

## 1. PRESENTATION OF FORTELOCK ESD PVC FLOORING

In the product portfolio of Fortelock homogeneous floorings, you can find our ESD series, which meets the requirements for electrical properties. Fortelock ESD floor tiles are special floors that excel in electrical conductivity and they are suitable for the rooms where electrostatic discharges need to be avoided or eliminated. The floor coverings are homogeneous in their composition throughout their thickness. The wear (walking) layer is the same as the flooring thickness.

Made in the Czech Republic.

### WHERE TO FIND FORTELOCK ESD PVC FLOORING

- Laboratories, chemical industry
- Hazardous areas
- Electro technical industry
- Pharmaceutical industry
- Automotive industry
- Paper and rubber industries



## 2. INSTALLATION OF A NEW FLOOR

### 2.1. PREPARATION OF THE ORIGINAL SUBFLOOR (SURFACE)

**To ensure the permanent functional qualities of PVC floorings, the structure of the subfloor must be flawless, as recommended in applicable national or European standards.**

The surface must be flat, smooth, with no cracks or dust, sufficiently strong, clean and dry. Any grease stains or dirt must be removed. Any unevenness, cracks, structural joints and different levels should be repaired and aligned. The choice of the subfloor material depends on the place of final use, and properties such as point-load resistance must be considered.

Fortelock ESD PVC flooring can be installed on concrete, wood, asbestos floor tiles and other standard solid floors. An expansion joint should be left around the perimeter. The joint allows for expansion and contraction. The floor must be properly grounded to ensure the correct discharge of static charges.

**Electrical conductivity of the original subfloor can differ considerably.** That is why the installed flooring can feature lower resistance than the minimum value indicated in the specification. Therefore, it is advisable to use a cementitious backing providing an insulating barrier between the ESD vinyl floor covering and the original subfloor.

The bottom layer should be dry before applying Fortelock ESD floor covering. Any defects such

as holes, grooves or deep scratches in the concrete substrate must be repaired. Newly cast concrete slabs often contain excessive moisture or other impurities. Before installing the ESD floor, always check for moisture in the concrete.

- The concrete structure of the subfloor must meet and/or exceed the **static and dynamic loads for the intended use of the space.**
- Installing Fortelock ESD PVC floor tiles on an existing elastic floor is not recommended.** After removal of the elastic floor, there are soluble asphalt adhesives on the subfloor which are not readily recognizable.
- Gypsum-based subfloors are not recommended for use with ESD flooring.**

### RECOMMENDATION

If there is still construction work in progress, protect any newly laid floor tiles with a suitable protective cover. Limit the risk of inadvertent damage. In the event of malfunction or a specific failure, the subcontractor is responsible for warranties and/or performance warranties. Should this be the case, the manufacturer of the Fortelock floor cannot be held liable.

### 2.2. GROUNDING

The proper installation of the grounding system is a prerequisite for all ESD floors. The system ensures the conductivity of the installed floor to the grounding point via a predetermined and controlled path.

- We recommend using **a grounding kit** in 2 pieces up to 60 m<sup>2</sup> and one grounding kit for every additional 30 m<sup>2</sup>.
- The grounding kit contains a plug with connecting cord (2.4 m) and rivet (10.3 mm) in one piece, an L-shaped metal grounding element and copper self-adhesive tape (used for sticking the grounding element to the grounding tape).

- The tape (black, PE/PP) should be nominally 70 mm wide and 0.1 mm thick. The width and gauge are governed by performance standards.
- The grounding system shall be connected to the grounding system of the entire building. It should be installed by a qualified electrician, not the floor supplier. **The electrical inspection for it must be valid.**

To safeguard the complete and functioning ESD flooring system, our customers can order the grounding kit and tape directly from us. Please inquire with our sales representative.

### 2.3. ACCESSORIES

To ensure the ESD floor system works effectively, the following is recommended:

- grounding point,
- grounding tape,
- grounding kit in 2 pieces up to 60 m<sup>2</sup> and one more for every additional 30 m<sup>2</sup>.

Fig. 1  
Grounding kit connected to Fortelock ESD tiles.



**We recommend connecting the floor system with at least two grounding kits.** The second grounding kit is there in case one of them fails due to wear and tear, which would lead the flooring system to stop working.



