

Protective

LIMESTONE DENSIFIER

Water-based, water-repellent, impregnating and hardening sealer to treat against rising damp and aid the mechanical polishing of limestone floors



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PROFESSIONALE

LIMESTONE DENSIFIER is a water-based impregnating and hardening sealer of the highest quality, specifically developed to speed up and simplify the mechanical sanding and polishing process of limestone and lime-based materials, which are more difficult to polish on account of their porous nature and their high capacity to absorb water. **LIMESTONE DENSIFIER** is characterised by a 100% water-based, eco-friendly formula and for its lack of volatile organic compounds (V.O.C. Free), therefore, its use is not harmful to the environment or for the health of users, either during or after application.

LIMESTONE DENSIFIER, when used as part of the sanding and polishing process, offers various benefits:

- It consolidate and harden the material as it increases the hardness of the treated surface and provides better mechanical resistance against abrasion and scratches.
- It drastically limits water absorption on the floor and prevents all of the problems linked to excessive moisture in the stone;
- It also speeds up the drying time required by the surface before it can be subjected to other processing or treatment.
- It speeds up the mechanical sanding and polishing process, allowing the operator to treat larger surfaces within the same amount of time than would be possible on untreated materials, as it reduces the friction between the surface and the polishing tool.
- It significantly reduces wear and tear to polishing tools as well as the amount of water needed to complete the job.
- Material is given pronounced damp proof properties.
- Surfaces become water-repellent
- It reduces the possibility of dirt build up on the material
- The performance of any stain-proofing product applied afterwards is significantly increased.
- It also increases the results achieved by the polishing grain used.

The specific characteristics of this **LIMESTONE DENSIFIER** is that it penetrates the limestone deep down, hardening it and ensuring tough, lasting protection against rising damp, which is responsible for most of the problems generally found with this material: persistent damp marks, formation of rust, flaking and pop-ups, and saline efflorescence, which are responsible for attacking the surface. **LIMESTONE DENSIFIER** also does not compromise the original breathability of the surface, since it does not create any type of film or alter the original appearance of the material.

LIMESTONE DENSIFIER also increases a material's resistance to dirt and foot traffic, also making it possible to leave a matt, dirt-resistant finish on limestone surfaces that are generally very complicated to reach with traditional treatments. **LIMESTONE DENSIFIER** is a definitive solution, as it can withstand the action of de-waxing products and it is also certified for contact with foods and therefore, is a valid solution for protecting kitchen worktops.



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LIMESTONE DENSIFIER can be combined with a surface stain-protector to achieve maximum performance; it will act as a primer to maximise the effectiveness and durability of the stain-proofing treatment applied successively.

LIMESTONE DENSIFIER is also recommended as a pre-installation treatment for limestone:

- it is used as a 6-side, pre-treatment to prevent rising damp, leaving a high degree of protection without compromising adherence between the underside of the material and the bonding agent used, even in the event that stone can be installed with simple cement mortar or mechanical securing.
- it is used as a 5-side, pre-treatment (*top+edge*) in the event that stone can be installed with top-quality mortar or mechanical fastening.

Pre-treatment of natural stone is highly recommended as it makes it possible to protect natural materials from the earliest stages of installation, avoiding all problems linked to moisture absorption from the laying bed (screed and adhesive) or the processes that the natural stone undergoes (bonding, grouting, mechanical polishing). It is always advisable to pre-treat natural stone, but it is more important to do so when the surface is absorbent and sensitive, especially and above all, according to the characteristics and performance of the adhesive used.

CHARACTERISTICS AND BENEFITS

- ✓ **Protects material from rising damp**
- ✓ **Prevents the formation of salts and efflorescence**
- ✓ **Water-based product**
- ✓ **Eco-compatible solution**
- ✓ **VOC Free**
- ✓ **Suitable for contact with foods**
- ✓ **Does not change the original appearance of the treated surface**
- ✓ **Does not film**
- ✓ **High capacity to penetrate into the subfloor**
- ✓ **Durable protection**
- ✓ **Simplifies grout removal and cleaning after installation**
- ✓ **Does not change breathability**
- ✓ **Speeds up and simplifies mechanical sanding and polishing operations**

USES

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This product **can be used** on both indoor and outdoor surfaces.

