

CONCRETE PRODUCTS

Characteristics - Use - Maintenance

Version: 13/12/2023

COMPANY: ARTISANAL KNOW-HOW

Gypsum is a manufacturing company with over 50 years of experience in the construction industry.

This company – with its high level of artisanal know-how – stands on the market as a manufacturer and consultancy partner for private individuals, companies and designers.

The continuous search for innovative raw materials and systems has resulted in the formulation of new materials, in particular a series of high-performance concretes with subtle and refined qualities, which provide a new expressive language to this ancient building material.

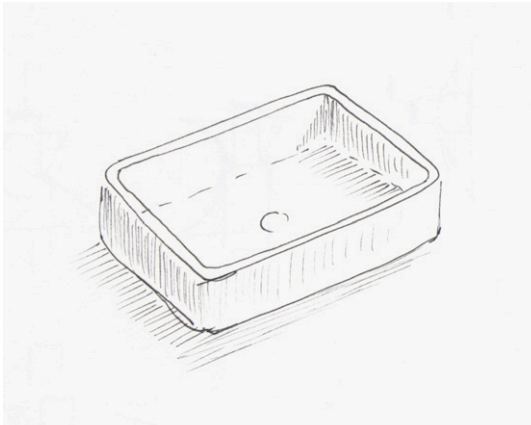
These concretes are dirt-resistant, easy to clean, mass-coloured, suitable for the public and private markets and for both indoor and outdoor applications.

Gypsum's unique relationship between colour and refined surface finish dispels the traditional perception of a raw material and gives these concretes a precious dimension.

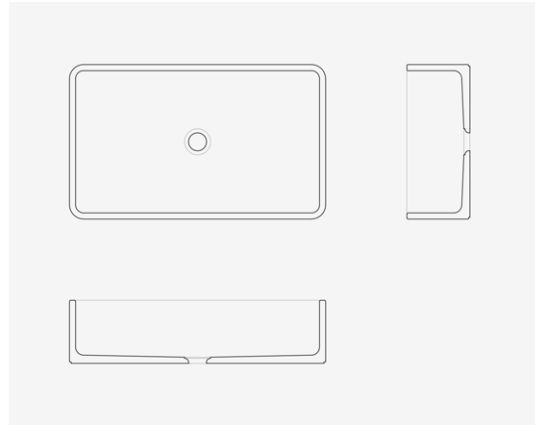
PROCESS

The production process is completely handcrafted and this makes each piece unique. The company's high level of technical expertise and meticulous attention at every stage of production guarantee high quality standards: it is able to follow the construction of unique custom-made pieces in detail, and can at the same time guarantee quality on industrial mass-produced products.

Gypsum can assist companies and designers, accompanying them through the project development process, from concept to finished product.



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TECHNICAL AND AESTHETIC SPECIFICATIONS OF THE FINISHED PRODUCT

Concrete, as a finished product, has its own characteristics that make it similar to stone and wood: it is a robust and resistant material, but it is not indestructible and must be treated with care, like any natural material. Another consideration in this context is that its appearance may change over time. The products are manufactured using natural materials (concrete, aggregates, iron oxides and additives), with a completely artisanal and eco-friendly production cycle: concrete is mixed by hand and poured into moulds, then cured and finished on the surface.

Gypsum's products do not feature traditional metal reinforcements inside: the mechanical strength is guaranteed by an exclusive compound, fine-tuned over the years, and, where necessary, by the use of special reinforcement fibres that are dosed according to the needs of the project.

This results in a unique handcrafted product that is washable, resistant to dirt, chemical aggression, saltiness, and freeze-thaw cycles (see the certifications – issued by accredited laboratories – on the company's website) and is characterised by the following features:

Colouring

Concrete is coloured by adding natural oxides into the mix. With these pigments, it is possible to obtain products with long-lasting, UV-resistant colours even after years of use both indoors and outdoors.

