



PRODUCT DATA SHEET

Seamless EcoFlow

High Performance Overlay

October 2020

SEAMLESS ECOFLOW

AT A GLANCE

- Natural Look
- Matt to High gloss finish
- Joint-free Flooring
- Only constructive movement joints
- CE mark
- LEED Certified product
- Architectural Freedom
- Custom color range
- Indoor Use
- High Performance
- No Shrinkage
- High Strength
- High Flexibility
- High Abrasion Resistance



DESCRIPTION

Seamless EcoFlow is an advanced, professional grade, two-components, self-leveling topping based on selected aggregates and special cements.

Seamless EcoFlow sells on its high strength and flexibility and outstanding abrasion resistance. It makes high performance durable seamless floors possible.

Seamless EcoFlow levels easily with a gauge rake and maintains workability between 30-90 minutes, giving the applicator time for a correct application. It must be ground and polished to the desired appearance.

Fields of application

Seamless EcoFlow is used internally for new and replacement domestic, commercial and industrial floorings. Wherever a high abrasion resistant floor is needed.

It can be used in schools, museums, retail, restaurants, lobbies, shopping centers and airports. Due to its high wear resistance, Seamless EcoFlow is also suitable for industrial applications like warehouses and logistic centers.

Environmental advantages

Use Seamless EcoFlow 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 EcoFlow is classified Emission EC1 Plus and can contribute in LEED certified buildings.





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TECHNICAL PROPERTIES AND CHARACTERISTICS

Description	Values
Mixing rate component A & B	Approx. 36% in weight. 20kg powder to 6 liters B (liquid) or 7.2 kg/bag* (44.1 lbs to 6.30 quarts of B component (liquid) 15.88 lbs)
Density component B S 26	1.30 kg/l
Consumption	2.4 kg mixed product per mm thickness/m ² * - recommended 12 mm 5.9 lbs mixed product/square feet - recommended thickness 1/2 inch
Opening time (22°C/72°F)	Approx. 30-90 minutes
Compressive Strength	C 60 N/mm ² (8700 psi/60 Mpa) - 28 days
Flexural Strength	F 13 N/mm ² (1885 psi/13 Mpa) - 28 days
Abrasion resistance	AR 0.5
Thickness of application	10-20 mm: Finished floor should be minimum 8 mm after grinding
Open to traffic	Light 2 days - heavy 5 days

*Mixing rate may change depending on site conditions and color.



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Preparation

The concrete or other floor base must be clean, free of dust and grease. The base must be consistent, without loose particles and disaggregation. 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 likelihood of increased moisture through capillary action.

If you have doubts about moisture, you may take precautions using special primers or install new base floors with membrane systems.

Cracks in the base should be repaired. Weak bases, which cannot sustain the contraction of coating must be removed or restored.

Areas where the risks for movements are considered high or where structure are joint together, you should consider inserting joints or prepare the subfloor with steel bar reinforcement and/or glass fiber mesh.

The support should be ground or blasted then aspirated. Use Primer Epoxy spread with sand aggregates 0.8/1.8 mm until clear, the leave to dry. The drying time depends on the weather conditions and can be up to 24 hrs. After drying, the surface should be vacuumed to remove loose sand particles. Consult our technical department for alternative 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 Sheets.

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 shall be between 10°C to 32°C (50°F to 90°F).



Mixing

Make sure that the B component (FLOW B: S26) is well stirred before use. Add the indicated measured amount of B compound to each bag of A component to the mixing container. While the mixer is running, add Seamless EcoFlow A (powder). Additional liquid may be added if necessary.

Multi-bag batches: After the final bag is added to the batch, mix for 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.

Seamless EcoFlow can be applied using mixer-pumps like M-tec duo-mix. Also hippo mixers or equivalent can be used. Traditional concrete mixers are not good for the mixing of Seamless EcoFlow - make sure that you use a mixer designed for self leveling overlays.

We recommend sieving the dry mix through a mesh with 2-2.5 mm holes and another sieve with 2-3 mm holes after mixing. That will eliminate the risk of lumps caused by exposure to moisture during transport, storage or mixing.

