

GYPSUM.

“MINIMUM” COLLECTION

Characteristics - Laying instructions - Maintenance

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THE MATERIAL

The Minimum collection is made with an innovative high-performance concrete that stands out for its technical characteristics, resistance to dirt and stains caused by liquids other than water, chemical attack, freeze/thaw cycles, salt mist, etc. The material is suitable for both indoor and outdoor use. For cleaning common dirt (coffee, oil, wine, ketchup, coca cola, lemon, tomato, etc.), simply use a sponge dampened with soap and water.

The installation system (equipment, methodology, adhesives and materials used) is the same as ceramic tiles. There are no special instructions for use and routine maintenance, but we recommend you to read carefully the information provided here (also available on our website).

TILES

Tiles are made with natural materials (cement, aggregates, iron oxides and additives), in a completely artisanal and ecological production cycle: the cement, dosed with electronic weighing systems, is mixed by hand and poured into the moulds. Once hardened, it is placed on special shelves and left to cure. The next stage is surface treatment, also carried out manually according to a codified processing cycle, using carefully selected products and materials to give the tiles the resistance characteristics described in the above paragraph. Finally, the first of the two layers of Prefuga 13A is applied to the surface of the tile: this is a product that allows the grout to be cleaned during installation (the second layer is applied on site). The result is a unique handcrafted product, characterised by small shade variations that create the “uniqueness of each piece”.

TOLERANCES

Due to the nature of the materials, tiles may show a “shade variation”, i.e. visible and non-homogeneous colour differences, either between tiles or within a single tile. This depends on many factors: the batch of materials, temperature, humidity, weather conditions, etc. In addition, a completely artisanal production cycle means that the tiles are not rectified: they can differ in size and thickness according to industry tolerances. These are peculiar characteristics that identify and distinguish the product, which is why they should not be considered as defects.

LAYING

In this manual we provide the necessary instructions for the correct laying of the tiles, in order to obtain workmanlike results with eco-compatible materials. However, it is always advisable to carry out an assessment of the context before starting the installation to check that the instructions contained here can be implemented.

MATERIAL STORAGE

Before laying, **the material must be stored in a dry, covered place**. The material should not be exposed to bad weather. It should not be stored outdoors covered with polythene or other similar materials (such as cellophane) which could create condensation or mould.

SUBSTRATE VERIFICATION

- All substrates must be flat, weathered, undamaged, compact, rigid, resistant, dry and free from detaching agents and rising damp.
- It is good practice to dampen cement-based substrates (walls and floors) that are very absorbent or to apply a coat of primer (e.g. Kerakoll Primer A Eco or similar).
- With some types of substrate (e.g. wood, plaster, metal, etc.) it is necessary to prepare the substrate using special primers (e.g. Keragrip Eco on wood or Kerakoll Primer A Eco on plaster or similar). Always follow the instructions provided by the adhesive manufacturers.
- The laying surface must be flat: the tolerance measured with a straight edge is 3 mm every two metres. Larger irregularities must be corrected before laying with suitable levelling compounds.

- On large surfaces or in cases where it may be beneficial, consider applying an anti-fracture waterproof membrane (such as Kerakoll Green-Pro or a similar product).

LAYING TOOLS KIT

Note: the numbers refer to the picture on the next page.

- To mix the glue and grout, use an electric mixer with a whisk suitable for the quantity to be mixed (1).
- To cut the tiles, use a circular saw (2) or a flexible saw (3) with a diamond blade (4). Conventional manual tile cutters (5) are not recommended as they do not make a clean cut.
- Use a notched trowel suitable for the format to be laid to spread the adhesive (6).
- We recommend the use of ordinary crosses (7) to make the joints. If necessary, and for larger formats (e.g. 50x50 or 100x100 cm), it is advisable to use levelling spacers (wedges) (8).
- To level the tiles, apply pressure using a straight edge (9) or a rubber trowel (10).
- To apply the Prefuga 13/A supplied by Gypsum (11), use an ordinary sponge, such as those used for washing cars (12).
- For grouting, use a rubber trowel, a white Scotch-Brite™ trowel (13), a cellulose sponge trowel (14) and a tray with rollers for cleaning the sponge (15).
- Use the white Scotch-Brite™ trowel and sponge trowel for end-of-lay cleaning.



JUNCTION BETWEEN TILES

When laying 6.5x16 cm tiles in combination with the 19.9x48.4 cm size, the junction must be 1.5 mm. For laying the 6.5x16 cm tiles separately from the 19.9x48.4 cm size, the recommended junction is 2 mm for all sizes. In the latter case, it is technically possible to make wider junctions. Junctions narrower than 1.5 mm are strongly discouraged.

EXPANSION JOINTS

For correct installation of the product, expansion joints must be made according to the different site requirements. Normally a joint is required every 35-40 sqm indoors and 10-15 sqm outdoors. It is also possible to use a waterproof/anti-fracture membrane (such as Kerakoll Green-Pro or a similar product). This general information **must necessarily be evaluated on site by the management** who will take the necessary decisions.

