



ESD FLOORING FOR DATA CENTERS

creating better environments



FLOORING SYSTEMS

PROVIDING PEACE OF MIND IN DATA CENTERS

Forbo Flooring Systems is an international market leader with a wealth of experience in providing ESD flooring, offering a range of solutions which can serve the highest demands and requirements of controlled environments. Reducing the generation of electrostatic charges is the main purpose of control measures in ESD protected areas. In areas such as data centers, the right floor covering plays a crucial role. It not only drains electrostatic charges from equipment and personnel, but it also reduces the generation of charges where they occur, at the interface between the soles of shoes and the floor.

Within the wide range of Forbo Flooring products, there are several collections which offer a solution for the highest requirements and needs of controlled environments. These collections are featured in Forbo Flooring's **Under Control** portfolio. Under Control refers to what is important: making sure the environment is managed, everything is controlled and kept safe. It also refers to the base, to the floor.

Forbo Flooring's Colorex, a homogeneous vinyl tile collection complies to every standard and norm that is required in data centers.

Another solution to the electronics offering is Marmoleum Ohmex. This static dissipative sheet flooring provides ESD control and is made of natural raw materials which makes it a very sustainable conductive flooring choice.



Colorex plus EC | 621013 | sahara

IDEAL FOR DATA CENTER ENVIRONMENTS

Data centers present their own flooring challenges, driven by the need for continuous uptime, controlled static environments, and rigorous cleanliness to protect sensitive IT assets. Specialized ESD control, particulate management, and resilience under heavy rolling loads are critical in maintaining performance and reducing risk. Forbo Flooring's high performance floor covering systems are designed for mission-critical spaces spanning white space, technical rooms, UPS and battery areas, network corridors, and support zones, delivering reliable conductivity, durability, and cleanability for both high-specification environments and semi-industrial back-of-house areas found within modern data center operations.

Colorex SD | EC

Colorex SD | EC are premium conductive glue down tiles that are highly dimensionally stable, offer low emissions and are available with two ranges of conductivity: static dissipative (SD) and electrostatic conductive (EC). They can be installed by fully adhering them directly to the subfloor. The unique dimensional stability ensures no shrinkage and therefore a correctly installed weld will never open up.

Often Colorex is bonded to a raised access floor panel that can be used in data centers. Due to the strength and unique properties of Colorex, it is suitable for use on all formats of raised access floor panels, including those designed to withstand heavy point loading. Since Colorex has extremely low emissions and a high density, it can be perforated for airflow systems that are often used in combination with raised access floors.



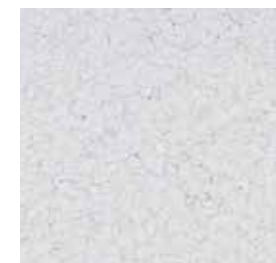
Colorex with welded seams fully adhered directly to the floor



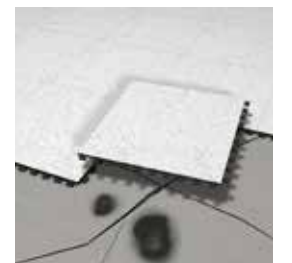
Colorex bonded to a raised access floor panel

Colorex Plus

Colorex Plus is a loose lay conductive floor system with a surface composed of Colorex tile material. This ensures all the benefits of standard Colorex, such as high density, easy repair and stain resistance but also combines the benefits of a heavy duty loose lay tile. Colorex Plus can be installed quickly and easily without the need for conductive adhesive. Specific, expensive subfloor treatment or preparation is not necessary.



colorex® SD | EC | plus



Colorex as loose lay tile: colorex® plus EC

Marmoleum Ohmex

Marmoleum Ohmex is a floor covering made from sustainable materials that meets the static dissipative range of <math>< 1-108 \Omega</math> (EN1081), ensuring personal safety and protecting equipment that is sensitive to static electricity. Ideal for computer rooms, server rooms and areas with sensitive equipment.



marmoleum® ohmex

ADDRESSING MAJOR CHALLENGES FACED IN DATA CENTER ENVIRONMENTS

At Forbo, we understand the needs and challenges of the data center environment. Our solutions do not stop at ESD tiles for raised access flooring. We can supply advanced high-performance flooring for all sensitive areas in data centers, including direct-to-concrete ESD flooring, interlocking ESD tiles for overlaying old existing floors such as ESD epoxy resin, UPS Battery Room specific flooring and more.