## 2.4. METHOD OF INSTALLATION

1. Install the floor tiles on a **flat, hard surface**. Make sure to let the floor tiles **acclimatize** thoroughly before the installation (see clause 2.5).
2. Use chalk to draw a line or use a laser to make lines A-A and B-B.
3. Lay the grounding tape (marked in red). The tape must be laid so that it is under the centre part of all tiles in at least one direction and that it also runs perpendicular across the centre part of all joints, **at least for every 4 tiles**. The grounding tape can also be laid under each tile in both directions to form a grid.
4. Use this formula to **calculate the total length of the grounding tape**:  
**Fortelock ESD**: Total area in m<sup>2</sup> x 2.8 = linear metres of film.  
Example: 45 m<sup>2</sup> x 2.8 = 126 m of film and 2x grounding kit. Running the tape under each tile requires 4x the area in m<sup>2</sup> of grounding tape.  
**Fortelock XL ESD**: Total area in m<sup>2</sup> x 2.2 = linear metres of foil.  
Example: 45 m<sup>2</sup> x 2.2 = 99 m of film and 2x grounding kit. Running the tape under each tile requires 3.1x the area in m<sup>2</sup> of grounding tape.
5. **Start the installation from the entrance to the room** and continue with laying the floor in the shape of a pyramid. Using a rubber mallet (with a black or white head, depending on the

floor colour) tap the floor tiles together. Start at the outer corners of the floor tile and proceed toward the inner corner of the floor tile before laying. It is imperative that the floor tiles are kept in the mutual rectangular position.

6. **Install the floor tiles in the usual way so that the grounding connections are fitted** (one for every 60-80 m<sup>2</sup>). It is important that the grounding strap is connected to the floor tile with an ground pin.
7. The final cuts and completion of the perimeter floor tiles (see clause 2.6) can be done only after you have laid all floor tiles. Ideally, after several hours from the application. When cutting the perimeter floor tiles, allow for a **10 mm gap from any fixed points** (e.g. columns, racks or walls). This gap can be covered with a skirting board.
8. Place the grounding point in the corners of the room or along the walls to avoid the risk of tripping.
9. After installation, the floor must be properly cleaned (clause 3) to obtain the correct values of the conductivity tests. If the current floor has been already grounded, the floor must be insulated.

Fig. 2  
Installation of Fortelock ESD, XL ESD.

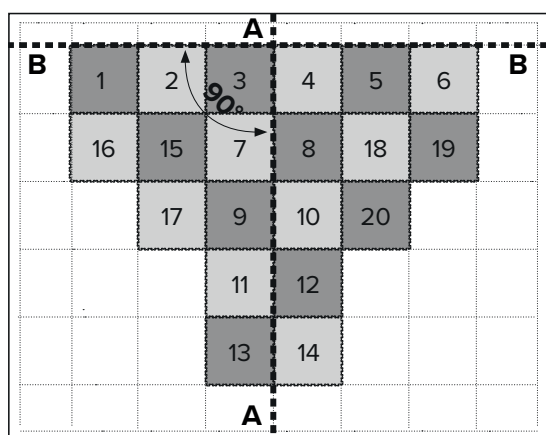
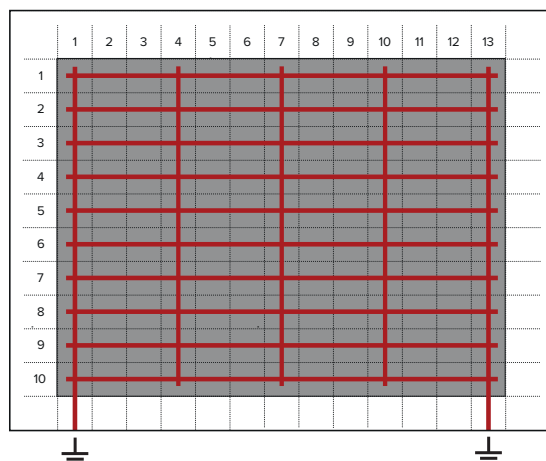


Fig. 3  
Installation of grounders tape.



## 2.5. LAYING TILES AROUND FIXED POINTS OR IN LARGER AREAS

Use this procedure if there are fixed points in the space that cannot be moved (e.g. columns, racks) or for installations in larger spaces (recommended for areas larger than 100 m<sup>2</sup>).

In such cases, in addition to the basic guide lines described in section 2.1 of this document, mark out additional lines so that they bypass all fixed points and are always perpendicular to each other. The resulting grid will form the basic plan for laying the tiles. Lay two rows of tiles next to the guide lines, which will give you a basic floor grid. When this is set down, fill in each block according to the procedure shown in Figures 5 and 6. This allows you to achieve precision placement, especially around longer fixed objects or in larger spaces.

