

Document type

Technical Data Sheet

Name

ECO TERRAZZO

Description

Natural, mineral-based plaster in two components for decorative floor coatings. Made of an innovative mineral binder naturally found in nature, it offers a fully eco-friendly, 0-VOC alternative to Portland cement. It can be used alone or combined with aggregates to produce Terrazzo floors with a minimum thickness of only 5 mm, yet 6 times harder than cement.

This bi-component mixture forms a smooth paste, versatile enough to be combined with nearly any type of aggregate, including marble or glass. Unlike cement, the natural binder in ECO TERRAZZO doesn't shrink. Instead, it expands by approximately 0.2-0.3% as it cures. These traits prevent the risk of cracking, even when applied in very thick or thin layers. Once dried, it reveals an authentic, natural look with an ivory hue. The material can be tinted with colourant pastes, marble powders and aggregates to match the desired shade.

ECO TERRAZZO stands out due to its entirely mineral composition, high mechanical strength, and inherent antistatic properties. These qualities make it an optimal choice for seamless interior floorings, especially in high-traffic zones like shopping centres and restaurants. ECO TERRAZZO is suited for indoor applications only. The application process is straightforward, requiring just a single coat, and reaches completion in mere 36 hours.

Appearance

Component A: ivory-colour powder; Component B: opalescent liquid

Colour

Ivory white, it can be tinted in any colour with compatible colourants and / or with stone chips and powders, or other suitable aggregates, such as shell and glass.

Packaging

1 ECO TERRAZZO Kit is composed of:
2 x Component A: 18 kg net polyethylene containers
1 x Component B: 15 kg net polyethylene containers

Application

By hand, with suitable tools

Type of Surface

Interior flooring.
The substrate must be solid, levelled, stable, and completely dry. The substrates must be treated with our PRIMER Q or GLP at least 18 hours (for PRIMER Q) or 24 hours (for GLP) before the application of ECO TERRAZZO.

Mix Ratio

ECO TERRAZZO comes in two components: component A is a powder and component B is a liquid.

The two components must be mixed in a strict ratio of:

A: 2.4 to B: 1 in weight

See mixing instructions below.

Therefore, the normal packaging is: 2 tubs of 18 kg of A (total of 36 kg) and 1 tub of 15 litres of B.

Consumption

Over 1 square meter you need 2,42 kg of ECO TERRAZZO mixture for each millimetre of thickness. For example, to achieve 1 cm of thickness over 1 sqm you will use 10 kg of COMPONENT A, 4,167 kg of COMPONENT B and 10 kg of cheaper material, like marble aggregates, for a total of 24,167 kg.

Standard Kit + Aggregates (Coverage: 3.6 sqm, 1 cm thick)

For a standard Terrazzo finish we recommend to add 36 kg of aggregates to each Eco Terrazzo Kit. With this amount, you can cover approximately **3.6 sqm**.

The Eco Terrazzo mixture composition would therefore be:

- **Component A:** 36 kg (powder)
- **Component B:** 15 kg (liquid)
- **Aggregates:** 36 kg (choice of different aggregates)

	Component A	Component B	Aggregates	Tot.
1 cm thick / 1 sqm	10 kg	4,167 kg	10 kg	24,167 kg
1 cm thick / 3.6 sqm	36 kg	15 kg	36 kg	87 kg
1.2 cm thick / 3 sqm*	36 kg	15 kg	36 kg	116 kg

***Note** that the first 2mm of the Terrazzo surface will be smoothed during the polishing stage, so a 10mm thick terrazzo will become 8mm high after polishing.

