

## PRODUCT DATA SHEET

## SikaEmaco® S 486

(formerly MEmaco S 486)

High Strength Polymer Modified, Shrinkage Compensated, Fibre Reinforced, Thixotropic Repair Mortar

## DESCRIPTION

SikaEmaco® S 486 is a single component ready to use cementitious product in powder form, which requires only the onsite addition of water to produce a non-shrink high strength, fiber reinforced structural repair mortar with predictable performance. Suitable for use in hot and tropical climatic conditions.

## USES

SikaEmaco® S 486 is formulated for use at plastic consistency, and may be used with confidence for bedding, repairing and void filling operations such as:

- Concrete repairs
- Void filling between old and new concrete
- Floor patching
- Packing under columns and stanchions
- Caulking of concrete pipes
- Filling tie bar holes
- Re profiling of concrete structures when formwork is undesirable

## FEATURES

SikaEmaco® S 486 provides the following benefits:

- No primer required on a well prepared and saturated substrates which allows rapid application at reduced cost
- Non shrink
- Adjustable consistency
- Proven and predictable performance
- Trowelable
- High bond strength to steel and concrete
- Early strength development
- Good fatigue and impact resistance
- Easy to apply
- Low permeability

## PRODUCT INFORMATION

Composition	Polymer containing cementitious mortar with different additives and synthetic fibres
Packaging	25 kg bags
Appearance and colour	Grey powder
Shelf life	12 months from the date of production
Storage conditions	Store in a cool, dry area in original sealed packaging and at temperatures between +5 °C and +35 °C. Protect from direct sunlight, heat and moisture. Avoid excessive compaction.

## TECHNICAL INFORMATION

Compressive strength		1 Day	7 Days	28 Days	(ASTM C109)
	w/p = 0.156	≥ 25 N/mm <sup>2</sup>	≥ 45 N/mm <sup>2</sup>	≥ 50 N/mm <sup>2</sup>	
Flexural-strength		1 Day	7 Days	28 days	(BS 4551)
	w/p = 0.156	≥ 4 N/mm <sup>2</sup>	≥ 8 N/mm <sup>2</sup>	≥ 9 N/mm <sup>2</sup>	
Tensile strength		1 Day	7 Days	28 Days	(BS 6319:Part 7)
	w/p = 0.156	≥ 2.5 N/mm <sup>2</sup>	≥ 3.0 N/mm <sup>2</sup>	≥ 3.5 N/mm <sup>2</sup>	
Water absorption		30 minutes	60 minutes	120 minutes	(BS 1881:ISAT)
	w/p = 0.156	~0.01	<0.01	Nil	

## APPLICATION INFORMATION

Mixing ratio	3.9 - 4.2 L of water per 25 kg bag
Yield	~13.0 L per 25 kg bag
Layer thickness	Min. 10 mm Max. 50 mm
Substrate temperature	+5 °C min. / +40 °C max.
Fresh mortar density	~2.19 kg/l (+25 °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.
- Internal Reference - Version: MBS\_CC-KSA/  
Em\_S486\_03\_14/v3/02\_20

## FURTHER DOCUMENTATION

General Method Statement (GMS)

## IMPORTANT CONSIDERATIONS

The temperature of both the SikaEmaco® S 486 and elements coming into contact should be in the range of +5 °C to +35 °C. Use chilled water in high temperature (> 35 °C) applications. Do not overwork and avoid using mechanical vibration. Under no circumstances should SikaEmaco® S 486 be retempered by the later addition of water. It is essential that a mechanically powered grout mixer is used to obtain the optimum properties.

## 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

### SURFACE PREPARATION

Substrates must be properly cured, structurally sound, free of any loose or friable particles, clean, dry and free of any contaminants such as dust, dirt, oil, grease, cement laitance or efflorescence.