Fig. 5  
Installation around fixed objects – marking guide lines

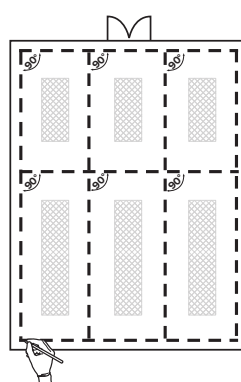
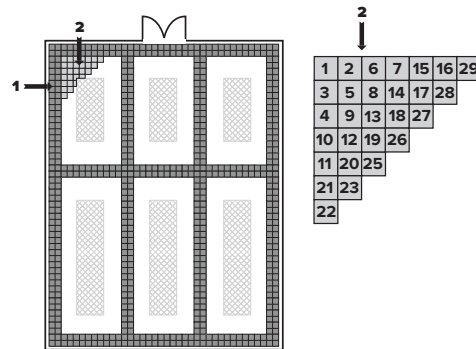


Fig. 6  
Installation around fixed objects – laying tiles



## 2.6. TEMPERATURE CONDITIONS AND PREPARATION OF THE ORIGINAL SUBFLOOR

**Do not install the floor tiles immediately after their delivery.** Let the flooring **acclimatize for at least 48 hours** before the installation. The acclimatization shall take place at an **ambient temperature of 18-26 °C**. The higher the temperature, the faster the floor tiles acclimatize. The floor tiles must be unloaded from pallets and spread out in the room where they are expected to be installed. To facilitate the acclimatization process, spread the floor tiles in smaller groups, e.g. in bundles of 10 pieces. Note that the temperature of the subfloor must not fall below +15 °C. The working temperature during the installation and 24 hours after the installation must be constant, in the range from 18 to 26 °C, to avoid any thermally conditioned dimensional changes of individual flooring components.

When installing at normal temperature deviations, note the movement of the floor and leave a **gap of at least 10 mm between the floor tiles and any fixed points** (e.g. a wall).

If the installation takes place at a temperature below 15 °C, leave a larger expansion gap (joint) between the floor tiles and any fixed points (e.g. a wall). If an operating temperature below 0 °C is necessary, contact the business department of the manufacturer.

### PREPARING THE ORIGINAL SURFACE

Fortelock floor tiles can be installed on practically any hard surface that is smooth and even. Therefore, remove any uneven points in the floor. Fill in any unevenness or holes with grout or a sealant designed for repairing floors. To ensure the permanent function and quality of PVC floorings, the structure of the surface must be flawless as recommended by national or European standards.

### RECOMMENDATION

If there is still construction work in progress, protect any newly laid floor tiles with a suitable protective cover. Limit the risk of inadvertent damage.

## 2.7. CUTTING PERIPHERAL TILES

To shorten the piece, the side to be cut must be turned to the wall so that there is an expansion gap of approximately 10 mm. There must be an expansion gap around all penetrating or related structures (such as heaters, different type of floor covering). The gaps are then covered with skirting boards.

Fortelock ESD PVC floor tiles can be easily cut with a saw or a knife. Do not exert force on the floor tiles. Join them together and gently tap them with a mallet. For easy, straight and especially fast cuts of floor tiles we recommend that you use a cutter / guillotine, e.g. Freiss PF-63.

Make a template before making difficult and complicated cuts.

### IMPORTANT!

Any cut floor tile laid next to the walls **must be wider than 10 cm**. At doors and recesses, the size of the cut floor tile **must be larger than half of the original size of the floor tile**.

### 3. FIXATION AND BONDING OF TILES

#### 3.1. Fixation

The **fixation** is a removable connection between the tiles and the floor, which sufficiently guarantees the stability of the tiles for high-load traffic. Fixation can be done by means of a water-removable **floor coating or fixing tape**. We recommend using UZIN Universalfixierung 6473 to fix the tiles. Absorbent substrates absorb the thin dispersion coating and reduce the anti-slip effect, therefore it is necessary to penetrate the floor with a suitable primer before applying the fixing.

It is also possible to use fixing double-sided adhesive tape to fix the tiles. The fixing tape can be routed longitudinally under the centres of the tiles or under their edges due to the high adhesion.

The smoother the floor, the greater the adhesion of the fixing tape.

