

## 1. PRESENTATION OF FORTELOCK PVC TILES

Presenting here our top-notch PVC interlocking system. These floor tiles are made by state-of-the-art and energy-efficient injection presses and feature homogeneous or heterogeneous designs. The Fortelock system can be laid on both new and old surfaces. The carefully chosen materials ensure that our homogenous tiles are strongly resistant to wear and tear, chemical substances and they enjoy long-term stability. They are designed to create a wear layer of floors

with high operational loads, where above-standard abrasion resistance and impact resistance are required. Our heterogeneous Fortelock Business floor tiles have a more aesthetic design for use in commercial, residential and public areas. They are robust, easy to maintain and ensure your safety when walking on them.

Made in the Czech Republic.

## 2. INSTALLING A NEW FLOOR

### 2.1. GENERAL RECOMMENDATIONS

Floor tiles should always be installed on a **hard and level surface**. Before the actual installation, the tiles should be thoroughly **acclimatized** (see 2.4).

Floors expecting heavier loads (especially pallet trucks) should be **glued or taped securely in place** (see 3). Please also take a look first at our **warranties, advice and precautions** (see sections 4 and 5).

The installation of Fortelock products always comes after a careful measurement of the room.

We recommend laying out the tiles so that ideally the same size remains on each side of the room. Allow for a gap of **10 mm from any fixed point** (e.g. around columns, racks and walls). This gap can be later covered with baseboards. The precision of laying individually installed rows is checked against the lines marked out and their right angles. This is especially true for larger areas and rooms that are not sufficiently rectangular.

### 2.2. SUBSTRATE PREPARATION

The surface must be cleaned of dust, dirt, old coatings or other foreign substances. Irregularities must be sanded down and depressions filled with a suitable levelling compound. In the case of elevated areas exceeding 7 mm over 2 m, these areas must be ground down.

Cracks up to 4 mm in width do not require repair. Cracks exceeding 4 mm must be filled with a suitable material. Contraction joints with openings up to 4 mm do not require repair. Expansion joints must be properly cleaned and prepared.

### 2.3. SUITABILITY OF INSTALLATION ON SELECTED MATERIALS



Suitable



Conditionally suitable

Substrate type	Installation suitability	Substrate conditions	Unevenness	Joints, cracks	Recommended measures
Concrete substrate, cement screed		Level, dry (maximum moisture content 3.5%), solid, without major cracks	Maximum 7 mm per 2 m, or 2 mm per 20 cm	Maximum 4 mm wide, edges in the same plane.	Level larger irregularities with levelling compound, remove dust, grease and moisture. For heavy-duty areas, consider fixing with PU adhesive or dispersion adhesive.
Anhydrite screed		Dry (maximum moisture content 0.5%), solid, without major cracks		Maximum 4 mm wide, edges in the same plane.	Level larger irregularities with levelling compound, remove dust, grease and moisture. For heavy-duty areas, consider fixing with PU adhesive or dispersion adhesive.
Wooden substrates (OSB, plywood, parquet)		Stable, level, without movement and major cracks, dry (maximum moisture content 10%)		Maximum 4 mm wide, maximum height difference between boards 1 mm	Use flexible levelling compound and adhesion bridge if the substrate is unstable, cover with cement-fibre boards or otherwise reinforce
Ceramic and stone flooring		Firmly fixed tiles, in a single plane		Joint width max. 4 mm In the case of recessed joints, these must be filled and levelled with the rest of the floor Tile edges in a single plane	Fill larger joints, clean and degrease the surface If tiles are loose, we recommend their removal and subsequent surface levelling
PVC, linoleum, epoxy floors		Firm, cohesive surface, non-flaking and dry		Maximum 4 mm wide, maximum height difference between floor sections 1 mm	Test compatibility with PVC tiles, degrease the surface. Old plasticised PVC flooring may cause damage to Fortelock tiles.
Metal substrates		Smooth, anti-corrosive, grease-free		-	Apply anti-corrosive coating, degrease the surface. Suitable for heavy-duty industrial applications.
Asphalt and bituminous substrates		Even, cohesive surface without major joints		Maximum 4 mm wide, edges in the same plane.	Respect the maximum load capacity of the substrate (can be up to 10 kg/cm <sup>2</sup> ). Use a load distribution plate for higher loads. Cover with an insulation layer – for example, non-woven textile with a density of 500 g/m <sup>2</sup> .
Carpets		Low-pile, heavy-duty carpet (e.g. carpet tiles, commercial carpets – class 33/34), firmly adhered to the substrate.	The surface must be free of any joints.	We recommend testing material compatibility. Some carpets may contain plasticisers that adversely affect the properties of Fortelock tiles. For Fortelock XL, Invisible and Invisible XL tiles, these carpets must be completely removed.	
Rubber components (recycled tyres or other elastomers)		Rubber floors contain solvents that could damage Fortelock tiles.	-	-	Cover with an insulation layer – for example, non-woven textile with a density of 500 g/m <sup>2</sup> .
Underfloor heating		see section 2.5.	-	-	Turn off heating before installation, gradually turn on after installation. Use expansion gap around walls for thermal expansion.

