Si-Tech Sp. z o. o. 05-306 Jakubów, ul. Dobra 9 tel.+ 48 25 749 88 60 e-mail: sitech@sitech.net.pl www.sitech.net.pl





BONDING LAYER FOR CONCRETE ELEMENTS

ADVANTAGES

The formulation is a polymer with excellent adhesion to building substrates, including concrete. It is also used as part of a horizontal repair system for concrete surfaces as a bonding layer. Its wet-onwet application results in a permanent bonding of the concrete layers. The resulting adhesion to the substrate averages 3 MPa. The bonding layer made with S100 is characterised by resistance to water, salt, a wide range of chemicals and forms a tight membrane.

USE

- As a primer for concrete substrates
- As bonding layer for horizontal surfaces, permanently connecting the newly installed concrete slab to the existing concrete foundation
- As a sealing membrane
- As an additive modifying the concrete mix
- As part of systems for the repair and reprofiling of structural and non-structural concretes, for the application of

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INSTRUCTIONS FOR USE

Substrate

The old concrete substrate should be milled so that the layer of dirty and weak concrete is removed. The substrate should always be strengthened by impregnating it with S100 diluted with water at a ratio of 1:4. Impregnation should be carried out 12 hours before laying a new layer of concrete.

The new substrate should be seasoned, free from cement laitance and loose particles.

PARAMETERS OF THE SUBSTRATE TO WHICH THE MIXTURE WITH S100 WILL BE APPLIED

For non-structural repairs of class r1:

- Compressive strength ≥10 MPa
- Peel strength ≥0.8 MPa

For non-structural repairs of class r2:

- Compressive strength ≥15 Mpa
- Peel strength ≥0,8 Mpa

For structural repairs of class r3:

- Compressive strength ≥25 MPa
- Peel strength ≥1.5 MPa

For non-structural repairs of class r4:

- Compressive strength ≥25 MPa
- Peel strength ≥1.5 MPa

The strength of the material used for the repair is to be adapted to the required repair class e.g. class R3 \geq 25 MPa (should be in accordance with EN 206-1)

The minimum thickness of repair is determined by the need to follow the rule in EN 12620:2004, which states that three times the coarsest aggregate gives the minimum thickness that we can use of the material.

The dosage of S100 ranges from 0.3 to 15% by weight of the cement used to make the mix. The exact amount should be consulted with the manufacturer.

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BONDING LAYER APPLICATION

Immediately before pouring a new layer of concrete, S100 dispersion should be mixed with Portland cement CEM I (32.5; 42.5) at a ratio of 1 kg S100 per 2 kg cement. The mixing will result in a homogeneous slurry with a grey-blue colour, which should be evenly applied to the prepared substrate with a hard brush.

The application of the contact slurry must be carried out immediately before the concrete mix is poured, if the slurry dries out the application must be repeated. The cement used for mixing with S100 must not contain large amounts of ash.

STORAGE AND TRANSPORT

S100 should be stored and transported at positive temperatures.

USE

Consumption of contact layer: approx. 0.6 kg/m² **Consumption of S100 in the mass:** 0.3%-15%.

STANDARDS AND APPROVALS

Materiał zgodny z:

- EN 1504 3
- EN 1504 4

SHELF LIFE: 24 months

Note: The above information has been compiled to the best of our technical knowledge, but is not legally binding.

Hygienic certificate no. 407/322/415/2020.

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