Control of particulates & contamination

In data center environments, controlling dust, particulates and emissions is critical to protecting IT equipment, maintaining airflow efficiency and reducing the risk of overheating or failure.

Colorex EC, SD and Plus are engineered with a dense, homogeneous construction that significantly reduces particle generation caused by abrasion and foot traffic. The non-porous surface limits dust build-up and prevents the release of contaminants into the air-handling system. Where whitespace meets cleanroom requirements Forbo Flooring's portfolio offers cleanroom-suitable flooring solutions independently tested up to ISO Class 3.

Minimizing downtime during refurbishment

Downtime is costly in mission-critical environments, making speed and predictability essential during flooring refurbishments. Colorex Plus can be installed directly over existing floors, including cracked resin or epoxy systems once locally patched, significantly reducing preparation time. The installation process is dust-free and completed in a fraction of the time required for poured resin or glued sheet flooring, making it particularly suitable for live or phased data center projects.

Subfloor humidity

Commonly known to be one of the biggest causes of flooring failure, subfloor humidity will emulsify adhesives and cause poured resin floors to lift. Colorex Plus is unaffected by subfloor humidity thanks to its unique raised and ventilated honeycomb structure.

Repairs and unsightly patching

Many flooring systems used in data centers are difficult to repair effectively, often resulting in visible patching over time. With Colorex, repairs are straightforward and virtually invisible, ensuring a consistent, professional appearance throughout the operational life of the data center while supporting internal standards and third-party audits.

Durability under heavy loads

Data center flooring must withstand high point loads from server racks, rolling loads from IT and mechanical equipment, and ongoing reconfiguration of infrastructure such as cable trays and power distribution systems. Colorex is highly resistant to point loading, rolling traffic and impact damage, with a significantly lower likelihood of cracking compared to poured resin floors. Its dimensional stability supports frequent equipment moves without permanent deformation, helping maintain floor integrity as the data center evolves.



A piece of Colorex can be used for a seamless repair



Marks from burns or stains can be fully removed

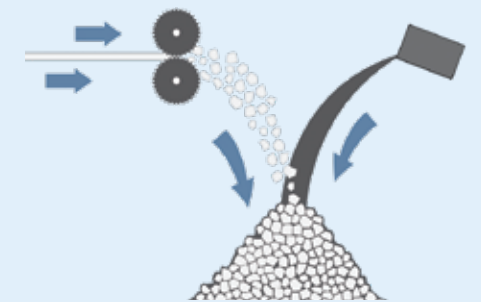
A UNIQUE MANUFACTURING METHOD HOW COLOREX IS MADE

For decades, Colorex has been produced by Forbo in a factory that specializes in the production of vinyl ESD and cleanroom tiles. The production process has been specifically set up for this product, and the development work is carried out by ESD specialists with extensive knowledge of the application areas.

Step 1: Chips and conductive coating

Vinyl chips are coated with a conductive substance.

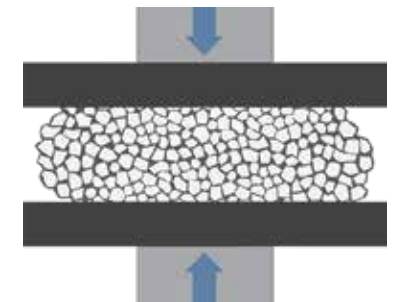
- The coating on the chips ensures that the ESD properties are consistent throughout the product.
- The construction ensures permanently conductive or dissipative properties over time.
- The technology used guarantees performance, regardless of changes in humidity and temperature.



Step 2: High pressure production

By applying very High-pressure and a high temperature, these coated chips are then compressed into solid blocks of homogeneous material.

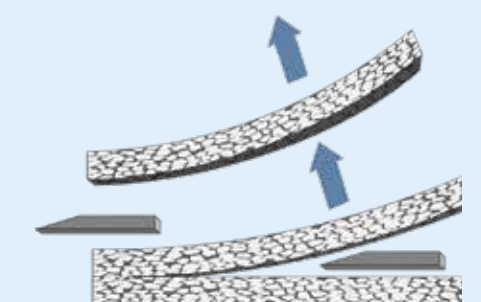
- After pressing, the conductive coating around each chip forms a dense, continuous network of tiny black veins.
- The continuous paths enable safe electrostatic discharge across both the width and the depth of the tile.