Suitable for use on: limestone, and particularly absorbent lime-based materials.

COVERAGE

10/15 m²/l

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APPLICATION EQUIPMENT

Brush, Lambswool applicator, Roller, Airless, Immersion, Production line

APPLICATION

Preparing and cleaning the surface

1. Carefully clean the surface, making sure to remove any dust or dirt present.
2. Never apply LIMESTONE DENSIFIER to wet surfaces. The product can be used on slightly damp surfaces; nonetheless, please ensure that the surface to be treated is as dry as possible.
3. Apply LIMESTONE DENSIFIER to surfaces with a temperature of between +5 and +40°C
4. Any adjacent surfaces not being treated with the product must be protected.

Application to aid polishing

LIMESTONE DENSIFIER must be used as part of the mechanical polishing process on supports previously sanded with 200/400 grain. To speed up the whole process, it is advisable for the preliminary sanding process to be carried out dry so as not to wait for the surface to dry before applying LIMESTONE HARDENER. In the event this preliminary sanding operation is carried out with water, it is necessary to wait at least 24-48 hours before applying LIMESTONE DENSIFIER or to cut out this waiting time, it is possible to apply LD before commencing with the first mechanical polishing grain sizes; this will drastically limit the amount of water absorbed by the surface, allowing immediate drying for the following steps before re-applying LIMESTONE DENSIFIER. Once LIMESTONE DENSIFIER has been applied to a dry surface, it is possible to continue with the polishing process, using the next grain up from the one used before the LIMESTONE DENSIFIER. This second part of the polishing process must be carried out with water. Thanks to LIMESTONE DENSIFIER, the surface can be treated with finishing chemical polishes after the 800 grain size has been used, which may already correspond to mechanical polishing carried out with particularly fine grain (1500-3000)

5a. On dried, cleaned and sanded surfaces, apply an abundant, even layer of product using a lambswool applicator, roller, brush or airless applicator or any other tools for the purpose. Make sure to create an even layer to cover the whole surface being treated. In case of application to especially absorbent surfaces, proceed to apply a second coat of product, following the same method, at around 1-2 hours from the first.

6a. Considering that the resulting surface will need further mechanical polishing, it is not necessary to concentrate on any residual products, which will be removed in successive stages.

7a. Proceed with the next level of polishing grain no less than 4 hours after applying LIMESTONE DENSIFIER. We recommend in any case to proceed on the following day to allow the LIMESTONE DENSIFIER to spread and cure completely.

The application of LIMESTONE DENSIFIER to aid the mechanical sanding process is also possible before laying slabs or tiles.

Application as a deep penetrating, water-repellent treatment against rising damp and dirt

This operation is generally carried out in the factory or on site, including a short period from material installation. Usually, material for laying is treated during the "dry laying" stage, which is frequently used as it allows the position of each single piece to be assessed. Alternatively, we recommend laying out the material on a clean, dry area that is large enough to treat the natural stone slabs or tiles.



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The natural stone pre-treatment stage using Faber Chimica solutions starts from the upper surface of the material (*top*) and then the sides (*edges*), followed, after the product has dried, with the underface, which will be in contact with the glue (*bottom*).

5b. Apply a layer of product, taking care to create an even coating that covers the whole surface, including both the *top* and *edges* of the slab or tile. After about 5-10 minutes and in any case, before the product dries, even out any product residues remaining on the surface, taking care to distribute them uniformly with a roller, lambswool applicator or brush. For a perfectly clean surface in this stage, we recommend redistributing residues until they have been completely eliminated. This redistribution operation is essentially important since it allows easy removal of any dry residues on the surface of the material, which if not re-distributed will be particularly hard to remove.

6b. Wait around 1-2 hours for the product to dry; reposition the slabs or tiles in order to be able to treat the underside (*bottom*), proceeding as described above. We recommend re-positioning the slabs and treating the underface (*bottom*), starting with the first slab to have been given top + edge treatment.

7b. The product residues, redistributed as described above, can be easily removed once the material is completely dry and before it is boxed up, using a white pad or a damp cloth. It can also be removed directly on site, before the slabs or tiles are laid, using a white pad or damp cloth, or immediately after laying, using a floor polisher with white disc.