Drying	3 hours at 20°C / 68°F 24 hours at 20°C / 68°F	to the touch stable
Application Temperatures	min 10 max 30°C – R.U. < 85% ca	
Coat Thickness	Depends on the choice of marble or other aggregates. Usually, 5 to 14 mm.	
VOC Classification	EU Directive 2004/42/CE: EU limit value for this product (cat A/I – water-based decorative effect coating): 200 g/l (2010). This product contains less than 1 g/l of VOC.	
Specific Gravity	A: 1050 kg/m ³ B: 1260 kg/m ³	
Compressive strength	Compressive strength at 24 hours > 40 N/mm ² Compressive strength at 7 days > 85 N/mm ² Compressive strength at 28 days > 95 N/mm ²	
Flammability	European Class of Reaction to Fire A1: non-combustible – no contribution to fire	
Pot life	30-60 minutes after mixing the two components at average temperature of 18-25°C	
Shelf life	12 months when stored according to the recommended guidelines	
Storage	In original sealed packaging between 5° - 35°C in a dry, dark environment. <u>Component A:</u> The product must be stored in a clean, dry storage area and protected from moisture with PE-foil. Component A rapidly attracts moisture from air and forms lumps. Always re-seal full, partly used pallets and single bags with PE-foil. <u>Component B:</u> is very hygroscopic. Store in a dry place and protect from contact with air. Quickly re-seal opened bags. Component B can recrystallize and form lumps. Therefore protect from direct sun light, high temperature (+25 °C) and strong temperature variations during storage.	

Safety Norms

Keep out of children. / Avoid contact with eyes. / In case of contact with eyes, clean immediately with water without rubbing them, and consult a doctor. / Wear suitable gloves and eyes / face protection. / In case of ingestion of the products, consult immediately a doctor showing him the can or the label of the product. Danger labelling under directives 67/548/EEC and 1999/45/EC and following amendments and adjustments. The product must be transported, used, and stored according to current standards of hygiene and safety.

Disposal

Product must be disposed of according to norms and regulations in force. Containers must be sent for recycling. Follow directions on the packaging

Application Instructions

WARNINGS

We recommend using materials from the same production batch for the same project. To ensure proper usage, dilution, and application of the products mentioned in these pages, please consult the corresponding technical data sheets.

When preparing the surface and applying the materials, we advise using appropriate tools and personal protective equipment (PPE).

During application and for the following 48 hours, protect the surfaces from sudden temperature change, direct sun light and water. Don't apply in temperatures below 10°C or above 30°. During application make sure that the work area isn't too damp to avoid problems with application times.

Avoid contact of the product with persistent moisture or constant water presence.

Do not apply on frozen surfaces or surfaces that might freeze within 24 hours.

Do not apply on overheated supports.

Do not add anything to the product; use it as supplied, except for the quantity of aggregates deemed suitable for the desired outcome. Aggregates can be either wet or dry, but this may alter the fluidity, which can be corrected by adding a little water.

Surface protection of the flooring must be carried out with products provided by the Stucco Italiano line before putting into service.

APPLICATION

Choosing the aggregates:

When working with cement-based Terrazzos, it's crucial to fill the entire granulometric curve. On the contrary, with ECO TERRAZZO, there's no need for a specific granulometric distribution. You have the option to use only large marble grains, leaving gaps between them without aggregates. But remember, the coating's thickness will be set by the size of the largest marble piece. So, it's vital to pre-calculate the material consumption based on your selected marble size.

To achieve the desired finish, you can use marbles of different sizes and colours. Fine powders (0-0.5 mm) can be used to add colour to the ECO TERRAZZO base, which would otherwise have an ivory hue. Indeed, there are two ways to colour the base: you can use liquid pigments, or use natural, fine stone powders to create depth in the finish.

Substrate preparation

Existing surface	Action	Primer
Non treated tiles	Clean from grease and dirt	GLP
New solid screed	Clean from grease and dirt	Primer Q
Marble, dirty tiles, old cement, waxed tiles	Abrade the surface, clean	GLP
Uneven / unlevelled surface*	Level the surface	Primer Q / GLP

*Before the application of ECO TERRAZZO, for best results, the floor must be as levelled and even as possible.

Prepare the work site.

Apply a small sponge band, about 1 cm thick, at the base of the walls to allow a small distance from the wall of the new coating. ECO TERRAZZO increases slightly its volume when drying.

Prepare the material.

ECO TERRAZZO comes in two components: component A is a powder and component B is a liquid. **The two components must be mixed in a strict ratio of: A: 2.4 to B: 1 in weight.** To respect the mixing ratio, each ECO TERRAZZO kit is composed of 36 kg of Component A (powder) and 15 kg of B (liquid). These must be mixed as described below. Never alter the mixing proportion.

