RECEPUC SF

Product description

RECEPUC SF is a polyurethane cement mixture consisting of three components, that form a plastic mortar – a load-bearing layer of the flooring system. The material is resistant to cyclic thermal changes and is highly mechanically resistant. RECEPUC SF can be surface treated to gain anti-slip properties using spiked roller. It is intended for interior flooring construction applications.

Application

RECEPUC SF can be used for a wide range of applications:

- Levelling minor irregularities on the substrate
- Food processing production lines
- Suitable for contact with chemicals
- Suitable for use in wet areas
- Resists cyclic heat changes
- Application with a trowel and a spiked roller

Product benefits

- Self-priming – allows for one-day applications
- Excellent chemical resistance
- Excellent UV resistance
- Excellent mechanical resistance
- Good adhesion to the substrate
- Can be pigmented with any suitable powder pigment
- Optimal workability, possibility to accelerate using RECEPUC ACC Accelerator
- Suitable for moist surfaces or application in higher air humidity
- Can be treated to achieve anti-slip properties

Material properties

Bylk density: ~1 800 kg/m^3
Dry matter content by weight: ~ 100 %
Dry matter content by volume: ~ 100 %
Compressive strength after 7 days: > 50 MPa (ČSN EN 196-1)
Flexural strenght after 7 days: 18,95 MPa (ČSN EN 196-1)
Compressive strength after 28 days: > 50 MPa (ČSN EN 196-1)
Flexural strenght after 28 days: 19,38 MPa (ČSN EN 196-1)
Tensile adhesion: > 1,5 N/mm^2 (ČSN 74 4505)
Workability: ~ 20 min
Consumption*: 9 kg/m^2
Curing time: minimum 24 hours
Application conditions:
Ambient air temperature: 10-25 °C
Substrate temperature: 10-25 °C
Substrate moisture content: < 4%
Relative ambient humidity: < 75 %

*depends on layer thickness

Packaging

RECEPUC SF is supplied in pre-measured containers containing component A, component B and component C.

Component A [kg]	5,25
Component B [kg]	5,25
Component C [kg]	19,50
Component A+B+C [kg]	30,00

The supplied packaging of components A, B and C ensures the correct mixing ratio for all components. Do not split the components; the units are designed to be mixed completely.

Material properties

All technical data in the product's technical data sheet are based on laboratory tests. Values may vary depending on ambient conditions, which are beyond our control.

Color

RECEPUC SF is brown-yellow after curing. Component A is a milky white liquid. Component B is a light brown to brown liquid. Component C is reactive filler in the form of a white powder. Color can be altered using any suitable powder pigment. Prior testing is necessary to determine the suitability of the selected pigment.

Storage conditions

Store components A and B in a dry place at temperatures between 15 °C and 25 °C. Protect from direct sunlight, excessive heat, and frost. When stored in unopened original containers, the product has a shelf life of 1 year from the date of manufacture stated on the label.

Material consumption

The consumption of RECEPUC SF is highly dependant on the application process. Based on the different possible application processes, the following applications are expectable (not taking into account additional fillers or broadcast sand):

Application method	**Layer**	**Consumption**
Smooth self-levelling screed	4 mm	7-9 kg/m^2
Textured self-levelling screed	5 mm	7-9 kg/m^2
Thick layer mortar	7 mm	13-15 kg/m^2

Surface preparation

The material should be applied on a clean and dry substrate, which must be free of all impurities such as dust, oily substances, paints, waxes, etc. RECEPUC SF can be applied on wet surface. Although RECEPUC SF is a self-priming material, in the case of smooth self-levelling screed Recetex recommends using PUC PRIMER TX as a primer, to prevent moisture from the substrate from rising to the top of the screed and causing small bubbles on the surface.

To prevent the screed from delamination, Recetex recommends preparing the surface with small, periodic grooves (similar to dilatation joints). These grooves should be cut evenly throughout the surface (around squares of approximately 2x2 meters). Grooving should be done twice the size of the applied layer. For 4 mm layer this is 8 by 8 mm grooves every 2m in each direction.

