



Industrieweg Noord 1134 - 3660 Opglabbeek - Belgium
T +32(0)89 85 69 44 F +32(0)89 85 38 16 E info@diresco.be

PROCESSOR

MAINTENANCE REGULATIONS DIRESCO STONE

Diresco is the only producer of compound stone in Northern Europe and stands for quality, which is constantly being improved thanks to the efforts of all personnel at all levels of the company.

Diresco Stone is – even more than the most durable natural stone – scratch resistant, waterproof, colour-fast and size-retaining, frost and corrosion-resistant, and has outstanding mechanical strength. This “Engineered Stone” can be used without problems in virtually any environment and under the most diverse conditions.

It can also be combined perfectly with other materials, such as stainless steel, stone, wood or glass.

The slabs are available in three thicknesses:

- 12mm
- 20mm
- 30mm

and in three finishes:

- Polished
- Easy Clean (honed)
- Anticato (shot-blasted – not in all colours)

The standard size of our slabs is 300 x 140 cm.

For more information, please visit or contact:

- a. our website www.diresco.be
- b. our sales department (info@diresco.be or tel: +32(0)089 856 944)
- c. your dealer:



TIPS FOR THE PROCESSOR

CHECKING

Before cutting, the slabs must always be checked for possible defects.

Diresco operates a very strict quality control, but it is always possible that a defect was missed. Always check the colour match (if more slabs are required for the same job).

Diresco Stone is produced from 95% natural raw materials (quartz). Small differences in shading between the different production runs are possible!

Diresco accepts no complaints for damages that have arisen through manipulation and/or processing the slabs after they have left the factory.

STORAGE

Our slabs are best stored inside, in a moisture-free environment. If that is not possible, under overhead cover or a non-permeable tarpaulin. Direct sunlight (UV rays) can affect the colour. Storing the material behind a window is not a problem; glass is an adequate UV filter.

If the slabs during winter (or with extreme cold) are being stored in an unheated area, it is recommended to let the slabs "acclimate" before cutting in an area with the same temperature conditions as the sawing hall. This to prevent the so called "expansion cracking" during the cutting of the slab.

COOLING WATER

Experience has taught us that some problems may be caused by the quality of the water used for cooling. Some companies, who also cut and process natural stone, use water (which is usually recycled) with a pH value that is too high for the high alkaline value of that type of stone. When using recycled water, you should always ensure that the pH value is approximately 7.5.

CUTTING

The cutting table must be stable, level, and always clean.

There must not be too many cutting tracks and damage in the table surface; that makes it easier for the material to move about.

The cutting blade **must** be in perfect condition; no broken teeth and perfectly straight. Most of the well-known manufacturers have special cutting blades for composites in their product range.

To reduce surface tension (a common phenomenon, especially at 30 mm), cutting should always begin on the longest side of the slab. Ensure that the cuts do not intersect.



Some cutting machines have a special 'engineered stone program'.

For cutting recesses for cooking plates and rinsing sinks, we recommend using radius corners. The larger the radius, the better! (minimum 5 mm, but we recommend 20 mm). Most fabricators are using the same drill as needed for drilling the crane hole.

Recesses must be supported all around within a distance of 7.5 cm from the edge.
The lower section of the rinsing sinks must be supported.

Recommended revolutions: cutting blade Ø 200mm - ± 3500rpm Ø 400mm - ± 1190/1430rpm
cutting blade Ø 300mm - ± 2500rpm Ø 500mm - ± 950/1150rpm

Machine revolution speed: Diresco Stone 20mm thick - between 3 and 3,5 lm/min.
Diresco Stone 30mm thick - between 2,5 and 3 lm/min.

For example Tyrolit has specially developed cutting blades for engineered stone in their range (type SAB or Winner). For more info regarding other brands, contact your tool supplier.

Use a lot of pure water when cutting to cool the material and the cutting blade; this will prevent cracking and colour changes caused by the heat at the cutting edge. Engineered stone **requires more cooling** than natural stone.

It is best to use a separate squeegee. That will prevent damage to the surface due to lime (alkaline material present in natural stone). Always clean the suction cup to remove any lime residue. Suction cup impressions can be removed with, e.g. INSTANET for glass.

If finished pieces are being stored in standing frames or racks, always ensure that the polished side does not come into contact with the protective strips or other contaminated parts. Any silicon and/or alkaline substances on the strips can damage the surface of the slab.
Always use a protective layer (cardboard, plastic).