Step 3: Splitting and surface treatment

Colorex tiles are cut from the solid blocks of homogeneous material and machine-finished to provide a pore-free surface.

- Colorex is a highly compressed tile with a compact pore free, easy-to-clean and repairable surface.
- Batch information is printed on the back of each tile to enable easy identification.



Finished product

To ensure the integrity of the product post-production, special care is taken to get the product to the final location in good shape.

- Distinct labeling of the pallet.
- Protection to prevent damage during transport and handling.

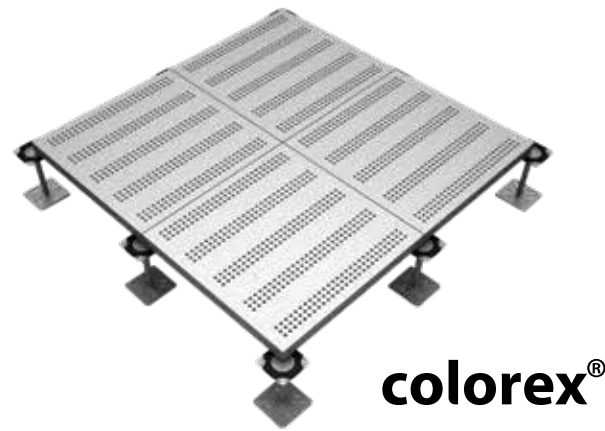


THE BENEFITS OF COLOREX

It is the unique way Colorex is engineered that gives this advanced technical flooring its exceptionally high density, resistance to high static and rolling loads, and lifetime stable conductivity. In data center environments, where sensitive IT equipment operates continuously, control over your environment is paramount. ESD events can cause equipment damage; airborne particles and contaminants can compromise cooling efficiency and hardware reliability. Colorex's unique construction ensures a clean, controlled surface that supports optimal performance and reduces the risk of contamination in mission-critical spaces.

Unlike ESD sheet products, Colorex tiles achieve their performance without high plasticizer content, avoiding issues such as outgassing that could affect sensitive equipment. With minimal plasticizers and low VOC emissions, Colorex provides a low-contamination solution ideal for the strict environmental standards required in modern data centers.

The dense construction also provides superior durability and resistance to heavy point loads and rolling traffic. These properties are critical for raised-floor systems, server rooms, and data center support spaces where racks, trolleys, and other equipment place constant mechanical stress on the floor. Colorex delivers long-lasting, reliable performance while maintaining a clean, controlled environment essential for uninterrupted operation.



colorex®

Why choose Colorex?

- 1 | The technology ensures a permanently conductive product, guaranteeing optimal performance throughout the life of the product, regardless of the humidity level of the area. Colorex fully complies with all ESD standards, with the resistance to electricity being monitored continuously, online, through the production process.
- 2 | The surface of Colorex can be fully repaired, extending the useful life of the product.
- 3 | The low plasticizer content in Colorex tiles creates unique dimensional stability and prevents shrinkage.
- 4 | The low plasticizer content also ensures extremely low emissions and outgassing, making Colorex the right choice for cleanrooms. Colorex fully complies with all cleanroom standards, as confirmed by the Fraunhofer Institute.

