

## PRODUCT DATA SHEET

# SikaTop<sup>®</sup>-550 Seal

(formerly MasterSeal<sup>®</sup> 550)

Acrylic cementitious waterproofing coating

### DESCRIPTION

SikaTop<sup>®</sup>-550 Seal is a two-component acrylic modified cementitious coating that requires on site mixing to form product to waterproof and resurface concrete, masonry, and most other construction materials.

Can be applied by stiff brush, roller, or trowel, it forms a waterproof coating.

SikaTop<sup>®</sup>-550 Seal provides an effective barrier to waterborne salts and atmospheric gases.

Fluid applied, SikaTop<sup>®</sup>-550 Seal provides a hard wearing, seamless, waterproof membrane.

SikaTop<sup>®</sup>-550 Seal is composed of specially selected cements, silica sand and reactive fillers supplied in powder form together with a liquid component of blended acrylic copolymers and wetting agents.

Suitable for use in hot and tropical climatic conditions.

### USES

- As a waterproof lining for water retaining structures.
- For coating seawater channels.
- For waterproofing and protection against brackish water.

- As a backing to marble and granite to prevent water ingress and thus alleviate surface staining.
- To provide protection to concrete surfaces from carbonation and chloride attack.
- To provide foundation protection.
- For waterproofing of wet areas under tiling.

### CHARACTERISTICS / ADVANTAGES

- Easy to apply by brush or in thin trowel applications
- No additional water required
- Excellent adhesion to various substrates
- Suitable for contact with potable water
- Breathable - whilst repelling water, allows substrate to breathe
- High resistance to chloride ion diffusion
- Unlike conventional coatings which require a 7-28 day cure of concrete, SikaTop<sup>®</sup>-550 Seal can be applied to 24 hour-old concrete thereby giving immediate protection

### APPROVALS / STANDARDS

- BS 6920: Part 1 2000 - Suitable for use in contact with potable water.
- SikaTop<sup>®</sup>-550 Seal is certified according "Low Emitting Materials as per Al Sa'fat - Dubai Green Building Evaluation System" by Dubai Central Laboratory (DCL)

### PRODUCT INFORMATION

<b>Product Declaration</b>	Specially selected cements, silica sand and reactive fillers	
<b>Chemical Base</b>	Component A: Powder Component B: Liquid	
<b>Packaging</b>	Ready batched 20 kg units	
	Part A (Liquid)	5.0 kg
	Part B (Powder)	15.0 kg

<b>Shelf Life</b>	Minimum 9 months from date of production if stored properly in undamaged and original sealed packaging.
<b>Storage Conditions</b>	Store in original unopened packaging in cool and dry conditions between +5 °C and +35 °C. Protect from direct sunlight and frost.
<b>Appearance / Colour</b>	Available in three standard colours: <ul style="list-style-type: none"> <li>▪ Light Grey</li> <li>▪ White</li> <li>▪ Dark Grey</li> </ul>
<b>Density</b>	~ 1.82 kg/l (fresh mortar at +25°C)

## TECHNICAL INFORMATION

<b>Water permeability</b>	< 0.1 kg (m <sup>2</sup> xh <sup>0.5</sup> )	(BS EN 1062-3: 2008)
<b>Water Penetration under Pressure</b>	Nil	(BS EN 12390 Part 8: 2009)
<b>Permeability to Carbon Dioxide</b>	> 50 m	(BS EN 1062-6: 2002 Method A) Equivalent air layer thickness (SD)
<b>Chloride Ion Diffusion Resistance</b>	SikaTop <sup>®</sup> -550 Seal provides an effective barrier to waterborne salts such as chlorides and sulphates. Note: Independent assessment has shown that even after 12 months constant immersion the chloride ion diffusion co-efficient could not be measured for SikaTop <sup>®</sup> -550 Seal.	
<b>Chloride Ion Ingress</b>	Not measurable after 24 months of testing	
<b>Chemical Resistance</b>	SikaTop <sup>®</sup> -550 Seal has outstanding wear and weather resistance and good resistance to sodium hydroxide, calcium chloride, de-icing salts. SikaTop <sup>®</sup> -550 Seal coated surfaces exhibit good resistance to mild acids.	
<b>Carbonation Resistance</b>	SikaTop <sup>®</sup> -550 Seal is an extremely effective barrier to atmospheric acidic gases which cause carbonation in concrete structures. SikaTop <sup>®</sup> -550 Seal at an applied rate of 1.8 kg/m <sup>2</sup> gives an equivalent air layer thickness for carbon dioxide diffusion (R) of 92 m. The accepted minimum value for R is 50 m.	