GLUING

Our experience is based on the use of Kerakoll products, which we, therefore, recommend.

At customer's discretion, it is possible to choose products of different brands, in which case we recommend a preliminary test.

- **First check the environmental conditions:** temperature of the room and substrate, ventilation, outdoor weather forecasts, etc. Avoid gluing in hot weather in direct sunlight and/or excessively ventilated areas, in which case take the necessary precautions to obtain ideal laying conditions. Check that the temperature of the air and substrate are those allowed by the chosen glue: avoid gluing if it is too hot or too cold.
- Recommended glue: either indoors and outdoors, glue with a slow-setting cement-based glue (Kerakoll H40 No Limits or similar), quick-setting cement-based glue (Kerakoll H40 Revolution or similar) or a two-component epoxy glue (Kerakoll H40 Extreme or similar). Please follow the manufacturer's instructions.
- **Choice of glue:** for the 6.5x16 cm sizes all recommended glues can be used, while **for the 19.9x48.4 cm size only a quick-setting cement-based glue or a two-component epoxy glue should be used.**
- Mix the adhesive following the manufacturer's instructions and spread it on the substrate using the notched tile trowel. With 6.5x16 cm sizes it is sufficient to spread the adhesive on the substrate, while **with the 19.9x48.4 cm size it is necessary to spread the adhesive also on the tile (double spreading).** Spread an adequate amount of glue according to the format to be glued, creating continuous lines over the entire surface (**DO NOT glue in chunks.**)
- The crosses must be positioned between the tiles so that they remain embedded between them. **ATTENTION:** DO NOT use the crosses at right angles to the laying surface in order to remove them later: this would cause damage to the tile edges.
- Do not use a hammer to level the tiles, but use the adhesive and apply pressure with a straight edge or rubber trowel.
- **When laying, mix the tiles carefully,** avoiding placing tiles of the same colour close together as this could create “colour spots” (see laying error in the following photo).



- Remove any glue residue from the surface using a white Scotch-Brite™ trowel wet with water and a sponge trowel while the glue is still fresh.
- After the adhesive has set, clean the surface with a damp cloth to remove dust, dirt and/or material residue.

PREPARATION FOR GROUTING

After washing the tiled surface with a cloth, spread Prefuga 13/A, supplied with the tiles by GYPSUM, with a sponge over the entire surface. Make sure to wet evenly without leaving dry areas or build-ups.

ATTENTION: The use of Prefuga 13/A is mandatory and NOT optional. Allow the product to dry for at least 12 hours before grouting. Always apply 2 coats of product: apply the first coat and wait for it to dry (about 1 or 2 hours on average), then apply the second. Then let the product dry for at least 12 hours before proceeding with grouting.

GROUTING WITH CEMENT-BASED GROUT

Our experience is based on the use of Kerakoll and Ciber products, which we recommend.

Different brands may be chosen at customer's discretion, in which case we recommend a preliminary test.

- **First check the environmental conditions:** room and substrate temperature, ventilation, weather forecast (outdoors), etc. Do not grout in direct sunlight and/or excessively ventilated areas. In this case, take the necessary precautions to obtain the correct grouting conditions.

- Recommended grout: for both indoors and outdoors, we recommend using Kerakoll Fugabella Color or similar. Mix the grout following the manufacturer's instructions, spreading it with a rubber spatula to avoid any build-up, then allow it to set (it will not come off with a finger), but do not wait for it to dry (the grout must not lighten). This waiting time depends on environment conditions: temperature, humidity, ventilation.
- First clean the grout with a white Scotch-Brite™ trowel wet with water, applying a light pressure in a circular motion, so as to remove the grout from the surface of the tile. Then wipe off any accumulated water with the sponge trowel. Wash the Scotch-Brite™ and sponge frequently, changing the cleaning water frequently. The joint may not be "full" and in any case should not be more than 1 mm below the surface level.
ATTENTION: it is necessary and essential to thoroughly clean the grout at this stage to avoid halos and/or residues that are difficult to remove from the surface of the tile.
- When using grouts with very strong colours (e.g. Kerakoll Fugabella 16 blue or 42 red; Mapei Ultracolor Plus 143 red or 172 blue), it is essential to carry out a very careful and thorough cleaning during the grouting stage to prevent the tiles from being coloured by the pigments contained in the grout.
- **The day after grouting, and no later than 48 hours, remove any marks and/or grout residue** by washing the surface with Ciber Deterstone soap (acid-based product) or similar. Dampen the surface and apply Deterstone diluted with water in a ratio of 1:5-1:8 as needed. Washing must be carried out by rubbing the surface with the white Scotch-Brite™ trowel and then rinsing with clean water. If cleaning during grouting has been done thoroughly, then one wash will be sufficient. Otherwise, use Deterstone diluted 1:3-1:5 and, if necessary, repeat the cleaning several times, allowing it to dry between each cleaning. NOTE: Delaying the cleaning of hardened grout will make it more difficult to remove. It is recommended not to allow Deterstone to dry on the surface and always rinse with clean water.
- When the dry surface is clean, wash the surface with Ciber Cibermac soap (concentrated neutral non-foaming soap) or a similar product.