#### ADVANTAGES

- easy application fixation with roller
- low consumption
- easy removal of one tile or the entire floor
- the fixing layer is easily removed with warm water and will not damage the subfloor

#### 3.2. Bonding

**Bonding** is a permanent way of connecting the tiles to the floor. We recommend Uzin KR 430, Mapei Adesilex G19, DIPUR 522 A+B, ACM Epoxy ECO for bonding tiles in areas with high load.

Follow the manufacturer's instructions for fixation and for the conditions of use of adhesives and their proper application.

#### 3.3. WHEN TO TAPE THE FLOOR AND WHEN TO GLUE IT?

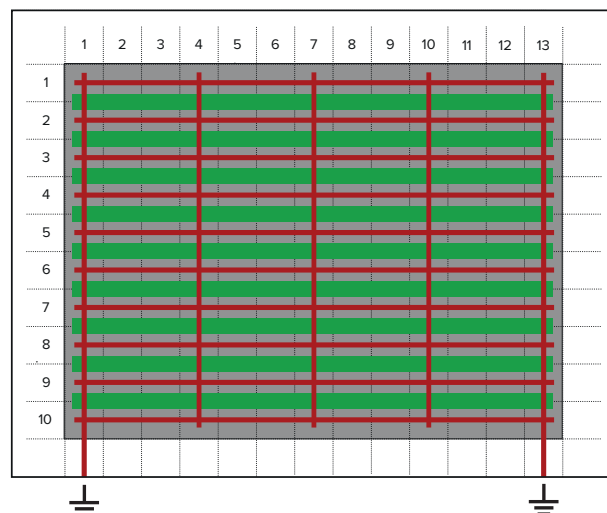
##### DIRECT SUNSHINE

**Floor tiles exposed to direct sunlight should be glued in place.** These primarily include the glazed parts of a room, loading areas with doors facing south, ceiling skylights, etc. Floor tiles exposed to direct sunlight can easily heat up and expand faster and in greater volume than the rest of the floor.

##### HEAVY TRUCKS AND HEAVY-DUTY LOADING AREAS

Some forklift trucks and pallet trucks can impair the durability of the interlocks of Fortelock PVC flooring. These include heavy trucks with small wheels, especially heavy-duty electric trucks where the battery is placed over the main drive axle. Should you use this type of trucks, we

Fig. 4  
Installation of the system with fixing tape.



recommend that you test these floor tiles with the trucks before you make a decision on the type of tiles to use and secure or glue them to the floor if you expect constant use of the trucks.

##### EXTERNAL HEAT SOURCES

Ovens, furnaces, catalytic converters and other heat sources can heat up the floor heavily, causing the floor tiles to expand. To avoid this process, glue the floor tiles in the area of the heat source.

##### TEMPERATURE FLUCTUATIONS

If the tiles are laid indoors where the temperature change is greater than 15°C, the tiles must be fixed or glued due to expansion.

### 4. CLEANING

Fortelock ESD flooring requires **regular cleaning and maintenance**. More detailed information on maintenance can be found in the document entitled: Cleaning, maintenance and disinfection.

### 5. WARRANTY TERMS AND CONDITIONS

#### 5.1. Scope of Warranty

Fortemix, s.r.o. provides the following warranty, subject to the terms and conditions listed at [www.fortemix.com](http://www.fortemix.com), for all interlocking PVC floor tiles in the Fortelock Industry, XL, Invisible, Industry Ultra, Business, ESD, and XL ESD ranges (hereinafter referred to as "Fortelock Tiles"), including accessories (ramps, corners, skirting boards).

Fortemix guarantees that for a period of 12 years from the delivery of Fortelock Tiles, the tiles will not wear through or tear under normal use, and that they will be free from manufacturing defects. This warranty does not apply to Fortelock Tiles made from recycled materials.

#### 5.2. Product Claims Before Installation

The customer is obliged to carefully inspect the Fortelock Tiles and accessories before and during installation under optimal lighting conditions (lighting between 400–500 lux, light colour temperature between 4000–5000 K). Before installing the Fortelock Tiles, the customer must verify that they have received the product in the desired quality and appearance (pattern, colour). Once installed, the customer can no longer claim the Fortelock Tiles based on their appearance.

