

Product features

The Fortelock system consists of interlocking tiles made from PVC suitable for old and new surfaces of varying quality. The tiles are manufactured in the Czech Republic using modern energy-saving injection molding machines from materials that ensure the tiles are resistant to wear and chemicals and have long-term durability.

Using the product

The **ForteLock** system is designed to create a floor surface layer for heavy-duty traffic, requiring extra resistance to abrasion, impact and the penetration of liquids (oils, solvents, etc.).

The **ForteLock** system can be installed on old and new surfaces of varying quality.

Advantages of the system

<p>Speed and ease of installation independent of the substrate</p> <p>Minimum repair needs for the substrate (fights oil, cracks, etc.)</p> <p>The floor is removable, portable and easy to repair</p>	<p>Nonslip surface free of dust</p> <p>Long-term durability and stability even in heavy industry</p> <p>Acts as a sound, vibration and thermal insulator</p> <p>A floor that breathes – Air-Flow anti-moisture system</p> <p>Resistance to mechanical damage, oil and chemicals</p>
<p>Wide use – from schools to heavy industry</p> <p>Comfortable and colorful floor</p>	<p>Environmentally Friendly Product</p> <p>Warranty against wear for up to 12 years</p> <p>Made in the Czech Republic</p>

Test certificates

Product testing and a conformity assessment were carried out in accordance with EN 14041 pursuant to the European Community Council Directive 89/106/EEC (CPD – Construction Products Directive).

Product name	Fortelock Industry			Fortelock Light			Fortelock		
	Fortelock 2010	Fortelock 2020	Fortelock 2040	Fortelock 2050	Fortelock 2060	Fortelock 2080	Fortelock 2015	Fortelock 2025	Fortelock 2045
Product use	Industry, heavy-duty storage			Garages, workshops, stores					
Product type	tiles						approach and corner in one		
Surface	diamond	leather	coins	diamond	leather	coins	diamond	leather	coins
Material	PVC								
Dimensions	510x510x7mm			510x510x7mm			510x140x7mm		
Weight	2,2 kg			1,4 kg			0,5kg		
Hardness ¹⁾	92±3 Shore A (EN ISO 868)								
Resistance to chemicals	Good - (EN 423 - petrol, diesel, 18% acetic acid, tartaric acid 250g/1hl - imperceptible effect)								
Compressive strength ¹⁾	520 kg/cm ² (EN ISO 604-1)								
Total thickness	7-8 mm (EN 428)								
Thickness of the surface layer	7-8 mm (EN 428)								
Resistance to abrasion ¹⁾	T (<0.1mm /100) (EN 660-2)								
Deformation after static load ¹⁾	<0.1mm (EN 433)								
Dimensions of stability ¹⁾	<=0,20% (BS EN 434)								
Straightness, squareness, length ¹⁾	<=±0,20% of nominal length (EN 24342)								
Colour fastness to artificial light	>5 (without damage) (EN 20105)								
Colour uniformity ¹⁾	< ±2 ΔE*ab								
Reaction to fire ¹⁾	difficult to ignite (DIN 4102)								
Nonslip properties ¹⁾	up to 0.75 dynamic coefficient of friction (EN 13893)								
Standard colors (More in the order form)	Red, Blue, Green, Black, Graphite, Orange, Rosso Red, Electric Blue, Light Green, Light Blue, Purple, Yellow, Grey, ECOblack, ECOgrey								
Warranty for wear	up to 12 years								

¹⁾ cannot be guaranteed for tiles from recycled material

Instructions for installation

The fundamental aspects for an easy and successful installation

Allow the tiles to acclimatize at least 24 hours before installation – disassemble palette and spread the tiles in sets of 10 pieces on the floor. The recommended installation temperature is at least 15°C.

In the case of operating temperature of floors under 5 degrees below zero Celsius, please contact technical service of the manufacturer.

Do not apply any force to the tiles; put them together and attach gently with a hammer.

Let the flooring settle before measuring and cutting away from walls and fixed points.

Leave a gap of at least 5 mm between tiles and walls and other fixed points.

Create a template before performing difficult and complicated cuts.

Phase 1 – TEMPERATURE

Installation should not take place at temperatures below 15°C. Do not lay tiles immediately after delivery. The tiles must acclimatize to the ambient temperature before the installation starts. We recommend that you leave them for 24 hours, but even that will depend on temperature.

The higher the temperature, the faster the tiles acclimatize. We suggest unpack the pallet and place tiles into smaller bundles to allow them to adapt and acclimatize more easily. If the installation must take place at temperatures below 15°C, allow a greater expansion gap between tiles and any fixed point.

Even for installations at normal temperature deviations, it is necessary to take into account the movement of the floor, leaving a gap of at least 5 mm between tiles and any fixed point.

Phase 2 – PREPARATION

Sweep or vacuum the floor to remove any loose particles. Smooth out any uneven points on the floor. Fill in any cavities with grout or putty used to repair floors (e.g. FortegROUT). For uneven surfaces that require fuller smoothing, use a self-leveling screed (e.g. Fornivel).