Mixing

Before the mixing process, it is necessary to thoroughly mix all the components. RECEPUC SF is supplied in appropriate quantities of components A, B and C. In the first step, component A is mixed with component B, and component C is added to the mixture thus prepared. When preparing a pigmented plastic mortar, start by mixing suitable powder pigment with component C. Mixing of components A and B must be carried out at a speed of 400-600 rpm for minimum of 2 minutes. Mixing of the mixture AB and component C must be carried out in a separate container, or the bucket containing component C (pour AB mix into component C). Individual sets of components AB and C must be always mixed in a clean, dry container. Mixing multiple sets in one container in rapid succession may accelerate curing of the material and degrade its utilizable properties. If it is necessary to mix a smaller quantity, components A, B and C are mixed in a ratio of 17,50 : 17,50 : 65,00. In the case of this mixing method, Recetex waives all responsibility for any defects in the material. Mixing must be carried out mechanically, using a high-performance slow-speed drill/mixer with a suitable mixing attachment. Mixing must always be carried out in a clean new container, otherwise local foaming and bubbling of the applied material may occur.

If the mixture is to be accelerated by using RECEPUC ACC Accelerator, the catalyst must be mixed into component A for at least 1 minute at the recommended mixing speed of 400-600 rpm. Then, component A is mixed with component B, and the process follows as mentioned above. In case the customer wishes to fill the mixture ABC with high fraction sand/basalt/quartz, the filler mixture is added at the end of the mixing process, directly into ABC mixture. For the application of 10 mm thick layered screed, it is suitable to add up to 50 wt. % of filler mixture, fraction 1-3 mm, calculated on ABC mass (2:1 ratio ABC:filler).

Application

The material must be applied at 15-25 °C, with an ambient relative humidity of up to 75 % on a pre-treated surface. The material must be applied as soon as possible after mixing components A and B. After a longer time, due to the large volume of material, a rapid increase in viscosity and temperature occurs, which makes it impossible to pour and overflow the material and its subsequent application.

For the application of self levelling screed, the material is poured on the surface directly after mixing and spread evenly with a trowel fitted to appropriate layer thickness. Immediately after pouring, it is necessary to use deaerating/levelling pin roller to remove any residual air from the screed layer. Only a roller with thick plastic pins is considered suitable, metal thin pins on the roller are not usable, and may negatively impact the resulting texture and quality of the material. The desired texture can be achieved by broadcasting with Dorsilit 8 or Dorsilit 7 sand with minimum consumption of 2 kg/m2. For increasing UV stability and resistance to cleaning agents, it is possible to overcoat RECEPUC SF with RECEPUR COATING WB TX at a consumption of 0,4 kg/m2.

For the application of thick layered screed with 1-3 mm fraction filler, the filled material is poured onto the surface, and then smoothed and plastered with a flat trowel. Using a nylon roller, it is possible to unify the surface texture and look. Using a texturing roller, it is possible to achieve desired texture.

Adapt the work procedure to the actual conditions at the application site. SF must cure for at least 24 hours before the next layer is applied. Longer curing time may reduce the adhesion of the next layer. After 7 days the material is fully matured and able to carry the full load. The material withstands temperature fluctuations well.

Recommendation

Apply only in recommended application conditions. Avoid direct contact of the material with the skin and do not inhale fumes. When working with RECEPUC SF always use the safety equipment specified on the manufacturing label or safety data sheet. Avoid leakage of material into the environment and handle packaging in accordance with environmental regulations.

Notes

- If you have questions about the material’s resistance to a specific chemical, please contact our technical support via www.recetex.com
- The safety data sheet is available on request via www.recetex.com
- Technical support is available for telephone consultation regarding specific customer requirements, including telephone application support.

LEGAL ANNEX

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