

**Product Data Sheet**  
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SikaTop® Seal-109 hi

# SikaTop® Seal-109 hi

Elastic, liquid applied crack bridging, 2-pack acrylic-cementitious waterproofing coating system

<b>Product Description</b>	SikaTop® Seal-109 hi is an elastic liquid applied, crack bridging 2-pack acrylic polymer modified cementitious waterproofing coating system.	
<b>Uses</b>	<ul style="list-style-type: none"><li>■ Used as a seamless, impervious coating on flat roof for both exposed and concealed waterproofing applications</li><li>■ Basements, water retaining structures, underground concrete structures, pits, basins, sumps etc.</li></ul>	
<b>Characteristics / Advantages</b>	<ul style="list-style-type: none"><li>■ Crack-bridging</li><li>■ Elastic</li><li>■ Good impermeability against water ingress</li><li>■ Highly water resistant, arrest salt petre and prevent carbonation</li><li>■ Extremely good bonding with high abrasion resistance</li><li>■ Simple application, fast curing</li><li>■ It has excellent adhesion to concrete, brickwork, corrugated asbestos, and asbestos cement</li></ul>	
<b>Tests</b>		
<b>Approval / Standards</b>	Conforms to: IS 2625, IS 101 Conforms to: ASTM D-2370	
<b>Product Data</b>		
<b>Form</b>		
<b>Appearance /Colours</b>	Part A:	white liquid
	Part B:	grey powder
	Primer :	white liquid
	Mixed product:	RAL 7037 (Dusty grey)
	Other colour shades like RAL 6005 (Moss green), 3011 (Brown red) available on demand	
<b>Packaging</b>	Part A:	10.0 kg container
	Part B:	15.0 kg container
	Primer:	5.00 kg container
<b>Storage</b>		
<b>Storage Conditions/ Shelf-Life</b>	6 months from date of production if stored properly in undamaged and unopened original sealed packaging in dry and cool conditions. Liquid component must be protected from frost.	



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## Technical Data

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<b>Chemical Base</b>	Part A: Acrylic copolymer Part B: Specially graded cementitious powder
<b>Density</b>	1.6 kg/l (mixed density) at +27°C
<b>Layer Thickness</b>	1mm with Sika® Fab-1

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## Mechanical / Physical Properties

<b>Tensile Strength</b>	~2 N/mm <sup>2</sup> after 28 days (with Sika® Fab-1)	(According to ASTM D 412)
<b>Pullout Bond Strength</b>	~2 N/mm <sup>2</sup> (concrete failure)	(According to ISO 4624)
<b>Slant-Shear Bond Strength</b>	~4 N/mm <sup>2</sup>	(According to FIP 5.15)
<b>Elongation at Break</b>	40%	(According to ASTM D 412)
<b>Workable time</b>	~30 minutes at +27°C	
<b>Water permeability</b>	Passes	(According to IS 2645)
<b>Water absorption</b>	Negligible	
<b>Accelerated weathering, 500 hours</b>	No Chalking or cracking on the film	(According to IS 101)

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## System Information

<b>System Structure</b>	<i>Exposed Roofing-system, without UV-protection</i> Layer thickness: 1.5 mm Primer: 1 x SikaTop® Seal-109 hi Primer Base Coating: 1 x SikaTop® Seal-109 hi  Fabric reinforcement : 1 x Sika Fab 1  Top Coat : 1x SikaTop® Seal-109 hi Clear coating: 1x SikaTop® Seal-109 hi CC  <i>Concealed Roofing-system, with UV-protection</i> Layer thickness: 1.5 mm Primer: 1 x SikaTop® Seal-109 hi Primer Base Coating: 1 x SikaTop® Seal-109 hi  Fabric reinforcement : 1 x Sika Fab 1  Top Coat : 1x SikaTop® Seal-109 hi + Sand sprinkling UV-protection: Screed concrete with slope ( min avg. Thickness 50 mm ) admixed with Sika® Fibre h-150
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## Application Details

<b>Consumption / Dosage</b>	SikaTop® Seal 109 hi Primer: ~0.20 kg/m <sup>2</sup> SikaTop® Seal 109 hi: 1st coat = 0.70 kg/m <sup>2</sup> , 2 <sup>nd</sup> coat = 1.50 kg/m <sup>2</sup> . SikaTop® Seal-109 hi CC = 0.05 kg/m <sup>2</sup> The consumption will increase for uneven / absorptive surface.
<b>Substrate Quality</b>	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 <sup>2</sup> .
<b>Substrate Preparation</b>	<i>General:</i> The substrate must be prepared by suitable mechanical preparation techniques such as high pressure water jetting, needle guns, blast cleaning etc. and properly pre-wetted to a saturated surface dry (SSD) condition.  <i>For pore / blowhole filling:</i> Blast clean to remove all contaminants within the pores / blowholes.

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**Application Conditions / Limitations**

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**Substrate Temperature** +10°C min. / +40°C max.

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**Ambient Temperature** +10°C min. / +40°C max.

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**Application Instructions**

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**Mixing** Used as slurry: Part A : Part B = 1 : 1.5 (by weight)

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**Mixing Time/ Tools** The consistency of the mix can be altered by reducing the amount of component A (liquid) to be used. Under normal circumstances, when the full quantities of both components are mixed together, a slurry consistency will result. For a trowellable consistency use only 90% of component A. Mix in a clean container by slowly adding the powder component to the liquid component and stirring with slow speed mixer (500 - 600 rpm). Mix for 3 minutes until free from lumps.

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**Application Method / Tools** Dampen all surfaces immediately ahead of Sika Top® Seal-109 hi application. Whilst the surface is still damp from saturation, apply the first coat and leave to harden (2-6 hrs.). For slurry consistency apply with a hard plastic bristled brush or broom. For trowellable mortars use a notched trowel. After the second coat has been applied, finish by rubbing down with a soft, dry sponge.

*As a slurry:*

Apply the mixed SikaTop® Seal-109 hi either mechanically, by spray or by hand using a stiff brush. Applied in the same direction.

Apply the 2<sup>nd</sup> coat of SikaTop® Seal-109 hi, applied by brush in crosswise direction to the first application as soon as first coat has hardened.

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**Cleaning of Tools** Clean all tools and application equipment with clean water immediately after use. Hardened / cured material can only be removed mechanically.

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**Waiting Time / Overcoating** *Waiting time between coats*

+30°C	~5 hours
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waiting time period exceeds 24 hours, lightly clean the surface.

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**Notes on Application / Limitations**

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**Curing Details**

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**Curing Treatment** It is essential to cure SikaTop® Seal-109 hi immediately after application for a minimum of 3 to 5 days to ensure full cement hydration and to minimise cracking. Use polythene sheeting or similar approved methods.

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**Value Base**

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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.

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**Health and Safety Information**

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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.

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## 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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