POLISHING

When polishing, you must always ensure a sufficient supply of pure water. That will prevent discolouration due to heat or the burning of the resins in the stone.
Never apply too much pressure during when polishing and keep the revolutions lower than 4,000 rpm.

Always follow the instructions of the manufacturer or supplier of the polishing material!
For more specific information concerning polishing engineered stone, you can always contact them.
Drilling: the more diamond, the better off you'll be! If possible, use clean water for cooling, too.

GLUING

Universal adhesives (such as, e.g. TEC-7) are often used.

Most manufacturers have also now brought specialised adhesives onto the market, such as, for example, Integra Adhesives RTP-101 for quartz composites. This material has a very high resistance to shocks and collisions. For use in laminating composite blades and affixing glued fixative materials on quartz composite surfaces.
That manufacturer also has full range of pre-coloured glues for virtually all applications in its product range.

It is desirable if possible, to leave expansion room of at least 3 mm on both sides of the hob unit or sink. If a piece must also be placed between two fixed points (e.g. in a recess or between a pillar and a wall) always leave 3 mm per side expansion gap. The thermal expansion coefficient for Diresco Stone is 1 mm/m, within a temperature range of + or - 20°C.

Always ensure that you have a stable, dry and grease-free underlying surface.

When using a silicone kit (always acid-free) the edges of the material to be glue should be taped off with good-quality painters' tape. This prevents dirt that may be difficult to remove from adhering to the surface.

The Anticato version, in particular, requires extra attention in this area. The rougher surface makes it very difficult to remove glue residue.

When removing any glue residue, always work very carefully and be very sure not to place any cloths that have become dirty due to the removal product or anything else on top of the stone. The chemical composition of, for example, silicone remover, can have very negative effects on the material.

Always rinse well with clean water when done!

Even if a product evaporates immediately (e.g. acetone), a damaging layer always remains behind on the slab.

Always follow the instructions of the manufacturer or supplier of the glues!
For more specific information concerning gluing composite stone, you can always contact them.

USING DIRESCO STONE AS A FLOOR

Because the high abrasion resistance, Diresco Stone is suitable for using in all interior applications (such as flooring, cladding, stairs,...) both in private housing and buildings with moderate and/or intensive collective use.

The room where the stones are being placed has to be always rain-, draught- and frost-free. Also make sure the underground is dry enough for the gluing.
If the area size measures more than 50m² or is longer than 10m, an expansion joint has to be foreseen. Also a flex joint at the side of the walls is recommended. More info regarding which material to use and the placing manual can be provided by the suppliers or manufacturers from sealing applications such as EMSEAL.

Double bonding is essential; this means that both the back of the tile and the floor has to be rubbed in with glue. Using a toothed glue or paste spreader to ensure an even spread of the adhesive material (on at least 80% of the surface) is recommended.

Attention! Make sure the glue is approved to be used at engineered stone.
Omnicem PL 85 Prof R from OMNICOL for example is a very suitable glue for quartz based composite.

When placing floor in combination with floor heating, the guidelines from the manufacturer have to be very strictly followed.

For the first cleaning after the placement we recommend Lithofin Wexa. Possible cement residue can be removed with Lithofin MN cement residue remover. (**Never** use Lithofin Wax-Off and Lithofin MN Outdoor Cleaner). Afterwards the honed (easy clean) and anticato surfaces can be protected with the stain stop MN protector for engineered stone (in some countries also called nanoTOP), but make sure to remove the redundant product. For further maintenance a neutral cleaner or Lithofin MN Wash & Clean can be used.

USING HONED AND ANTICATO (SHOT-BLASTED) DIRESCO STONE

The surface structure of these finishes has changed from polished (sealed) to a surface full of barbs. That makes the slab more susceptible to fingerprints and/or grease stains.

To prevent that, it is best to rub an anti-stain product (such as LITHOFIN MN PROTECTOR for composite) into the slab before starting to use it.

That will fill up the barbs with the substance. This treatment can be repeated if necessary, but be aware that the colour gets deeper every time.

Always make sure that the untreated surface is always cleaned well before starting that treatment. For Anticato versions, always clean the slab first with a high-pressure cleaner so that the 'hollows' don't contain any cutting residue or dirt.

If the surface is not cleaned properly, such residue may again become visible after the treatment.

We advise using, for example, LITHOFIN MN EASY CLEAN after the treatment has been completed. To bring out the colour -- especially for the Anticato version -- you can use a colour enhancer available from specialised dealers.