If the substrate is not listed, we recommend contacting our technical department. Requirements for specific materials may require additional treatment if more than 10% of the surface is damaged.

## 2.4. TEMPERATURE CONDITIONS

Do not install the floor tiles immediately after their delivery. **Let the flooring acclimatize for at least 48 hours before installation at an ambient temperature of 18-26 °C** in the room. The higher the temperature, the faster the floor tiles acclimatize. The floor tiles must be unloaded from the pallets and spread out in the room of installation. To facilitate the acclimatization process, spread out the floor tiles in smaller groups, e.g. of 10 tiles or 6 tiles for XL. Ensure the temperature of the surface remains above +15 °C. **The temperature during installation and 24 hours afterwards must be constant, ranging from 18 to 26 °C** to avoid any thermal dimensional changes in individual flooring components. For normal temperature deviations during installation, note the movement of the floor and **leave a gap of at least 10 mm between the tiles and any**

**fixed points** (e.g. wall). For installation at a temperature below +15 °C, leave a larger expansion gap (joint) between the tiles and any fixed points (e.g. wall). For operating temperatures below 0 °C, contact the sales department of the manufacturer.

### ▲ 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.

## 2.5. UNDERFLOOR HEATING

Fortelock tiles **must be** installed on **electrical** heating systems **with PU adhesive** over the entire surface. This ensures their stability, uniform heat transfer and prevents unwanted expansion.

Bonding is also important for underfloor heating systems where temperature changes exceed 15°C.

**The water temperature in water-based systems** must not exceed **28°C** to prevent overheating of the floor and damage to the tiles.

**The heating system should be started gradually.** After installing the tiles, gradually increase the floor temperature. Start at approximately 20°C and increase the temperature over a period of 7-10 days. This prevents thermal shock and floor damage.

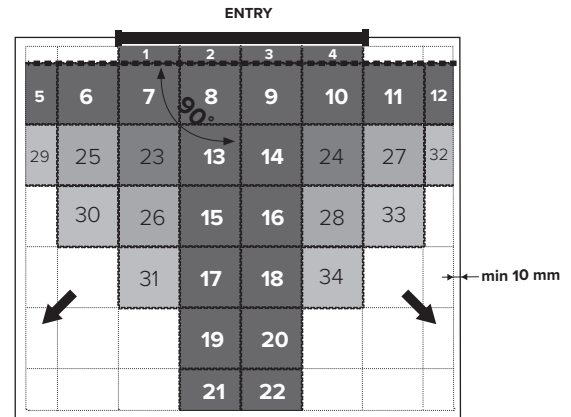
## 2.6. SPECIFIC INSTRUCTIONS FOR FORTELOCK INDUSTRY, INDUSTRY ULTRA AND XL

Start installation from the entrance to the room by first marking the center of the floor with chalk or a laser and from there draw two perpendicular lines one after the other, see the dashed line in Fig. 1. Lay out the tiles along these lines in the order shown in the picture.

If you want ramps positioned precisely at the entrance, put two rows of floor tiles first along the line and connect the ramps and corners where required.

Any final cuts or modifications to the floor tiles on the periphery should be done only after all the tiles have been laid. When cutting floor tiles on the periphery, maintain a gap of at least 10 mm from any fixed point (e.g. around a column, racks or walls). This gap can be later covered with baseboards.

**Fig. 1**  
Installing Fortelock **INDUSTRY, INDUSTRY ULTRA, XL**



## 2.7. SPECIFIC INSTRUCTIONS FOR INVISIBLE, INVISIBLE XL, BUSINESS

### Preparation:

Start laying from left to right and down along the diagonal. For measurement, choose a corner that is 90° or smaller, see Figure 2.

Before installation commences, use chalk, marking tape or a laser to mark out a right angle on the substrate in the chosen corner of the room. The distance of the angle from the wall should equal the size of the tile cut to run along the wall. This peripheral tile should not be less than 1/3 the size of the original tile (for installations conceived around the center of the room).

Draw two lines from the corner at a right angle – see the dashed line in Figure 2. These lines are for measuring peripheral cuts of the tiles and at the same time they allow you to continuously check the precision of the installation.

But the installation can also be done aesthetically in terms of the gaps you intend to maintain between the tiles.

The pattern of Fortelock Business on the floor is random. We therefore recommend you to spread out the floor tiles first, then compare and install them as you wish.

### IMPORTANT

The visible part of the lock must always point in the direction of the installation and the hidden lock in the direction of the wall, see Fig. 3.

