

PRODUCT DATA SHEET

SikaTop® Seal-107 ZA

Liquid applied, cementitious waterproofing slurry

DESCRIPTION

SikaTop® Seal-107 ZA is a two part polymer modified cementitious waterproof mortar slurry comprising of a liquid polymer and a cement based mix incorporating special admixtures.

SikaTop® Seal-107 ZA complies with the requirements of EN 1504-2 as a protective coating.

USES

SikaTop® Seal-107 ZA 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 (not subject to hydrostatic water pressure)
- Sealing fine "hairline" cracks in concrete structures (not subject to movement)
- Levelling mortar for concrete repair works

SikaTop® Seal-107 ZA 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
- Prebatched 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
- Overpaintable
- Approved for potable water contact

PRODUCT INFORMATION

Chemical Base	Component A	Liquid Polymer and Additives	
	Component B	Portland cement selected aggregates and admixtures	
Packaging	Component A	5 kg	
	Component B	20kg	
Appearance / Colour	Component A	White liquid	
	Component B	Grey powder	
Shelf Life	12 Months from date of production		
Storage Conditions	Product must be stored in original, unopened and undamaged sealed packaging in dry condition at temperatures between +5°C and +30°C. Always refer to packaging		
Maximum Grain Size	Dmax:		
Compressive Strength	3 Days	~7 N/mm ²	(EN 196-1)
	28 Days	~20 N/mm ²	
Coefficient of Thermal Expansion	13 x 10 ⁻⁶ per °C		
Diffusion Resistance to Water Vapour	μH ₂ O ~ 500		
Equivalent Air Layer Thickness for Water Vapour	2mm thickness of SikaTop® Seal-107 ZA attains 0.8m, better than 100mm of concrete		
Permeability to Carbon Dioxide	μCO ₂ ~ 35000		
Mixing Ratio	Used as a slurry	A:B = 1:4 (parts by weight)	
	Used as a mortar	A:B = 1:4.5 (parts by weight)	
Fresh mortar density	Fresh mortar density: ~2.00kg/l		
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.).		
Yield	1 unit of 25kg yields ~ 12.5 litres of mortar.		
Layer Thickness	Min. 0.75mm min – max. 1.5mm/coat		
Ambient Air Temperature	+8°C min. / +35°C max.		
Substrate Temperature	+8°C min. / +35°C max.		
Pot Life	~ 30 minutes at +20°C		
Waiting Time / Overcoating	Waiting time between coats:		
	+10°C	~12 hours	
	+20°C	~6 hours	
	+30°C	~3 hours	
If waiting time period exceeds 24 hours, lightly blast clean the surface. SikaTop® Seal-107 ZA can be overpainted using solvent based primers or coatings. SikaTop® Seal-107 ZA must cure for a minimum of 7 days before overcoating.			

SUBSTRATE QUALITY / PRE-TREATMENT

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/mm².

General:

The substrate must be prepared by suitable mechanical preparation techniques such as high pressure water jetting, needle guns, blastcleaning, scabblers etc. and properly pre-wetted to a saturated surface dry condition.

For pore/blowhole filling:

Blastclean to remove all contaminants including from within the pores/blowholes.

As a levelling mortar:

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.

MIXING

Shake part A before using it. Pour approximately half of part A into the mixing container and add part B slowly while mixing. Add the remainder of part A and continue mixing until a uniform lump free consistency is achieved. The surface must be pre-wetted to a saturated surface dry condition before application.

SikaTop® Seal-107 ZA 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.

Mixing should take place for at least 3 minutes.

APPLICATION

As a slurry:

Apply the mixed SikaTop® Seal-107 ZA either mechanically, by spray or by hand using a stiff brush. Applied in the same direction.

Apply the 2nd coat of SikaTop® Seal-107 ZA, applied by brush in crosswise direction to the first application as soon as first coat has hardened.

As a mortar:

When SikaTop® Seal-107 ZA is applied by trowel (e.g. for a smooth surface finish), the product must be mixed with a 10% reduction of part A (~ 1A : 4.5B).

Apply the 2nd coat of SikaTop® Seal-107 ZA as soon as the first coat has hardened.

For pore/blowhole filling, tightly trowel into the pores/blowholes of the surface.

CURING TREATMENT

It is essential to cure SikaTop® Seal-107 ZA 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.

CLEANING OF TOOLS

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

LIMITATIONS

SikaTop® Seal-107 ZA 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 ZA will be visible after completion of the works, then the off-white colour, which is aesthetically more 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 2.0mm. In areas of severe water penetration, three coats might be required.

Protect freshly applied material from freezing conditions and rain etc.

SikaTop® Seal-107 ZA does not provide a traffickable finish. Protect with a SikaCem®-810 or 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®-31DW or Sikaflex® -11 FC etc.

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

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.

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.

ECOLOGY HEALTH AND SAFETY

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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