Shade variation

Concrete may show a “shade variation”, which means visible and non-homogeneous colour differences between the different elements that make up a finished product. There can be a shade variation even on a single piece. This is a peculiar characteristic of this material and is part of its intrinsic beauty. It depends on many uncontrollable factors (raw materials, weather conditions, etc.), which together contribute to the uniqueness of each individual piece. For this reason, the colour samples contained in our sample books are also to be considered as indicative.



Shade variation between tiles



Shade variation on a single tile



Shade variation on a three-dimensional object

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Point shade variation

Concrete may show variations in colour and texture at small and localised points.



Surface shade variation (veining)

Concrete may show extended variations in colour and texture over larger portions of the surface, similar to veining.



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Shade variation and production batches

For the reasons stated above, in the case of a production to complete or extend a previous batch, we cannot guarantee that the colour tone of the second batch will be the same as that of the first batch. The following images show the colour range that the company deems should be accepted by the customer as being due to the material's own characteristics.



110



180



730



570



540

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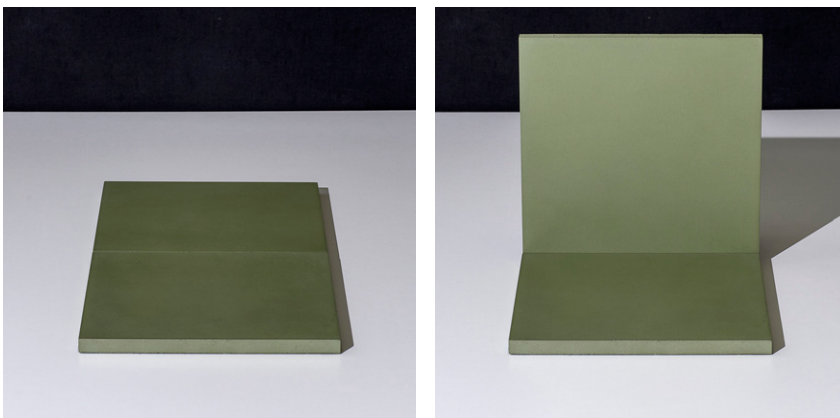
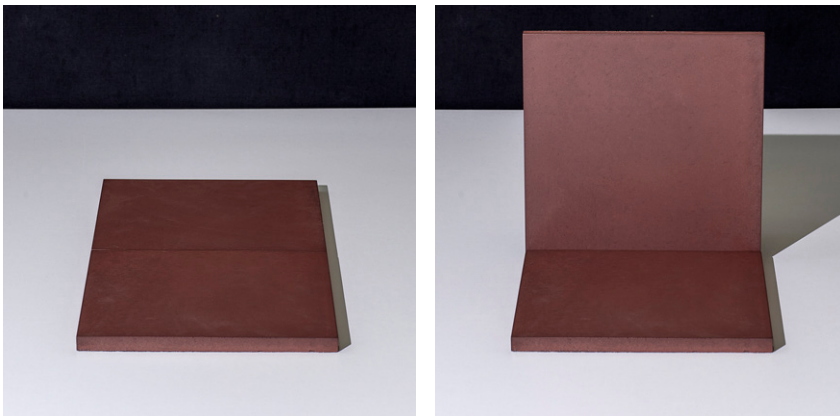
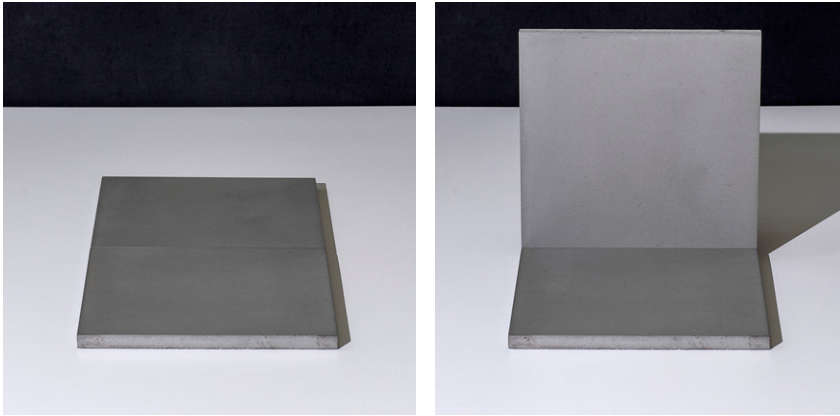
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Colour perception

The colour of a single piece can change depending on the point of view: the colour tone of the concrete surface changes when viewed horizontally or vertically.