Fortelock Tiles with visible damage must not be installed under any circumstances. If Fortelock Tiles or their accessories exhibit obvious manufacturing defects, the customer must notify the manufacturer in writing within 15 days of discovering the defect, either by post to Fortemix, s.r.o., Kirilovova 812, Paskov, 739 21, CZ, or by e-mail to [info@fortemix.com](mailto:info@fortemix.com). After this period, no complaints regarding visible manufacturing defects will be accepted. If the customer installs Fortelock Tiles with visible defects or uses accessories with obvious manufacturing defects, they cannot claim the products for these defects or damages.

If manufacturing defects are discovered, Fortemix, s.r.o. will replace all defective products free of charge, provided the defect is identified before installation.

#### 5.3. Product Claims after Installation

If the customer believes that a product defect has occurred after installation, they must notify

Fortemix, s.r.o. in writing immediately, no later than 15 days after the defect is discovered. This can be done by post to Fortemix, s.r.o., Kirilovova 812, Paskov, 739 21, CZ, or by e-mail to [info@fortemix.com](mailto:info@fortemix.com).

Fortemix, s.r.o. reserves the right to inspect the flooring through an employee at the installation site of the Fortelock Tiles. If, after inspection, Fortemix, s.r.o. confirms that the Fortelock Tiles are defective and the warranty limitations do not apply, the defective Fortelock Tiles will be replaced with defect-free ones.

Fortemix, s.r.o. shall not be liable for damages arising from replacing defective products with new ones.

The replacement of Fortelock Tiles may be subject to a fee reflecting the difference in depreciation between the new and old tiles. The fee is based on the "current value", which depends on how much of the warranty period has elapsed. In comparison to the value of a new product, in the case of an extended warranty, the amount decreases each year by a percentage reflecting the product's depreciation, thus reducing annually by a percentage of the value of the purchase price. For a warranty period of 12 years, the amount decreases by 1/12 per year, which equals 8.33%. The difference between the current value and the value of a new product is the customer's responsibility.

The warranty period will not be extended due to services provided under this warranty, such as repair or replacement. The warranty period does not restart in such cases.

#### 5.4. Proof of Purchase

The customer may exercise their rights under this warranty by providing proof of purchase within the warranty period, immediately after discovering damage or making a warranty claim. This can be done through the retailer from whom the product was purchased or directly with Fortemix, s.r.o. The buyer must prove that the warranty period has not expired (by presenting the proof of purchase).

To identify the order, it is also advisable to indicate the date of manufacture, which is located on the back of the tile.

## 5.5. Exceptions

### The warranty does not cover the following:

1. Problems caused by an unsuitable, incorrect, or improperly prepared subfloor.
2. Damage caused by improper installation that does not comply with the Installation Instructions document.
3. Problems caused by using unsuitable cleaners or maintenance methods that do not comply with the Cleaning, Maintenance, and Disinfection Guide.
4. Problems caused by usage that does not comply with the specifications issued by Fortemix, s.r.o., its recommendations, or the instructions in the Technical Data Sheet.
5. Material installed with obvious defects.
6. Problems caused by using adhesives not recommended by Fortemix.
7. Mechanical damage (tearing, breaking, scratches caused by sharp objects, unprotected furniture legs, chairs, etc.).
8. Damage caused by sharp wheels or wheels turning in place (rotating and turning).
9. Problems caused by moisture, hydrostatic pressure, or alkaline substances in the subfloor.
10. Damage due to contact with corrosive chemicals, fire, hot embers, or natural disasters.
11. Damage to the flooring due to outdoor installation.
12. Colour shade variations between different batches of tiles.
13. Colour variations between samples, illustrative images, and the actual flooring.
14. Discolouration caused by rubber pads, wheels, mats, tyres, or other rubber objects.
15. Product defects and malfunctions caused by extreme temperatures or air humidity (refer to

the Technical Data Sheet for details).

16. Costs related to the delivery and installation of the original and/or replacement material.

17. Any written exclusions of warranty by the company.

## 5.6. Other

These warranties replace any other expressed or implied warranties.

Fortemix, s.r.o. is not liable for any incidental or consequential damages that may arise from defects.

Fortemix, s.r.o. is not responsible for damages resulting from failure to follow the manufacturer's instructions and recommendations.

The warranty conditions are non-transferable and apply only to the original purchaser.

To validate this warranty and statutory warranties, the conditions stated in the Technical Data Sheet, Installation Instructions, the Cleaning, Maintenance, and Disinfection guide, and the Fortemix, s.r.o. Terms and Conditions must be met.

Extensions or modifications to the warranty conditions by third parties are excluded.

The consumer's legal rights are not limited by this warranty; consumers have, in addition to their rights under the warranty, claims arising from defective performance under Act No. 89/2012 Coll., the Civil Code.