Application

Arrange for the work area to permit continuous placement without cold joints. You will get a more uniform application if 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 Seamless EcoFlow mortar using a minimum thickness of 10 mm so the floor is minimum 8 mm after grinding.

Use a gauge rake to coax the material into place and go over the floor with spike roller specially made for cement based overlays. This will even the surface and remove air bubbles. If the base has no joints, the mortars can be applied joint free. Seamless EcoFlow can be applied without any retraction joints. Joints in existing pavements should be respected in the new application or special precautions should be taken.

Pot life is 30-90 minutes depending on temperature.



Curing

Seamless EcoFlow 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 speed setting time. The floor must be left without traffic during curing.

Polishing

Seamless EcoFlow may be ground and polished after 48-72 hours under 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. The grinding can create pores in the surface and it will be necessary to fill in the pores during the polishing process.

Polishing any topping requires a high degree of experience and craftsmanship. Contact us for more information and only use approved installers.

We recommend dry polishing, since Seamless EcoFlow is sensitive to water.

Sealing

Seamless EcoFlow should be sealed according to use and type of traffic. Consult with our applicator and technical department.



Production, packaging, storage and validity

Seamless EcoFlow is sold in two components: - Component A (Mortar) - 20 kg bags
Component B (water based solution) - buckets 20 liters 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.

Special precautions with Seamless

The preparation work is essential for a good result. The flatter and more level the base floor is, the better the finished result. Seamless EcoFlow is recommended to be installed so that the finished floor is 10 mm thick in an even layer.

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

Seamless EcoFlow needs to breathe and should never be covered with non-breathable materials.

Seamless EcoFlow is very sensitive to moisture and it is important to take precautions during the application, curing and sealing process, especially if the air moisture content is very high. Leave the material and sealer to dry for 5-7 days before washing with water.

The colors of floors made using Seamless EcoFlow 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. In order to guarantee a uniform appearance, it must be cast continuously without long gaps.

Do not add water, sand, stones, lime, cement, gypsum or other products to the Seamless EcoFlow mix.

Do not use Seamless EcoFlow on substrates which are subject to rising damp (consult the Technical Services Department). Store and install materials at temperatures between 5°C to 35°C. B (liquid compound) should not be frozen.

Etonsurfaces Seamless EcoFlow is made for indoor applications.



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Cracking and user responsibility

There are 3 things that influence on the risk for cracks in a non-structural topping - the substrate, the shrinkage and flexural strength. Rigid, non-structural toppings crack in corners, around columns and insert and along curved surfaces, because of the shrinkage. It is not possible to predict the appearance of micro-cracking in a non-structural topping and such overlays are not capable of withstanding movement from the substrate. Reflective cracks may appear due to vibration, substrate flexure or existing joints and cracks. Seamless EcoFlow will never crack on its own and will not crack along curved walls, corners etc. Seamless products do not need contraction joints. The mortars in the Seamless Series have no shrinkage and have 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. The Seamless Series is designed as a high abrasion resistant surface. Seamless EcoFlow is designed to have the appearance of natural concrete and visual variations to the finished floor should be expected. Seamless EcoFlow is not recommended for wet areas or in locations subject to freezing temperatures or where de-icing salts will be used.

Before using Etonsurfaces 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 products prior to use

Use always our latest updated data sheets. They can be found online at etonsurfaces.com.



WARNING: DO NOT BREATHE 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. Eat and drink only in dust-free areas to avoid ingesting 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.

LIMITED WARRANTY

Etonsurfaces warrants its materials to be of good quality and, at its option, will replace or refund the purchase price of any material proven to be defective within one (1) year from date of purchase.

The above remedies shall be the limit of Etonsurfaces' responsibility. Except for the foregoing, all warranties expressed or implied, including merchantability and fitness for a particular purpose, are excluded. Etonsurfaces shall not be liable for any consequential, incidental, or special damages arising directly or indirectly from the use of the materials.



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Only by



etonsurfaces
inspiring technology

350, 5th Avenue, 41st Floor
Empire State Building
10118, New York (NY), USA
info@etonsurfaces.com
www.etonsurfaces.com
+1 917 566 1341