Caution! This is not an anti-staining product and is therefore not sufficient, on its own, to protect the slab. Combination products (anti-stain/colour enhancer) are also available, however. Please consult your supplier.

If these guidelines are followed well, you will have few problems, if any.

You should remember, however, that the colour in these versions is less even than in the polished versions.

DAILY MAINTENANCE

Normal maintenance is the simplest way to keep Diresco Stone shiny and radiantly beautiful for years. Daily cleaning with a moist cloth and a neutral cleaning product (such as dishwashing liquid) or a solution of vinegar with water is sufficient.

Specialised dealers also have specific maintenance products for quartz composites available (e.g. LITHOFIN Easy Clean).

If a more intensive cleaning is required, a mixture of warm water and CIF **CREAM** (white neutral) is recommended.

Do not use another household abrasive cleanser and most definitely do not use any bleach-based products. Clean the blade with a clean towel and then rinse it with sufficient warm water.

Stubborn stains can usually be removed by applying undiluted CIF CREAM with a soft sponge. Rub forcefully on the stain and rinse with sufficient amounts of clean, warm water.

Spilled drinks and/or food should be cleaned off as quickly as possible! Due to the aggressive characteristics of coffee and tea, they are more difficult to remove after they have dried.

Materials that harden after drying (such as chewing gum, mustard, grease, ...) should first be scraped off using a blunt, plastic scraper.

The slab should then be cleaned with a solution of household vinegar and water (always follow the manufacturers instructions). Then rinse with clean water.

CAUTION!

- Never use an abrasive cleaner. They can damage the polished layer and cause dull stains.
- Be certain not to use an abrasive sponge or steel wool.
- Do not use cleaning materials that contain bleach or ammonia, or that have a pH value higher than 10. Therefore, be careful with some dishwasher tablets.
- Some aggressive chemicals – such as, for example, oven cleaners or caustic sodas for clearing drains – can cause lasting damage to the surface. Do not use trichlorethane, methyl chloride, paint stripper and cleaning product with a high alkaline or PH value. Do not use any cleaning products based on marble flour, chlorine or bleach water.
- Do not use any silicone-based products.
- Avoid contact with marking inks and printing inks.
- **NEVER** place hot pans, cooking pots or equipment directly on the surface...always use a trivet!
- Quartz is harder than metal (kitchen knives). Always use a cutting board when handling food to avoid getting metal traces on the material. Knives also get blunt quickly if they come into contact with the slab.
- Never sit or stand on the slab. That will prevent cracks due to extreme tension.
- Because the material is so dense (non-porous), bacteria and moulds do not have a chance to establish themselves. Our quartz composite is therefore ideal for food-preparation and is accepted as a surface in the H.A.C.C.P. Hygiene Plan.
- Diresco quartz composite should not be used for exterior wall cladding, swimming pool cladding or any other application in which the slab is exposed to chemicals, extreme heat, flames, or ultraviolet radiation.

WARRANTY

Diresco NV. offers a 10 year warranty against defects in its products from the date of initial sale of the slab, given normal use and maintenance.

Professional processors and installers are expected to inspect the product thoroughly (in accordance with Diresco's professional instructions for use) before processing or installation. The end user is also expected to inspect the finished product for any faults or defects on installation.

A warranty claim should be made by the processor/installer who should submit a complete report with the object, date of fitting, slab numbers of the material used, photos, etc to Diresco NV.

Terms:

- This warranty applies only to the first owner and is not transferable.
- The warranty shall lapse if no or insufficient account is taken of Diresco NV's maintenance instructions during processing, fitting or maintenance.
Both processing and maintenance shall be done in accordance with good practice taking account of technical requirements such as support, corner radius, expansion joints etc. as specified in our fitting instructions.
- Diresco NV. will only furnish the necessary material to repair or replace a fault or defect. The costs of breaking out, making good and remanufacture, reinstallation are not covered by this warranty. Neither are extra costs such as re-tiling, plumbing or electrical work.
- If the warranty claim involves a colour, that is no longer in the range, Diresco NV. will replace it by a colour from the current range that matches the warranty claim as closely as possible.