## 6. ADVICE AND WARNINGS

To ensure your satisfaction with your final floor covering, and to eliminate adverse risks and ensure an easy installation, we have prepared some advice and warnings for you. It will come in handy whether you are dealing with interior/exterior designs or their installation and maintenance. The Fortelock PVC flooring system is a fast way to get a new floor.

1. To improve the cleanability, appearance and durability of the flooring, follow the instructions laid out in the guide Cleaning, Maintenance and Disinfection.
2. The substrate must meet the requirements stipulated in the local standard for PVC floor installation.
3. **These floorings are intended for interior use.** If you decide to glue them, they must not be installed in spaces that are insufficiently insulated against ground moisture. Keep moisture (e.g. wet footwear, spilling a bucket of water) away from a substrate ready for installation.
4. Do not use tiles in environments with **relative air humidity exceeding 75% over a long period.**
5. Operating conditions for loose installation of flooring: **air temperature + 15°C to + 27°C.** For greater temperature variance, the tiles must be **fixed or glued.**
6. The extent of loose installation is a maximum of 500 m<sup>2</sup>. In case of larger floor areas, please contact the manufacturer.
7. In the case of loose installation of tiles in long corridors or passageways, it is necessary to glue every 10th row of tiles with fixing or adhesive.
8. **Do not allow any objects with sharp edges** made from materials with a hardness exceeding the hardness of PVC to move on the floor surface. Stones, grains of sand, edges of furniture legs or the claws of pets can damage the surface and scratch it. Put protective feet on any objects with sharp or angled corners. Do not drag pallets. This will prevent the floor from being scratched.
9. **For chairs on wheels, use wheels of the "W" type** – soft plastic on a hard core, or protective PET mats designed for mobile furniture. Provide the feet of furniture with protective glides made of soft plastic or felt pads, etc., and regularly check that they are working. If the contact surfaces of varnished tiles with a PUR protective layer will not have suitable means of protection and they become scratched from moving furniture, no claim can be made for such scratching.
10. **Do not exceed 50 MPa for any point compressive load on the flooring.**
11. **Glowing and smoldering objects irreversibly change the color and structure of floor tiles.**
12. Rubber products made from dark and dyed rubber (rubber wheels, instrument mats, footwear soles, etc.) can cause the finish of the flooring to **permanently change color** after prolonged contact with the floor, resulting in yellowing, browning or blackening of the floor surface at the point of contact. We recommend that you consider using a two-component polyurethane sealing finish

against coloring and staining, Anticolor Dr. Schutz, which we have in our offer.

**13. These floor tiles are not recommended for exterior use** because their colors are not stable under UV light. Direct ultraviolet radiation in the C spectrum (e.g. germicidal lamps, direct sunlight) will gradually degrade the surface and irreversibly change the color of the floor covering.

**14. Taking preventive measures like demarcating sufficiently dimensioned and effective cleaning zones and using suitable products for care and maintenance** significantly contribute to the quality and durability of the floor covering.

**15. 100% color consistency cannot be guaranteed**, especially between different product batches. Adaptation is required when performing an installation with different batches.

**16.** The floor tiles have been designed to provide exceptional durability and easy installation. This was achieved by a unique lock design and their method of production. This manufacturing method can result in visible **traces of injection** from the center to the edge of the tile.

**17.** Although some tiles have a unique drainage system to prevent moisture from being retained, the possibility of **moisture entering the seams of squares** must be taken into account and this information included in the structural specification.

**18.** Prior to installation, **please have a look at [www.fortemix.com](http://www.fortemix.com)** to make sure you have the latest technical documentation.

**19.** For better consistency of interlocking the corners of joined floor tiles, **the next floor tile should always be turned by 90 degrees relative to the previous floor tile.** The logo displayed on the underside of the floor tile facilitates this installation. Follow this procedure throughout the installation (applies to products of the Industry and XL series).

**20. More detailed information on maintenance** can be found in the document entitled: Cleaning, maintenance and disinfection.

**21.** Despite the increased **resistance of Fortelock PVC tiles to oils, petrol and other substances of petroleum origin, it is necessary to clean the tiles as soon as possible** in the event these substances splash on them, otherwise there is the risk of their color degradation and deformation. If these leaks occur more frequently without the guarantee of their immediate removal and there is a risk of leakage into the gap between the substrate and floor, we recommend the tiles be glued. Contact the Sales Department to find out the degree of resistance to individual types of chemicals.