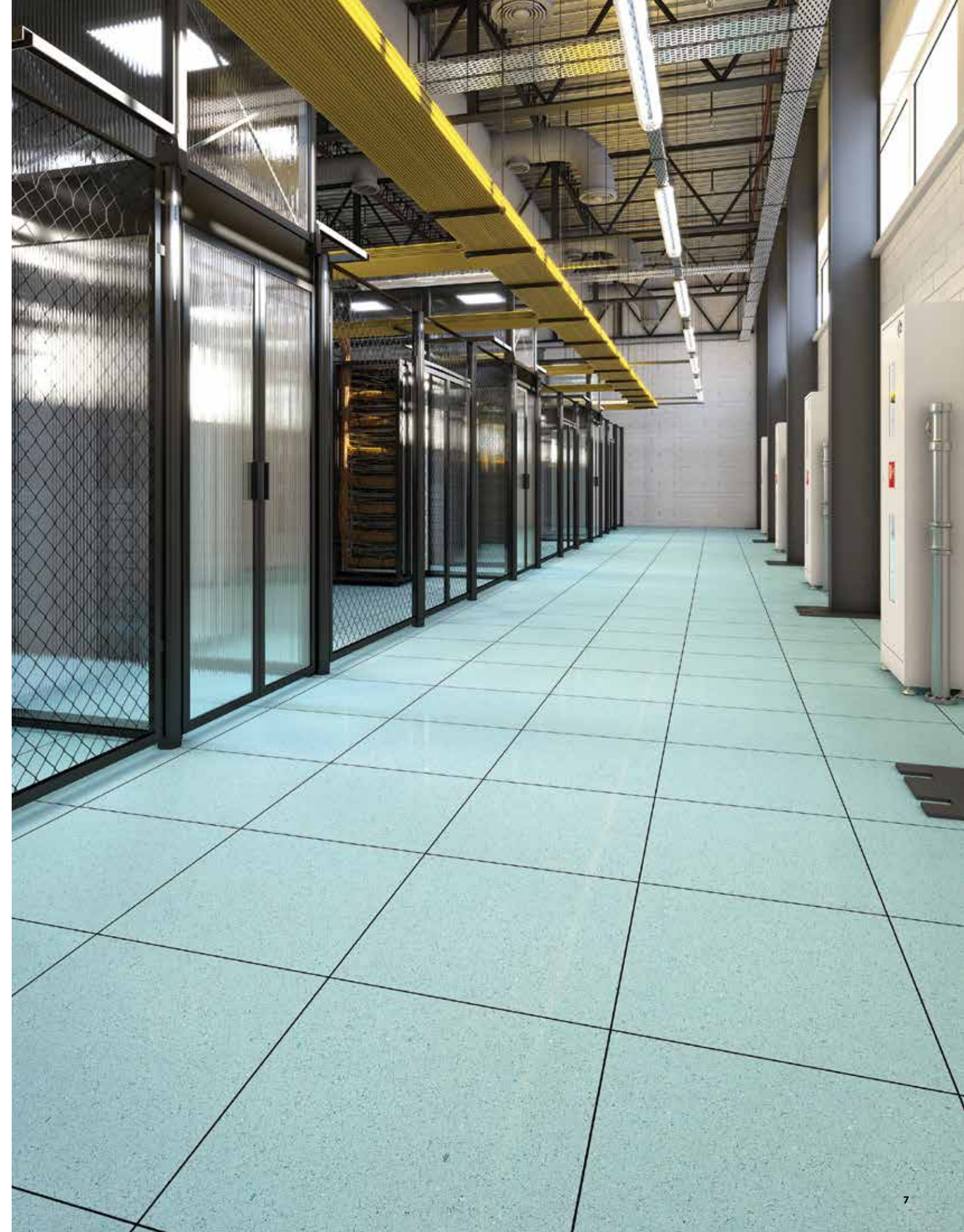
- 5 | The dense construction of Colorex and the Colorex Plus loose-lay system provides excellent resistance to heavy loads, making it an ideal solution for commercial and industrial environments.
- 6 | Colorex is available in tile format, a prerequisite for raised access floors found in areas with laminar airflow or HVAC systems.
- 7 | There is an option to add safety signs and guiding with signal and glow.



Under light



In the dark





marmoleum® ohmex

Marmoleum Ohmex is a sustainable, static dissipative linoleum, designed to support the operational and environmental demands of modern data centers.

Sustainable static dissipative flooring

Combining reliable electrostatic control with outstanding environmental performance, making Marmoleum Ohmex an ideal solution for technical, support and ancillary areas where sensitive electronic equipment is present.

With an electrical resistance of $< 1 \times 10^8 \Omega$ (EN 1081), Marmoleum Ohmex safely dissipates static electricity (at relative humidity levels above 40%), helping to protect and reduce the risk of electrostatic discharge affecting IT equipment and electronic systems.

