



SEAMLESS TERRAZZO

Technical Information

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SEAMLESS TERRAZZO

At a glance

Natural look

Matt to high gloss finishing

Joint-free flooring

Only constructive

Movement joints CE mark

Contribute to LEED

Certification

Architectural freedom



Custom color range

Indoor flooring

Ultra High Performance

No Shrinkage

High Strength

High Flexibility

High Abrasion Resistance



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Description

Seamless Terrazzo is classified as **Ultra High Performance Concrete** with a unique combination of hardness, flexibility, wear resistance and no shrinkage. Suddenly, seamless floors of hundreds of square meters are no longer a problem.

An advanced, professional grade, two-component, mineral-based screed that can be used to create uniform floors with small aggregates exposure, micro Terrazzo or Terrazzo with big aggregates. It can be ground and polished to the desired appearance.

- Total architectural freedom.
- Endless possibilities with colors
- Play with chips: use aggregates under 1mm for a uniform effect or use big stones and design the mix of aggregates in colors and size
- Easy to screed and level
- Workability between **30-90 minutes**, giving the applicator time to carry out the correct application.



Fields of Application

Seamless Terrazzo is used internally for new and replacement domestic, commercial and industrial flooring, wherever you need a high or extremely high abrasion resistance.

It can be applied from schools, museums, retail, restaurants, lobbies, shopping centers, airports to extremely heavy industrial applications like warehouses and logistic centers, metal processing plants etc. thanks to its high technical features.





Technical Properties and Characteristics



Description	Values
Mixing rate Component A&B	Approx. 20 kg mortar A to 22-23% Liquid B in weight 2.2 kg/mm/sqmt Powder to 0.44 kg/mm/sqmt
Mixing rate (binder & aggregates) A&B Component	Approx. 20 kg of mortar base to be mixed with 25 kg aggregates (A). 2.2 kg/mm/sqmt (binder + aggregates A) to 22-23% (0.44 kg) Liquid B in weight.
Density B Component S 28	1.24 kg/l
Consumption	2.6-2.7 kg total between A&B Liquid per mm thickness/m2*
Recommended minimum thickness	0.4" after grinding Screeded down in minimum 1/2" thickness
Opening time (22°C/72°F)	30-90 minutes
Compressive strength EN13813	C 40-80 N/mm2 7 days*
	C 50-100 N/mm2 28 days*
	F9-F15 N/mm2. 7 days*
	F13-F20 N/mm2. 28 days*
Flexural strength EN 13813	F9-F15 N/mm2 7 days*
	F13-F20 N/mm2 28 days*
Abrasion resistance	AR 0.5
Thickness application	12-30 mm: Minimum 10 mm after grinding
Open to traffic	Light - 2 days; Heavy - 5 days

*Mixing rate may change depending on site conditions, age of material, aggregates and color



Technical Property and Characteristics

*Mixing rate may change depending on site conditions, age of material, aggregates size and type and colors/pigments used. Applicators like to apply more liquid or more dry and the materials workability can be individually adapted.

**Technical results may change depending on site conditions, age of material, aggregates size and type and colors/pigments used. Furthermore the mixing rate and consumption of liquid B component will influence on the final strength of the material. The binder can be purchased without aggregates, so locally purchased aggregates can be used. Make sure that the aggregates are free from contamination and are clean and dry.



Environmental Advantages



Use Seamless Terrazzo to reduce your carbon footprint and lower your environmental impact. Hard-wearing floors are achieved with low material consumption and therefore much lower environmental impact. Seamless Terrazzo is classified Emission EC1 plus and can be used in LEED certified buildings.



Ideal concrete base

- The concrete base or other floor bases must be consistent, without loose particles and disaggregation, clean, free of dust and grease. The flatter and more level the base floor is, the better finished result.
- The foundation should have a minimum tensile strength of 1.5 MPa.
- The base must be visually dry with a maximum moisture content of 4% without the possibility of increased moisture by capillary action. If you have doubts about moisture, you may take precautions by using special primers.
- Cracks in the base should be repaired. Weak bases, which cannot sustain the contraction of coating must be removed or restored.
- The foundation should be ground or blasted and then aspirated. Use primer epoxy spread with sand aggregates 1 to 1.5 mm till saturation. Then leave to dry. The drying times depend on the weather conditions and can be up to 24 hours. After drying, the surface should be vacuumed to remove loose sand particles. Consult our technical department for other primer options. ProEco Primer A6 is a **green alternative** to epoxy primers. ProEco Primer A6 is a green water-based product that works together with a cement powder that is brushed onto the surface. Consult ProEco Primer A6 Data sheet for more information.
- Foam, special tapes or other flexible separators should be used to avoid direct contact with the self leveling material and walls, columns or tubes or other objects going through the floor.
- Surface and ambient temperatures should be between 10° to 32° C (50°F to 90°F).



Mixing

- Make sure that the B component (S 28) is well stirred before use.
- Add the indicated measured amount of B component.
- Add the bags of A component (powder) while the mixer is running. Additional liquid may be added if necessary. Multi-bag batches.
- After the final bag is added to the batch, mix an additional 2 to 3 minutes until the mixture is lump-free.
- Once mixing rates have been established, make sure that the mixing is always done in the same way with the same amount of liquid and the same amount of time.
- Avoid mixers that entrap large amounts of air.
- The material has to be used right after mixing. If the mixed material is left for more than 5 minutes and settles, the material should be remixed before application. Ideal working temperatures are between 10° to 27°C (50°F to 80°F).
- We recommend the use of horizontal mixers or traditional concrete mixers for Seamless Terrazzo.
- When base and aggregates are added separately, make sure that they are added more or less at the same time. If several bags are added to the same mixer, add 1 bag of aggregates, then 1 bag of base and keep going on with the same criteria.