## 7. SUITABILITY AND INSTALLATION OF THE PRODUCT

**Fortemix, s.r.o. shall not be held liable for the specification of the suitability of the product** for the selected use and applications, intended by the customer. This specification shall be the sole responsibility of the customer.

The application recommendations indicated in advertising materials of Fortemix, s.r.o. are considered to be reliable. However, Fortemix, s.r.o. does not give any warranty for results which are expected to be achieved since the conditions of use, application and installation undertaken by the customer and other conditions are beyond the control of Fortemix, s.r.o. and vary for each application.

Fortelock ESD and XL ESD PVC flooring contains stainless-steel fibres which can be visible on the floor-tile surface. This is an inevitable and key part of the manufacturing process providing the optimum performance of ESD. Check the floor tiles. If they are not acceptable for you in terms of their appearance, do not continue installing them because we do not accept any liability for replacement or refunds for any goods after they have been installed on 10 m or more.

## 8. ACCESSORIES AND SERVICES

Accessories	Description	Packaging
ESD Ramps, Corners	They are used for a smooth run-up to the tiles from the main floor. We recommend gluing them to the subfloor.	–
ESD Grounding Kit	It includes a plug with cord (2.4 m) and connection rivet (10.3 mm) in one piece, L-shaped metal grounding element and CU self-adhesive tape, used to stick the grounding element to the grounding tape.	–
ESD Grounding Tape	The width and spacing of the installation are governed by performance standards. Dimensions: width 70 mm, length as required, thickness 0.1 mm.	–
Rubber hammer	Rubber hammer, wooden handle.	–

### Fixation and bonding

		Packaging
Fixation dispersion under PVC	Water-removable fixation designed for the <b>removable attachment</b> of tiles to the floor. It guarantees the stability of tiles for heavy-duty traffic. Easy to remove, saves costs during further renovation.	3 kg (20 m²) 12 kg (80 m²)
Fixing tape	Special transparent colourless adhesive tape for establishing a <b>removable connection</b> of tiles with the floor. Firm polyester support for trouble-free application and sure and immediate adhesion. Dimensions: width 240 mm, length 50 m.	–
PU adhesive under PVC - UZIN	Two-component PU glue to <b>permanently bond</b> tiles to the floor. Firm, strong and quick-tack adhesive.	3 kg (5-12 m²) 8 kg (13-32 m²) 12 kg (20-48 m²)
PU adhesive under PVC - DiPUR	Solvent-free two-component polyurethane adhesive for permanent connection of tiles to the floor.	6 kg (20-30 m²) 30 kg (100-150 m²)







### Cleaners

	Description	Packaging
Dr. Schutz ESD Floor Cleaner	Cleaning concentrate for daily cleaning and also for cleaning after ESD tile installation. <b>Developed for all electrostatically conductive and antistatic floors.</b>	10 l
Dr. Schutz Universal stain remover Elatex	Universal product for <b>removing water-soluble and water-insoluble stains</b> such as coca-cola, fruit juices, ketchup, ballpoint pens, marmalade, red wine, coffee, chocolate, chewing gum, shoe cream, nail polish, asphalt, markers, etc. It is particularly suitable for removing rubber scuffing, heel scuffing, and graffiti and waterproof paints.	200 ml

### Services

	Description	
Fortelock used tile recycling	We offer the option to take back the unwanted Fortelock PVC tile as a part of <b>ecological program</b> . Thanks to this service you will save time, worries and money spent on disposal and together we will contribute to the protection of the environment.	–
Borrow up to 5 m² of tiles to try out	Take advantage of the opportunity to <b>try our tiles for yourself</b> . We will lend you up to 5 m² of tiles for a whole month for FREE. For more information, contact our customer service.	–
Onsite inspection	We offer <b>expert assessment</b> and proposal of possible solutions for your floor onsite.	–
Visualization	Take advantage of the state of the <b>art visualization software</b> and change the floor colour scheme according to you expectation.	–

## 9. DYNAMIC LOAD RESISTANCE

Maximum dynamic load in kg by tyre or wheel type (including forklift weight)						
Type of wheels	Polyurethane or equivalent hardness				Rubber wheels	Tyres*
	Pallet truck	Electric pallet truck	Electric forklift truck	Electric retractor	Forklift truck	Forklift truck, car
Truck type						
Loose installation						
XL ESD	400	–	–	–	–	–
ESD	500	700	–	–	4 300	6 600
Gluing / fixing						
XL ESD	1 300	1 700	2 900	5 100	5 500	6 600
ESD						

\*Vehicles with tires should not stand on tiles for long periods of time to prevent the dye from migrating.