Supporting IT reliability and operational safety

Electrostatic discharge poses a potential risk to servers, monitoring equipment and electronic infrastructure. Marmoleum Ohmex helps control the build-up and discharge of static electricity generated through foot traffic, contributing to a safer working environment and supporting the reliable operation of critical systems.

The smooth, dense surface limits dust retention and supports effective cleaning regimes, helping to protect airflow efficiency and cooling performance, both essential to maintaining uptime in data center environments.

Designed for sustainability-focused data centers

Marmoleum Ohmex is a bio-based flooring solution developed for environments where performance and sustainability are equally critical. Made from up to 96% natural raw materials such as linseed oil, rosin, wood flour and jute, of which 70% are rapidly renewable. Marmoleum Ohmex is part of the Marmoleum product range, which has been independently verified by a third party as climate positive from cradle to gate, without the use of carbon offsetting.

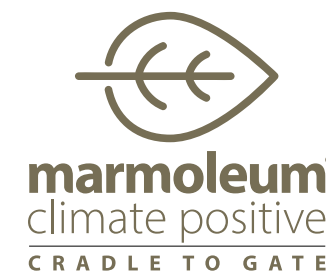
In simple terms, the CO₂ absorbed during the growth of the natural raw materials exceeds the CO₂ emitted during production. Manufacturing takes place in a modern, energy-efficient facility powered by 100% green electricity, resulting in a natural, circular flooring solution aligned with data centre ESG and sustainability targets.

Low emissions and healthy indoor air quality

Marmoleum Ohmex delivers exceptionally low emissions, with TVOC levels up to 30 times lower than the European standard. This supports improved indoor air quality and contributes to a healthier working environment for data center personnel, while reducing the risk of airborne contaminants affecting sensitive equipment. The flooring is naturally bacteriostatic, offering long-lasting hygienic properties without the need for antimicrobial additives. Forbo Flooring's Marmoleum has been awarded the prestigious Allergy UK Seal of Approval.

Efficient installation

Supplied in sheet format Marmoleum Ohmex can be directly installed onto your subfloor providing a smooth seamless finish. Marmoleum Ohmex is also suitable for being cut into tile format and adhered to raised access panels.



Marmoleum Ohmex | 73032 | mist grey

Marmoleum Ohmex | 73146 | serene grey

HOW TO CHOOSE THE RIGHT PRODUCT

We constantly strive to produce sustainable flooring solutions that create better environments across all application areas. At the same time, we help to take care of the natural environment through our commitment to sustainable development, responsible raw material procurement, and manufacturing processes.

Colorex offers complete peace of mind for data center environments, fully complying with recognized ESD and cleanroom standards to protect sensitive IT equipment and support uptime. Marmoleum Ohmex provides a reliable static-control solution for selected data center support and ancillary areas where controlled electrostatic performance is required alongside sustainability and durability.

	Conductivity	Suitable for use as a raised floor panel finish	Suitable for install direct to concrete subfloor	Adhesive free installation	Can overlay an existing epoxy floor	Can overlay an existing raised floor system and retain access	Suitable for heavy static and rolling loads	Supplied as tile format	Supplied as sheet format	Fully repairable surface
colorex® SD	Static dissipative	✓	✓				✓	✓		✓
colorex® EC	Electrostatic conductive	✓	✓				✓	✓		✓
colorex® plus EC	Electrostatic conductive		✓	✓	✓	✓	✓	✓		✓
marmoleum® ohmex	Static dissipative	✓	✓				✓	✓		

UNDER CONTROL PORTFOLIO

The installation and final finish of the floor covering will have a significant impact on its performance and lifespan. Forbo has developed a series of products and preformed accessories to ensure the final result will keep functioning for the protection of your product.

Accessories

In data center environments, detailing and finishing are critical to maintaining clean, controlled and low-risk operational areas. High-quality floor-to-wall transitions help prevent dust accumulation, support effective cleaning and protect sensitive IT infrastructure.

Forbo Flooring's integrated coving and skirting system for Colorex creates a secure, continuous seal at floor junctions in white space, UPS and battery rooms, and other technical areas. This reduces the risk of particulate build-up while delivering a robust and professional finish suitable for mission-critical environments.