GROUTING WITH EPOXY GROUT

Our experience is based on the use of Kerakoll and Ciber products, which we recommend.

At customer's discretion it is possible to choose different brands, in which case a preliminary test is recommended.

- **First check the environmental conditions:** room and substrate temperature, ventilation, weather forecast (outdoors), etc. Do not grout in direct sunlight and/or excessively ventilated areas. If this is the case, take the necessary precautions to obtain correct laying conditions.
- We recommend a thorough cleaning before grouting.
- Recommended grout: for both indoor and outdoor, Kerakoll Fugalite Eco or a similar product. Prepare the cleaning water, taking care to add the additive supplied by the manufacturer (e.g. Fuga-Wash Eco or similar) according to the manufacturer's instructions. Knead and use the grout following the instructions, spreading it with the rubber trowel avoiding accumulations.
- **ATTENTION: clean the grout after about 3-5 minutes** (reference environmental conditions: non-ventilated interior, temperature 20°C), first with the white Scotch-Brite™ trowel wet in the cleaning water, exerting light pressure with a circular movement, so as to remove the grout from the surface of the tile. When you see that the grout on the surface has "dissolved" in the water, remove the build-up with the sponge trowel. Wash the Scotch-Brite™ and sponge frequently, making sure to change the cleaning water frequently. The joint may not be "full" and in any case should not be more than 1 mm below the surface level. **ATTENTION: it is essential to carry out a thorough and thorough cleaning during the grouting phase to avoid colouring the tiles caused by the colouring substances contained in the grout.**
- **The day after grouting, and no later than 24 hours, wash with the soap recommended by the grout manufacturer** (e.g. Kerakoll Fuga-Soap Eco or similar). When using Kerakoll Fuga-Soap Eco it is advisable to dilute it 50% with warm water. Cleaning should be carried out using a white Scotch-Brite™ trowel soaked in cleaning water, applying pressure in a circular motion until it is completely clean. Then remove water build-up with the sponge trowel. **NOTE:** when using other brands of products, be especially careful with stucco cleaning soaps, which may leave marks on the surface. It is advisable to carry out a preliminary test.
- Proceed with a final wash with Cibermac soap by Ciber (concentrated neutral non-foaming soap) or a similar product.

PROTECTION ON THE BUILDING SITE AFTER LAYING

Once laying has been completed, **it is strongly recommended to take all the necessary precautions to ensure the good preservation of the laid product**, protecting it from building site operations (e.g. painting, masonry work, etc.).

Cover the surface carefully. If non-woven fabric is used, it is recommended to use the white one. **ATTENTION:** avoid direct contact with polyethylene (cellophane), as permanent marks might be created due to humidity. It is therefore advisable to first apply white non-woven fabric, then polyethylene and then further layers as required.

ADDITIONAL TREATMENTS

The tiles are supplied ready to use and are resistant to dirt, stains generated by liquids other than water, chemical attack, freeze/thaw cycles, salt mist, etc. For more details, see the Cementobasic® data sheet on our website. No additional treatment is therefore necessary.

However, it is possible to carry out additional surface treatments using hydro-oil repellent products in order to improve the performance.

For further information please contact us.

ROUTINE MAINTENANCE

- For routine cleaning, we recommend the use of a good quality pH-neutral soap which can be purchased in any supermarket. Professional products include Cibermac soap from Ciber or Cleaner Pro soap from Fila, diluted as necessary.
- Cleaning with a single disc machine is allowed.
- In case of floor coverings, depending on traffic, it is advisable to periodically carry out a thorough cleaning with a professional neutral soap.
- In case of stubborn stains, use a concentrated professional soap (e.g. Cibermac by Ciber diluted 1:2 or similar) with the aid of a stiff brush, preferably in sorghum, or a single disc machine for greater effectiveness.

EXTRAORDINARY MAINTENANCE

- If necessary, a range of professional products is available to remove the most difficult stains (e.g. iodine dye, permanent marker, diesel, engine oil, rust, etc.). For further information please contact us.
- Every 5 to 10 years, depending on the traffic and location of the product, and in any case when cleaning requires a greater effort, it is necessary to repeat the surface treatment, applying a water-based product. In this case, contact us for all the necessary information.

GENERAL PRECAUTIONS

For good conservation of the tiles avoid, as far as possible:

- prolonged soiling of the surface;
- prolonged contact with solvents or acidic substances;
- contact with sulphuric acid;
- contact with bleaching agents or substances containing active oxygen;
- rubbing with aggressive abrasives (e.g. sand paper).

WARNINGS

GYPSUM S.r.l. shall not be liable in case of:

- damages and/or aesthetic variations of the product deriving from improper physical or chemical use;
- various damages deriving from an improper use of the product of physical or chemical type;
- damages caused by failure to comply with installation and maintenance procedures;
- damages caused by unauthorised modifications or improper use (e.g. sanding of the surface);
- aesthetic changes to the product due to incorrect surface treatment.

GYPSUM S.r.l. reserves the right to modify this document at any time and without prior notice.