- The edges of repair areas should be cut vertically to a min depth of 10 mm.
- The surface roughness should be prepared to minimum CSP 9 according to ICRI
- Any contamination to be removed from the concrete surface, perform adequate preparation techniques, such as water-jet washing or blast cleaning, in order to remove all traces of any materials that could reduce the product's adhesion to the substrate.
- For applications in hot climates / environments and / or on absorbent substrates, thoroughly pre-dampen the surface immediately prior to the product application, but avoid any ponding / standing water on the surface, which must not be damp to touch and not with a dark-matt / wet surface appearance i.e. it must be saturated surface dry (SSD).
- Reference shall be made to EN 1504-10 for specific requirements.

## BONDING AGENT AND STEEL PROTECTION

- Embedded reinforcing steel should be free from scale, rust, oil and grease, and treated with a suitable anticorrosion coating such as SikaTop® Armatec®-110 EpoCem® or SikaEmaco®-8100 AP.
- The application of a suitable bonding agent, such as Sikadur®-32 Hi-Mod, Sikadur® ADH 1414, or SikaTop® Armatec®-110 EpoCem®, will improve adhesion on large areas or where particularly dense concrete substrates are involved.

## MIXING

Mix the full bag of SikaEmaco® S 486 with the necessary amount of cold water in a clean bucket. Add the SikaEmaco® S 486 powder slowly to the water while mixing continuously for at least 3 to 5 minutes and until a homogeneous consistency is achieved.

SikaEmaco® S 486 is best mixed in a forced action mixer. Slow speed double paddle drill can be also used for mixing. Do not mix at faster rate than 500 rpm. The obtained mix results should be very creamy, easily spreadable and thixotropic.

**Note: Always start with minimum recommended quantity of water (water/powder ratio), only if required, gradually add water to desired consistency. Do not exceed maximum allowed limit of water per bag weight.**

## APPLICATION

Apply SikaEmaco® S 486 on a well prepared saturated substrate or on a tacky bonding agent. The mortar can be applied by spatula, trowel or by spray application. For any thickness more than 50 mm, SikaEmaco® S 486 must be applied in multiple layers. As soon as the mortar has started to set it can be smoothed by wooden or synthetic float.

## CURING TREATMENT

Where ambient conditions may lead to rapid surface drying, the use of light water fogging, damp hessian and polythene sheet or application of a suitable curing compound from Sika® Antisol range is recommended. Do not commence fogging until final set has been reached.

## CLEANING OF EQUIPMENT

Clean all tools and equipment with water immediately after use. Hardened SikaEmaco® S 486 can only be removed mechanically.

## 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.

### Sika Gulf B.S.C. (c)

Tel: +973 177 38188

Email: info@bh.sika.com

Sika Kuwait Cons. Mat. & Paints Co WLL

Tel: +965 22 282 296

Email: sika.kuwait@kw.sika.com

Web: gcc.sika.com

### Sika UAE LLC

Sika UAE LLC (Branch)

Sika International Chemicals LLC

Tel: +971 4 439 8200

Email: info@ae.sika.com

Web: gcc.sika.com

### Sika Saudi Arabia Limited

Riyadh / Jeddah / Dammam / Rabigh

Tel: +966 9200 22167

Email: info@sa.sika.com

Web: gcc.sika.com

### Sika MB LLC

Oman

Tel: +968 22 826 500

Email: info@om.sika.com

Web: gcc.sika.com



ISO 9001, 14001, 45001 – SGS:  
- Sika UAE LLC  
- Sika International Chemicals LLC  
- Sika Gulf B.S.C. (c)  
ISO 9001, 14001 – SGS:  
- Sika Saudi Arabia Limited  
ISO 9001, 14001 – TÜV:  
- Sika UAE LLC (Branch)  
ISO 9001 – SGS:  
- Sika MB LLC

All products are supplied under a management system certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and ISO 45001.



### Product Data Sheet

SikaEmaco® S 486

December 2025, Version 01.01

02030200000002108

SikaEmacoS486-en-AE-(12-2025)-1-1.pdf