Preformed corners are available that have a radius linked to the size of cleaning pads found on most commercial cleaning machines. This ensures that no sharp corners are created that would prove difficult to clean. Preformed outer corners are prevented from tearing thanks to an inner reinforcement.

The accessories shown on the right are frequently used. More options are available; please ask your local Forbo contact.



Inner and outer corners

Skirting



Color matching welding rod

coral® & nuway®

Entrance flooring is designed for use in internal and external entrance areas that must withstand heavy-duty loads and intense pedestrian and/or wheeled traffic. Soil and dirt can inhibit the conductive properties of ESD flooring. Capturing dirt at an early stage through the use of entrance flooring can be part of a contamination control plan for facilities with strict hygienic requirements.



THE COLLECTIONS

colorex® SD | EC | plus



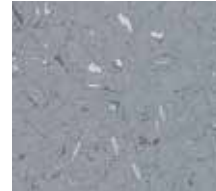
SD 150201 | EC 250201
everest*



SD 150204 | EC 250204
montblanc*



SD 150206 | EC 250206
moonstone



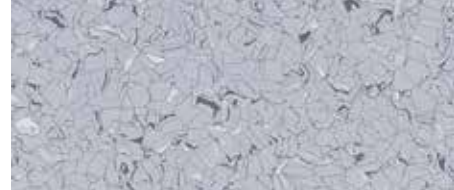
SD 150207 | EC 250207
quartz*



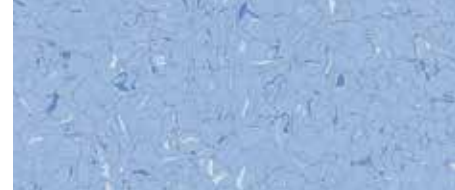
SD 150213 | EC 250213
sahara*



SD 150225 | EC 250225
kiwi



SD 150205 | EC 250205
adula*



SD 150222 | EC 250222
niagara*



SD 150265 | EC 250265
blue ridge



SD 150240 | EC 250240
etna

* items also available in Colorex plus

colorex®	plus EC	plus basic	plus R10
everest	621001		
montblanc	621004	611004	
adula	621005	611005	
quartz	621007	611007	661007
sahara	621013	611013	
niagara	621022	611022	

marmoleum® ohmex



73146
serene grey



73055
fresco blue



73408
graphite



72939
black



73032
mist grey



73038
caribbean

colorex® signal



Colorex signal glow
under light



Colorex signal glow
in the dark



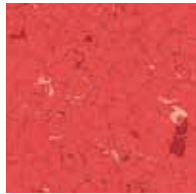
EC 250299
glow



SD 150231
sole



SD 150237
amazonas



SD 150233
fuego



Colorex plus EC | 621007 | quartz



Colorex plus EC | 621007 | quartz

1. PRODUCT NAME & MANUFACTURER

1.1 Product:

Forbo Colorex SD | EC conductive/static dissipative vinyl tile resilient floor covering

1.2 Manufacturer:

Forbo Flooring Systems US

8 Maplewood Drive
Hazleton, PA 18202
1-800-842-7839

Forbo Flooring Systems Canada

3983 Nashua Drive, Unit 1
Mississauga, ON L4V 1P3
1-800-268-8108 (English)
1-800-567-9268 (French)

www.forboflooringNA.com

1.3 Product Description:

Construction: Forbo Colorex SD | EC is a homogeneous product sliced from a pressed vinyl block to assure a highly flexible tile of dense construction. Forbo Colorex SD | EC is dimensionally stable, extremely hard wearing and has a completely non-directional pattern.

1.4 Physical Characteristics:

(dimensions are approximate)

Size ----- 24.2" x 24.2" (61.5 cm x 61.5 cm)

Gauge ----- 0.080" (2.0 mm)

Packaging----- 14 tiles (56.94 feet² or 5.29 meters²)

2. PRODUCT PERFORMANCE & TECHNICAL DATA

2.1 Reference Specification:

Meets or exceeds all technical requirements as set forth in ASTM F 1700, Standard Specification for Solid Vinyl Floor Tile, Class 1, Type A

2.2 Environmental:

Compliant with CDPH 01350 requirements for VOC emissions and indoor air quality.

Forbo Colorex SD | EC contributes to LEED credits.