This is why it is often the case that elements of the same colour and finish are perceived as having a different colour, depending on the point of observation and the angle of incidence of light.



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Microcavities

The concrete surface may have small blowholes that are generated during the pouring of the material into the mould, especially on the vertical portions. The distribution and size of these cavities are completely random and uncontrollable. Whether outdoors or indoors, they may fill with water, creating darker areas until they dry, without compromising the aesthetic and technical characteristics of the product.



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Edge Irregularities

Because of the nature of the concrete material itself, together with casting moulding, small irregularities are generated on the edges of the products.



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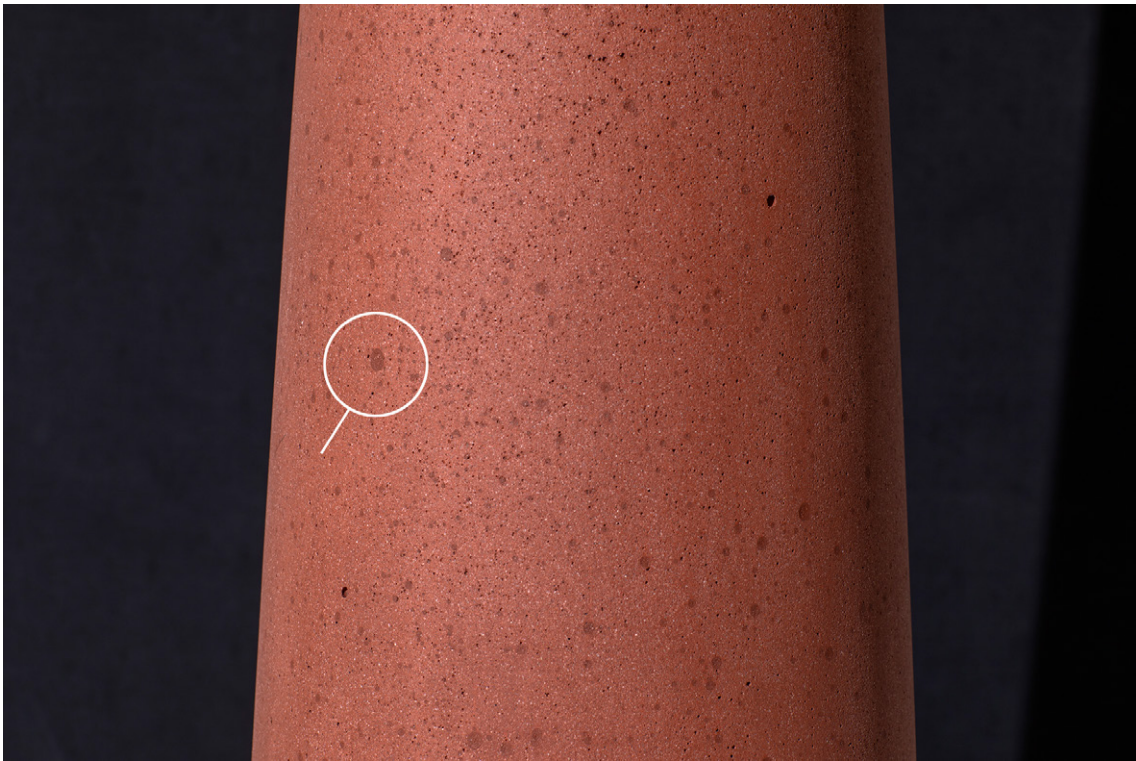
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Point grouting

When the material has surface irregularities (e.g. micro-cavities), a point grout can be carried out using the same cementitious material, in order to even out the piece. This type of grouting may generate a point colour variation and thus be visible.

