BUILDING TRUST

PRODUCT DATA SHEET

SikaTop® Armatec®-110 EpoCem®

Bonding Primer and Reinforcement Corrosion Protection

DESCRIPTION

SikaTop® Armatec®-110 EpoCem® is a cementitious, epoxy resin compensated 3-component coating material with corrosion inhibitor, used as bonding primer and reinforcement corrosion protection.
SikaTop® Armatec®-110 EpoCem® meets the requirement of EN 1504-7.
Suitable for use in hot and tropical climatic conditions.

USES

- Suitable for control of anodic areas (Principle 11, method 11.1 EN 1504-9)
- Suitable in concrete repair as corrosion protection for reinforcement.
- Suitable as a bonding primer on concrete and mortar

FEATURES

- Contains EpoCem® technology - improved bonding agent
- Extended open times for repair mortars
- Compatible with most Sika® repair mortars
- Excellent adhesion to concrete and steel
- Contains corrosion inhibitor
- Certified for application under dynamic load conditions
- Good resistance to water and chloride penetration
- High shear strength
- Long pot life
- Easy to mix
- Can be brushed on or applied using spray gun

PRODUCT INFORMATION

Composition	Portland cement, epoxy resin, selected aggregates and additives	
Packaging	20 kg: A (1.14 kg) + B (2.86 kg) + C (16 kg)	
Shelf life	12 months	
Storage conditions	Store properly in undamaged original sealed packaging, in dry cool conditions between +5 °C and +25 °C.	
Appearance and colour	Component A:	White liquid
	Component B:	Yellowish liquid
	Component C:	Grey powder
	Mixed components:	Dark grey

TECHNICAL INFORMATION

Tensile adhesion strength	≥ 1.5 N/mm² (or concrete failure) (28 days)	(BS 1881 - Part 207)
Shear adhesion strength	Pass Note: Bonding primer for fresh to hardened concrete	(ASTM C881)
Corrosion test	Pass	(EN 15183)

SYSTEM INFORMATION

System structure

SikaTop® Armatec®-110 EpoCem® is part of the Sika® repair system complying with the relevant part of European Standard EN 1504 and comprising of:

Bonding Primer / Reinforcement Corrosion Protection	SikaTop® Armatec®-110 EpoCem®
Light Weight Repair Mortar	Sika MonoTop®, SikaRep® series
Structural Repair Mortar	Sika MonoTop®, SikaRep®, Sikadur® series
Pore Sealer and Levelling Mortar	Sika MonoTop®, SikaRep®, Sikagard® series

APPLICATION INFORMATION

Fresh mortar density

A + B + C mixed: ~2.0 kg/l (23 °C)

Consumption

As reinforcement corrosion protection coating:
~2 kg/m² for application layer (~1 mm thick)
In total min. 2 layer thickness (~2 mm thick)
As a bonding primer, substrate:
> 1.5 to 2.0 kg/m²/mm dependent on substrate conditions

Ambient air temperature

+5 °C min. / +35 °C max.

Substrate temperature

+5 °C min. / +35 °C max.

Pot Life

~3 h (at +20 °C)

Waiting time to overcoating

Maximum waiting time before application of repair mortar
Sika repair mortars and non-fast setting concrete can be applied on SikaTop® Armatec®-110 EpoCem® within a maximum time of:

+5 °C	+10 °C	+20 °C	+30 °C
6 h	5 h	2 h	1 h

BASIS OF PRODUCT DATA

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

FURTHER INFORMATION

- Please refer to the Method Statement for Concrete Repair using Sika MonoTop® / SikaRep® / Sikacrete® system.
- Please refer to the recommendations provided in EN 1504-10

IMPORTANT CONSIDERATIONS

- Avoid application in direct sun and/or strong wind and/or rain.
- Do not add water.
- Apply only to sound, prepared substrates.
- This product is NOT recommended for use with fast setting concrete or mortar.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Concrete:
The concrete shall be free from dust, loose material, surface contamination and materials which reduce bond or prevent suction or wetting by repair materials. Delaminated, weak, damaged and deteriorated concrete and where necessary sound concrete shall be removed by suitable means.
The surface shall be thoroughly pre-wetted and not be allowed to dry before application of the concrete repair mortar. The surface shall achieve a dark matt appearance without glistening and surface pores and pits shall not contain water.

Steel reinforcement:
Rust, scale, mortar, concrete, dust and other loose and deleterious material which reduces bond or contributes to corrosion shall be removed and reinforcement cleaned to SA 2 in accordance with ISO 8501-1. Surfaces shall be prepared using abrasive blast cleaning techniques or high pressure water-blasting.

MIXING

SikaTop® Armatec®-110 EpoCem® can be mixed with a low speed (< 250 rpm) electric drill mixer.
Shake components A and B thoroughly before opening. Pour liquid components A and B into a suitable mixing vessel and mix for 30 seconds. While still mixing components A and B slowly add powder component C. Mix the three components together for minimum 3 minutes, minimising addition of air. Leave to stand for 5 to10 minutes until mixed coating material exhibits a brush-able, weakly dripping consistency. DO NOT ADD WATER!

APPLICATION

As reinforcement corrosion protection:
Apply first layer approximately 1 millimeter thick, using medium hard brush or spray gun to the cleaned reinforcement. Apply 2nd layer when the first coat is hard to the fingernail (approximately 2 to 3 hours at +20 °C). Apply subsequent repair mortars wet on dry (so not to wipe off the protection layer).

As a bonding primer:
Apply using medium hard brush or spray gun to prepared substrate. To achieve good bond, SikaTop® Armatec®-110 EpoCem® must be applied well into the substrate, filling all pores (minimum layer thickness 0.5 millimeter). Apply subsequent repair mortars wet on wet freshly applied SikaTop® Armatec®-110 EpoCem® must be protected against contamination and rain until application of the repair mortar.

Application under dynamic loading:
SikaTop® Armatec®-110 EpoCem® has been tested with the following Sika repair mortars and is certified for dynamic loading applications. Refer to separate sheets for further information.

Dry Spray Process:	
Corrosion Protection:	SikaTop® Armatec®-110 EpoCem®
Repair and overlay:	SikaCem®-Gunite 133

Wet Spray Process:	
Corrosion Protection and/or Bonding Primer:	SikaTop® Armatec®-110 EpoCem®
Repair and Overlay:	Sika MonoTop®-412 series

CURING TREATMENT

Protect the fresh mortar from rain while the material has not yet set.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with water immediately after use. Hardened material can only be mechanically removed.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

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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