Application

- Arrange the work area to permit continuous placement without interruptions. A more uniform application will be achieved if precautions are taken and the material is screeded continuously.
- The product can be applied manually or pumped using adapted machines. The pumping machine must be able to provide the right amount of component B to component A. Apply the mortar Seamless Terrazzo using minimal thicknesses of 12 mm. If the mix contain big aggregates we recommend to screed 1-2 mm thicker than the biggest aggregate.
- Screed the material into place with screed bars and go over the floor with spike roller specially made for cement based overlays. It should only be passed over the surface and avoid pressing down the aggregates. This will even the surface and remove air bubbles.
- If the base has no joints, the mortars can be applied joint-free but the ones existing in pavements should be respected in the new application. Seamless Terrazzo can be applied without any retraction joints.



Curing

Seamless needs to breathe and should not be covered with non-breathable materials during or after curing. Low temperature can extend curing time and high temperature may decrease setting time. The floor must be left without traffic during curing.

Polishing

Seamless Terrazzo may be ground and polished after 24-48 hours at normal conditions. To achieve the right appearance and correct sealing of the floor you need to grind until the surface film created during the curing is removed. Terrazzo with big aggregates will need to be ground until they are properly exposed. The grinding can create pores in the surface and it can be necessary to fill in the pores during the polishing process. Polishing any topping requires a high degree of experience and craftsmanship. Contact us and use approved installers. We recommend dry polishing, as Seamless Style is sensitive to water.

Sealing

Seamless Terrazzo should be sealed according to the use and type of traffic. Consult with our applicator and technical department prior to use. Let the floor and sealer dry for minimum 5-7 days before cleaning with water.



Special Precautions with Seamless Terrazzo

The preparation work is essential for a good result. Seamless Terrazzo is recommended so the finished floor is 10 mm thick in an even layer. Adapt the thickness of the screeding so to have a minimum thickness of 10 mm after grinding. A terrazzo with bigger aggregates will need more grinding. If you need to grind off 3 mm to expose aggregates, the floor needs a screed of at least 13 mm.

Our cement base can cause corrosion in direct contact with some metals. When decorative profiles are used in the floor, problems can be avoided by applying the epoxy primer and sand on the sides of the profiles that are in direct contact with the mortar.

Our core cement base is very sensitive to moisture and it is important to take precautions during the application, curing and sealing processes, especially if the moisture content in the air is very high.

The colors of floors made using our cement base are not always uniform, which is a typical feature of cementitious based products. Apart from the inherent nature of this kind of product, differences in the various colors may also be caused by the way the product is applied. Also, it must be cast continuously without long gaps, in order to guarantee a uniform appearance.

Do not add water, sand, stones, lime, cement, gypsum or other products to our cement base mix.

Do not use Seamless Terrazzo on substrates which are subject to rising damp.

Applying a hydrophobic agent over the tools before use, will make them easier to clean and can also prevent oxidation on metal tools that might react to our products.



Seamless Terrazzo will never crack on its own and will not crack along curved walls, corners etc. Seamless Terrazzo products do not need contraction joints. The mortars in the Seamless Terrazzo series have no shrinkage and have a very high flexural strength which is why they can withstand a lot of movement from the substrate and can take a lot more stress than most other cement based products.

Nonetheless, surface preparation and substrate conditions are essential for the performance of the topping and Etonsurfaces cannot be responsible for cracks or other problems caused by bad substrates or wrong surface preparation.

Seamless Terrazzo is designed to have natural concrete appearance and visual variations to the finished floor should be expected. Seamless Terrazzo is not recommended for wet areas or in locations subjected to freezing temperatures or where de-icing salts will be used.

Before using Etonsurfaces Inc. products, read current technical data sheets, bulletins, product labels and safety data sheets. It is the user's responsibility to review instructions and warnings for any Etonsurfaces Inc. products prior to use. The latest valid data sheet can always be found on www.etsurfaces.com.



Production, Packing, Storage and Validity

Seamless Terrazzo is sold in two components: - Component A (Mortar) - 20 kg bags Component B - buckets 20 lt. or IBC. Products can be packed according to individual needs.

Store bags and containers in a dry place and protected from extreme temperatures and direct sunlight. With the right conditions of storage, the product is valid for 12 months from the manufacturing date. Component B should not freeze.



Warning: do not breath dust. Avoid contact with skin and eyes.

Use material in well-ventilated areas only. Exposure to cement dust may irritate eyes, nose, throat, and the upper respiratory system/lungs. Silica exposure by inhalation may result in the development of lung injuries and pulmonary diseases, including silicosis and lung cancer. Seek medical treatment if you experience difficulty breathing while using this product. The use of a NIOSH/MSHA-approved respirator (P-, N- or R-95) is recommended to minimize inhalation of cement dust.

Skin contact with dry material or wet mixtures may result in bodily injury ranging from moderate irritation and thickening/cracking of skin to severe skin damage from chemical burns. If irritation or burning occurs, seek medical treatment. Protect eyes with goggles or safety glasses with side shields. Cover skin with protective clothing. Use chemical resistant gloves and waterproof boots. In case of skin contact with cement dust, immediately wash off dust with soap and water to avoid skin damage. In case of skin contact with wet concrete, wash exposed skin areas with cold running water as soon as possible. In case of eye contact with cement dust, flush immediately and repeatedly with clean water, and consult a physician. If wet concrete splashes into eyes, rinse eyes with clean water for at least 15 minutes and go to the hospital for further treatment.



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