## APPLICATION INFORMATION

<b>Consumption</b>	~1.8 kg/m <sup>2</sup> at 1 mm thickness	
<b>Layer Thickness</b>	1 mm with constant thickness for each layer, minimum 2 layers	
<b>Ambient Air Temperature</b>	+5°C min. / 40°C max.	
<b>Substrate Temperature</b>	+5°C min. / 40°C max.	
<b>Waiting Time / Overcoating</b>	Waiting time between coats:	
	+20°C	~6 hours
	+30°C	~3 hours

## BASIS OF PRODUCT DATA

- 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.
- Internal Reference - Version: BASF\_CC-UAE/SI\_550\_12\_94/v6/07\_17/v7/04\_18/v8/12\_18/v9/09\_19

## LIMITATIONS

- Spray application is recommended for large areas, for details contact Sika's Technical Service Department.

ment.

- Where subsequent tiling works are to be carried out on vertical surfaces, contact the local Sika representative for advice.
- Avoid application in direct sun and/or strong wind.
- Do not add water in any circumstances.
- Do not mix partially, mix only full kits.
- Protect freshly applied material from freezing conditions and rain, etc.

## 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.

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY / PRE-TREATMENT

Substrates must be structurally sound, clean, dry and free of all contaminants such as dirt, oil, grease, cement laitance, coatings and other surface treatments etc.

Clean surfaces by blast cleaning, high-pressure water-jetting (400 bar), wire-brushing, grinding etc., in order to remove all previous coatings, any traces of grease, rust, release agents, cement laitance and any other material which could reduce adhesion. All dust deposits from this preparation must also be removed that is by vacuum.

Repair concrete substrates, if necessary, with an appropriate cementitious mortar from the SikaEmaco®, SikaRep® or Sika MonoTop® range of repair materials. 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).

### MIXING

SikaTop®-550 Seal can be mixed with a low speed (~500 r.p.m.) electric drill mixer. Shake carefully Comp. B before using. Then pour ~½ Comp. B into a suitable mixing container and add Comp. A slowly while mixing. When homogeneous, add the remaining amount of Comp. B, and mix thoroughly at least for 3 minutes, until the proper lump-free consistency is reached. Do not add any additional water or other ingredients; each packaging unit must be entirely mixed.

### APPLICATION METHOD / TOOLS

#### As a slurry:

Apply 1<sup>st</sup> coat of mixed SikaTop®-550 Seal either mechanically, by spray, or by hand using a stiff brush. Apply in the same direction.

Apply 2<sup>nd</sup> coat of SikaTop®-550 Seal in crosswise direction to the first coat application, as soon as first coat has hardened.

#### As a mortar:

When SikaTop®-550 Seal is applied by trowel (e.g. for a smooth surface finish), apply 2 coats in crosswise direction. Apply 2<sup>nd</sup> coat of SikaTop®-550 Seal as soon as the first coat has hardened.

#### As pore / blowhole filler:

Tightly trowel into the pores / blowholes of the surface.

### CLEANING OF TOOLS

Clean all tools and application equipment with clean water immediately after use.

Hardened / cured material can only be removed mechanically.

## 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.

## 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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Product Data Sheet

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March 2024, Version 02.01  
020701000000002024

SikaTop-550Seal-en-ZA-(03-2024)-2-1.pdf