



SikaTop[®] Armatec 110 EpoCem[®]

Resin Based Steel Reinforcement Primer and Bonding Bridge

Technical Data Sheet

DESCRIPTION

SikaTop Armatec 110 EpoCem is a three component cement modified epoxy resin based anti-corrosive product containing corrosion inhibitors. It has been specifically formulated as a reinforcement primer and bonding bridge for concrete repair mortars.

USES

SikaTop Armatec 110 EpoCem may be used to bond concrete repair mortars, screeds or cementitious overlays to existing cementitious substrates. The material is also used as a steel corrosion primer to protect reinforcement in areas of low cover and in the presence of chlorides.

ADVANTAGES

- * Excellent adhesion to both steel and concrete.
- * Contains corrosion inhibitors.
- * Additional barrier to the passage of water and chlorides.
- * Excellent bonding bridge for cement or epoxy based repair mortars.
- * High strength, unaffected by moisture when cured.
- * Spray, brush or roller application.
- * Non-flammable.
- * Solvent free.
- * Long open times.
- * Suitable for drinking water contact.

Technical Data (typical)

Mixed colour:	Grey
Mixed density:	Approx. 2.0 kg/litre
Volume solids:	100%
Application temperatures:	+10°C minimum and rising +30°C maximum (Substrate and ambient)
COATING SYSTEM:	
Steel reinforcement primer:	2 x 1.0 mm SikaTop Armatec 110 EpoCem
Bonding Bridge:	1 x 0.5 mm SikaTop Armatec 110 EpoCem
Bond strengths:	Concrete: 1 - 3 N/mm ² Steel: 1 - 2 N/mm ²
Index of resistance to diffusion of water vapour: (μH ₂ O)	700
Index of resistance to diffusion of carbon dioxide: (μCO ₂)	40,000
Pot life: (23°C)	3 - 4 hours (Subject to temperature)
Open times of bonding bridge for repair mortar application (mins):	+10°C +20°C +30°C 30 20 15



Approved for potable water contact.
Details available on request.

All above values are approximate.

CONCRETE SUBSTRATE PREPARATION

Breakout and remove all concrete designated as being defective, loose and unsound, using suitable mechanical equipment.

Ensure sufficient concrete is removed from around reinforcement to allow priming and compaction of the repair material.

At the repair locations, feather edging should be avoided.

The edges should be square cut to at least the recommended minimum application thickness of the repair material. Where a saw cut is employed, the substrate should be roughened mechanically to provide a 'key' between the repair mortar and substrate.

STEEL REINFORCEMENT

All exposed reinforcement should be thoroughly prepared to clean, bright metal, using abrasive blast cleaning or other approved means.

MIXING

Thoroughly mix component A (resin) and component B (hardener) individually, then mix together with slow speed drill (150 - 300 rpm). Gradually add component C (filler) and mix for a further 3 minutes until a uniform mix has been achieved. Allow to stand for 10 minutes to mature prior to application.

APPLICATION

Apply by brush to steel/concrete.

Steel reinforcement primer:

Within 4 hours of preparation of the steel, apply one coat of **SikaTop Armatec 110 EpoCem** to a minimum thickness of 1mm. After the first coat has reached initial set, apply a second coat of **SikaTop Armatec 110 EpoCem** onto the previously coated steel.

Bonding bridge:

Before applying the **SikaTop Armatec 110 EpoCem** as a bonding bridge, all surfaces must be thoroughly prewetted to a saturated surface dry condition.

The **SikaTop Armatec 110 EpoCem** is then applied by brush to the concrete substrate at a minimum thickness of 0.5mm. Work well into the substrate to ensure complete coverage of all surface irregularities.

IMPORTANT CONSIDERATIONS

- * If a barrier to chlorides is required, then 2 coats should be applied to the concrete substrate.
- * Care should be taken to ensure continuous application behind the reinforcement bars.
- * When used as a bonding bridge, the "grab" properties of the **SikaTop Armatec 110 EpoCem** will reduce if it dries out before the repair mortar application. Repeat application if necessary.
- * Do not part mix components.
- * Under no circumstances should water or solvent be added to the mix.
- * Always apply two coats to the steel reinforcement before applying as a bonding bridge.

CLEANING EQUIPMENT

Use clean water. Hardened material may only be removed mechanically.

PACKAGING

Refer to latest price list.

CONSUMPTION

Steel reinforcement primer: Approx 2.0 kg/m² per coat
Bonding bridge: Approx 2.0 - 4.0 kg/m²
Excluding allowances for loss wastage, surface profile and porosity.

STORAGE AND SHELF LIFE

Minimum 1 year in sealed containers stored in dry warehouse conditions (+10°C - +30°C).

Handling Precautions

Sika products are generally harmless provided that certain precautions normally taken when handling chemicals are observed. The materials must not, for instance, be allowed to come in contact with foodstuffs or food utensils and measures should also be taken to prevent the uncured materials from coming in contact with the skin, since people with particularly sensitive skin may be affected. The use of protective clothing, goggles, barrier creams and rubber gloves is required. The skin should be thoroughly cleaned at the end of each working period either by washing with soap and warm water or by using a resin-removing cream - the use of powerful solvents is to be avoided. Disposable paper towels - not cloth towels - should be used to dry the skin. Adequate ventilation of the working area is recommended. In case of accidental eye or mouth contact, flush with water - consult a doctor immediately. Health and Safety information on Sika Products is available and we strongly advise that this is read prior to their use. Sika products are for professional use and should be stored in sealed containers away from the reach of children.

Important Note

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 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 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.

Please consult our Technical Sales Department for further information

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