cleaning and maintenance information

Make sure to do the following before cleaning any tiled surface :

- 1. Check the resistance to chemical agents of the laid tiles on the general catalogue;
- 2. Make a preliminary test directly on the laid tiles by puttin g a detergent, to be used in contact with the tiles for a perio d that is equal to the period that will be used later on the site:
- 3. Make sure that the detergents that are going to be used, **do not contain** hydrofluoric acid and/or any of its derivatives; these substan ces are distinctively known for damaging **all** ceramic products.

Some indications for cleaning after the installation (after laying the tiles), on a daily basis, extra cleaning and to remove waxes and polish glazes or for any extra maintenance that may be required, are listed here below.

cleaning "after the installation"

- 1. Cleaning "after the installation" helps remove residues of grout-joints, cement and lime. This is **obligatory** at the end of the installation, for glazed tiles and unglazed tiles.
- 2. If the cleaning "after the installation" is not carried out properly or if is not carried out at all, is often a cause of marks that prevent the floor from being clean even if a good daily cleaning is performed.
- 3. Whenever is possible, especially for medium to large surfaces, it is advisable to use a single-brush machine with soft disks (white or beige).
- 4. cleaning cement-based grouts mixed with water.

It is carried out with specific detergents based with buffered and diluted acids. The table below shows some of these detergents, which are easily available in the market.

for removing the following residues	type of detergent	detergent's name	manufacturer
cement-based grouts	buffered acid based	keranet	mapei
grout		cement remover	faberchimica
cement		deterdek	fila
lime		trek	kiter
		zementschleierentferner	lithofin
		hmk r63	hmk
		solvacid	geal

Unless otherwise indicated by LEA CERAMICHE, follow the instruc — tions indicated on the manufacturer's package very carefully

nstructions on how to clean "after the installation":

- 1. Clean 4-5 days after the grouting (the grout must be hardene d); do not wait over 10 days. In addition to this period, the cleaning can become very laborious.
- 2. Moisten the floor with water before cleaning. This way the groutings are soaked with water and the contact with detergents is reduced.
- 3. Let the detergents operate for limited periods, hence rinse out with water as soon as possible.
- 4. It must not be carried out if the tiled surfaces are <u>very hot</u> (i.e. exposed to the sun during very warm days); this must be avoided as the action of aggressive chemicals become very harsh. On the summer, proceed with the operation during the coolest period of the day.
- 5. Make sure to always perform a precautionary test before usin g the product (on a tile that is not laid), especially for Lapped or Polished products.

5. cleaning epoxy grouts or cement-based grouts with additives (with Lattice, Resins, etc..)

Removing this type of grout residues must be done immediately and thoroughly because these grouts hardened very quickly, even after just a few minutes. Please follow the manufacturer's instructions very carefully.

6. antislip tiles

"Antislip" tiles that are made with rough and/or textured surfaces must be cleaned very laboriously. Therefore, it is advisable to clean "after the installation", quickly and thoroughly, using a single-brush machine with soft disks (white).

Extraordinary cleaning

This procedure is carried out to remove stains or residues that are particularly old or tough. Make sure to always perform a particularly test before using the product (on a tile that is not laid), especially for **Lapped** or **Polished** products.

The table shown below indicates the detergents that are effective according to the type of stains.

for removing the following residues	type of detergent	detergent's name	manufacturer
grease	multipurpose, alkaline-based (1)	ps87	fila
dust footmarks		intensivreiniger	lithofin
base cleaning scratchproof wax		hmk r55	hmk
Scratchproof wax		taski r20-strip	johnsondiversey
coffee	multipurpose, alkaline-based (1)	coloured stain remover	faberchimica
coke fruit juice coloured vegetable stains		ps87	fila
wine	oxidizing agent	oxidant	faberchimica
calcareous deposits	acid-based	viakal	procter & gamble
rust	acid-based	deterdek	fila
inks	solvent-based	nitro thinner, dichloroethylene, turpentine	different manufacturers
felt-tipped pen		coloured stain remover	faberchimica
	multipurpose, alkaline-based (1)	ps87	fila
		taski r20-strip	johnsondiversey
pneumatic	paste or rubber for mechanical	vim clorex	guaber
pneumatic stains from rubber	removal	polishing cream (2)	faberchimica
suckers metals or pencils		strong remover (3)	faberchimica
metals of perions		detergum (3)	zep italia
tile joint stains	specific	fuganet	fila
•		fugenreininger	lithofin

⁽¹⁾ Make precautionary test on Lapped or Polished materials

Unless otherwise indicated by LEA CERAMICHE, follow the usage i nstructions indicated on the manufacturer's package very carefu lly.