### Installation:

There are two installation options:

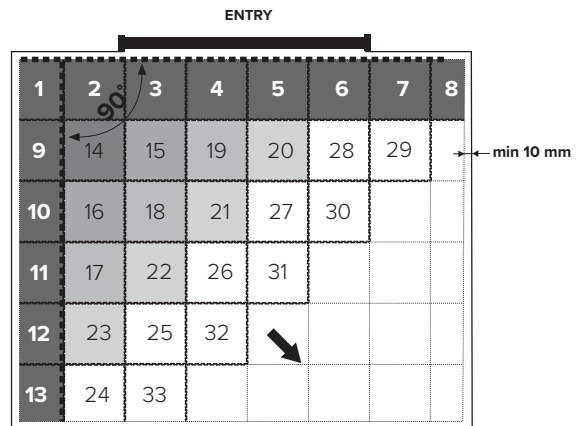
- In a regular checkerboard pattern, where the tiles are joined side by side in a grid pattern (see section 7).
- "Running bond", where the tiles are offset to one another in a brick pattern (for Business, only by 16, 32 and 48 cm).

The first tile to be laid is the adapted corner piece flush with the right angle drawn on the floor for the installation. The sides facing the room must contain the locks, see Fig. 3.

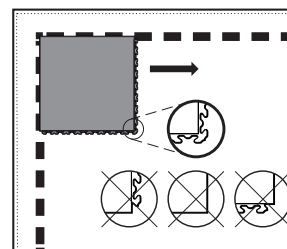
We install all additional tiles by first fixing the corners of the tile tightly to the locks of the lower tile. Next, we tap all the locks in the direction from the corner to the center of the tile, see Fig. 4. This will ensure a strong connection of all tiles. **In the event of another procedure, the locks may become damaged.** The correct fitting and proper connection of the tiles can be checked by touching the locks.

Check the accuracy and squareness of the installation by looking at the details of the joint (especially at the intersection of the joints for straight laying) and by using the demarcation lines. For accessories, we recommend using baseboards made for individual decors, ramps, transitions and end pieces.

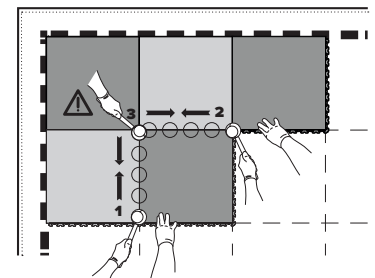
**Fig. 2**  
Installing Fortelock **INVISIBLE, INVISIBLE XL, BUSINESS**



**Fig. 3**  
Direction of installing  
**INVISIBLE, INVISIBLE XL, BUSINESS**



**Fig. 4**  
Method of installing  
**INVISIBLE, INVISIBLE XL, BUSINESS**



### ▲ NOTE

Unless otherwise indicated, the procedures, recommendations and warranties apply to all types of Fortelock flooring.

## 2.8. 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 guidelines described in section 2.6 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.

## 2.9. FINAL JOINT INSTRUCTIONS

Install the floor tiles in the order indicated in the picture and tap with a rubber mallet (with a black or white head according to the color of the floor). Start with the outer corners of the tiles and continue towards the inner corners before laying. The layout of the floor tiles must remain rectangular.

To improve the cleanability, appearance and durability of the flooring, follow the instructions laid out in the guide Cleaning, Maintenance and Disinfection.

For clear and distinct demarcation of the working area in warehouses and industrial plants, you can use **Fortelock demarcation strips**.

## 2.10. CUTTING PERIPHERAL TILES, INSTALLING BOARDS

When cutting the tile, the cut side must be measured against the wall or a fixed point to ensure the **recommended expansion gap** is maintained after laying the tile in place. Maintain this expansion for all intruding or adjoining structures (e.g. heating, other types of floor coverings). This gap allows for natural material expansion due to changes in temperature and humidity and is crucial for the long-term stability of the floor. Subsequently cover the joints using skirting boards or transition strips.

In the event that a heavy load, such as a shelf unit, machine, heavy furniture or other equipment that prevents the free movement of tiles, is placed on the laid tiles, such installation shall be considered fixed (bonded). This prevents expansion in this area, and therefore in these cases, it is necessary to either fix the tiles with a suitable adhesive or secure them mechanically to prevent deformation or lifting of the tiles.

For the easy, straight and fast cutting of individual tiles, **we recommend using a cutter / guillotine**, e.g. Magnum Soft Flooring Shear (762 mm). You can also use a **folding knife or a straight saw**, especially for round shapes. We recommend that you create a template before making difficult and complicated cuts. Hot air guns can also be used to heat up the tile at the cutting point followed by easier action with a folding knife. Especially for making more difficult cuts (e.g. around heaters, door frames, niches and external corners), a hot air gun will make the work much easier.

**WARNING:** In this case, always heat the tiles on the side that is not visible!

There are three ways to install floorboards:

- by screwing the baseboard into the wall and inserting the floorboard,
- by sticking the baseboard to the wall and inserting the floorboard, or

## 3. ATTACHING AND GLUING TILES

Under certain conditions listed below, Fortelock PVC flooring must be fixed or glued to the surface beneath it.