A side, we prepare 36 kg of aggregates, from very fine marbles up to the maximum desired size. In this way, we will mix 1 part of Component A with 1 part of marble aggregates. If desired, we can also increase the part of aggregates up to 1 of Component A to 1.2 of aggregates.

Mix the material, using a common concrete mixer or low-speed drill.

Mixing order:

- 1) 15 kg Component B, which is liquid**
- 2) 36 kg Component A, which is powder**
- 3) The aggregates (marble/shell/glass) : Starting from the biggest chips down to the finest ones.**

If there are too many fine powders, it is possible that the mixture becomes too thick. To solve this, it is possible to add a little bit of water (80-100 ml). On the contrary, if it is too liquid, it is recommended to insert very fine powders. **Never modify the ratio between component A and B of ECO TERRAZZO.**

Application

Pour the mixture into a wheelbarrow and from it onto the floor.

Metal slats (rails) laid on the floor at 120 -150 cm from each other will help create the working bands. If we use marble aggregates with a maximum thickness of 12 mm, we will have 13mm thick metal slats, and once smoothed out we will obtain a coating of about 10 mm.

Once the material has been poured between the two slats, it is spread everywhere with the help of a trowel.

Then a metal stick (or blade) is slid over the two rails in order to obtain the same thickness everywhere and a flat surface.

Every so often (approximately every 20 minutes) the bubble breaker is passed. We apply it on a three meter long pole in order to do this job more often. As we move on to another area of the floor, we remove the metal slats from the completed area.

Filling the holes

Like the traditional Venetian terrazzo, before the final fine sanding there are small holes due to air bubbles. We therefore have to apply a grout, called FILLER FOR ECO TERRAZZO, A + B (designed for this purpose and supplied by us with the material) all over the floor. This can be coloured or left transparent. Poured on the floor it is then spread everywhere using a rubber spatula.

Sanding

After 24 hours the floor is ready for polishing, which must be done with the same machines and methods used for the traditional Venetian terrazzo. It can be done dry or with water, which is perhaps preferable. You will need sanding machines for diamond disks + diamond disks in metal support and diamond disks in resin support.

If you sand too early the discs get mixed with material, if too late you are faced with a noticeable hardness. It is very important to start sanding **maximum within 36 hours** from application, or the floor may be too hard for sanding.

Finish Protection

A final protective treatment is necessary to protect the finish. It can be done with our natural oils blend, ECOTOP, and completed with MINERAL WAX or PROTECTIVE WAX. Another option is to use a PU varnish as final treatment, which must be preceded by 2 coats of PRESEALER FOR TERRAZZO.

- 1) ECOTOP + MINERAL WAX / PROTECTIVE WAX: make sure the Terrazzo is dry if the sanding was done with water. Drying can take several days and its time is inversely proportional to the temperature and ventilation of the environment. Pour ECOTOP, a blend of vegetable seed oils, all over the floor and facilitate its penetration by moving it from the areas where it is in excess to those that are dry. After 4 hours dry everything up by removing the excess oil with the help of sawdust. Clean well, let it rest for 24 hours, and then apply either our MINERAL WAX or PROTECTIVE WAX over the entire surface in minimum thickness. Please read carefully the TDS of these products for more details on their application method.
- 2) PRESEALER FOR TERRAZZO + PU2C
Ensure that the Terrazzo surface is completely dry before application, especially if water was used during sanding. Avoid application at temperatures exceeding 25 °C. Apply one coat of PRESEALER FOR TERRAZZO using a roller or wax spreader and allow it to dry thoroughly before applying a second coat. Once the second coat is fully dry, proceed with the application of PU2C, following the instructions provided in its Technical Data Sheet.

Maintenance

Clean with neutral detergents. MINERAL WAX can be reapplied when it wears out.

Tools

See above. Clean the tools with water immediately after use.

Aggregate complements MARBLE AGGREGATES, SHELLS, GLASS

We have drawn up the material presented above to the best of our technical and experiential knowledge. All responsibility for the obtained results lies solely with the method and conditions adopted for the application of the product. Such indications constitute valid support for verifying the product's suitability for the specific case. We reserve the right to make modifications to the present information without previous warning.