Exclusions:

- This warranty does not apply to products fitted outdoors.
- This warranty does not apply in the event of incorrect use, such as direct contact with flames or hot cooking vessels, contact with bleaching agents, contact with products with a pH-value over 11, extreme forces applied to a worktop, etc. as described in our maintenance instructions. These instructions are always available to download from www.diresco.be.
- This warranty does not apply to any colour differences or minor faults such as permitted spots of pigment, described and designated in Diresco NV's technical specifications. These specifications can be requested from Diresco NV at any time

Cleaning - Protecting - Maintaining for **Composite** -Kitchen Worktops

The following is a recommendation for resin-bound artificial stones (so-called composites). These artificial stones are made of natural raw materials such as quartz, granite or marble, which are bound with premium synthetic materials. The slabs stand out because they have a low level of water absorbency, are long-lasting and easy to maintain. Though with all materials, the proper treatment is important from the beginning.

Overview of the 3 Steps *for more detailed instructions, please refer to Page 2*

1

Initial cleaning of newly installed surfaces *used surfaces: Page 2*

Lithofin MN Power-Clean -acid free- removes greasy general dirt and much more



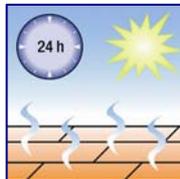
Coverage:
1Ltr./10m²



Distribute a squirt of Lithofin MN Power-Clean on the wet surface and scrub.



Rinse well with water to remove all product residues.



Allow to dry. Do not wet the surface for 24 hours.

Necessary equipment: white pad or sponge

2

Protecting against stains

Lithofin MN Protector protects against stains and simplifies maintenance



Coverage:
1Ltr./20m²



Please note.



Pour product in a basin or bucket.



Evenly apply with a brush, roller or pad and let soak 10 min.



Distribute residues with a cloth.



Let dry approx. 2 hrs and protect from water for 24 hrs.

Necessary equipment: basin or bucket, roller, brush, cloth

3

Regular maintenance *additional maintenance tips: Page 2*

Lithofin MN Easy-Clean -used regularly- cleans and provides additional protection.



Coverage:
500ml



Spray the surface then wipe with a moist cloth.



Remove loose dirt with moist sponge or cloth

Necessary equipment: cleaning cloth

All products recommended in this method statement pose no health concerns once dry. The products have been tested by independent institutes. Used correctly, the products do not leave any hazardous substances on the surface.

Please follow the detailed instructions on the product label.

1 Cleaning and refurbishing used surfaces

- ◆ Treating used kitchen counters requires a thorough cleaning. All dirt deposits and care product residues must be removed from the surface of the stone.
- Lithofin MN Power-Clean should be diluted, depending on the type of dirt, up to 1:2 with water and applied thickly with a brush or sponge. Allow to work for 5 to 10 minutes.
- Scrub well and wait another 5 minutes.
- Add water while scrubbing and remove the solution from the surface.
- Rinse with clear water until all product residues are removed.
- ◆ Allow to dry for approx. 1-2 hrs before applying a protective treatment.

2 Additional information about protective treatments against staining

- ◆ Impregnators render the surface water and oil resistant, this prevents staining.
- ◆ Through the impregnation with Lithofin MN Protector, the surface becomes noticeably colour intensified and shinier.
- ◆ The surface becomes easier to maintain and maintains its appearance for many years. The active ingredients pose no health hazard once dry. (Certified by LGA, Nürnberg).
- ◆ We recommend to repeat the impregnation once a year to keep the optimal protection at all times.

Please Note:

- ◆ **Always test the product in an inconspicuous area.** Non absorbent or wet surfaces cannot be treated.
- ◆ Use impregnators only on completely dry surfaces. Otherwise, the product will not be able to penetrate into the surface. Used surfaces should first be cleaned with Lithofin MN Power-Clean.
- ◆ Remove excess product within 15 min. Rub-off dried excess using a cloth within 12 hrs.
- ◆ Impregnators do not protect against acid.

Please Note:

- △ Please follow the detailed instructions on the product label.
 - △ Artificial stones containing marble or limestone elements are not resistant to acidic substances such as vinegar, lemon juice, ketchup, wine, etc.
 - △ Do not use scratching or abrasive materials on artificial stones to avoid scratches and dull spots.
- TIP:** Avoid using leaching and degreasing cleaning products as well as layer forming products. These products negatively affect the appearance and make maintenance more difficult.

△ This information should be considered to be informal and non-binding. The products must be used according to local conditions and materials. Instructions must be read carefully and followed closely. Where no previous experience is available, or in cases of doubt, test the product in an inconspicuous area. (GB11.08bs)