### 3.1. FIXATION

**Securing detachable tiles to the substrate** will ensure the stability of the tiles during heavy-duty movement across the floor. Fixation can be carried out using water-removable **coating on the floor or with fixing tape**. For fixing tiles, we recommend using UZIN KE 2000 S. Prior to fixation, the substrate needs to be penetrated with a suitable primer in order to ensure that it absorbs a thin dispersion coating to reduce anti-skidding effects.

Water-based adhesives are sensitive to moisture and water. We do not recommend using them in areas with excessive moisture in the substrate, where there is a risk of water penetration under the tiles, or where the floor is regularly cleaned with large amounts of water. In such cases, it is more appropriate to use PU adhesive, which creates a permanent bond between the tiles and the substrate and is better suited to more demanding operating conditions.

### 3.2. GLUING

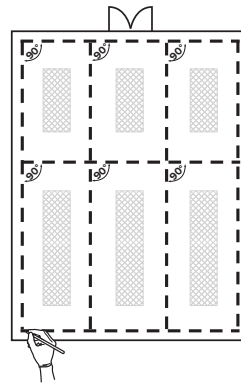
**Gluing is a permanent way of bonding tiles to the floor.** Normally common dispersion or solvent adhesives good for gluing PVC floorings can be used. For gluing tiles in areas with high loads, we recommend adhesives of the brands Uzin KR 430, Mapei Adesilex G19, DIPUR 522 A+B, ACM

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

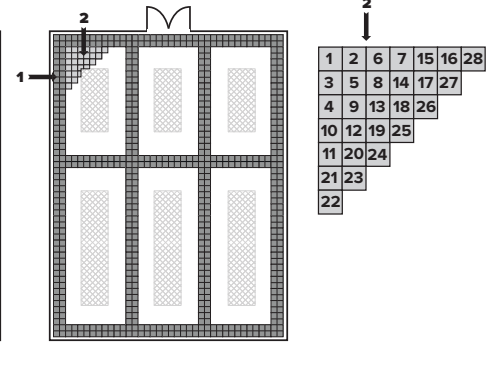
#### DIRECT SUNSHINE

**Floor tiles exposed to direct sunlight should be glued in place.** These primarily include the

**Fig. 5**  
Installation around fixed objects – marking guide lines



**Fig. 6**  
Installation around fixed objects – laying tiles



- by directly screwing the board into the wall without using the base strip.

For Fortelock Industry, XL, Invisible and Invisible XL floorboards, measure off the height (9 cm) on the wall from the tile surface. Ensure the correct connection of the locks during installation.

The least technically demanding installation is installation by gluing. First adjust the size of the baseboard to the size of the room (they are supplied in a length of 2.5 m). Then glue the baseboard to the wall (our recommendation is a universal glue based on MS polymers) or screw it in firmly. In the case of gluing, follow the manufacturer's instructions. If you screw in the baseboards, individual pieces can be installed immediately. Insert the upper part of the floorboard under the edge of the baseboard and press it against the wall so that the lower part of the floorboard (narrow part) covers the expansion joint. Continue inserting other pieces of the floorboard and ensure the locks are correctly engaged.

#### Installation of skirting boards – butt joint without locks

For quick and clean installation, we recommend removing the locks from both sides of the end pieces of the skirting board and joining the pieces "butt-to-butt" (90° perpendicular cut). This eliminates the gap between the locks, simplifies alignment, and makes installation much smoother.

#### ⚠ IMPORTANT

We recommend a width of **more than 1/3 of the tile dimension** for cut tiles placed closest to the walls. **At doors and recesses**, the surface of the cut floor tile must be **bigger than a half** of the whole original tile.

Double-sided adhesive tape can also be used to fix the tiles in place. The strong adhesiveness of the tape means it can be run longitudinally on the underside of the tile in the center or on the edges.

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

#### ADVANTAGES

- Easy attachment using a roller
- Low consumption
- Easy dismantling of one tile or even the entire floor
- The fixation coating is easily removed with warm water and does not damage the substrate

Epoxy ECO.

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

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.

**▲ WARNING!**

Recycled floor tiles are more expansive than floor tiles made of initial raw materials. Due to their thickness, Fortelock Invisible, Invisible XL and XL lacquered tiles can be more expansive than Fortelock Industry tiles and therefore they **need to be glued in places where the tiles may heat up.**

**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 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 AND CATALYTIC CONVERTERS**

Ovens, furnaces and catalytic converters and other heat sources can heat up the floor heavily, causing the floor tiles to expand. To keep this from happening, **glue the floor tiles in the area of the heat source**, whether in front of an oven or wherever there may be a catalytic converter or other heat source from a parked car.

**TEMPERATURE FLUCTUATIONS**

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

### 3.4. Installation of tiles by gluing or fixing

When installing tiles using adhesive or a fixative, follow the following procedure:

1. Lay the tiles in place (without fixing or gluing) in the entire space according to the procedure described in part 2 of this document.
2. After the tiles have been laid in the entire space, lift several tiles in a row (or the entire row) and apply the adhesive or fixative to the substrate according to the instructions provided by the adhesive or fixative manufacturer.

