

SikaTop® Seal-107

Waterproofing and Damp-proofing Cementitious Slurry

Product Description

SikaTop® Seal-107 is a 2-part polymer modified cementitious waterproof mortar slurry comprising of a liquid polymer and cement based mix incorporating special admixtures. SikaTop® Seal-107 complies with the requirements of EN 1504-2 as protective coating. Suitable for use in hot and tropical climatic conditions.

Uses

SikaTop® Seal-107 is used for:-

- Interior and exterior waterproofing and damp-proofing of concrete, cementitious rendering, brickwork and blockwork
- Protection of concrete structures against the effects of de-icing salts and freeze- thaw attack
- Rigid waterproofing of basement walls in new construction and refurbishment
- Pore / blowhole filling
- Waterproofing basement and cellars
- Sealing fine "hairline" cracks in concrete structures (not subject to movement)
- Levelling mortar for concrete repair works

SikaTop® Seal-107 can be used for concrete protection. in particular it is:

- Suitable for protection against ingress (Principle 1, method 1.3 of EN 1504-9)
- Suitable for moisture control (Principle 2, method 2.2 of EN 1504-9)
- Suitable for increasing the resistivity (Principle 8, method 8.2 of EN 1504-9)

Characteristics / Advantages

- Easy to apply by brush or in thin trowel applications
- No water required
- Pre-batched components
- Hand or spray applied
- Easy and fast mixing
- Very good adhesion
- Protects concrete against carbonation
- Protects against water penetration
- Non-corrosive to steel or iron
- Over-paintable
- Approved for potable water contact

Tests

Standards / Approvals

- British Board of Agreement Certificate No. 95/3174
- WRAS drinking water approval no. 1111526 for use with hot water < 60°C

Construction



Product Data

Form	Component A: Liquid	
	Component B: Powder	
Appearance / Colour	Part A:	White Liquid
	Part B:	Grey or White Powder
	Mixed product: Cement Grey or Off White	
Packaging	25 kg set	(5 kg pail Part A + 20 kg bag Part B)
Storage		
Storage Conditions	Store in original unopened packaging in cool and dry conditions between 5°C and 35°C. Protect from direct sunlight and frost.	
Shelf Life	Minimum 6 months from date of production if stored properly in undamaged and original sealed packaging.	

Technical Data

Chemical Base	Part A: Liquid polymer and additives	
	Part B: Portland cement, selected graded aggregates and admixtures	
Density (at 25°C)	~ 2.00 kg/lit (fresh mortar)	
Layer Thickness	Minimum:	0.75 mm
	Maximum:	1.5 mm
Thermal Expansion	13×10^{-6} per °C	
Carbon Dioxide Diffusion Coefficient (μCO_2)	~ 35.000	
Water Vapour Diffusion Coefficient ($\mu\text{H}_2\text{O}$)	~ 500	
Compressive Strength	(EN 196-1)	
	3 days	~ 20 N/mm ²
	28 days	~ 35 N/mm ²
Flexural Strength	(EN 196-1)	
	3 days	~ 6 N/mm ²
	28 days	~ 10 N/mm ²
Tensile Strength (14 days)	(DIN 53455)	
	Cured in water:	~ 3.2 N/mm ²
	Cured in air:	~ 4.5 N/mm ²
Bond Strength	~ 1.0 N/mm ² (depends on substrate roughness, curing environment, thickness etc.)	
E-Modulus	Static: ~ 8.4 kN/mm ²	

Application Details

Consumption	Dependent on the substrate roughness, surface profile and thickness of the layer applied.
	As a guide, ~ 2.0 kg/m ² /mm (excluding allowances for loss wastage, surface profile and porosity etc.).
	1 set of 25 kg yields ~ 12.5 lit of mortar.
Substrate Quality	The substrate must be structurally sound and free of all traces of contaminants, loose and friable particles, cement laitance, oils and grease etc.
	The concrete "pull off" (tensile adhesive) strength must be > 1.0 N/mm ² .



