



SEAMLESS TROWEL

PRODUCT DATA SHEET

Seamless Trowel

High Performance Overlay

October 2020

AT A GLANCE

- | | |
|-----------------------------------|-----------------------------|
| Natural look | Full RAL color range |
| Troweled finish | Only Indoor Use |
| Joint free flooring | High Performance |
| Only constructive movement joints | No Shrinkage |
| CE mark | High Strength |
| Contribute to LEED Certification | High Flexibility |
| Architectural freedom | Extreme Abrasion resistance |



DESCRIPTION

Seamless Trowel is an advanced, professional grade, two-component, easy-leveling topping, based on selected aggregates and special cements. Seamless Trowel has been created for a troweled finish for industrial applications and outperform other toppings on abrasion resistance and flexibility.

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

Seamless Trowel levels rapidly and maintains workability for up to 30-90 minutes, giving the applicator time for correct application.

To obtain a good result with an even and flat surface using Seamless Trowel, we recommend the use of a ride-on trowel. The low weight walk behind trowels and faster curing time require high capacity with walk behind trowels for a good result. Make sure they are stable machines that does not move too much: if they move a lot they will create trowel marks.

Fields of application

Seamless Trowel is used internally for new and replacement heavy industrial floors. Seamless Trowel can also be used for new domestic, commercial and industrial flooring, where high abrasion resistance and fast opening to traffic is needed.

It can be used in metal processing plants, schools, airports, warehouses and logistic centers, retail, restaurants, lobbies and more.

Seamless Trowel is conductive and can be used in industries where conductive floors are needed.





SEAMLESS TROWEL

PRODUCT DATA SHEET
Seamless Trowel
High Performance Overlay

October 2020

TECHNICAL
PROPERTIES
AND
CHARACTERISTICS

Description	Values
Mixing rate Component A & B:	22 % in weight.* 20 kg powder A to 4.4 kg or 3.80 litres liquid B*
Density B Component S22	1,16 kg/l
Consumption	2,1 kg A (powder) and 4.60 kg or 3,80 litres B (liquid) Total 2,5-2,6 kg per mm thickness/m ²
Opening time (22°C/72°F)	Approx. 30-90 minutes
Compressive strength ASTM C 109	C 60 N/mm ² (8700 psi/60 Mpa) - 28 days
Flexural Strength	F 13 N/mm ² (2175 psi/15 Mpa) - 28 days
Abrasion resistance	Böhme A5 to A1,5
Thickness of application	10-30 mm
Open to traffic	Light 2 days - heavy 5 days

*Mixing rate may change a little depending on site conditions and color

Environmental advantages

Use Seamless Trowel 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 Trowel is classified Emission EC1 plus and can contribute in LEED certified buildings.





SEAMLESS TROWEL

PRODUCT DATA SHEET

Seamless Trowel

High Performance Overlay

October 2020

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 by capillary action.

If you have doubts about moisture, you may take precautions 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 support should be ground or blasted and then aspirated. Use your local epoxy primer spread with sand aggregates 1-1.8 mm until clear, then leave to dry. The drying time depends 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.

Pro-Eco Primer A6 is green alternative to Epoxy primers. Pro-eco primer A6 is a green water based product that works together with a cement powder that is brushed onto the surface. Consult Pro-eco primer A6 Data sheet.

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°C to 32°C (50°F to 90°F).



SEAMLESS TROWEL

PRODUCT DATA SHEET

Seamless Trowel

High Performance Overlay

October 2020

Mixing

Make sure that the B component (Trowel B S22) is well stored before use. Add the indicated measured amount of B compound to the mixing container. While the mixer is running, add Seamless Trowel A (powder).

Additional liquid may be added if necessary. Multi-bag batches and the use of mixer pumps produce more uniform results.

After the final bag is added to the batch, mix for an additional 2 to 3 minutes until the mixture is lump-free. 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 settling, it should be remixed before application.

It is an ideal material to apply with a mixer pump or separate mixer and pump. Make sure that the mixer pump is apt for mortars with 3-4 mm aggregates. We recommend always to make a test first.

Application

Arrange 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. Seamless Trowel is ideal for a mixer pump. The mixer pump machine must be able to provide the right amount of component B to component A. Apply the mortar Seamless Trowel using a minimum thickness of 10 mm (3/8inch). Use a gauge rake to coax the material into place and go over the floor with a spike roller specially made for cement based overlays, to remove air bubbles and even out the material and even the surface.

Leave the material to settle. After 2-6 hours (depending on temperature), when you make a footprint 2-3 mm deep, the material is ready to be troweled. Once the troweling process has begun the process must be finished. Seamless Trowel hardens faster than traditional concrete, which is why it is essential for a good result to have enough manpower. Ride on power trowels gives the best result, if you want an even surface on the floor. To reduce trowel marks on light color materials plastic blades and pans should be used for the troweling. Use correct foot wear during the troweling process, so you do not leave marks on the floor.



SEAMLESS TROWEL

PRODUCT DATA SHEET

Seamless Trowel

High Performance Overlay

October 2020

Smaller walk behind machines (60 cm) will make more effects and marks during the troweling process. They are not as stable and the additional movements from the machinery cause trowel marks. We recommend to make a sample if you have doubt about the appearance. Electric walk behind machines are often very light weight, because they move more and cause more effects on the floor.

You can use a small amount of B component during the trowel process if the material needs hydration. Do not use water. If the base has no joints, the mortars can be applied joint-free. Seamless Trowel can be applied without any retraction joints. Joints in existing pavements should be respected in the new application or special precautions should be taken. If joints are cut in the floor these should be filled, to avoid getting water from cleaning into the product. It may cause efflorescences or discoloring of the joint.

Curing

Seamless Trowel 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 up the setting time. The floor must be left without traffic during curing.

Finishing

Seamless Trowel must be sanded in order to seal the material properly. We recommend to let the floor cool minimum 72 hours to achieve a good seal and avoid blooming and other issues on the floor. Seamless Trowel is meant to be left with a troweled finish and grinding is not recommended.



Sealing of Seamless Trowel

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

Special precautions with Seamless Trowel

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

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

Seamless Trowel needs to breathe and should never be covered with non-breathable materials. It 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. Let material and sealer dry for 5-7 days before you wash the floor with water.

The colors of floors made using Seamless Trowel 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 Trowel mix.

Do not use Seamless Trowel on substrates which are subject to rising damp (consult the Etonsurfaces Technical Services Department).

Store and install materials at temperatures between 5°C to 35°C. B (liquid compound) should not be frozen.

Seamless Trowel is made for indoor applications.

Applying an hydrophobic agent over the tools before use, will make them easier to clean and can also prevent oxidation on metal tools that may react with the Seamless products.



Seamless Trowel

High Performance Overlay

October 2020

SEAMLESS TROWEL

Production, packaging, storage and validity

The Seamless Trowel is sold in two components: - Component A (Mortar) - 20 kg bags and 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.

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 Trowel 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 Trowel is designed to have the appearance of natural concrete and visual variations to the finished floor should be expected. It 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.

You can always find the latest and valid data sheet on etonsurfaces.com



SEAMLESS TROWEL

PRODUCT DATA SHEET

Seamless Trowel

High Performance Overlay

October 2020

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.



SEAMLESS TROWEL

Only by



etonsurfaces
inspiring technology

350, 5th Avenue, 41st Floor

Empire State Building

10118, New York (NY)

info@etonsurfaces.com

www.etonsurfaces.com

Tel. : + 1 917 566 1341