3. Then return the tiles to their original place on the base layer with the applied layer of adhesive or fixative.

4. Run a pressure roller over the laid tiles to ensure the final adhesion of the tiles to the substrate.
5. Follow the same procedure for gluing or fixing other tiles until all tiles are attached in the entire space.

## 4. WARRANTY TERMS AND CONDITIONS

Warranty conditions for Fortelock floor tiles are specified in the document **Warranty Conditions**, which is available on our website [www.fortelock.com](http://www.fortelock.com).

## 5. 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.

1. **Certain types of tires and wheels can stain the floor tiles over time.** This is due to the chemical reaction that occurs between the antioxidant (phenaline diamin (6PPD)) used in various rubbers and the plasticizer used in PVC products. The stain/reaction is brown, so it does not become visible in certain colors of floor tiles (dark grey, black, etc.). **We recommend that you consider using a two-component polyurethane sealing finish against coloring and staining** (e.g. Dr. Schutz Anticolor). When using the floor, stains from tires and stains from aggressive chemicals such as solvents, alkalis, hair dyes, etc., may occur. Please contact us for further information.
2. To improve the cleanability, appearance and durability of the flooring, follow the instructions laid out in the guide Cleaning, maintenance and disinfection.
3. **The floor tiles of the ECO series are made out of recycled wires** with no uniformity of color and they can contain substances contained in these wires, such as copper, aluminum, cadmium and lead. The input material used in ECO tiles means that the tiles can show visual defects on the surface in the form of a silvery effect or dispersed small particles, which do not limit the functionality of the tiles in any way. They can also contain DEHP phthalate (EC 204-211-0; CAS 117-81-7), which is classified as a substance subject to restrictions under the REACH Regulation and also as a substance subject to authorization under Annex XIV of the REACH Regulation. Fortemix, s.r.o. has products made from ECO material registered in the SCIP database. The SCIP number for Fortelock products is a03a4574-b9e2-4f5d-bb70-2a4d15abbec1. Phthalate is not significantly released from Fortelock products under normal conditions. The phthalate content in the product may range from 0 to 3%. Please take this information into consideration when placing tiles and use them for industrial and agricultural purposes.
4. The substrate must meet the requirements stipulated in the local standard for PVC floor installation.
5. **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.
6. Do not use tiles in environments with **relative air humidity exceeding 75% over a long period.**
7. 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.**
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, or 520 kg/cm<sup>2</sup> 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. In cases where the installation requires or permits it, **the edges of tiles and other cut seams can be heat welded with a rod, cold welded**, or glued with solvent adhesives to create a strong and mechanically stable seam. If an adhesive is used, the floor may be subjected to operational loads only after it has dried.

16. **100% color consistency cannot be guaranteed**, especially between different product batches. Adaptation is required when performing an installation with different batches.

17. The manufacturing process of the Fortelock Business tile **does not allow randomly selected floor tiles to be automatically joined together** while ensuring the consistency of the wood decor. For a perfect result, we recommend combining similar shades and decor patterns.

18. 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.

19. 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.

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

21. 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).

22. Putting diamond-pattern floor tiles on a pallet can result in the pattern being **embossed into the pattern of surrounding floor tiles.** This aspect does not affect the technical properties of the floor. This is only a visual aspect.

23. Despite the increased **resistance of Fortelock PVC tiles to oils, petrol and other petroleum-based substances, in the event of spills of these substances, the tiles must be cleaned as soon as possible**, otherwise there is a risk of colour degradation and shape deformation. In the case of larger or frequent leaks of operating fluids, ensure their collection in designated containers or catchment systems to minimise contact between fluids and the floor surface. Contact the Sales Department to find out the degree of resistance to individual types of chemicals.

## 6. ACCESSORIES AND SERVICES

Accessories	Description	Packaging/Design/Colour
Skirting board Industry, Industry Ultra, XL, Invisible, Invisible XL	Skirting board for an elegant finish to the floor near walls and other fixed parts. The skirting boards are made of Fortelock tiles, which achieves perfect color and décor matching. For easier installation, we recommend installing it on a baseboard.	–
Base skirting board	Plastic strip designed for an elegant finish of the floor covering. Universal strips are provided with double-sided adhesive tape designed to glue part of the tiles. The strip must be glued to the wall with mounting glue under the baseboard. Dimensions: length 2500 mm, height 58 mm, width 9.7 mm.	white, gray, black
Adhesive under the base skirting board	MAMUT GLUE High Tack, white	290 ml
Business skirting board	Skirting board for Fortelock Business in colors and decors according to the current offer of the Business collection. Base skirting board included. Material – plastic. Dimensions: length 2000 mm, height 58 mm, width 12 mm.	–
Ramps and corner aluminium profile for Business	Drilled aluminum ramp for an elevation of 8.5-15 mm. Designed for busy places with a heavy-duty loads. Simple and quick assembly. Easy to attach with a screw or glue. Ideal solution for shopping carts, pallet trucks, etc. Dimensions: length 1350 mm, width 80 mm, height from 8.5 to 15 mm. Material – aluminum. Mounting by drilling or gluing. Screws included.	–
Transition tile for Business	Dimensions: length 1350 mm, width 32 mm, material – aluminum. Adhesive.	–
Demarcation strips	Demarcation strips are the answer for anyone looking for a way to demarcate space or delineate safety zones and corridors or who simply want to add some flair to a space. A delineation strip is a <b>narrow tile</b> that can be used within or along the edges of the paved area. If used within the area, adding an additional <b>wide tile</b> will ensure that the strip has the dimensions of the surrounding tiles. In such cases, the strips can be rotated freely in any direction. When used along the edges, a corner tile can be added to finish the strips at the corners of the floor.	–
Marking tape	Designed to mark off danger zones, to mark off directions for pedestrians, etc. Dimensions: width 50 mm, length 33 m.	yellow, yellow-black
Rubber hammer	Rubber hammer, wooden handle.	–