⁽²⁾ Suitable for Lapped or Polished materials

⁽³⁾ Do not use it on Lapped; use it with the utmost caution on Polished products

cleaning and maintenance information

Daily / standard cleaning

Use neutral detergents that are diluted in hot water and make sure they **do not contain wax** and make sure they **do not leave any glossy glaze**. Rinse with plenty of water. It is advisable to use the following products, which are available in the market.

type of operation	type of detergent	detergent's name	manufacturer
clean on a daily basis	neutral	floor cleaner	faberchimica
		fila cleaner	fila
		pflegereiniger	lithofin
		hmk p15	hmk

Unless otherwise indicated by LEA CERAMICHE, follow the instruc tions indicated on the manufacturer's package very carefully.

Cleaning decorations

- Use NEUTRAL, diluted, alcohol-based detergents
- **NEVER USE**
- Acid or alkaline detergents
- Abrasive pastes (Detergum, StrngRemover, Polishing Cream, Vim Clorox, etc.)
- Abrasive brushes or sponges.

Removing glossy glaze

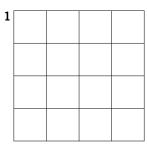
Standard detergents that are available in the market sometimes contain waxes or polish additives that, wash after wash, deposit **glossy glaze** on the floor and causes annoying marks. These types of glazes can also settle on some joint grouts.

When simply types of foods such as Coke, Wine, water, etc.., fall on the floor, they remove this type of glossy glaze and restore the **original appearance** of the tiles (a more opaque look). In the middle of the shinier floor, the areas without wax appear as opaque marks, but they are actually the only clean parts of the floor. In these cases, the following must be done:

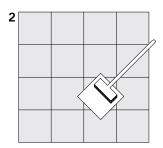
- 1. First of all, remove the glossy glaze from the entire floor (see table below);
- 2. Then, for daily cleaning, use neutral detergents that do not contain wax or polishing glaze (see the previous paragraph: "daily/standard cleaning").

residues to be removed	type of detergent	detergent's name	manufacturer
glossy glaze	weak acidulous	tile cleaner pure (*)	faberchimica
glossy glaze + common dirt	multipurpose, alkaline-based	ps87	fila
(grease, oil, organic substances, etc.)		taski r20-strip	johnsondiversey

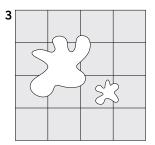
(*) Do not follow the instructions on the package, just apply the <u>pure</u> detergent, leave it on for 5-10 minutes, rub it with soft pads (white, yellow) and rinse it thoroughly with water. **Do not use wax** on LEA CERAMICHE porcelain stoneware.



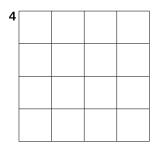
Original floor.



After cleaning detergents containing



Simple foodstuffs (Coca-Cola, wine water etc) can remove the bright patina. The original surface is more matt.



Remove the patina with detergent (Faber tile cleaner, used neat), and use detergent without waxes for everyday cleaning.

Special maintenance

stain-resistant products for polished porcelain stoneware

To make the cleaning of LEA CERAMICHE Polished Porcelain Stonew are easier, the following products may be used.

product name	manufacturer
mp 90	fila
gres lux 90	faber chimica

Unless otherwise indicated by LEA CERAMICHE, follow the instruc tions indicated on the manufacturer's package very carefully.

Make sure to always carry out a precautionary test to check the drying time and the time required before it is possible to walk on the treated floor.

stain-resistant products for lapped porcelain stoneware

To make the cleaning of LEA CERAMICHE lapped Porcelain Stoneware easier, the following products may be used

product name	manufacturer
keraseal	federchemicals

Unless otherwise indicated by LEA CERAMICHE, follow the instruc tions indicated on the manufacturer's package very carefully.

Make sure to always make a precautionary test to check the dryi ng time and the time required before it is possible to walk on the treated floor.

stain-resistant products for joints

product name	manufacturer
fugaproof	fila
kf fugenschutz	lithofin

Unless otherwise indicated by LEA CERAMICHE, follow the instructions indicated on the manufacturer's package very carefully. Recommended exclusively for wall tile laying kitchens.

antislip treatments

The slip resistance of floors laid with glazed tiles or non-glazed tiles can be increased by using specific products (see table).

Before applying the product make a precautionary test on a tile that is not laid in order to find the most suitable contact time. If, on the one hand, the longest period increases the griping grade, on the other, it will tend to whiten the colours of the tiles a little and make it a little easier to stain.

type of operation	product name	manufacturer	
antislip treatment	safe floor	faberchimica	
	safe floor/30	faberchimica	

Unless otherwise indicated by LEA CERAMICHE, follow the instruc tions indicated on the manufacturer's package very carefully.

caution:

- 1. Do not use these treatments on Lapped or Polished surfaces;
- 2. before the doing the treatment contact Lea's Customer Servic e;
- 3. it is advisable to carry out the treatments through specialized companies.

POLISHED products can reach a grade of **R9** (test DIN51130) with special laser treatments that may be carried out only on materials that have **not been laid**: for this reason the request for R9 on Polished products must be specified at the time of the order in the sales department. Such laser treatments can be also be carried out on **LAPPED** surfaces (after making a verification with LEA CERAMICHE Custo mer Service).