

### Function

- Whether moderate or high traffic, ColoRex®concept fits all types of commercial applications.
- Homogeneous material, cut from highly compressed blocks.
- Low emissions, meeting the most advanced European standards for indoor air quality.
- Cost effective maintenance, no need for special floor care systems or products, thanks to the smooth tile surface without any kind of factory coatings.
- Our well known coved skirting and inner & outer corner solutions are possible also with ColoRex®concept, for hygienic and aesthetically appealing floor-to-wall transitions in healthcare environments.
- ColoRex®concept is fully repairable without leaving any trace, a major advantage in any commercial area.

### Emotion

Apart from its functional properties, ColoRex®concept has a particular, aesthetical quality. This feature makes ColoRex®concept a discrete, yet significant mean of architectural design. ColoRex®concept comes in some 29 selected colour variations, capable to satisfy the most demanding architects and interior designers:

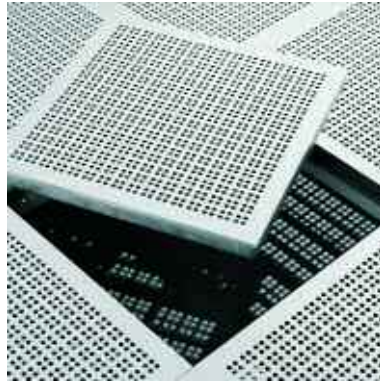
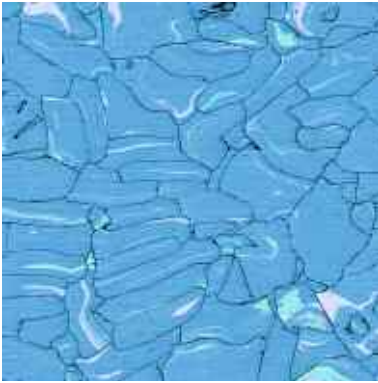
- Warm colours, where yellow and red amounts are dominating.
- Stone-like and clayey colour shades, these are typically long living, visually dirt resistant floor colours.
- Light colour combinations, creating an hygienic and fresh environment.
- Grey colour variations, living up according to the incidence and condition of light.



# ColoRex<sup>®</sup>welltech

HOMOGENEOUS CHLORINE FREE TILE





## meeting the highest standards of modern environmental science

**ColoRex®welltech is the first homogeneous, conductive floor covering product on polyester basis. It does not contain any plasticizer at all and it is free of antistatic additives, meeting the highest standards and expectations of modern environmental science.**

31

### **Absolutely new base material**

- Improved safety in case of fire, hardly ignitable, low smoke development, IMO approved.
- No volatile emissions by liquid raw materials or additives, for better indoor air quality and advanced cleanroom applications.
- Excellent dimensional stability as well as indentation and wear resistance meeting or exceeding applicable industry standards.

### **A high density product with an outstanding surface quality**

- Pore free surface, a vital requirement for aseptic or hygiene critical areas.
- No initial treatment and no floor finish required, for easy and cost effective maintenance.
- Superior chemical resistance and stability, since no plasticizers at all are used.

### **ESD properties**

- Permanent conductivity for guaranteed performance, based on our 40 years experience in the manufacture of conductive flooring products.
- Tested and certified electrical resistance with life time guarantee.

Manufactured by

Forbo-Giubiasco SA  
Via Industrie 16  
CH-6512 Giubiasco / Switzerland

Tel. + 41 91 850 01 11

Fax + 41 91 850 01 31

[info@forbo-esd.com](mailto:info@forbo-esd.com)

[www.forbo-esd.com](http://www.forbo-esd.com)

Local Forbo organisation



creating better environments