BUILDING TRUST

PRODUCT DATA SHEET

SikaTop®-550 Seal

(formerly MSeal 550)

Acrylic cementitious waterproofing coating

DESCRIPTION

SikaTop®-550 Seal is a two-component, acrylic modified, cementitious coating that requires on-site mixing, forming a product to waterproof and resurface concrete, masonry, and other suitable construction materials.

SikaTop®-550 Seal provides an effective barrier to waterborne salts and atmospheric gases.
Fluid applied, SikaTop®-550 Seal provides a hard wearing, seamless, waterproof membrane.

SikaTop®-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.
- White colour version can be used as a backing to marble and granite to prevent water ingress and thus alleviate staining.
- To provide protection to concrete surfaces from carbonation and chloride attack.
- To provide foundation protection.
- As a vapor barrier behind cladding.
- For waterproofing of terraces, balconies, bathrooms and other wet areas.

FEATURES

- 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®-550 Seal can be applied to 24 hour-old concrete thereby giving immediate protection

CERTIFICATES AND TEST REPORTS

- BS 6920: Part 1 2000 - Suitable for use in contact with potable water.
- SikaTop®-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

Composition	Component A: Powder Component B: Liquid
Packaging	Available in 20 kg double pack
Colour	Standard colours: ▪ Light Grey ▪ White ▪ Grey Contact your local Sika company for advice on locally available colour options.
Shelf life	9 months from date of production if stored properly in undamaged and original sealed packaging.
Storage conditions	Store in original unopened packaging in cool and dry conditions between +5 °C and +35 °C. Protect from direct sunlight and frost.
Density	~1.82 kg/l (fresh mortar at +25 °C)
Product declaration	Specially selected cements, silica sand and reactive fillers

TECHNICAL INFORMATION

Chemical resistance	SikaTop®-550 Seal has outstanding wear and weather resistance and good resistance to sodium hydroxide, calcium chloride, de-icing salts. SikaTop®-550 Seal coated surfaces exhibit good resistance to mild acids.	
Water penetration under pressure	Nil	(BS EN 12390 Part 8: 2009)
Chloride ion diffusion resistance	SikaTop®-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®-550 Seal.	
Permeability to carbon dioxide	> 50 m	(BS EN 1062-6: 2002 Method A) Equivalent air layer thickness (SD)
Carbonation resistance	SikaTop®-550 Seal is an extremely effective barrier to atmospheric acidic gases which cause carbonation in concrete structures. SikaTop®-550 Seal at an applied rate of 1.8 kg/m² gives an equivalent air layer thickness for carbon dioxide diffusion (R) of 92 m. The accepted minimum value for R is 50 m.	
Water permeability	< 0.1 kg ($m^2 x h^{0.5}$)	(BS EN 1062-3: 2008)
Chloride Ion Ingress	Not measurable after 24 months of testing	

APPLICATION INFORMATION

Consumption	~1.8 kg/m² at 1 mm thickness
Layer thickness	1 mm with constant thickness for each layer, minimum 2 layers
Ambient air temperature	+5 °C min. / 45 °C max.
Substrate temperature	+5 °C min. / 45 °C max.
Waiting time to overcoating	Waiting time between coats: +20 °C ~6 hours +30 °C ~3 hours

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.

IMPORTANT CONSIDERATIONS

- Spray application is recommended for large areas, for details contact Sika's Technical Service Department.
- Where tiling works are to be carried out over SikaTop®-550 Seal, consult the local Sika Technical Department for advice.
- Special precautions should be taken during application in direct sun and/or strong wind.
- Do not add water in any circumstances.
- Do not mix partialy, mix only full kits.
- Protect freshly applied material from freezing conditions and rain, etc.
- Do not exceed 2 mm wet film thickness per application layer. Crazing may occur if the maximum recommended thickness is exceeded.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains 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

Apply SikaTop®-550 Seal in 2 or more coats depending on the protection required.
Apply subsequent coats in crosswise direction.
Subsequent coating application can be done as soon as the previous coat has hardened.

As a slurry:
SikaTop®-550 Seal can be applied by hand using a stiff brush, roller, or mechanically by spray.

As a mortar:
When used as a mortar, the mixed SikaTop®-550 Seal can be poured onto the floor and spread using a steel trowel.
Vertical application can be aided with brush, roller or spray, then leveled with a steel trowel for a smooth finishing if required.

As a pore / blowhole filler:
Tightly press SikaTop®-550 Seal using a steel trowel or scraper into the pores / blowholes of the surface.

CLEANING OF EQUIPMENT

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

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 exact product data and uses.

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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