Substrate Preparation	<p><i>General:</i></p> <p>The substrate must be prepared by suitable mechanical preparation techniques such as high pressure water jetting, needle guns, blast cleaning, scabblers etc. and properly pre-wetted to a saturated surface dry condition.</p> <p>For pore / blowhole filling:</p> <p>Blast clean to remove all contaminants including from within the pores / blowholes.</p> <p><i>As a levelling mortar:</i></p> <p>Prepare and clean all surfaces by suitable mechanical means such as abrasive blast cleaning or equivalent to ensure cement laitance, surface contamination and all existing coatings are removed and all blowholes and honeycombed areas are exposed. The resultant surface must be profiled to achieve maximum bond strength.</p>						
Substrate Temperature	+ 8°C min. / + 35°C max.						
Ambient Temperature	+ 8°C min. / + 35°C max.						
Mixing Ratio	<p>Used as Slurry: A : B = 1 : 4 by weight</p> <p>Used as Mortar: A : B = 1 : 4.5 by weight</p>						
Mixing / Mixing Tools	<p>SikaTop® Seal-107 must be mechanically mixed using a forced action mixer or in a clean drum using a drill and paddle (max. 500 rpm). A normal concrete free fall mixer is NOT suitable.</p> <p>Stir Part A (liquid) thoroughly before pouring ~ half into a clean mixing container. Add Part B (powder) slowly while mixing continuously.</p> <p>Add the remaining portion of Part A and continue mixing until a uniform lump free consistency is achieved (~ 3 minutes).</p> <p>For a trowelable mortar consistency use about 90% of Part A (~ 4.5kg).</p>						
Application Method / Tools	<p>The surface of the substrate must be pre-wetted to a saturated surface dry condition before application.</p> <p><i>As a slurry:</i></p> <p>Apply the mixed SikaTop® Seal 107 either mechanically, by spray, or by hand using a stiff brush. Applied in the same direction.</p> <p>Apply the 2nd coat of SikaTop® Seal 107, applied by brush in crosswise direction to the first application as soon as first coat has hardened.</p> <p><i>As a mortar:</i></p> <p>When SikaTop® Seal 107 is applied by trowel (e.g. for a smooth surface finish), the product must be mixed with a 10% reduction of Part A (~ 1 A : 4.5 B).</p> <p>Apply the 2nd coat of SikaTop® Seal 107 as soon as the first coat has hardened. For pore / blowhole filling, tightly trowel into the pores / blowholes of the surface.</p>						
Pot Life	~ 30 minutes at + 20°C						
Waiting Time / Over coatability	<p>Waiting time between coats:</p> <table border="1"> <tbody> <tr> <td>+10°C</td><td>~12 hours</td></tr> <tr> <td>+20°C</td><td>~6 hours</td></tr> <tr> <td>+30°C</td><td>~3 hours</td></tr> </tbody> </table> <p>If waiting time period exceeds 24 hours, lightly blastclean the surface.</p> <p>SikaTop® Seal-107 can be over painted using solvent based primers or coatings.</p> <p>SikaTop® Seal-107 must cure for a minimum of 7 days before over coating.</p>	+10°C	~12 hours	+20°C	~6 hours	+30°C	~3 hours
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Curing	<p>It is essential to protect and cure SikaTop® Seal-107 immediately after application for a minimum of 3 to 5 days to ensure full cement hydration and to minimise cracking.</p> <p>Use polythene sheeting or similar approved methods.</p>						
Cleaning of Tools	<p>Clean all tools and application equipment with clean water immediately after use.</p> <p>Hardened / cured material can only be removed mechanically.</p>						



Notes on Application / Limitations

SikaTop® Seal-107 is not a decorative treatment and may display signs of "blooming" after rain or in damp weather. This does not affect the performance of the coating, in any way.

Where SikaTop® Seal-107 will be visible after completion of the works then the off-white colour, which is more aesthetically pleasing, should be used.

Avoid application in direct sun and/or strong wind. Do not add water in any circumstances.

Apply only to sound, prepared substrates. Do not exceed maximum layer thickness.

For waterproofing or damp proofing application, always use at least 2 coats to give a total thickness of between 1.5 to 2.0 mm. In areas of severe water penetration, three coats might be required.

Protect freshly applied material from freezing conditions and rain etc.

SikaTop® Seal-107 does not provide a trafficable finish. Use Sika®-1 Finishing Mortar for trafficked surfaces or protect with a SikaLatex® bonded screed.

For waterproofing / damp-proofing works, special attention is required to avoid puncturing the waterproof coating with fixings. These must be accommodated by surface bonding with either SikaDur®-31 CF Slow or Sikaflex® 11 FC+ etc.

When used in contact with drinking water, applied material must be air cured for minimum 21 days at 20°C. Protect from direct heat, sunlight, wind and rain.

When used in contact with drinking water ensure that all associated Sika® products and construction materials also comply with the local regulations for drinking water contact.

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 product uses.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users shall 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.

All products are manufactured under a management system certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and OHSAS 18001.



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