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.

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

CHARACTERISTICS / ADVANTAGES

- Contains EpoCem® technology - improved bonding agent
- Extended open times for repair mortars
- Compatible with most Sika MonoTop® 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

APPROVALS / STANDARDS

Insert local test reports

PRODUCT INFORMATION

Chemical Base	Portland cement, epoxy resin, selected aggregates and additives
Packaging	20 kg: A (1.14 kg) + B (2.86 kg) + C (16 kg)
Appearance / Colour	Mixed components dark grey Component A: white liquid Component B: colourless liquid Component C: dark grey powder
Shelf Life	12 months
Storage Conditions	Store properly in undamaged original sealed packaging, in dry cool conditions between +5 °C and +25 °C.
Density	A+B+C density: ~2.0 kg/l at 23 °C

TECHNICAL INFORMATION

Tensile Adhesion Strength	≥ 1.5 N/mm² (MPa) (after 28 days)	(EN 1542)

Shear Adhesion	Pass	(EN 15184)
Coefficient of Thermal Expansion	~18 x 10^{-6} 1/K	(EN 1770)
Diffusion Resistance to Water Vapour	μH_2O ~500	
Diffusion resistance to carbon dioxide	μCO_2 ~7300	
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®-352 series
Structural Repair Mortar	Sika MonoTop®-412 series
Pore Sealer and Levelling Mortar	Sika MonoTop®-723 N

APPLICATION INFORMATION

Consumption

As reinforcement corrosion protection coating:
~ 2 kg per m² and application layer (~1 mm thick)
In total minimum 2 layer thickness (~2 mm thick)

As a bonding primer, substrate:
> 1.5 to 2.0 kg per m² /mm dependent on substrate conditions

Ambient Air Temperature

+5 °C minimum; +30 °C maximum

Substrate Temperature

+5 °C minimum; +30 °C maximum

Pot Life

~ 3 hours (at +20 °C)

Waiting Time / 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:

Temperature	Maximum Waiting Time
+5 °C	6 hours
+10 °C	5 hours
+20 °C	2 hours
+30 °C	1 hour

BASIS OF PRODUCT DATA

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.

LIMITATIONS

- Refer to the Method Statement for Concrete Repair using Sika MonoTop® system for more information regarding substrate preparation or refer to the recommendations provided in EN 1504-10
- Avoid application in direct sun and/or strong wind and/or rain.
- Do not add water.
- Apply only to sound, prepared substrates.
- NOT recommended for use with fast setting concrete or mortars e.g. Sika MonoTop®-211 FG / RFG

ECOLOGY HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing 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 a minimum 3 minutes, minimising addition of air. Leave to stand for 5–10 minutes until mixed coating material exhibits a brush-able, weakly dripping consistency.
DO NOT ADD WATER

APPLICATION

As reinforcement corrosion protection:
Apply first layer approx. 1 mm thick, using medium hard brush or spray gun to the cleaned reinforcement. Apply 2nd layer when the first coat is hard to the fingernail (~2–3 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 mm). 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 TOOLS

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

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.

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal

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