For additional information, contact Forbo Flooring Systems.

2.3 Electrical Resistance:

Forbo Colorex SD | EC meets the following surface to ground ranges when tested in accordance to ASTM F 150, NFPA 99, and/or EOS/ESD S7.1

Forbo Colorex SD: 1 x 10⁶ – 10⁹ ohms surface to ground

Forbo Colorex EC: 5 x 10⁴ – 1 x 10⁶ ohms surface to ground

2.4 Static Load Limit:

Residual compression of 0.001" with 250 pounds per square inch when tested in accordance with ASTM F 970-17, Standard Test Method for Static Load Limit.

2.5 Slip Resistance:

Meets or exceeds the industry recommendation of >0.5 for flat surfaces when tested in accordance with ASTM D 2047, Standard Test Method for Static Coefficient of Friction.

2.6 Castor Resistance:

Suitable for office chairs with castors when tested in accordance with ISO 4918, Castor Chair Continuous Use Test.

2.7 Fire Testing:

Class 1 when tested in accordance with ASTM E 648/NFPA 253, Standard Test Method for Critical Radiant Flux.

Meets 450 or less when tested in accordance with ASTM E 662/ NFPA 258, Standard Test Method for Smoke Density.

FSR – 55; SDC – 200 when tested in accordance to CAN/ULC S102.2, Standard Test Method for Flame Spread Rating and Smoke Development of Flooring Materials.

2.8 Chemical Resistance:

(Exposure Time – 1h)*

Acetic Acid (5%) ----- Surface Dulling and Color Change

Acetone ----- Surface Attack and Slight Color Change

Ammonia (5%) ----- No Change

Betadine ----- Surface Dulling and Color Change

Bleach ----- No Change

Brown or Black Hair Dye ----- Slight Color Change

Brown or Black Shoe Polish ----- Slight Color Change

Gasoline ----- No Change

Gel Hand Sanitizer ----- No Change

Hot Chili Paste ----- Slight Surface Dulling and Color Change

Hydrochloric Acid (5%) ----- Slight Surface Dulling and Color Change

Iodine ----- Slight Color Change

Isopropyl Alcohol (70%) ----- No Change

Kerosene ----- Slight Surface Dulling and Color Change

Methylene Blue ----- No Change

Mineral Oil ----- No Change

Olive Oil ----- No Change

Phenol (5%) ----- No Change

Sodium Hydroxide (5%) ----- No Change

Sodium Hypochlorite (5%) ----- No Change

Sulfuric Acid (5%) ----- Surface Dulling and Color Change

Tested in accordance with ASTM F 925, Standard Test Method for Resistance to Chemicals of Resilient Flooring.

*Most stains may be removed by light sanding.

3. INSTALLATION

3.1 Adhesive:

Use Forbo C 930 for conductive installations. Use Forbo Sustain 1195 for non-conductive installations.

3.2 Heat Welding (OPTIONAL):

For seamless, hygienic watertight installation requirements, use Forbo Colorex SD | EC welding rod. Welding rod dimensions: 4 mm; 165 linear feet per spool.

3.3 Flash Coving (OPTIONAL):

Flash cove up walls to the desired height. Use Forbo C 930 for conductive installations. Use Forbo Sustain 1195 for non-conductive installations.

3.4 Installation Guidelines:

Forbo does NOT recommend the application of adhesive tape on Colorex. Adhesive tape may cause damage to the factory coating of resilient flooring products. When using floor protection materials, tape the seams of the floor protection together and secure the floor protection by weighing down in corners and against walls. DO NOT secure floor protection materials by taping them directly to the surface of resilient floor coverings. Refer to Forbo's Installation Guidelines for complete installation recommendations.

4. WARRANTY

Limited 20-year product warranty. Lifetime conductivity warranty, restrictions apply. For complete details, contact Forbo Flooring.

5. CARE & CLEANING

Refer to Forbo's Floor Care Guidelines for complete care recommendations.





Forbo Flooring Systems is part of the Forbo Group, a global leader in flooring and movement systems, and offers a full range of flooring products for both commercial and residential markets. High-quality linoleum, vinyl, textile, flocced, and entrance flooring products combine functionality, color and design, offering you total flooring solutions for any environment.

Forbo Flooring North American

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