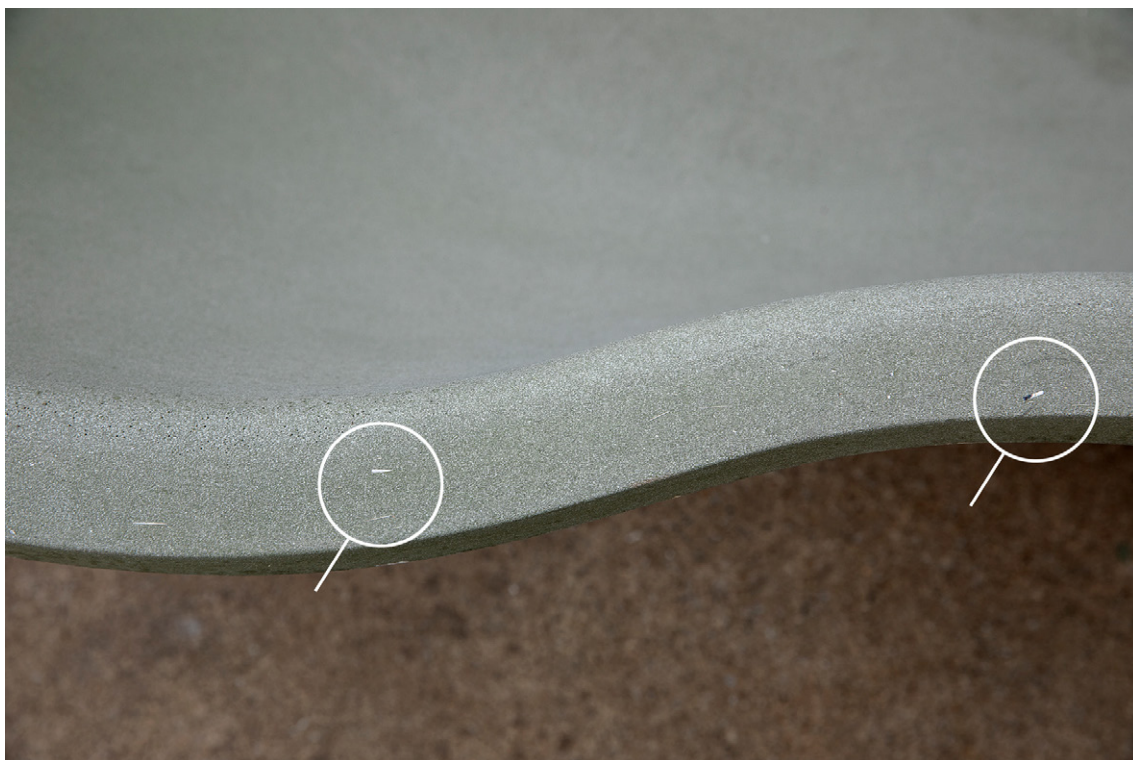
Microcavities up to 4-5 mm in diameter are part of the characteristics of the cement material and must therefore be tolerated.

Intervention on microcavities with a larger diameter will be evaluated in agreement with the customer.



Visible fibre

In the case of products made with a compound with added fibres, these may appear on the surface of the material. This is beyond control at the production stage and, in any case, does not compromise the technical characteristics of the product.



