

# FRESCOPUNK®

## INSTALLATION

### GENERAL

We recommend installing our products in accordance with the DIN 18202 standards and the DIN 18352 standards for tile laying works. We also recommend that you follow the latest technical information, guidelines and leaflets from your national tiler association.

As a manufacturer, we make the following additional recommendations for the Frescopunk BATTERIA, STRADA and BASE products:

### INTENDED USE

BATTERIA, STRADA and BASE tiles are grès porcelain stoneware products according to the standards of DIN EN 14411. With a thickness of 6 mm they are particularly suitable in the case of renovation of residential floors and walls: they can be laid on the existing floor, allowing for a dramatic demolition and disposal cost savings.

BATTERIA, STRADA and BASE tiles are thin, lightweight, easy to handle and cut, environmentally friendly and at the same time resistant, fire-resistant, frostproof and do not require any special care for maintenance. They are green products with considerable savings in terms of energy consumption, raw materials, packaging and transport.

#### **Indoor flooring: new floors**

Particularly suitable for installation on new screeds.

#### **Indoor flooring: floor renovation**

Particularly suitable for installation on existing floors in ceramic or natural stone.

#### **Indoor flooring: underfloor heating systems**

Suitable for installation on underfloor heating systems: with a minimum thickness of 30 mm on the heating coils.

#### **Indoor flooring: commercial areas**

Suitable for indoor public areas subject to medium pedestrian traffic.

#### **Indoor wall coverings: existing walls**

Particularly suitable for installation on existing indoor walls.

#### **Indoor wall coverings: plaster**

Particularly suitable for installation on indoor walls with plaster: the structure must withstand a weight of ceramic material of 10.2 kg/m<sup>2</sup>.

#### **Outdoor glued walls**

Particularly suitable for installation on existing outdoor walls: the minimum tear resistance of the plaster must be 1 N/mm<sup>2</sup>, the structure must withstand a weight of ceramic material of 10.2 kg/m<sup>2</sup>.

## **UNDERLAYER**

The floor substrate must be resistant to bear the expected stress and weight added with the ceramic tiles. It must be solid, with no removable parts or cracks and perfectly planar with no height variations. It must be perfectly aged (28 days or according to the manufacturers specifications) and dry and free of any loose parts, oil, water, dust, paint, grease, wax, etc., which might compromise the effectiveness of the adhesives.

### **Reinforced concrete**

The reinforced concrete substrate must be aged, cured, clean, dry and free of any substance which might compromise the adhesion of the ceramic. Any crack due to hygrometric shrinkage must be sealed (1). Any dirt or surface dust must be thoroughly removed, with a primer (2) being applied afterwards. Any surface inconsistencies must be consolidated (3).

### **Screed**

The screed surface must be aged, cured, clean, dry and free of any substances which might compromise the adhesion of the ceramic. Any crack due to hygrometric shrinkage must be sealed (1). The completely cured screed must be checked to be strong enough to bear the weight of the ceramic tiles. Any dirt or surface dust must be thoroughly removed, with a primer being applied afterwards (2). And any surface inconsistencies must be consolidated (3).

### **Floor heating systems**

For floor heating installations the correct switch on cycle of the system must be performed in compliance with the applicable standards and the indications of the manufacturer of the floor heating system. A minimum thickness of 30 mm on the heating coils is recommended.

### **Existing ceramic and stone floorings**

It must be checked that the existing ceramic or stone covering is perfectly attached to the support, planar and free of any cracks or sections that tend to detach from the substrate. If not, the floor cracks must be sealed (1), any gaps must be filled (4) and planetary imperfections must be corrected with levelling mortars, after having cleaned the existing surface, then apply a primer (2) if necessary. All ceramic or stone floorings must be suitably cleaned with a solution of warm water and caustic soda at 20% and rinsed thoroughly to remove any trace of loose substances. If necessary, the surface must be subjected to some surface abrasion to achieve a rough and clean support, in order to improve the subsequent adhesion.

### **Indoor walls with plaster**

The structure must withstand a weight of ceramic material of 10.2 Kg/m<sup>2</sup>.

### **Outdoor glued walls**

For outdoor installation the minimum tear resistance of the plaster must be 1 N/mm<sup>2</sup>.

The structure must withstand a weight of ceramic material of 10.2 Kg/m<sup>2</sup>.

(1) Use a two-component epoxy fluid adhesive (i.e. EPORIP by Mapei or similar).

(2) Use a single-component resin primer with a very low content of volatile organic compounds (VOC) (i.e. PRIMER G or ECO PRIM T by Mapei or similar).

(3) Use a single-component or two-component epoxy or polyurethane primer (i.e. PRIMER MF or ECOPRIM PU 1K by Mapei or similar).

(4) Use a rapid setting thixotropic smoothing compound (i.e. ADESILEX P4 or NIVORAPID by Mapei or similar).

## **JOINTS**

The recommended joint is 2 mm.

The joints must be grouted only after the adhesive has hardened, normally 3 hours for fast set adhesives and at least 24 hours for regular set adhesives.

## **EXPANSION JOINTS**

Expansion joints must be formed in accordance with the instructions of the constructor and/or the work specifications.

### **Floor renovations and existing walls**

Keep strictly to the existing expansion joints on the old flooring or on the walls.

### **Floor heating systems**

Before costing the concrete apply the perimeter band along all the vertical surfaces (walls, steps and columns). Apply expansion joints according to UNI EN 1264. (Surfaces  $\geq 40 \text{ m}^2$ , lengths  $\geq 8 \text{ m}$ .)

### **Indoor walls with plaster and outdoor glued walls**

Keep strictly to the existing expansion joints and the fractional joints required for laying the tiles. (Expansion joints min. at every 9-12  $\text{m}^2$  for glued walls.)