Fixation and bonding	Description	Packaging
PVC Fixing Dispersion – UZIN	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. A1 notched trowel application, consumption approximately 200–300 g/m <sup>2</sup> .	5 kg (16 - 25 m <sup>2</sup> ) 14 kg (46 - 70 m <sup>2</sup> )
Fixing tape	Special transparent colorless 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. A1 notched trowel application, consumption approximately 200–300 g/m <sup>2</sup> .	3 kg (10 - 15 m <sup>2</sup> ) 8 kg (26 - 40 m <sup>2</sup> ) 12 kg (40 - 60 m <sup>2</sup> )
PU adhesive under PVC - DIPUR	Solvent-free two-component polyurethane adhesive for permanent connection of tiles to the floor.	6 kg (20-30 m <sup>2</sup> ) 30 kg (100-150 m <sup>2</sup> )

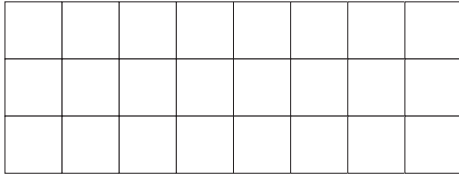
Cleaners	Description	Packaging
Forteclean Daily Cleaner	Special active cleaner for <b>daily use</b> and for use after installation of untreated elastic flooring (PVC, linoleum, rubber) or flooring with PU/PUR surface treatment. High cleaning power even on greasy deposits. No surface leaching, no grey film left behind. Cleaning without residue or streaks. For safe non-slip surfaces.	1 l (1000 m <sup>2</sup> ) 5 l (5000 m <sup>2</sup> )
Forteclean Intense Cleaner	Neutral active cleaner for <b>deep cleaning</b> of elastic flooring (PVC, linoleum, rubber) and gentle removal of heavy dirt and grease. Ideal for post-installation cleaning in both domestic and industrial buildings. Does not damage protective coatings and films. Suitable for all washable surfaces.	1 l (50 m <sup>2</sup> ) 5 l (250 m <sup>2</sup> )
Dr. Schutz ESD Floor Cleaner	Cleaning concentrate for daily cleaning and also for cleaning after <b>ESD tile</b> installation. Developed for all electrostatically conductive and antistatic floors.	10 l (10 000 m <sup>2</sup> )
Dr. Schutz Universal Elatex stain remover	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
Dr. Schutz Secura Hard Protective Layer	<b>Polymer dispersion</b> (wax) with metal mesh elements for the treatment of newly installed floorings in buildings or base-clean them. The floor will be protected, the adhesion of dirt will be reduced and routine cleaning will be greatly simplified.	5 l (100 m <sup>2</sup> ) 10 l (200 m <sup>2</sup> )
Dr. Schutz PU Anticolor SP semi-matte	<b>Two-component water-based polyurethane coating</b> . Extremely high cross-linking density and thus increased resistance to colored substances, plasticizers and chemicals.	1.08 l (11 m <sup>2</sup> ) 6 l (60 m <sup>2</sup> )

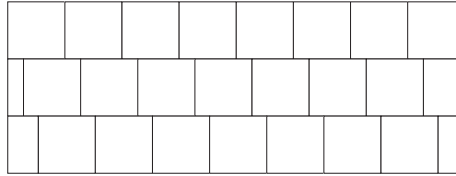
Services	Description	Color
GRANIT print	GRANIT print contains 3 standard patterns of grain prints, <b>which differ in grain size and color combination. Thanks to the seemingly incongruous print, you can visually break the monotonous appearance of the floor, which can occur when tiles of only one color are used.</b>	Quartz, Grey, Black
CUSTOM print	We print the tiles <b>according to your wishes</b> and ideas. Just send the graphic in curves or in print resolution of 300 dpi. We recommend printing warning symbols, company logos, direction indicators, or other graphics according to your own ideas.	–
PU lacquering	Lacquering gives the floor a presentable appearance, increased durability and facilitates maintenance. The result is a floor that is beautiful to look at and pleasant to the touch.	–
Tile takeback	As part of our environmental program, we offer our customers the option of us taking back unnecessary Fortelock PVC tiles that would otherwise end up in a landfill. Thanks to this service, you will save time, worries, money for landfilling, and you will also contribute to environmental protection together with us. Give us your tiles back and we will take care of the recycling of waste material and its reuse. More info on the Fortelock website.	–