Loose lay or glue?

Fortelock can be placed on any solid surface and usually does not require any gluing.

We recommend gluing tiles with adhesives Uzin KR 430, Bostic EPONAL PU 456, Murexin PU 330 and Dipur Polychem in the following situations:

DIRECT SUNLIGHT

(Front shops, loading areas facing south, under ceiling lights, etc.) We recommend gluing tiles in places that are exposed to direct sunlight, such as glazed entrance places, south-oriented doors of loading areas, etc. Tiles exposed to direct sunlight may heat up and expand more and faster than the rest of the floor, while tiles from recycled material are more expansive than those from the primary ingredients.

HEAVY TRUCKS OR AREAS UNDER HIGH STRESS

Some forklift trucks and pallet trucks can cause certain problems, such as heavy trucks with small wheels, especially electric trucks for heavy-duty loads, where the battery is positioned above the main drive axle. If you use this type of truck, we strongly recommend that you test these tiles with your trucks before deciding which type of tile to use.

The recommended upper load limits for a loose-laying installation without gluing¹:

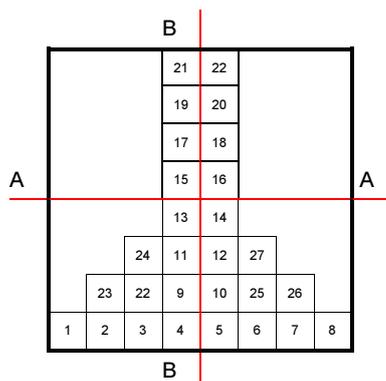
- Four-wheel forklift trucks with rubber tires that carry loads of no more than 1,500 kg
- Three-wheeled forklift trucks with rubber tires, with dual rear wheels, which carry loads of no more than 1,000 kg
- Pallet trucks with a total weight, including the load, that does not exceed 1,000 kg

EXTERNAL HEAT SOURCES / CATALYTIC CONVERTERS

Ovens, furnaces and catalytic converters can heat up floors intensively, causing tiles to expand. To avoid this problem, glue tiles in front of the oven or where the catalytic converter or other heat source will be when the car is parked.

Phase 3 – INSTALLATION:

1. Use chalk or laser to create lines A-A and B-B. Ensure these lines are at right angles as shown. It is essential that tiles remain in the orthogonal position.
2. First, we recommend you lay out the tiles across the floor in their ultimate destination. Then attach and align tiles together. Ensure that the joints are in one line.
3. If the tiles should be glued, follow the instructions of the adhesive manufacturer.
4. Using a rubber hammer, gently tap the tiles together. Start at the corner of the tile and work your way outward to the edge.
5. Work in the pyramid style as shown, and fill in all corners.
6. Once all tiles have been laid, let the floor settle before measuring and making final cuts.
7. Be sure to leave a gap of at least 5 mm between tiles and any fixed point to allow for expansion.



Phase 4 – CUTTING, FINISHING TOUCHES

For perfect finishing touches, leave at least a 5 mm gap between tiles and any fixed point (walls, machines). This expansion gap between tiles and walls can be covered with skirting or filled in with a flexible sealant.

Cleaning and maintenance

Use a rotary cleaner-dryer if you have one available. Use clean water and a pH-neutral cleaning agent in a weak solution. To ensure better cleanability, appearance and endurance is recommended to use protective layers from the company Dr.Schutz.

Preventive steps

A substantial proportion of all impurities carried indoors can be minimized by using cleaning mats in front of doorways and cleaning zones around entrances. These cleaning zones should have a minimum size of 2 to 3 steps and be included in the regular daily cleaning schedule. If necessary maximum coefficient of friction, there can be applied special antislip paint to the floor.

Cleaning after construction work and frequency

A newly laid floor must be thoroughly cleaned before use in order to remove all traces of manufacturing and installation impurities.

For cleaning, use Dr. Schutz CC – Basic cleaner R diluted with water at a ratio of 1:5 to 1:10. For slight soiling, the concentration can be increased depending on the degree of removal. Apply the cleaning solution evenly on the floor and after about 10 minutes, scour the entire surface using a single-brush rotating machine. Vacuum up dissolved impurities with a water filtration vacuum cleaner and neutralize the entire area thoroughly with clean water until all remnants of the cleaning solution have been completely removed. When cleaning, avoid creating “puddles” and allowing too much water to stand on the surface.

This cleaning action should be carried out even for stubborn dirt and other deposits that interfere with the nice appearance of the surface when it is in use. Depending on the degree of traffic and the effect of routine cleaning, this step should be performed on the premises every 6 to 12 months.

¹ For uneven surfaces or in case of tiles from recycled material the maximum load may decrease

FORTEMIX is not liable for any damages that result from a failure to comply with the manufacturer's instructions and recommendations. F-13-10--17



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Regular cleaning and care

Removal of dust:

Remove loose dust and dirt with a wet wipe or cleaning spray and suitable mop. Oil etc. wipe off as soon as possible.