Total load capacity tested at 23°C and 5 km/h. The maximum load capacity may vary significantly with different tile temperatures, different travel speeds, different subgrade surface textures, or may be affected by other factors such as the size and material of the wheels of the handling equipment, their degree of wear, and the acceleration and deceleration time of the equipment. Avoid spinning or turning the wheels when stationary, braking or accelerating hard.

**Important:** To maintain maximum dynamic load capacity, we recommend gluing the tiles at temperatures above 27°C.

Take advantage of the tile rental option and test the suitability of Fortelock tiles for your conditions. For more information about this service, please visit [www.fortelock.com](http://www.fortelock.com).



## 10. TECHNICAL PARAMETERS OF PVC FLOOR TILES FORTELOCK ESD, XL ESD

The Fortelock Floor Tiles are subject to the assessment according to the European Parliament and Council Regulation No. 305/2011 ("CPR") following the procedure according to the harmonized standard EN 14041. Detailed information on the product and variants thereof can be found in the catalogue or on the website [www.fortelock.com](http://www.fortelock.com)

Series	Standard	Fortelock PVC Floor Tiles	
		ESD	XL ESD
Product numbers – tiles	–	2020 ESD – leather	2230 ESD – snake skin
Product numbers – ramps <sup>(1)</sup>	–	2025 ESD – leather	2235 ESD – snake skin
Product numbers – corners <sup>(1)</sup>	–	2026 ESD – leather	2236 ESD – snake skin
Type	–	homogeneous flooring	
Outer size of the floor tile (TL)	–	510,5 × 510,5 mm	653 × 653 mm
The actual size of coverage (L)	–	496,5 × 496,5 mm	639 × 639 mm
Thickness	–	7 mm	4 mm
Type of surface layer	–	homogeneous	
Surface (wear) layer thickness	ČSN EN ISO 24340	7 mm	4 mm
Weight (± 10 %)	–	2,4 kg	
Finish	–	leather	snake skin
Area of use, intensity of use	ČSN EN ISO 10584	34 – 43 <sup>(4)</sup>	
Dimensional stability after exposure to heat	PP 457	≤0,25 %	
Side length, edge straightness and squareness	ČSN EN ISO 24342	≤ 0,13 %, max. 0,5 mm	
Resistance to chemicals	ČSN EN ISO 26987	good	
Reaction to fire	ČSN EN ISO 13501-1	B <sub>fl</sub> - s1	
Resistance to bacteria	ČSN EN ISO 846	passed	
Hardness	ČSN EN ISO 868	≥ 90 Shore A	
Influence of a castor chair	ČSN EN 425	passed	
Anti-slip property	DIN 51130:2014-02	R10	
Colour uniformity	–	<±2ΔE*ab	
Colour fastness to artificial light	ČSN EN 20105-A02	>5 (without damage)	
Warranty	–	up to 12 years	
Number of pieces in 1 m <sup>2</sup>	–	4 pcs	2,5 pcs
Compressive strength	ČSN EN ISO 604-1	520 kg/cm <sup>2</sup>	
Electrical resistance (floor, footwear, person system)	ČSN EN 61340-4-5	<10 <sup>9</sup> Ω <sup>(2)(3)</sup>	
Electrical resistance to ground	ČSN EN 61340-4-1	<10 <sup>6</sup> Ω <sup>(3)</sup>	
Electrostatic properties	EN 1081	<10 <sup>6</sup> Ω <sup>(3)</sup>	
	ČSN EN 61340-4-5	<100 V <sup>(2)</sup>	
Protection against electrostatic phenomena	ČSN EN 61340-5-1	OK	
Packaging	–	10 pieces in a package – on palette 120 m <sup>2</sup>	24 pieces in a package – on palette 172 m <sup>2</sup>

<sup>(1)</sup> Ramps and corners for Fortelock ESD and XL ESD series PVC tiles meet the technical parameters of Fortelock ESD and XL ESD tiles.

<sup>(2)</sup> As the tiles are manufactured by injection moulding and due to the resulting non-uniform electrical properties at different locations, the reported values are the average of the measurements.

<sup>(3)</sup> If tiles for class 43 are used, tiles must be affixed on the whole surface.