## 7. SAMPLES OF FORTELOCK INVISIBLE, INVISIBLE XL, BUSINESS TILES

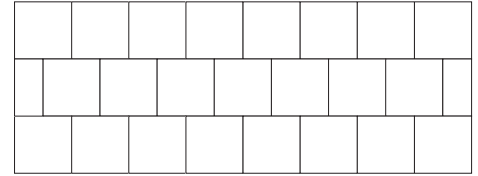
### 1. Checkerboard



### 2. Brick (offset 1/4)



### 3. Brick (offset 1/2)



## 8. 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*
Truck type	Pallet truck	Electric pallet truck	Electric forklift truck	Electric retractor	Forklift truck	Forklift truck, car
Loose installation						
XL	400	–	–	–	–	–
Invisible	300	700	–	–	–	3 500
Invisible XL	500	700	–	–	–	3 500
Industry	500	700	–	–	4 300	6 600
Hard	900	1 100	1 300	–	5 500	6 600
Industry Ultra	1 300	1 700	2 900	5 100	5 500	6 600
Business	1 300	1 700	1 700	–	–	3 500
Gluing / fixing						
XL	1 300 <sup>0)</sup>	1 700 <sup>0)</sup>	2 900 <sup>0)</sup>	5 100 <sup>0)</sup>	5 500 <sup>0)</sup>	6 600 <sup>0)</sup>
Invisible						
Invisible XL						
Industry						
Hard						
Industry Ultra						
Business	1 300 <sup>0)</sup>	1 700 <sup>0)</sup>	1 700 <sup>0)</sup>	–	–	3 500 <sup>0)</sup>

\*Vehicles with tires should not stand on tiles for long periods of time to prevent the dye from migrating. To protect tiles, use Dr. Schutz PU Anticolor SP semi-matte varnish.

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. We do not recommend loading tiles made of ECO material with electric carts with a total weight including cargo above 2 500 kg.

**Important:** To maintain maximum dynamic load capacity, we recommend fixing or gluing the tiles at temperatures above 27°C. When using tiles made from recycled material, the maximum load can be reduced.

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).

<sup>0)</sup> The maximum dynamic load capacities listed above apply to standard conditions. In specific applications, higher load capacities may be permissible – this requires individual technical assessment. If you require higher dynamic loads, please contact Fortelock technical support.

## 9. PRODUCT CODES

Fortelock product line	INDUSTRY	INDUSTRY ULTRA	XL	INVISIBLE	INVISIBLE XL	BUSINESS
Product numbers – tiles	2010 – diamond 2020 – skin 2040 – coins	2410 – diamond 2420 – skin 2440 – coins	2230 – snakeskin	2030 – snakeskin	2550 – bark	2320
Product numbers – ramps	2015 – diamond 2025 – skin 2045 – coins	2415 – diamond 2425 – skin 2445 – coins	2235 – snakeskin	2035 – type A 2034 – type B 2033 – type C 2032 – type D	2555 – type A 2554 – type B 2553 – type C 2552 – type D	2325 – type A 2324 – type B 2323 – type C 2322 – type D
Product numbers – corners	2016 – diamond 2026 – skin 2046 – coins	2416 – diamond 2426 – skin 2446 – coins	2236 – snakeskin	2036 – type A 2037 – type B 2038 – type C 2039 – type D	2556 – type A 2557 – type B 2558 – type C 2559 – type D	2326 – type A 2327 – type B 2328 – type C 2329 – type D
Demarcation strips – narrow tile	2014 – diamond 2024 – skin 2044 – coins	2414 – diamond 2424 – skin 2444 – coins	2234 – snakeskin	–	–	–
Demarcation strips – wide tiles	2013 – diamond 2023 – skin 2043 – coins	2413 – diamond 2423 – skin 2443 – coins	2233 – snakeskin	–	–	–
Demarcation strips – corner	2017 – diamond 2027 – skin 2047 – coins	2417 – diamond 2427 – skin 2447 – coins	2237 – snakeskin	–	–	–
Product numbers – skirting board	2011 – diamond 2021 – skin 2041 – coins		2231 – snakeskin	2031 – snakeskin	2551 – bark	2321

## 10. TECHNICAL PARAMETERS OF FORTELOCK PVC FLOOR TILES

Fortelock floor tiles are subject to assessment under EP and Council Regulation no. 305/2011 ("CPR") to ensure compliance with the procedure according to the harmonized standard of ČSN EN 14041:2004/AC:2006. Detailed information about the product and its variants can be found in the catalog or on the website: [www.fortelock.com](http://www.fortelock.com). Contact your dealer for more information.