## **ADHESIVES**

Adhesives are required to meet the criteria of the C2 ratings for cementitious adhesives (minimum tensile adhesion strength of  $1 \text{ N/mm}^2$ ) according to the standards of EN 12004 (or ISO 13 007 part 1), as well as the S2 ratings (for deformation  $> 5\text{mm}$ ) according to the standards of EN 12002.

For perfect installation we strongly recommend applying the adhesive with double spreading, both on the substrate and on the back of the tile.

First apply the adhesive on the back of the tile with a notched trowel, first apply a thin layer with the flat edge of the trowel, then apply the desired thickness with the notched edge with semicircular movements. Then apply the adhesive on the substrate and lay the tile. Tap the surface of the slab with a rubber hammer to ensure that the tile is completely wet and that there are no gaps or air bubbles between the tile and the underlay.

Use the Tuscan Leveling System or a similar system to maintain plane parallelism of the tiles.

## **CUTTING**

Cutting operations may be carried out with standard tools used for porcelain tiles of all thickness: manual or hose cutter with disks for porcelain tiles, bench machine with diamond disks for porcelain tiles and with water cooling, hydrojet.

## **DRILLING**

Drilling operations may be carried out with drills with porcelain tiles drill bits, hollow mills or hose-mounted drill bits (for large size holes), hydrojet. Never use the hammer function when drilling! If necessary, use water cooling on the point being worked.

# MAINTENANCE

## INITIAL CLEANING

**The first cleaning after installation is the most important in the whole life of the floor.**

It must be done to remove all residues of grout, glue and cement after the grouting. These residues may compromise the stain resistance properties of the ceramic floor. Never use mechanic machines for initial cleaning: grout, glue and cement residues removal is a chemical process.

If the initial cleaning has not been carried out correctly, it is possible to see residues or stains on the floor, especially along the joint spacings. In this case it is necessary to repeat the initial cleaning operation, using the cleaning solutions in higher concentrations and leaving them longer on the floor. It is very difficult to remove grout once it is dry. Please contact the grout producer in case of problems.

### **Cementitious grout mixed with water**

Clean after 2/3 days and within 7 days from grouting by using an acide detergent (DETERDEK PRO by Fila or CHERODAL by Écosi).

Follow the instructions provided by the producer of the cleaning solution. Previously test the detergent on a tile that hasn't been installed, before using the detergent on the whole surface. The surface must be moistened with water before washing to impregnate and protect the joints from the corrosive effect of the detergent. Leave the solution on the floor for some minutes, according to the instructions of the producer. Then collect the liquids and rinse thoroughly with water. Absorb the water with a rug or a vacuum machine until all the residues have been removed. Repeat rinsing operations if needed, until all residues will have been removed.

### **Epoxy or bicomponent grouts**

Cleaning must be done immediately and very carefully, because this kind of grouts harden very quickly. Strictly follow the instructions provided by the grout producer and previously verify their effectiveness on a tile that hasn't been installed, before proceeding with grouting operations on the whole area. Check carefully that all grout residues have been removed.

## DAILY MAINTENANCE

For daily maintenance we recommend removing dust with a microfibre cloth and then cleaning the surface with a neutral detergent with low residue, using a wet cloth. The cloth must be washed very often in the water and detergent solution. It is crucial, that the solution used is neutral, without wax, acids, solvents or abrasive particles.

Never apply waxes or silicone containing products, as they can form a surface film that impairs the natural properties of the grès procelain stoneware. Also dirt water, polishing products or too much detergent can form an invisible layer on the surface of the tiles, causing stains and allowing the floor to retain dust. Never use stain removers, rust inhibitor or spray, as they often contain hydrofluoric acid, that would damage the floor irreparably.

We recommend waterproofing the grouted joints (i.e. with FUGAPROOF by Fila) to remove dirt easier and to keep joints clean for a long time.

If maintenance is not carried out correctly, you may see an opaque film on the surface of the tiles, the floor may look glossier than it should, or footprints may remain after walking. In this case we recommend applying a neat detergent (i.e. CLEANER PRO by Fila) and leave it for 5 – 10 minutes. Then rub with a cloth or a rug. Rinse thoroughly with water and collect the liquids with a rug or with a vacuum machine. Dry with a microfibre cloth.

Frescopunk will not be held responsible for changes that might occur to the surface of the floor or wall, if it is cleaned with mechanical procedures and not with the products and procedures indicated above.

**Recommended cleaning agents for different types of stains:**

TYPES OF STAINS	EXEMPLARY PRODUCTS	TYPE OF CEANING AGENT
Coffee	MIC ONE by Ecosi, PS87 PRO by Fila, CIF, AJAX, MEISTER PROPER, RADIANT by Zep, COLOURED STYLE REMOVER by Faber, CHITONE by Madras, nitro thinner, turpentine	Alkali cleaning agent
Beer		
Coca Cola		
Wine		
Oil		
Grease		
Ice-cream		
Blood		
Shoe streaks		
Candle wax		
Ink		
Marker		
Tire-rubber		
Limescale marks	CHERODAL by Ecosi, DETERDEK PRO by Fila, KERANET by Mapei, DELTAPLUS by Kerakoll, TERFOX by Zep, VIAKAL by Nelsen, CEMENT REMOVER by Faber, KUKU by Lithofin, ACID-TECH by Patina-Fala, RAS KLINKER by Madras	Acid cleaning agent
Cement		
Rust		
Cigarette		
Wall painting		
Tar	MIC ONE by Ecosi, FILASOLV by Fila, F-CH by Madras, SOLVENT STRIPPER by Faber, NEUTREX by General	Solvents
Glue		
Chewing gum		
Lacquers		
Silicone		
Resin		
Nail-polish		