# SikaTop®-121

Thin Layer Waterproofing Render and Levelling Mortar

## Product Description

SikaTop®-121 is a two component polymer modified cementitious waterproof mortar comprising of a liquid polymer and a special cement based mix incorporating admixtures.

## Uses

- For internal waterproof tanking of concrete basements, pits and tanks against ground water ingress
- For internal waterproof lining of concrete water tanks, pools, etc, against leakage
- Fine crack and blow hole filler
- Concrete repair smoothing coat/levelling mortar
- Bonding primer for SikaTop repair mortars

## Characteristics / Advantages

- Pre-batched for quality
- No water required
- BBA approved

## Tests

- **Approval / Standards**
  - BBA Approved Certificate No. 95/3174
  - Approved potable water contact

## Product Data

### Form

<table>
<thead>
<tr>
<th>Appearance /Colours</th>
<th>Cement grey (Component A: white liquid, Component B:grey powder)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packaging</td>
<td>10 kg and 25 kg bags</td>
</tr>
</tbody>
</table>

### Storage

| Storage Conditions/ Shelf-Life    | 9 months from date of production if stored properly in original unopened, sealed and undamaged packaging in dry and cool conditions. |

### Technical Data

<table>
<thead>
<tr>
<th>Chemical Base</th>
<th>Portland cement, polymer redispersable liquid, selected aggregates and additives.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>Fresh mortar density: ~ 2.0 kg/l (at +20°C)</td>
</tr>
<tr>
<td>Layer Thickness</td>
<td>1.0 mm min. / 5.0 mm max.</td>
</tr>
</tbody>
</table>
## Mechanical / Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressive Strength</td>
<td>28 days ~ 45.0 N/mm²</td>
</tr>
<tr>
<td>Flexural Tensile Strength</td>
<td>28 days ~ 12.0 N/mm²</td>
</tr>
<tr>
<td>Bond Strength</td>
<td>~ 3.0 N/mm²</td>
</tr>
<tr>
<td>E-Modulus</td>
<td>25 kN/mm²</td>
</tr>
</tbody>
</table>

## Resistance

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Vapour</td>
<td>19 MNsg⁻¹</td>
</tr>
</tbody>
</table>

## System Information

### System Structure

- SikaTop 121 is part of the SikaTop Concrete Repair System.
- SikaTop® Armatec-110 EpoCem: Reinforcement coating
- SikaTop®-121: Bonding primer
- SikaTop®-122: Hand applied repair mortar
- SikaTop®-122HB: High build hand applied repair mortar
- SikaTop®-121: Smoothing coat
- Sika® FerroGard®-903: Corrosion inhibitor

## Application Details

### Consumption

This depends on the substrate roughness and thickness of layer applied. As a guide, ~ 2.0 kg/m²/mm.
### Substrate Quality
**Concrete**
The concrete shall be free from dust, loose material, surface contamination, existing renders, laitance coatings, oil and other materials which reduce bond or prevent suction or wetting of the smoothing coat.

### Substrate Preparation
Delaminated, weak, damaged and deteriorated concrete should be repaired using SikaTop repair mortars.

Concrete surface should be cleaned and roughened using suitable abrasive blast cleaning techniques or high pressure waterblasting [up to 60 mPa (9000 psi)] techniques to achieve acceptable adhesion to the substrate. Adhesion test average must be >0.8 N/mm² with no single value below 0.5 N/mm² for crack bridging coatings and 1.0 N/mm² with no single value below 0.7 N/mm² for rigid coatings.

### Application Conditions / Limitations
<table>
<thead>
<tr>
<th>Substrate Temperature</th>
<th>+7°C min. / +25°C max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Temperature</td>
<td>+7°C min. / +25°C max.</td>
</tr>
</tbody>
</table>

### Application Instructions
**Mixing**
Mix together both Components A (liquid) and B (powder).

**Mixing Time**
Shake component A before using. Pour approximately ½ component A into mixing container and add component B slowly while mixing. When homogeneous, add the remainder of the component A and remix. Normal mixing time depends on the type of mixer used, 2-3 minutes is average. Mix so as to entrain as little air as possible and use without delay.

**Application Method / Tools**

**Bonding Primer:**
Break out concrete in accordance with concrete repair mortar requirements.

The concrete substrate should be pre-wetted to a saturated surface dry condition before application.

Apply SikaTop®-121 by brush and work well into the substrate to ensure complete coverage of all surface irregularities.

**Smoothing Coat/Levelling Mortar:**
Pre-fill surface defects before applying as a smoothing coat.

Apply SikaTop®-121 by spatula or trowel to the required thickness and finish.

Where SikaTop®-121 is to be overcoated, finishing with a moist neoprene sponge or brush after initial set has taken place is recommended to provide a key for the coating.

Do not overwork SikaTop®-121 during or after applying. Should SikaTop mortar be wetted during the initial cure period a white ‘bloom’ may be produced on the surface. This however, does not affect the long term properties of the mortar.

**Porefiller:**
Tightly trowel over surface and force into pores and other surface defects.

Before overcoating remove excess material from surface while wet and wash down if necessary when dry, to remove any dust deposits which may affect the bond of subsequent coatings.

**Waterproof Tanking:**
Applied in 2 layers to give a total thickness of between 5.0 and 8.0 mm.

Refer to Installation Guide and BBA Detail Sheet 4.

### Cleaning of Tools
Clean all tools and application equipment with water immediately after use. Hardened/cured material can only be mechanically removed.
<table>
<thead>
<tr>
<th>Potlife</th>
<th>~ 30 minutes (at +20°C)</th>
</tr>
</thead>
</table>
| Notes on Application / Limitations | Avoid application in direct sun and/or strong wind and/or rain.  
Do not add water  
Apply only to sound, prepared substrates.  
Do not add water during the surface finishing as this will cause discoloration and cracking.  
Protect freshly applied material from freezing. |
| Curing Details      |                         |
| Curing Treatment    | It is essential to cure the repair mortar immediately after application for a minimum of 3 days to ensure full cement hydration and to minimise cracking. Use polythene sheeting taped down at the edges or other approved method.  
Curing compounds shall not be used if smoothing coat is to be overcoated. |
| Value Base          | All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control. |
| Local Restrictions  | Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields. |
| Health and Safety Information | For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent Material Safety Data Sheet 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. |