

SikaTop® Armatec 110 EpoCem® Bonding Agent and Anti-Corrosion Coating

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

Technical Data

Packaging	8 kg (4 L) and 25 kg (12.5 L) units [17.6 lb (1.05 US gal.) and 55 lb (3.3 US gal.)]								
Colour	<table border="0"> <tr> <td>Component A</td> <td>White liquid</td> </tr> <tr> <td>Component B</td> <td>Yellowish liquid</td> </tr> <tr> <td>Component C</td> <td>Light Grey powder</td> </tr> <tr> <td>Components A+B+C</td> <td>Dark Grey</td> </tr> </table>	Component A	White liquid	Component B	Yellowish liquid	Component C	Light Grey powder	Components A+B+C	Dark Grey
Component A	White liquid								
Component B	Yellowish liquid								
Component C	Light Grey powder								
Components A+B+C	Dark Grey								
Yield	<p>As bonding agent: not less than 8 kg or 4 L/6.6 m² (17.6 lb or 1.05 US gal./72 ft²)</p> <p>As anti-corrosion coating: 8 kg or 4 L/2.3 m² (17.6 lb or 1.05 US gal./25 ft²)</p>								
Shelf Life	<p>Components A and B: 1 year in original, unopened packaging. Store dry at 5° - 32°C (41° - 89°F). Protect from freezing. If frozen, discard.</p> <p>Component C: 1 year in original, unopened packaging. Store dry at 5° - 32°C (41° - 89°F). Protect from humidity.</p>								
Mixing Ratio	Mix entire unit								
Properties at 23°C (73°F) and 50% R.H.									
Application Time	<table border="0"> <tr> <td>7°C (44°F)</td> <td>30°C (86°F)</td> </tr> <tr> <td>120 min</td> <td>90 min</td> </tr> </table>	7°C (44°F)	30°C (86°F)	120 min	90 min				
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Bond Strength CAN A23.2-6B									
Concrete	2-3 MPa (362 psi)								
Steel	1-2 MPa (217 psi)								
Bond Strength 14 days, ASTM C 882*									
Wet on wet	20.7 MPa (3003 psi)								
12 hrs open time	13.8 MPa (2002 psi)								
*ASTM C 881 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.									



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 sec. Add component C slowly while continuing to stir the mixture. Mix mechanically for 3 min, using a low-speed drill (300-450 rpm) and Jiffy mixer in order to entrain as little air as possible.
Application	<p>Anti-corrosion coating - Apply coating approx. 0.5-1 mm (20-40 mils) thick on cleaned and de-rusted reinforcement steel using a stiff paintbrush, roller or spray gun. Be sure to coat the underside of the totally exposed steel. Let dry for 2-3 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.</p> <p>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 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. Freshly mixed patching mortar or concrete can be applied immediately on SikaTop® Armatec 110 or before final waiting time.</p> <p>8 hours at 30°C (86°F) 12 hours at 20°C (68°F) 16 hours at 10°C (50°F) After this waiting time, the adhesion characteristics will be reduced.</p>
Clean Up	Use water to remove uncured material from tools and mixing equipment. Cured, product can only be removed mechanically.
Limitations	<ul style="list-style-type: none"> ■ Minimum application temperature (ambient and substrate): 7°C (44°F). ■ Maximum substrate temperature: 30°C (86°F). ■ On no account should water be added to the mix. ■ Do not use as bonding agent with SikaTop® 122 Plus Winter Grade and SikaTop® 123 Plus Winter Grade repair mortars.
Caution	<p>Component A - Irritant - Contains epoxy resins. Component B - Irritant - Contains amines. Component C - Irritant - Contains cement and silica.</p> <p>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.</p>
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 min. Contact a physician. For respiratory problems, transport victim to fresh air. Remove contaminated clothing and wash before re-use.

For more information, consult Sika Material Safety Data Sheet.

KEEP OUT OF REACH OF CHILDREN
 FOR INDUSTRIAL USE ONLY

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 shelf life. 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 proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Technical Data Sheet for the product concerned, copies of which will be supplied on request or can be accessed in the Internet under www.sika.ca.



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