



# SIBECOCRETE

product data sheet

## AT A GLANCE

Eco- Binder technology

Environmentally friendly

100% mineral-based

VOC and APEO-free

Salt-water resistant

High abrasion resistance

High resistance to chemicals

Easy application

Pumpable application

Indoor and outdoor use

## DESCRIPTION:

SIBECOCRETE is an advanced, professional grade self levelling topping made using selected additives, aggregates and special cements. It is suitable for use in both chemical and heavy traffic industrial environments.

SIBECOCRETE does not suffer from shrinkage and has very high abrasion resistance. These characteristics enable this product to be used for the production of high performance and durable seamless floors.

Due to its unique strength at low volume, the material consumption is low and allows on site application of 250 m<sup>2</sup>+ per hour, using a mixer pump applicator.

Its formulation is based on harmless, VOC-free non-hazardous raw materials. This permits its use in the food processing industry without any further protective measures.

## PROPERTIES AND AREAS OF APPLICATION:

- Eco- Bindertechonology
- Environmentally friendly
- 100% mineral based
- VOC and APEO-free
- Fast stress-free curing
- Salt water resistant
- High chemical resistance (pH 3 – 14)
- Extremely high resistance to abrasion
- Easy application
- Pumpable application
- For use both Indoors and outdoors
- For areas with high mechanical loads and chemical usage such as garages, warehouses, production areas, airports and power plants
- Applicable in layer thicknesses of between 3mm to 50 mm

# TECHNICAL PROPERTIES AND CHARACTERISTICS

Composition	Special Cements, binders & 0-1.2 mm aggregates
Compressive strength (N/mm <sup>2</sup> )	40 N/mm <sup>2</sup>
Flexural strength (N/mm <sup>2</sup> )	12 N/mm <sup>2</sup>
Abrasion Resistance	BCA AR 1.0
NB. The application of SIBDURO 360 is an essential treatment to maintain the correct level of abrasion resistance	
Application temperature	Min. +5 °C, max. +35 °C
Application thickness	3 - 50mm
Consumption	1,9-2,0 kg/m <sup>2</sup> /mm thickness Minimum thickness 6 kg/m <sup>2</sup>
Mixing ratio	4.25 to 6.0 Ltr. water per 25 Kg powder (16 % water in natural grey and 24 % in white ) Mixing ratio change depending on the colours - please consult
Opening time:	The opening time depends on a lot of factors such as wind and the air and floor temperatures. Furthermore, drying time is dictated by the product temperature and the water used. For these reasons we always recommend to test a small area prior to starting full coverage.
Test sample:	Test made with 16 % water in standard grey. Light sanded and after treated with 100 ml of Sibduro 360/m <sup>2</sup>

Light load	Fully loadable (Interior)	Fully loadable (Exterior)
24 hr	4 days	7 days

## ANTI SLIP SURFACES

SIBECO CRETE can be seeded with aggregates to create anti-slip surfaces. Consult our technical department for further information.

## SUBSTRATE PREPARATION

Prior to application, ensure that the surface is stable and has sufficient surface tensile strength. The surface should also be dry or slightly damp, clean and free from dust and loose particles.

Mechanical surface preparation e.g. shot blasting is recommended. Deeper cracks, holes and other defects must be filled and repaired. The surface should be permanently vibration free and crack free. Existing cracks in the floor base must be repaired professionally prior to the application of SIB ECO CRETE.

The substrate has to be dry for priming. By priming the surface the absorbency of the substrate is adjusted, to secure and even cure and avoid air bubbles in the final layer of SIB ECO CRETE.

Apply a further layer of primer if necessary. Reapplication of the primer must be done within 2-6 hours of the first application. Please read the technical data sheet on SIBPRIMERA3 for more information.

SIB ECO CRETE should be applied within 2-6 hours of the application of the primer.

SIB ECO CRETE is often applied in very thin layers. If you apply thin it requires a very well leveled base and even base.