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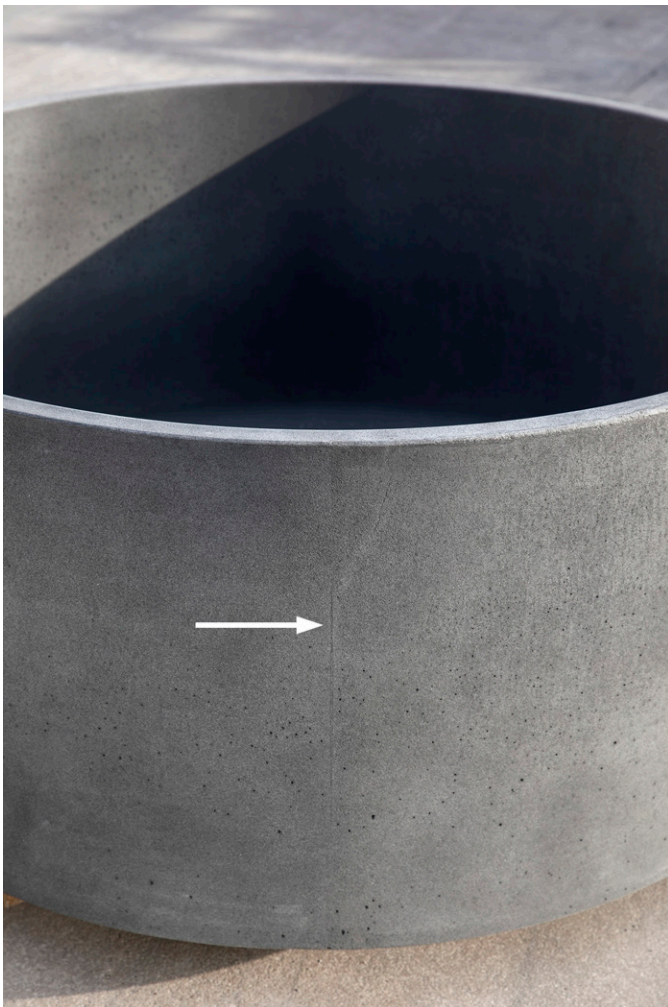
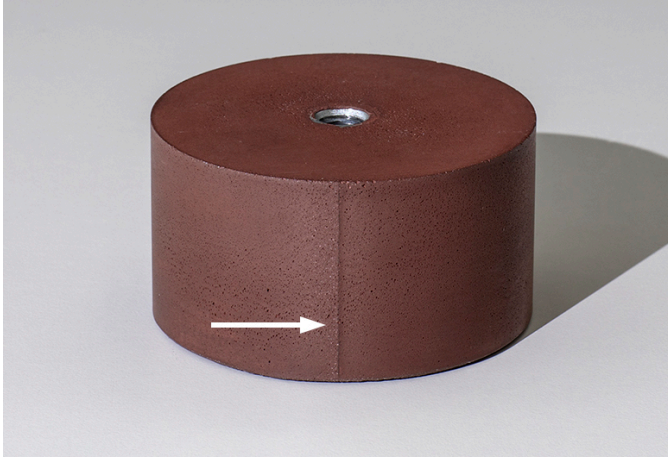
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Mould junction

In products manufactured using complex moulds, i.e. divided into several parts, junction points are visible on the surface of the material: these are usually slight colour changes that, if deemed necessary and/or in agreement with the customer, can however be mitigated with appropriate technical solutions.



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Tolerances

The production cycle and the nature of the material necessarily generate dimensional differences (even on mass-produced articles), and the extent of these depends on the geometry and dimensions of the object to be manufactured. These dimensional differences are, in any case, within the industry tolerances.

Large slab curvature

Large slabs used for surface cladding or for creating countertops may have a slight curvature that can be easily corrected during installation by using appropriate adhesives, tile levelling wedges and/or clamps.

WARNINGS ON USE

Concrete by its nature is comparable to stone and wood: it is a robust and resistant material, but it is not indestructible and must be treated with care, like any natural material. Another consideration in this context is that its appearance may change over time.

With a view to guaranteeing simple and functional daily use of its products, Gypsum has developed a suitable surface treatment that guarantees excellent protection during use (see the certifications – issued by accredited laboratories – on the company's website). More precisely, it is a very thin layer that covers the surface and therefore loses its effectiveness if damaged.