Manual or machine wet cleaning:

To remove stubborn dirt, use CC-R 1000 cleaner diluted at the ratio of 1:200 in water and wipe the surface by hand or using cleaning equipment. For grease or oil stains and abrasion from transport trucks (e.g., warehouses, industrial halls, and workshops), cleaning must be performed by machine using CC – Active cleaner R 280 or CC – Basic cleaner R.

Removing stains and scratches from rubber heels

Remove stubborn stains and scratches from rubber heels with CC – Elatex with the help of a cloth or fine white pad. Afterward wash the spot with clean water. Given that this product dissolves the PU or other protective layer, it is necessary to apply the product that created the protective layer to the treated area. If possible, remove stains immediately since some types of stains can migrate to the surface over time, making their complete removal difficult or impossible.

Caution

Some types of tires and wheels can create stains on the tiles (and many other types of flooring material). It is the result of a chemical reaction that occurs between the antioxidant used in some rubbers and the plasticizer used in vinyl. The stain/reaction is brown, and so not too visible on certain colors of tiles (dark gray, black, etc.). We recommend that you consider using a two-pack polyurethane sealing coating against stains and coloring if spots can occur from tires, hair dyes or other aggressive chemicals. Please contact us and we will provide you with more information.

Unfortunately we cannot guarantee you 100% color consistency especially between individual batches of the product line. For different batches, the installation must take this fact into account. We do not recommend using tiles outdoors; they are not durable to UV radiation.

These tiles were designed to provide exceptional durability and ease of installation. This we achieve with a unique locking design and manufacturing method, which may as a result leave the tiles with visible traces of injection molding from the center to the edge. These traces cannot be avoided.

Mount protective heels on objects with sharp or angled corners. Do not move pallets without first lifting them. This way you prevent scratching the floor.

Although the tiles have a unique system for preventing the retention of water, the penetration of moisture into the joints of squares is a possibility and this information should be included in the building specifications.

Before the application please check our web page www.fortemix.eu to be sure that you have the latest technical documentation.

Animal urine and feces cause the tiles to fade. Acids in some food products such as tomato paste can also cause tiles to fade. Remove chemicals and stains as soon as possible.

Tiles from the ECO range (in particular ECOgrey, ECOblack) which are manufactured from recycled electrical wiring may contain the substances which this wiring contained, such as copper, aluminium, cadmium and lead. As a result this must be taken into consideration when placing the tiles.

Warranty

Fortemix Co. provides the following warranty, subject to the terms and conditions set forth herein and the terms and conditions at www.fortemix.eu/tot.pdf for all interlocking floor tiles made of PVC for one (1) year from the date of shipment, or for the period of shipment as established by the laws of the destination country if a longer period is required. Fortemix Co. replaces any defective product free of charge if the defect is discovered before installation. If the customer is convinced that the defect occurred after installation, he shall promptly notify Fortemix and allow the product to be inspected. If after inspecting Fortemix Co. acknowledges that the product is defective and does not meet the restrictions contained in this warranty, it shall replace the defective product with the delivery of a new shipment without any defects.

Fortemix Co. guarantees the resistance of Fortelock (interlocking floor tiles made of PVC) to wear for three (3) years for black and grey color and for six (6) years for other colors from the date of manufacture except of recycled series. Warranty can be extended for fee to six (6) years for black and grey color and to twelve (12) years for other colors from the date of manufacture except of recycled series. If the customer is not satisfied with the resistance to wear, he must inform the company Fortemix and allow it to check the floor. If the upper wear layer of the original floor is significantly worn and the floor had been properly placed and maintained, Fortemix will replace the worn tiles with new ones. The new tiles may be subject to a charge which would reflect a difference in the amortization of the new and old tiles.

For the customer to have the right to replacement tiles under this warranty, he must make a claim for the defect in writing to Fortemix immediately after its detection, but no later than 90 days after the discovery of the defect. This notification shall be sent to the company's address: Fortemix s.r.o., Kirilovova 812, Paskov, Czech Republic.

These warranties do not cover the following:

- An exact uniform shade, color or matting.
- Direct or implied promises made by the seller or agent.
- Tears, burns, cuts or damage caused by improper laying, improper or rough use, sharp wheels, improper cleaning agents or maintenance methods.
- Costs for transport and the initial installation and/or replaced material.
- Problems caused by moisture, hydrostatic pressure or alkaline substances in the base layer of the floor.
- Problems caused by usage, maintenance, or installation that does not match the specifications issued by Fortemix, its recommendations or guidelines.
- Material installed with obvious defects.
- Installation with adhesives other than those recommended by Fortemix.
- Fading or discoloration due to the excessive penetration of sunlight or exposure to ultraviolet radiation from direct sunlight or sunlight passing through glass.

These warranties supersede any other warranties, expressed or implied. Fortemix Company shall not be liable for any incidental or subsequent damage that may be caused by a defect. An extended warranty must be confirmed in writing by Fortemix.

This manual was prepared as a guide only. The information contained herein is provided in good faith but of course without guarantee, since conditions on site vary and we cannot influence them in any way.

