BUILDING TRUST

PRODUCT DATA SHEET

SikaEmaco® P 5000 AP

(formerly MEmaco P 5000 AP)

Single component, cement based, bonding and active protective primer

DESCRIPTION

SikaEmaco® P 5000 AP is a single component, polymer modified, cementitious bonding and active protective primer used in concrete repair works.
SikaEmaco® P 5000 AP reinstates a high pH environment and provides active corrosion inhibition to protect reinforcement steel. It can also be used as an adhesive bonding slurry for subsequent repair mortars.
When mixed with water, it forms a slurry that can be applied by brush to the clean exposed reinforcement, or directly on the dampened, prepared concrete substrate when used as a bonding coat.

USES

SikaEmaco® P 5000 AP is used for the protection of reinforcement steel:
- When steel is visible, and the available depth of cover is less than 10 mm.
- When concrete is contaminated with chlorides.
- In aggressive environments when extra protection is specified.
- When the timing at the jobsite does not allow for the repair mortars to be applied immediately after cleaning the steel.

SikaEmaco® P 5000 AP can also be used to aid bond and application properties of hand applied repair mortars in extreme thicknesses and conditions.

FEATURES

- Meets the requirements of EN 1504-7
- Excellent rust inhibiting properties as it reinstates a high pH environment
- Provides active corrosion inhibition to further protect the reinforcement bars
- Polymer modified for additional adhesive bond to the steel bars
- Perfect compatibility with steel rebars and concrete or repair mortars
- Fast curing
- Mixed only with water
- Multi-use: can also be used as bonding slurry to improve bond and application thicknesses of Sika® repair mortars on prepared concrete surfaces
- Light grey colour for easy site control of reinforcement coverage

PRODUCT INFORMATION

Packaging	5 kg plastic pail
Appearance and colour	Light grey powder
Shelf life	12 months from production date
Storage conditions	Store in a cool and dry area in original packaging and at temperatures below +30 °C. Protect from direct sunlight, heat and moisture.

TECHNICAL INFORMATION

Corrosion test	Corrosion Protection	pass	(EN 15183)
Shear adhesion strength	Shear adhesion of coated steel to concrete in comparison to uncoated steel to concrete	≥ 80 %	(EN 15184)

APPLICATION INFORMATION

Fresh mortar density	~1.80 g/cm³ (EN 1015-6)
Consumption	For steel protection: ▪ approx. 80 g/m for rebars with 8 mm diameter ▪ approx. 180 g/m for rebars with 16 mm diameter For use as bonding slurry: ▪ Typically 2 - 3 kg of powder per m² are needed. Approx. 1.8 kg powder yields 1 liter of fresh mortar.
Layer thickness	For steel protection: 2 mm in two layers.
Ambient air temperature	+5 to +35 °C
Mixing ratio	1.1 L - 1.3 L per 5 kg (water/powder (w/p) ratio = 0.22 – 0.26)
Substrate temperature	+5 to +35 °C
Pot Life	~60 min. (+20 °C)
Waiting time to overcoating	▪ Second Coat can be applied after approx. 30-90 minutes (at +20°C). ▪ Repair mortars can be applied by hand after approximately 2 hours (at +20°C) after the application of the second coat. ▪ For subsequent spray-application of repair mortars the second coat must be left to dry for minimum 8 hours (at +20°C).

BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

IMPORTANT CONSIDERATIONS

- Do not apply SikaEmaco® P 5000 AP at temperatures below +5 °C nor above +35 °C.
- Do not add cement, sand or other substances that could affect the properties of SikaEmaco® P 5000 AP.
- Never add water or fresh mortar to a mortar mix, which has already begun to set.
- Keep the mixing water ratio between the recommended limits.
- Protect from rain until final set

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

All corrosion and its by-products (loose rust particles, chippings) on the steel reinforcement must be removed from the full circumference of exposed steel reinforcement to be coated. Sandblasting is recommended to clean the steel down to metal, meeting the requirements of ISO 8501-1 / ISO 12944-4 minimum class SA2½. If for logistical reasons this is not possible, vigorous brushing of the metal surface should be carefully and thoroughly carried out to remove all rust (minimum class St 2). Any additional reinforcement must be treated in the same way.
When using SikaEmaco® P 5000 AP as a bond coat on concrete, the surface must be completely clean and structurally sound. Remove deteriorated or contaminated concrete or mortar, e.g. by grit or high-pressure water blasting. Saturate the concrete surface with water but remove excess of water before application with compressed air or rags.

MIXING

Pour the minimum amount of clean, uncontaminated water into a neat mixing bucket.
Mixing water ratio varies 0.22 to 0.26 litres per kg of powder, depending upon consistency required. Add the SikaEmaco® P 5000 AP powder slowly and mix by hand or with a suitable paddle attached to a powerful, slow speed electric drill (max 400 rpm) until a smooth, thick consistency is achieved. Allow the SikaEmaco® P 5000 AP mix to stand for 5 minutes so that full saturation of re-dispersible polymer can take place. Re-mix briefly before use, until a lump free consistency.
Note: Do not re-temper the mortar by adding extra water. Add water if necessary, but never exceed the maximum water demand!

APPLICATION

Do not apply SikaEmaco® P 5000 AP when the temperature is above 35°C or below 5°C or expected to fall below 5°C in the next 24 hours. Do not apply SikaEmaco® P 5000 AP to frozen or frost covered surfaces!
Apply the mixed material in an even layer at least 1 mm thick to the full circumference of the prepared reinforcement using a soft paint brush. When the first coat has hardened sufficiently (after approx. 30-90 minutes), apply a second coat also 1 mm thick. A film thickness of approx. 2 mm should be build up in two coats. It is important that this second layer has sufficiently hardened (depending upon application), before the repair mortar is applied. Repair mortars can be applied by hand after approximately 2 hours (at +20°C). For subsequent spray-application of repair mortars the priming coat must be left to dry for minimum 8 hours (at +20°C).
SikaEmaco® P 5000 AP can be applied as a bonding slurry on concrete substrates. The prepared substrate should be pre-soaked, preferably for 24 hours, but at least 2 hours before applying SikaEmaco® P 5000 AP. Fresh primer should be applied on to the pre-soaked, damp surface by using a suitable brush. Apply the following repair mortar wet-in-wet onto the bonding coat of SikaEmaco® P 5000 AP. Never allow the slurry bond coat to dry out!

CURING TREATMENT

Protect from rainfall and strong winds until mortar has finally set.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

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.

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