The treatment does not alter the natural appearance of the concrete (no film and/or glossy effect), and it can be calibrated according to the intended use of each individual type of product (e.g. bathroom, kitchen, interior/exterior furnishings, surface coatings).

We do however recommend the following practical tips for the daily maintenance of concrete products:

Use of the new product

The protective surface treatment has a curing time of approximately 20 days, after which it reaches its optimum performance level. Chances are that the object will reach its destination before this time has elapsed. If this occurs, the product can of course be used, although special care should be taken during the first weeks of use, following certain precautions: avoid leaving objects permanently resting on the surface, avoid covering the

product, avoid mechanical stress on the surface. During the first week, we recommend cleaning any staining substances from the surface as quickly as possible.

Objects resting on the surface

Do not allow liquids or other substances (e.g. soaps, creams, rinse water) to remain between the base of an object and the concrete support surface: this stagnation, over the long-term, could compromise the level of protection of the treatment and/or cause stains. Also beware of metal objects in direct contact with the concrete surface: they could develop rust and thus generate stains that can only be cleaned using specific products (provided that the cleaning is done within a reasonable time).

Rising damp

It is not possible to lay flooring and/or coverings on surfaces that have, or could have, rising damp.

Aggressive chemicals

Long-term contact with aggressive chemical substances (e.g. solvents, acids, dyes, bleach, bleaching detergents containing chlorine or active oxygen, etc.) should be avoided as far as possible and, if this should occur, removed as quickly as possible.

Scratches and nicks

Protect the surface from scratching, abrading or scuffing, namely avoid using tools that might compromise the protective treatment (e.g. knives, metal points, abrasive sponges, metal scourers, abrasive detergents, etc.). In the kitchen, it is essential to use the chopping board on the worktop for food preparation. Pay attention also to the bottom of the sink to avoid scratching or scuffing the surface.

High temperature

Never place very hot objects (e.g. hot pans, baking trays, hair straighteners, etc.) on concrete products in order to avoid breakage caused by high thermal shock, and at the same time to avoid compromising the protective surface treatment. When handling very hot objects, therefore, always use a supporting surface such as a cutting board or a trivet.

ROUTINE MAINTENANCE

Routine cleaning

- For most stains we recommend the use of a good quality pH-neutral soap, which can be bought in any supermarket.
- Cleaning can be done with sponge cloths, Scotch-Brite sponges, sorghum brushes, single brushes, pressure washers. Avoid using scouring pads and wire brushes, sandpaper or other tools that could scratch the surface.
- It is allowed to clean with limescale removers, bathroom and kitchen cleaners, floor cleaners, etc.
- Do not use cleaning agents that can scratch, such as abrasive powders or creams, and that contain hydrogen peroxide, hydrofluoric acid, strong bleaching detergents containing chlorine, acid or active oxygen.
- If anti-dust products or waxes must be used, it is advisable to carry out a small preliminary test in an area that is barely visible because they could alter the colour and/or surface finish.

Common stains

Common household stains (e.g. coffee, oil, wine, Coca Cola, lemon, cosmetics, hand cream, toothpaste, perfume, etc.) are easy to remove using mild soap and water.

Prolonged contact (up to 24h) with these substances does not generate permanent stains, although it is recommended to remove them as soon as possible.

Limescale

Limescale marks can be easily removed with commercially available limescale removers. However, it is advisable to remove them quickly in order to avoid the build-up of limescale deposits that would be difficult to remove over time. In this sense, it is important to avoid prolonged water stagnation.

Difficult stains

If necessary, we offer a range of professional products suitable for removing the most difficult stains (e.g. iodine dye, permanent marker, rust, etc.). In these cases, we recommend contacting the company to find the most suitable solution.

Detergents

Regardless of the product used to wash the surfaces (soaps, acids or specific products), it is recommended to always rinse thoroughly.

