

CLEANING AND PROTECTING

Properly treating the surfaces of ceramic tiles and natural stone is important. The products and methods used directly influence the performance characteristics and the longevity of these surfaces. In order for the products to achieve their full effectiveness, they must be applied correctly. This method statement offers a detailed description designed to make cleaning and protecting surfaces easy, safe and efficient.

Information on using the LITHOFIN-Products.



Definition:

Cleaning means removing all particles and substances that do not belong onto the surface and restoring the original appearance and properties.

Cleaning

Preparations and Preconditions:



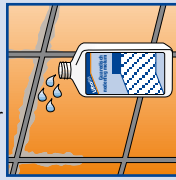

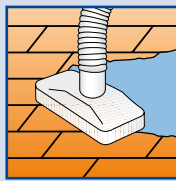

- Carefully read the directions for use on the labels and the technical information sheets.
- Refer to the LITHOFIN Product Guide to help choose the correct product.
- The grout lines should be completely cured before cleaning (cement based grouting materials: approx. 5 days, refined flex joints: approx. 24 hours)
- Sweep or vacuum the surface to remove any loose dirt particles.
- **Indoors:** protect or cover sensitive materials (wall paper, wood, lacquered surfaces, etc.)
- **Outdoors:** carefully water adjacent lawns and flower beds.
- In case products with a strong odour (for example solvent based) need to be used, ensure good ventilation during and after use. Inform the customer.

Required Tools and Equipment:

Broom, scrubbing brush, squeegee, bucket, polishing machine (on smooth surfaces), scrubbing machine (on rough surfaces), wet-and-dry vacuum, absorbent cloths or towels.
Access to clear water.

Acid-Sensitive Materials:

- All lime-containing stones (such as marble, limestone, some sandstone and some types of slate).
 - Concrete based materials (such as aggro, terrazzo, concrete pavers, etc.)
 - Some siliceous stones (such as Chinese basalts (G684), syenites (Blue Pearl), serpentinites or sodalithes (Bahia Blue)).
 - Dark grouting materials (dark grey, black) will become lighter when cleaned with acid based products.
 - Metals such as aluminium, copper, brass and zinc. Stainless steel and chrome are attacked by products containing hydrochloric acid.
- **Test: apply a few drops to a left over piece of stone or tile. Check after 5 minutes, if no changes in the surface are visible the cleaner is safe to use.**

Method:		Please Note:
1	Test prior to use!	How to judge the results? → simply compare the test area to an untreated area or tile after it has dried.
2	 <p>Dilute the cleaner according to the instructions on the label with water.</p>	<ul style="list-style-type: none"> • The choice of cleaner as well as the correct dilution rate depends on the type of dirt and on the surface properties. • Some acid-based cleaners can cause certain natural stones to rust: use Lithofin MN Builders' Clean to avoid this. • Solvent-based cleaners lose their effectiveness when they come into contact with water. Do not dilute these products and always apply them to the dry surface.
3	 <p>Apply by either pouring the diluted product onto the surface or use a scrubbing brush. Distribute immediately and support the cleaner by scrubbing. In case of very stubborn dirt, use undiluted.</p> 	<ul style="list-style-type: none"> • Do not allow the cleaner to dry on the surface. Add water or more product when necessary. • The effectiveness of a cleaner is affected by the temperature of the surface. Optimal surface temperature: 10 to 25°C.
4	 <p>Check whether the surface is clean in several areas. Then remove the solution with a squeegee.</p> 	→ On larger areas use a wet-and-dry vacuum.
5	 <p>Rinse the surface with clear water once or twice.</p>	<ul style="list-style-type: none"> • Properly rinsing the surface is important, if it is to be treated with a protective treatment afterwards. Cleaner residues inside the pores or capillary system impact the impregnator.

Definition:

Protective treatments are designed to improve the characteristics of ceramic tiles and natural stone. Depending on the requirements, these treatments are used to render surfaces water and oil repellent or to enhance their natural colour structure.

Protecting (Impregnating)

Preparations and Preconditions:

The surface to be treated must be clean and absorbent. That means:

- no loose dirt, sand or soil
- no cement residues, no efflorescence
- no stains, no discolouration
- the surface must have an even appearance

Protect or cover sensitive materials (wall paper, wood, lacquered surfaces, etc.)

In case products with a strong odour (for example solvent based) need to be used, ensure good ventilation during and after use. Inform the customer.

