

## PRODUCT DATA SHEET

# SikaTop® Armatec®-110 EpoCem®

### BONDING PRIMER AND REINFORCEMENT CORROSION PROTECTION

#### DESCRIPTION

SikaTop® Armatec®-110 EpoCem® is a cementitious, epoxy resin modified 3-component coating material with corrosion inhibitor, used as bonding primer and reinforcement corrosion protection.

#### USES

SikaTop®-Armatec 110 EpoCem® is anti-corrosion coating for reinforcement steel:

- For repairs to reinforced concrete where there is corrosion of the underlying reinforcement steel
- For the preventive protection of reinforcement steel in thin reinforced concrete sections

As bonding slurry for use on concrete, mortar or steel:

- For repairs to concrete using SikaTop® patching and repair mortars
- For bonding of new and old concrete

#### CHARACTERISTICS / ADVANTAGES

- Contains EpoCem® technology - improved bonding agent
- Extended open times for repair mortars
- Compatible with most Sika MonoTop® repair mortars
- Provides an excellent bonding coat for subsequent application of repair mortars cement and epoxy based
- 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
- Frost and de-icing salt resistant
- Non-flammable
- Long pot life
- Easy to mix
- Pre measured, ready-to-use packs
- Can be brushed on or applied using spray gun

#### APPROVALS / STANDARDS

LPM, Laboratory for Preparation and Methodology, Beinwil am See, Switzerland Ibac Aachen A 3119/3

#### PRODUCT INFORMATION

Chemical Base	Epoxy modified cementitious coating	
Packaging	Part A+B+C pre-batched	6.75 kg x 2 sets
	Part A	0.50 kg plastic container
	Part B	1.25 kg liquid
	Part C	5.00 kg bag
Appearance / Colour	Part A+B+C mixed	grey slurry
	Part A	white liquid
	Part B	translucent yellowish liquid
	Part C	cement grey powder

<b>Shelf Life</b>	6 months from date of production	
<b>Storage Conditions</b>	Store properly in unopened original packing. Store at temperatures between +5°C and +40°C. Part C must be protected from humidity.	
<b>Density</b>	Part A	~1.08 kg/L at +27°C
	Part B	~1.01 kg/L at +27°C
	Part C	~1.25 kg/L (Bulk Density) at +27°C
	Part A+B+C mixed	~1.90 kg/L at +27°C

## TECHNICAL INFORMATION

<b>Tensile Adhesion Strength</b>	On Concrete (sandblasted)	1-2 N/mm <sup>2</sup> (at +30°C)	(ISO 4624)
	On Steel	1-3 N/mm <sup>2</sup> (at +30°C)	
	Wet on Wet	≥ 10 N/mm <sup>2</sup>	(ASTM C 882)

## APPLICATION INFORMATION

<b>Mixing Ratio</b>	A : B : C = 1 : 2.5 : 10 (by weight)		
<b>Consumption</b>	Reinforcement corrosion protection coating	~2 kg/m <sup>2</sup> for 2 coats	
	Bonding primer	1.2 - 1.5 kg/m <sup>2</sup>	
	The above consumptions are approximate and dependent on method of application and substrate conditions.		
<b>Ambient Air Temperature</b>	+10°C min. / +30°C max.		
<b>Substrate Temperature</b>	+10°C min. / +30°C max.		
<b>Pot Life</b>	~1 hour (8 kg mass at +30°C)		
<b>Waiting Time / Overcoating</b>	Sika repair mortars and non-fast setting concrete can be applied on SikaTop® Armatec®-110 EpoCem® within a maximum time of:		
	<b>Temperature</b>	<b>Maximum Waiting Time</b>	
	+5°C	6 hours	
	+10°C	5 hours	
	+20°C	2 hours	
	+30°C	1 hour	

## 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 brushable, weakly dripping consistency. DO NOT ADD WATER

### APPLICATION

**As reinforcement corrosion protection:**

Apply first layer approx. 0.5 - 1 mm thick, using medium hard brush or spray gun to the cleaned reinforcement. Apply 2<sup>nd</sup> 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.

#### 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.

#### LIMITATIONS

- 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

#### 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.

#### LOCAL RESTRICTIONS

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

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#### Product Data Sheet

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## 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.

## 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.