sib
Sociedad Industrial
de Britagem de Pedra

PRODUCT DATA SHEET

Extreme Trowel

High Performance Overlay

JANUARY 2017

AT A GLANCE

Manufacturer
SIB, Sociedade Industrial
De Britagem De Pedra, LDA

- Natural look
- Troweled finish
- Joint free flooring
- Only constructive movement joints
- CE mark
- Tested and Certified products
- Architectural freedom
- Full RAL colour range
- Patent Pending
- High Performance
- No Shrinkage
- High Strength
- High Flexibility
- Extreme Abrasion resistance

DESCRIPTION:

Extreme Trowel is an advanced, professional grade, two-component, easy to level topping,, based on selected aggregates and special cements which creates a troweled concrete finish.

Extreme Trowel has been created for industrial applications and outperform other toppings on abrasion resistance and flexibility.

Exreme Trowel wins on its high strength and flexibility and outstanding abrasion resistance. It makes it possible to make high performance durable seamless floors.

Extreme Trowel levels rapidly and maintains workability for up to 30-60 minutes, giving the applicator time for correct application.

To get a good result and an even and flat surface with Extreme Trowel, we recommend the use of a ride-on Trowel. The low weight of walk behind trowels and faster curing time require high capacity with walk behind trowels for a good result. None-the-less the result will always be better with a ride on trowel.

FIELDS OF APPLICATION:

Renewal and application of new domestic, commercial and industrial flooring. Where a high abrasion resistance and fast opening to traffic is needed.

Can be used in schools, airports, warehouses and logistic centres, retail, restaurants, lobbies and more.

Martinela, Arrabal | Apartado 303 | 2416-903 Leiria | Portugal
Tel.: +351 244 744 431 | Fax: +351 244 744 500

www.sibland.pt
geral@sibland.pt

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TECHNICAL PROPERTIES AND CHARACTERISTICS

- Pumpable
- Fire proof
- Durable
- Easy to screed and work with
- Low shrinkage/contraction
- No need for curing agents
- Esthetic – natural look
- Long opening time - 60 mins+
- No cracks or micro spalling
- High performance
- High abrasion resistance
- High Compressive strength and flexural strength
- Superior mechanical and abrasion resistance
- Slip resistant
- Open to heavy traffic in 4-5 days

Description	Values	Compare
Mixing rate Component A & B:	25 kg/55lb mortar A to 5.50-6.0 litres/1.45-1,60 gallons liquid B	
Consumption	21 kg A (powder) and 4,85 litres B(liquid) per cm thickness/m2 4,2 lb A (powder) and 1/8 gallon B per 3/8” thickness/ sq. feet	
Opening time (22ºC/72ºF)	Approx. 60-90 minutes	
Compressive strength ASTM C 109	C 60 N/mm2 (8700 psi/60 Mpa) - 28 days	
Flexural Strength	F 15 N/mm2 (2175 psi/15 Mpa) - 28 days	
Abrasion resistance	Böhme A5 to A1,5	
Thickness of application	10-30 mm : 3/8 – 1/2 inches	
Open to traffic	Light 2 days – heavy 5 days	

PATENT PENDING:

SIB EXTREME is a unique patent pending technology

ENVIRONMENTAL ADVANTAGES:

Use Extreme Trowel to reduce your carbon footprint and lower your environmental impact. Production of Extreme cement emits far less CO2 than portland cement and you achieve stronger floors with low material consumption.

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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 support 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 to 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 grinded or blasted and subsequently aspirated. Use primer SIBPRIMER EPOXY broadcasted with sand aggregates 1-1,8/2,0 mm till refusal. Then leave to dry. The drying time depend on the weather conditions. Can be up to 24 hours. After drying, the surface should be vacuumed to remove loose sand particles.

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 (Trowel B- Yellow coloured buckets) 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 Extreme Trowel A. 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 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 and settles, the material should be remixed before application.

It is an ideal material to apply with mixer pump.

APPLICATION:

Arrange 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. EXTREME TROWEL is ideal for mixer pump. The mixer pump machine must be able to provide the right amount of component B to component A. Apply the mortar SIB EXTREME TROWEL using minimal thicknesses of 10 mm (3/8inch). Use a gauge rake to coax the material into place and go over the floor with spike roller specially made for cement based overlays, to take out 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 foot print 2-3 mm, the material is ready to be troweled. Once the trowelling process has begun the process must be finished. EXTREME TROWEL hardens faster than traditional concrete, why it is essential for a good result to have enough manpower. Ride on power trowels gives the best result. To reduce trowel marks on light materials plastic blades should be used for the trowelling.

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High Performance Overlay

If the base has no joints, the mortars can be applied joint free. EXTREME 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

CURING:

Extreme needs to breathe and should not be covered with non breathing materials during or after curing. Do not apply curing agent. It can cause colour change in the material.

Low temperature can extend curing time and high temperature may speed setting time. The floor must be left without traffic during curing.

FINISH:

EXTREME TROWEL must be sanded after 24-72 hours. In order to seal the material properly minimum a light sanding is needed. Extreme Trowel is meant to be left with a troweled finish and grinding is not recommended.

SPECIAL PRECAUTIONS WITH EXTREME

Extreme can cause corrosion in direct contact with some metals. When decorative profiles are used in the floor, problems are avoided applicating the primer on the sides of the profiles that are in direct contact with the mortar.

Extreme needs to breathe and should never be covered with non breathing materials. It can cause colour changes in the floor.

Extreme is very sensitive to moist and it is important to take precautions during the application, curing and sealing process. Specially if moist content in the air is very high.

PRODUCTION, PACKAGING, STORAGE AND VALIDITY

The EXTREME TROWEL is sold in two components: - Component A (Mortar) - 25 kg (55lb) bags - Component B (water based solution) - buckets 20 litres (5.25 gallons).

Products can be packed according to individual needs.

Store bags and containers in a dry place and protected from extreme temperatures and direct sunligth. With the right conditions of storage, the product is valid for six months from the manufacturing date.

CRACKING AND USER RESPONSABILITY:

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 overlayments are not capable of restraining movement from the substrate. Reflective cracks may appear due to vibration, substrate flexure or existing joints and cracks.

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Extreme will never crack on its own and will not crack along curved walls, corners etc. Extreme products do not need contraction joints. The mortars in the EXTREME SERIE have no shrinkage and have very high flexural strength why they can restrain a lot of movements from the substrate and can take a lot more stress than most other cement based products.
Non the less - surface preparation and substate conditions are essential for the performance of the topping and SIB cannot be responsible for cracks or other problems cause by bad substrates or wrong surface preparation.

The EXTREME SERIE is designed as a wear surface for high abrasion.
Extreme Trowel is designed to have natural concrete appearance and optical variations to the finished floor should be expected. Extreme Trowel is not recommended for wet areas or at locations subjected to freezing temperatures or where deicing salts will be used.
Before using SIB 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 SIB products prior to use.

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:

SIB, Sociedade Industrial De Britagem De Pedra, LDA 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 SIB's responsibility. Except for the foregoing, all warranties expressed or implied, including merchantability and fitness for a particular purpose, are excluded. SIB shall not be liable for any consequential, incidental, or special damages arising directly or indirectly from the use of the materials.