



**PRODUCT DATA SHEET**

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REINFORCEMENT BARS

# SikaTop® Armatec-110 EpoCem®

## ANTI-CORROSION COATING AND BONDING AGENT

<b>Description</b>	SikaTop® Armatec-110 EpoCem® is a three-component, water-based epoxy resin, anti-corrosion coating and bonding agent.
<b>Where to Use</b>	<ul style="list-style-type: none"> <li>▪ <b>As an anti-corrosion coating for reinforcing steel:</b> <ul style="list-style-type: none"> <li>- For repairs to reinforced concrete where there is corrosion of the underlying reinforcement steel.</li> <li>- For preventive protection of reinforcement steel in thin reinforced concrete sections.</li> </ul> </li> <li>▪ <b>As a bonding agent for use on concrete, mortar or steel:</b> <ul style="list-style-type: none"> <li>- For repairs to concrete using SikaTop® Plus, Sika MonoTop® and SikaRepair® patching and repair mortars.</li> <li>- For bonding new concrete and mortar to old.</li> </ul> </li> </ul>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>▪ Excellent adhesion to steel and concrete.</li> <li>▪ Acts as an effective barrier against penetration of water and chlorides.</li> <li>▪ Non-vapour barrier.</li> <li>▪ Contains corrosion inhibitors.</li> <li>▪ Provides an excellent bonding coat for subsequent applications of repair mortars.</li> <li>▪ Extended open time.</li> <li>▪ Not affected by moisture.</li> <li>▪ High mechanical strength.</li> <li>▪ Premeasured, ready-to-use kits.</li> <li>▪ May be spray-applied.</li> <li>▪ Non-flammable.</li> <li>▪ Solvent-free.</li> <li>▪ Ministère des Transports du Québec (MTQ) acceptance.</li> </ul>

<b>Technical Data</b>			
<b>Packaging</b>	Small unit : 8 kg (4 L) or 17.6 lb (1.05 US gal. ) Large unit : 25 kg (12.5 L) or 55 lb (3.3 US gal.)		
<b>Colour</b>	Component A	White liquid	
	Component B	Yellowish liquid	
	Component C	Light Grey powder	
	Components A+B+C	Dark Grey	
<b>Yield</b>	As bonding agent: not less than 8 kg or 4 L/6.6 m <sup>2</sup> (17.6 lb or 1.05 US gal./72 ft <sup>2</sup> ) As anti-corrosion coating: 8 kg or 4 L/2.3 m <sup>2</sup> (17.6 lb or 1.05 US gal./25 ft <sup>2</sup> )		
<b>Shelf Life</b>	1 year in original, unopened packaging. Store dry at temperatures between 5 and 32 °C (41 and 89 °F). Protect from freezing. If frozen, discard.		
Components A and B	Protect from humidity.		
Component C	Protect from humidity.		
<b>Mix Ratio</b>	Mix entire unit (A+B+C)		
<b>Application Time</b>	7 °C (44 °F)	30 °C (86 °F)	
	2 h	1 h 30 min	
<b>Contact Time</b>	10 °C (50 °F)	20 °C (68 °F)	30 °C (86 °F)
	16 h	12 h	8 h
<b>Properties at 23 °C (73 °F) and 50 % R.H.</b>			
<b>Density</b>			
Component A	1.1 kg/L (9.2 lb/US gal.)		
Component B	1.03 kg/L (8.6 lb/US gal.)		
Component C	1.25 kg/L (10.4 lb/US gal.) (dry bulk density)		
Components A+B+C	2 kg/L (16.7 lb/US gal.)		
<b>Bond Strength CAN A23.2-6B</b>			
Concrete	2-3 MPa (290-435 psi)		
Steel	1-2 MPa (145-290 psi)		
<b>Bond Strength 14 days, ASTM C882*</b>			
Wet on wet	20.7 MPa (3003 psi)		
12 h open time	13.8 MPa (2002 psi)		
<b>VOC Content</b>	< 10 g/L		
<b>Chemical Resistance</b>	Consult Sika Canada		

\*ASTM C881 Specification Minimum Bond Strength 10.3 MPa (1494 psi). Open time (12 hrs) between application of SikaTop® Armatec-110 EpoCem® and placement of new concrete or repair mortar.  
Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

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**HOW TO USE**

**Surface Preparation** Remove all deteriorated concrete, dirt, oil, grease, or other bond inhibiting materials from surface. Steel surfaces must be clean and free from all traces of grease, oil, rust and calamine. Preparation work should be done by sandblasting, high-pressure waterblasting, scarifying or other appropriate mechanical means. Absorbent surfaces must be saturated surface dry (SSD) with no standing water during application.

**Mixing** Shake components A and B vigorously before opening. Pour both liquids into a suitable mixing pail and mix for 30 seconds. Add component C slowly while continuing to stir the mixture. Mix mechanically for three (3) minutes, using a low-speed drill (300 - 450 rpm) and *Jiffy* mixer in order to entrain as little air as possible.

**Application** Anti-corrosion coating - Apply coating approx. 0.5 - 1 mm (20 - 40 mils) thick on cleaned and de-rusted reinforcement steel using a stiff paint brush, roller or spray gun. Be sure to coat the underside of the totally exposed steel. Let dry for 2 to 3 hours [ambient temperature of 20 °C (68 °F)] before applying a second coat of similar thickness. Let dry for a similar period of time before applying patching mortar to the repair. In the course of application, some of the coating material will inevitably be deposited on the surrounding concrete, but this has no detrimental effect on the finished repair.  
Bonding agent for repair mortar or concrete - Ensure that the prepared substrate is saturated surface dry (SSD), then apply a bonding coat no less than 0.5 mm (20 mils) thick, using a paint brush, roller or suitable spray gun. For best results, work the bonding slurry well into the substrate to ensure complete coverage of all surface irregularities.  
Freshly mixed patching mortar or concrete can be applied immediately on SikaTop® Armatec-110 EpoCem® within the contact time.  
8 hours at 30 °C (86 °F), 12 hours at 20 °C (68 °F), 16 hours at 10 °C (50 °F).  
After this contact time, the adhesion characteristics will be reduced.

**Clean Up** Use water to remove uncured material from tools and mixing equipment. Cured, product can only be removed mechanically.

**Limitations**

- Do not use as a bonding agent with set accelerated mortars, e.g. SikaSet®-45, SikaQuick®-1000, SikaQuick®-2500, and SikaTop®-123 Plus Winter Grade. Consult Sika Canada.
- Minimum application temperature (ambient and substrate): 7 °C (44 °F).
- Maximum substrate temperature: 30 °C (86 °F).
- Under no circumstances should water be added to the mix.

**Caution**

- Component A - Irritant - Contains epoxy resins.
- Component B - Irritant - Contains amines.
- Component C - Irritant - Contains cement and silica.
- Product is a strong sensitizer. Avoid eye, skin, and respiratory contact. Use of safety goggles, chemical-resistant gloves and a NIOSH/MSHA organic vapour respirator is recommended. Avoid breathing vapours and dust. Use adequate ventilation. Consult product label for additional information.

**First Aid** In case of skin contact, wash with soap and water. For eye contact, flush immediately with plenty of water for at least 15 minutes. Contact a physician. For respiratory problems, transport victim to fresh air. Remove contaminated clothing and wash before re-use.

**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 SAFETY DATA SHEET containing physical, ecological, toxicological and other safety-related data.

KEEP OUT OF REACH OF CHILDREN  
FOR INDUSTRIAL USE ONLY

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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, within their shelflife. 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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: [www.sika.ca](http://www.sika.ca)

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