## MIXING AND APPLICATION:

The surface has to be pre-levelled and even to obtain a uniform colouring. SIB ECO CRETE is applied with a toothed trowel or a gauge rake and then passed over with a Spike roller. The finer and longer the spikes are the better result you will get.

The layer thickness should be minimum 3 mm. For application of the second layer the pre-levelled underground has to be primed again.

A small test should be carried out before the application to adjust the correct amount of water to use in the mix and to test the setting time. Air flow, temperature, humidity in the air and substrate, influence on the product's workability and drying time. There can also be small variations in the mixing rate depending on the colour and pigments used.

Mix the material using a mechanical mixing machine. Fill with the required amount of water; (4.25-6.0 liters per 25kg powder material), followed by the powder material that is added while stirring.

We recommend the use of a HIPPO MIXER or mixer pump. The material has to be mixed intensely for 2 minutes, left to set for 3 minutes and then mixed again for 1 more minute. At the beginning of the mixing process the mortar is slightly creamy. Do not add water at this stage since the material will become more liquid.

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.

We recommend the use of mixer pump or a semi-automatic charge mixer for large areas. Mixing time for 100kg of powder requires 4 - 6 min. After mixing, pour SIB ECO CRETE onto the primed surface and distribute it with a pin trowel or gauge rake in the intended thickness. Pass over the fresh surface with a fine spiked metal spike roller. Make sure that the spikes are long enough, so you do not push the material.

With manual application the material needs to rest 5 minutes after the mixing in order to liberate the air bubbles before you pour it on the floor. This minimizes rising of air bubbles in the poured material and helps to give a better and more uniform finish.

The floor has to be protected from drying too quickly (no draft) for the first 24 hours. Do not cover the finished surface with foils or other materials.

## FINISHING

To achieve a higher abrasion and chemical resistance an application of SIBDURO 360 is mandatory.

On decorative surfaces made from products in the ECOCRETE Series, the floor should be moistened with a mist of water before the application of SIBDURO 360. Do not leave puddles. The water should be distributed evenly with a micro fiber mop. Too high concentration of SIBDURO 360 may stain the floor and cause efflorescences.

Before the floor is sanded, grinded or polished the floor must be treated with SIBDURO 360. After the application it must be left to dry for 1-2 hours. Wet grinding is not recommended, before the floor is fully cured.

However, please contact our technical department for the right sealing system for the correct use in each case. Please refer to the respective data sheets for more information if required.

## SPECIAL PRECAUTIONS

The application has to be protected from drying too quickly (due to either drafts or intense heat from the sun) for at least 24 hours. Some minor colour differences are inevitable due to different production batches and this should be taken into account during application.

If you have different absorbent surfaces we recommend priming with an Epoxy Primer which will help achieve a more even application. If a uniform colour is desired, it is necessary to work on those designated sections with the same batch number (see label). The product is cement based and changes in appearance due to changing working techniques, differences in temperature and substrate can cause lighter color shades in the finished surface.

Please take note that this product is a mineral/inorganic product. Product colors do not fully conform to the RAL code and therefore they should only be seen as estimated classifications.

The colours of floors made using Eco Crete 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 colours and marks 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.

Wait 5-7 days till you are sure that the sealer and floor is fully cured, till you start cleaning the floor with water.

## TOOLS AND CLEANING

Mixing device (drill mixer or pump), trowel, spiked shoes, spiked roller and screed rake or pin leveler. All equipment should be washed with clean water and dried before and after application.

## PRODUCTION, PACKAGING, STORAGE, SAFETY AND VALIDITY

SIB ECO CRETE is sold in 25 kg (55lb) bags

Store bags and containers in a dry place and protected from extreme temperatures (best stored between 5-25°C) and direct sunlight.

With the right conditions of storage, the product is valid for 12 months from the manufacturing date.

There is no mandatory hazard labeling for SIB ECO CRETE. Avoid inhaling dust when opening packaging. Protect skin and eyes during the mixing process. Please refer to the Material Safety Data Sheet.

## 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.