Construction

SikaTop®-Armatec 110 EpoCem®

Bonding Slurry and Anti-Corrosive Rebar Coating

Product Description	Cement-based expoxy-modified three-component anti corrosive coating and bonding slurry.
Uses	As an anti-corrosion coating for reinforcement steel: n For repairs to reinforced concrete where there is corrosion of the underlying reinforcement steel n For the preventive protection of reinforcement steel in thin reinforced concrete sections As bonding slurry for use on concrete, mortar or steel: n For repairs to concrete using SikaTop patching and repair mortars n For bonding of new and old concrete
Characteristics / Advantages	n Excellent adhesion to steel and concrete n Acts as an effective barrier against penetration of water and chlorides n Contains corrosion inhibitors n Provides an excellent bonding coat for subsequent application of repair mortars, cement and epoxy based n Pre measured, ready-to-use packs n May be spray-applied n Frost- and de-icing salt resistant n Non-flammable
Test certificates	LPM, Laboratory for Preparation and Methology, Beinwil am See, Switzerland Ibac Aachen A 3119/3

Product Data

Technical Data

Colours	Mix: Grey Comp. A: White liquid Comp. B: Colourless liquid Comp. C: Dark grey powder
Packaging	20 kg units (A+B+C)
Storage	
Storage Conditions	Store at temperatures between +5 °C and +25 °C. Comp. C must be protected from humidity.
Shelf life	12 months from date of production if stored properly in unopened original packing.

Mechanical/Physical Properties

Density (+23 °C)	Comp. A 1.05 kg/l Comp. B 1.03 kg/l Comp. A+B+C 2.00 kg/l (density of slurry when mixed)
Bond strength (+23°C)	On concrete (sandblasted): 2-3 N/mm^2 On steel: 1 -2 N/mm^2
E-Modulus (static)	~ 16.400 N/mm^2
Index of resistance to diffusion of water vapour (μH_2O)	~ 700
Index of resistance todiffusion of carbon dioxide (μCO_2)	~ 40.000
Thermic coefficient of expansion	~ $18 \cdot 10^{-6}$ per °C

Application Details

Mix ratio	Parts by weight : A : B : C = 1.14 : 2.86 : 16 Parts by volume : A : B : C = 1.14 : 2.86 : 10
Pot life (8 kg)	3 hours (at an ambient temperature of +5 °C to +30 °C)
Limitations	Min. application temperature (ambient and substrate) : +5 °C Max. substrate temperature : +30 °C The recommended dosage must be strictly adhered to. On no account should water be added to the mix!
Coverage	**As an anti-corrosion coating :** ~ 2 kg/m^2 for 2 coats, depending on method of application **As a bonding slurry**: Depending on substrate conditions, not less than 1.5 – 2.0 kg/m^2
Surface preparation	**Concrete, mortar, stone :** Substrate must be clean, sound and free from all traces of loose material, laitance, grease and oil. Min. substrate roughness 2mm **Steel :** Surface must be clean and free from all traces of grease and oil, rust and mill scale. Degree of cleaning SA2.

Application Instructions

Mixing	Shake component A and B vigorously before opening. Pour both liquids into a suitable mixing pan and mix for 30 seconds. Add Component C slowly while continuing to stir. Mix mechanically for 3 minutes, using a slow-speed electric stirrer (250 RPM) in order to entrain as little air as possible. Rest for 5 – 10 minutes, until the mixture exhibits a brushable low-dripping consistency.

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Application

When used as an anti-corrosion coating :
Apply a coating of approx. 0.5 – 1 mm thick to the cleaned and derusted reinforcement, using a stiff paintbrush, roller or spray gun. Leave to dry for 2 – 3 hours (at an ambient temperature of +20 °C), then apply a second coat of similar thickness. Leave to dry for a similar period of time before applying patching mortar. It is inevitable that the anti-corrosion coating is applied as well on the surrounding concrete; this is by no means a disadvantage.

When used as a binding agent for repair mortar or concrete:
Wet down the prepared substrate (concrete) to saturated surface dry condition. Then apply a bonding coat not less than 0.5 mm thick, using a paintbrush, roller or suitable spray gun. For best results, work the bonding slurry well into the substrate to ensure complete coverage of all surface irregularities. Apply the freshly mixed patching mortar wet on wet to the bonding slurry.

The application of slurry coat or patching mortar or may be applied wet in wet or up to a maximum waiting time of 6 hrs at +30 °C
5 hrs at +20 °C
4 hrs at +5 °C

Freshly applied SikaTop-Armatec 110 EpoCem should be protected from pollution and rain until next coat is applied.

Cleaning

Use water to remove uncured material from tools and mixing equipment. Once cured, SikaTop-Armatec 110 EpoCem can only be removed mechanically.

Imported Notes

When SikaTop-Armatec 110 EpoCem is used as bonding coat between old and new concrete, it is necessary to install connecting reinforcement for shear strength transfer as per the relevant guide lines.

Notes

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control

Local Restrictions

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

Legal Notes

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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