Required Tools and Equipment:


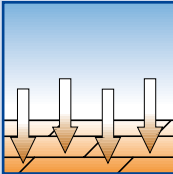



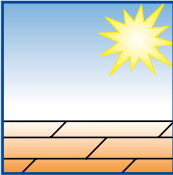
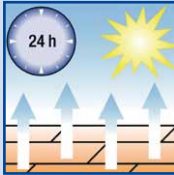
Bucket, lambs' wool applicator (on smooth surfaces), soft bristled brush or roller (on rough surfaces), squeegee. We recommend tools with telescopic handles.

The surface must be dry!

- Moisture level within the surface must not exceed 3%
- Always check whether the surface is completely dried out, even if it looks dry.
Use an electronic measuring device in several different places. Alternatively: put a clear plastic sheet on the surface and place a bucket on it. If no condensation takes place within 2 hours, the surface is dry.

Resin-treated Surfaces:

Resin-treated and otherwise pre-treated surfaces may show different absorption properties. On resin-treated natural stone, solvent based products achieve better results than water based ones.

Method:		Please Note:
1	Test prior to use!	How to judge the results? → treat a left over tile as a sample and show it to the customer the treated and an untreated surface.
2	 <p>Apply the impregnator evenly to the surface. Avoid streaks and puddles. Always work from a bucket to ensure an even finish. Do not pour the product directly onto the surface.</p>	<ul style="list-style-type: none"> → Make sure that clean application tools are ready at hand. → Wear clean shoes. → The temperature of the surface to be treated must be between 10 and 25°C. → Work in sections of 10 to 15m², using grout lines as divisions. → Always work diagonally to the grout lines. → Use a brush for corners and similar not readily accessible sections.
3	 <p>Leave a visible film on the surface for approx. 15 minutes. Then remove all excess with a squeegee. On large surfaces, pull the excess onto next section and reuse.</p> 	<ul style="list-style-type: none"> → Should the impregnator begin to dry in some places, redistribute or add more product. → Do not walk on the surface while it is still wet.
4	 <p>Immediately towel off all remaining product residues. On larger surfaces, use a polishing machine with a white nylon pad.</p> 	<ul style="list-style-type: none"> • Important! Products residues must not be allowed to dry on the surface.
5	 <p>Check the surface for evenness.</p> 	<ul style="list-style-type: none"> • Allow the surface to dry. Refer to the product label for drying times. Do not cover during that time.

Advice:

Although the surface is effectively protected by the impregnator, proper maintenance is still essential to keeping ceramic tiles and natural stone looking their best. We recommend giving the customer detailed care instructions for the surface and making a note of it either on the order confirmation or the invoice. LITHOFIN offers a wide selection of method statements that are ideally suited as care instructions.



Protective Treatment: Yes or No?

	Porcelain Tiles ¹⁾	Siliceous (Hard) Stone	Marble & Limestone	Sandstone	Slate	Concrete Stone	Kitchen Counters ²⁾
required		x	x	x	x	x	x
recommended	x	x	x	x	x	x	x
after testing only	x		x		x		
not advisable	x					3)	

Please Note: impregnators are designed to achieve a protective effect without altering the appearance of the surface (except for colour enhancing impregnators). However some stone may become significantly darker when treated (for example Nero Assoluto, Simbabwe Black, Alta, Opdal, etc.). Always test the products prior to use and ensure that the customer accepts the results.

- 1) Porcelain tiles are extremely dense and not very absorbent. Polished tiles have small pores on the surface in which dirt can accumulate and cause stains. It is therefore sensible to protect polished porcelain tiles.
- 2) Kitchen counters are subject to heavy wear and should therefore be protected against oil, grease and water borne staining. Regardless whether the top is made of natural stone or quartz composite.
- 3) Concrete stones that have been sealed in the manufacturing process cannot be treated.

Work Safety

Please refer to the detailed descriptions on the product labels. Always wear protective goggles, rubber gloves and boots when working with corrosive and strong degreasing products. Always ensure good ventilation.

Environmental Protection

All products are manufactured using the safest raw materials possible, and they are registered under the strict regulations of the German Office of Environmental Protection. The packaging is made of environmentally friendly polyethylene (PE) or tinplate and can be recycled. Please refer to the product labels for further information.

Technical Support Line

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www.lithofin.com

The easy way to find the right solution:



Your LITHOFIN-Dealer:

This method statement is a compilation of practical experiences. It is intended to facilitate the use of stone care products. This information is not exhaustive, and it is therefore strictly informative and not binding. Please refer to the detailed method statements available for all types of different surfaces and the instructions on the product labels. The product selection as well as the appropriate dilution rates always depend on the surfaces and the results that are supposed to be achieved. Always test the products in an inconspicuous area or on a left over piece or tile. LITHOFIN AG guarantees consistent product quality, but denies responsibility for the correct use of these products.

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