	Standard	INDUSTRY	INDUSTRY ULTRA	XL	INVISIBLE	INVISIBLE XL	BUSINESS		
Type	–	homogeneous flooring					heterogeneous flooring		
Size of tile with lock (TL)	–	510.5 × 510.5 mm		653 × 653 mm	468 × 468 mm	653.5 × 653.5 mm		653.5 × 653.5 mm	
Actual coverage size (L)	–	496.5 × 496.5 mm		639 × 639 mm	453 × 453 mm	640 × 640 mm		640 × 640 mm	
Thickness	–	7 mm	10 mm	4 mm	6.7 mm	5.3 mm		7 mm	
Type of surface layer	–	homogeneous					heterogeneous	homogeneous	
Thickness of wearlayer	ČSN EN ISO 24340	7 mm	10 mm	4 mm	6.7 mm	5.3 mm		0.7 mm    2 mm	
Weight (± 10 %) <sup>(1)</sup>	–	2.3 kg	3.1 kg	2.3 kg	1.8 kg	3.4 kg		4.1 kg	
Pattern	–	leather/diamond/ coins		snakeskin		bark		–	
Area of use, intensity of use	ČSN EN ISO 10584	34 – 43 <sup>(2)</sup>					23 – 34 – 43 <sup>(2)</sup>		
Dimensional stability after exposure to heat <sup>(1)</sup>	PP 457	≤ 0.25 %					≤ 0.15 %		
Curling after exposure to heat <sup>(1)</sup>	ČSN EN ISO 23999	–					≤ 1 mm		
Straightness, squareness, length <sup>(1)</sup>	ČSN EN ISO 24342	≤ 0.13 %, max. 0.5 mm					≤ 0.15 %, max. 0.5 mm		
Chemical resistance	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	satisfactory							
Hardness <sup>(2)</sup>	ČSN EN ISO 868	≥ 90 Shore A							
Resistance to chair wheels	EN ISO 4918	satisfactory							
Anti-slip property <sup>(1)</sup>	DIN 51130:2014-02	R10					R9		
Color fastness to artificial light	ČSN EN 20105-A02	>5 (without damage)					–		
	ČSN EN ISO 105-B02	–					≥ 6		
Warranty <sup>(1)</sup>	–	up to 12 years							
Number of pieces up to 1 m <sup>2</sup>	–	4		2.5	5	2.44		2.44	
Compressive strength <sup>(1)</sup>	ČSN EN ISO 604-1	520 kg/cm <sup>2</sup>							
Electrostatic properties <sup>(1)</sup>	ČSN EN 1815	< 2 kV							
Thermal conductivity	EN 12664	0.155 W/(m·K)							

<sup>(1)</sup> Cannot be guaranteed for tiles made of recycled material.

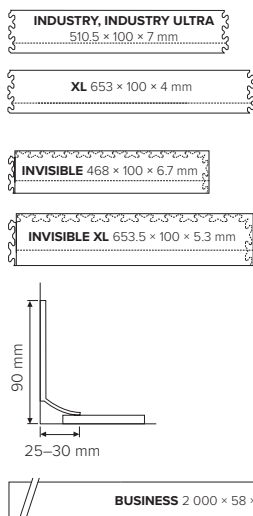
<sup>(2)</sup> 99 Shore A for Fortelock Hard.

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

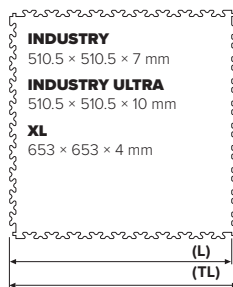


0.155 W/(m·K)

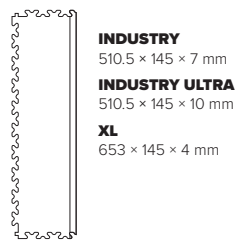
### Skirting board



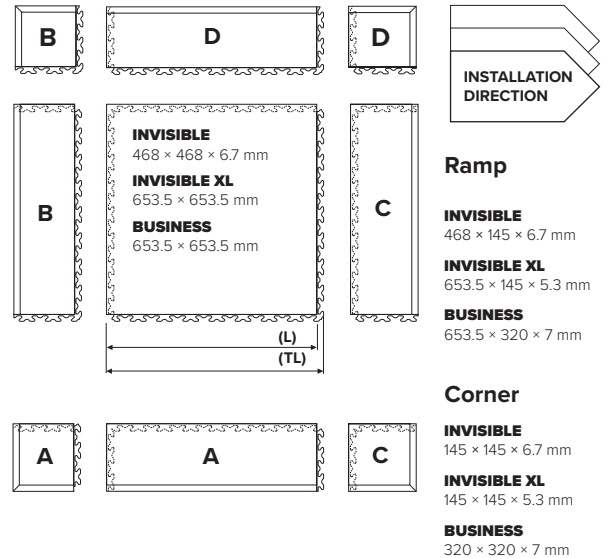
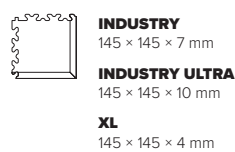
### Tile



### Ramp



### Corner



Illustrative Pictures