If the material laid needs to be polished, the residues will be removed directly during the polishing operations.

The pre-treatment on 6 sides (*top+edge+bottom*) with LIMESTONE DENSIFIER can be carried out using roller, brush or lambswool applicator, or by completely immersing the individual tiles or slabs of material. In this case, fill a large enough container for the tiles with product and completely immerse one tile at a time, for about 10-15 seconds. Immediately after, proceed to redistribute the product residues over the surface, as described above, using a clean cloth.

Drying time for pre-installation treatment.

Before proceeding to lay the tiles or slabs treated with LIMESTONE DENSIFIER wait at least 24 hours.

Opening to floor traffic after pre-installation treatment

Once laid, the treated slabs or tiles can be opened to foot traffic.

Production line application

The product can be applied using special equipment as part of an industrial production/treatment line. Based on the characteristics of the line available, the product will generally require an application stage using a sprinkler, silicone roller or other suitable means; this must be followed by the removal of residues, to be carried out with special brushes or pads.

For more information about how to use the LIMESTONE DENSIFIER line or for other specific solutions for industrial use, please contact our Technical Division.



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COMPLEMENTARY CLEANING AND MAINTENANCE PRODUCTS

- For *routine cleaning* of a surface treated with LIMESTONE DENSIFIER, we recommend: NEUGEL or ALGAFLOOR
- For *routine cleaning* of a surface treated with LIMESTONE DENSIFIER, we recommend: FABER 30
- To *polish* a surface treated with LIMESTONE DENSIFIER, we recommend: A2 MIX or A3 YELLOW or CRISTAL PAD WHITE PAD
- To increase *the stain-proof protection* of a surface treated with LIMESTONE DENSIFIER, we recommend: HIDRO 150 or B1 700

INSTRUCTIONS AND GUIDELINES

- This is a ready-to-use product and does not need to be diluted.
- Never apply the product to a wet surface
- Do not apply the product to overly heated surfaces
- Apply the product to surfaces with a temperature of between +5 and +40°C
- When applying to recently laid or grouted surfaces, wait for the adhesive or grout to cure completely.
- Before applying the product to the whole surface, it is advisable to test a small, unexposed area or unused piece to check its suitability for use.

EQUIPMENT CLEANING

At the end of application, the equipment used can be washed using water.

SAFETY

When applying the product, always use suitable personal protective equipment and follow the instructions on the product safety data sheet with care.

PHYSICAL AND TECHNICAL INFORMATION

Aspect	: Transparent Liquid
Color	: Colourless
Odor	: Odourless
pH	: 10.5 ± 0.5
Specific gravity (20°C)	: 1060 ± 10 g/lit.
Content in COV (UNI EN ISO 11890-2:2007)	< 0,05%
COV emission	N.R. (lower than the quantification limit allowed by the method)

STORAGE

Keep the container tightly closed and store in a cool, dry place.

SHELF LIFE

36 months in the original, sealed packaging, stored in a cool, dry place.



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PACKAGING

- 1 l bottles - 12 bottles per box
- 5 l cans – 4 cans per box
- 10 l cans – loose cans

HAZARD IDENTIFICATION



H315	Causes skin irritation
H319	Causes serious eye irritation.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/clothing/eye protection/ face protection.
P302+P352	IF ON SKIN : wash with plenty of water and soap.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313	If skin irritation occurs: call for a doctor.
P362	Take off contaminated clothing and wash them before reusing.



Version 2.2 – 03/08/2016

This technical data sheet supersedes all previous versions. Always refer to the latest version of the data sheet, available on www.fabersurfacecare.com site. Faber Chimica reserves the right to update and / or modify the data and information contained in the data sheet.

The information in this data sheet is based on our wide experience in technical and operational research. In any case you should always make a preliminary test to verify the suitability of the product for the intended use and the type of material on which it will be applied. The information and the suggestions can't be construed as a commitment or result in our responsibility as the conditions and method of use of the product cannot be controlled by us. Therefore Faber Chimica Srl disclaims any liability with regard to the use of such data and suggestions.

