

# PRODUCT DATA SHEET

# SikaTop®-121

## FIBER REINFORCED POLYMER MODIFIED REPAIR MORTAR

## **DESCRIPTION**

SikaTop®-121 is a two-component cement based, polymer modified, trowelable adhesive and filling compound for the protection and repair of concrete surfaces.

#### **USES**

- Thin layer render
- Levelling of surfaces
- Protective coating for bridges parapets, retaining walls, etc.
- Filling compound to level off irregularities and to fill blowholes and fine honeycombing
- Rendering for reservoirs, ponds. etc

# **CHARACTERISTICS / ADVANTAGES**

- Pre-batched product
- User friendly
- Good mechanical strengths
- Excellent adhesion
- High resistance to chloride salts

# **PRODUCT INFORMATION**

| Composition                 | Cement, selected                      | Cement, selected aggregates and additives   |              |  |
|-----------------------------|---------------------------------------|---|--------------|--|
| Packaging                   | 25 kg set (A+B)                       | 25 kg set (A+B)   |              |  |
| Appearance / Colour         | •                                     | Component A: White liquid<br>Component B: Grey powder   |              |  |
| Shelf life                  | 9 months from da                      | 9 months from date of production if stored properly in unopened original packing.                                       |              |  |
| Storage conditions          | Store in a dry area<br>5 °C and 30 °C | Store in a dry area in original sealed packaging at temperatures between 5 $^{\circ}\text{C}$ and 30 $^{\circ}\text{C}$ |              |  |
| Density                     | ~2.1 kg/L at +25 °                    | ~2.1 kg/L at +25 °C (fresh density of mortar)   |              |  |
| TECHNICAL INFORMATI         | ON                                    |   |              |  |
| Compressive Strength        | 7 days<br>28 days                     | ~30 N/mm²<br>~42 N/mm²  | (ASTM C-109) |  |
| Tensile Strength in Flexure | 7 days<br>28 days                     | ~7 N/mm²<br>~10 N/mm²   | (ASTM C-348) |  |

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#### **SYSTEMS**

| System Structure | Repair Mortar                    |                        |
|------------------|----------------------------------|------------------------|
|                  | SikaTop®-122                     | Concrete Repair Mortar |
|                  | Pore sealer and levelling mortar |                        |
|                  | SikaTop®-121                     | Normal Use             |

# APPLICATION INFORMATION

| Parts by weight A: B = 1: 4.5 - 5, depending on required consistency   |  |
|--|--|
| This depends on the substrate roughness and thickness of layer applied. As a guide, $^{\sim}21$ kg of fresh mortar per cm thick per m <sup>2</sup> |  |
| 25 kg set yields approximately 12.0 litres of mortar   |  |
| Minimum 2 mm/ maximum 5 mm   |  |
| +5 °C minimum; +35 °C maximum  |  |
| +5 °C minimum; +35 °C maximum  |  |
| ~45 minutes at +30 °C  |  |
|  |  |

#### **APPLICATION INSTRUCTIONS**

#### **SUBSTRATE QUALITY / PRE-TREATMENT**

#### Concrete:

The concrete shall be thoroughly clean, free from dust, loose material, surface contamination and materials which reduce bond or prevent suction or wetting by repair materials. De-laminated, weak, damaged, and deteriorated concrete and where necessary sound concrete shall be removed by suitable means.

#### MIXING

SikaTop®-121 can be mixed with a low speed (<250 rpm) hand drill mixer.

Shake Component A (liquid) and pour it into a suitable mixing vessel. While mixing add Component B (powder) into the mix. Mix the two components together for a minimum 3 minutes. DO NOT ADD WA-TER.

#### **APPLICATION**

SikaTop®-121 can be applied manually using traditional techniques. Thoroughly pre-wet the prepared substrate a recommended 2 hours before application. Keep the surface wet and do not allow to dry. Before application remove excess water e.g. with a clean sponge. The surface shall appear a dark matt appearance without glistening and surface pores and pits shall not contain water.

Apply first a scratch coat by firmly scrapping the repair mortar over the substrate surface to form a thin layer and fill any pores or pits in the surface. Ensure the whole surface to be repaired is covered by the scratch coat. Build up layers from bottom to top by pressing mortar well into the repair area.

The surface can be finished according to the requirements using a float while wet or with a relevant roughcast tool as soon as the mortar has started to stiffen.

#### **CURING TREATMENT**

Protect the fresh mortar immediately from premature drying using an appropiate curing method e.g. curing compound, moist geotextile membrane, polythene sheet, etc.

#### **CLEANING OF EQUIPMENT**

Clean all tools and application equipment with water immediately after use. Hardened material can only be mechanically removed.

#### IMPORTANT CONSIDERATIONS

- DO NOT ADD WATER
- Avoid application in direct sun and/ or strong wind and/ or rain.
- Protect freshly applied material from freezing and
- Apply only to sound, prepared substrate.
- Do not add additional water during the surface finishing as this will cause discolouration and cracking.
- Maximum thickness per application : 5 mm
- Variation in cement could cause shade differences in colour of the mortar.



#### **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.

#### **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 the exact product data and uses.

# **ECOLOGY, HEALTH AND SAFETY**

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

#### **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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