EXTRAORDINARY MAINTENANCE: treatment refresh

Concrete is treated during production to ensure stain resistance and washability. A refresh of the surface treatment may be necessary after a variable period of time, depending on the type of use and the environmental conditions to which the product has been subjected and, in any case, when cleaning will require a greater effort. In these cases, we recommend contacting the company for all the necessary information.

STORAGE AND HANDLING

- Store packaged material away from the weather to avoid water stagnation that could affect the product.
- Avoid the formation of condensation inside the packaging.
- Have qualified personnel handle both the packaging and the products.
- Handle the products inside their packaging until they are installed.
- In the case of large-sized and thin products (e.g. slabs for cladding, kitchen tops or tables), always move them along the edge, never horizontally “stretcher-style”, as the slab may crack or break.
- Avoid leaving the products (e.g. slabs) resting on the floor or wall in order to avoid possible twisting and/or bending.
- Do not allow dirt generated by site work to come into contact with the surface of the products (suitable protection is recommended for the circumstances).

WARNINGS FOR AREAS OF USE

- Flooring creation. It is technically possible to use our cement (Cementoskin® and Cementobasic®) on floors, both indoors and outdoors. It should be noted that this type of cement is a natural material, just like wood and stone. This means that, over time, it will show signs of wear and tear due mainly to rubbing (e.g. handling chairs, tables, etc.). This is a natural and intrinsic characteristic of cement, which should not be considered as a defect. Cementoskin® and Cementobasic® are mechanically more resistant than classic cement tiles. Common household stains can be easily removed,

but, as far as wear and tear is concerned, they cannot be considered on a par with marble, ceramic or porcelain stoneware. The surface treatment, as described in the “EXTRAORDINARY MAINTENANCE: treatment refresh” section above, has to be restored depending on use.

Specific consideration should be made with regard to Cementobasic®. This specific type of cement has a particularly smooth and homogeneous surface finish and, for this reason, is more susceptible – compared to Cementoskin® – to showing signs of use.

- Tile installation procedure. It is recommended to provide the junction, and the corresponding grouting, to avoid the possibility of the side edges of the tiles absorbing liquid substances. These, in fact, could in some cases generate unwanted stains. Junctions are also necessary because the tiles are not rectified, but subject to industry tolerances.

For all information regarding the installation of the tiles, specific installation instructions for each collection can be found on our website.

In the case of custom-made productions, contact the company in order to obtain the necessary information for correct installation.

- Construction of water basins. Concrete is designed and manufactured for both indoor and outdoor use, for wall and floor cladding, for kitchen countertops, for shower cladding, for sinks, bathtubs, tables, etc.

It CANNOT be used as a swimming pool cladding, and if water collectors in general (e.g. sinks and bathtubs) are being made, they must be emptied after each use, as the surface protection treatment is not suitable for prolonged water stagnation.

GENERAL PRECAUTIONS

For a good conservation of the material:

- as much as possible, avoid leaving dirt on the surface for long periods;
- avoid prolonged contact with solvents or acidic substances;
- avoid contact with sulphuric acid;
- avoid contact with bleach;
- avoid contact with bleaching agents or substances containing active oxygen;
- avoid rubbing with aggressive abrasives (e.g. sandpaper);
- avoid using sharp tools directly on the surface.

WARNINGS

GYPSUM S.r.l. is not liable in the event of:

- damage caused to products during transport, storage, handling and installation;
- damage and/or aesthetic variations of the product deriving from improper use of a physical or chemical nature;
- miscellaneous damage resulting from improper use of the product of a physical or chemical nature;
- damage caused by non-compliance with installation and maintenance procedures;
- damage caused by unauthorised modifications or improper use (e.g. sanding of the surface);
- damage caused by incorrect or inadequate maintenance;
- aesthetic changes and/or alterations to the protective treatment as a result of any additional application of surface protection agents carried out by the customer;
- damage caused by extraordinary events;
- damage on products that have been installed although a visible – and unresolvable – defect was already present prior to installation (e.g. bleaching, curving, chipping, etc.): therefore, if a product has a defect prior to installation, it should not be installed.

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