

## PRODUCT DATA SHEET

# SikaTop®-129 Sunshine

Waterproofing cementitious mortar



### DESCRIPTION

SikaTop®-129 Sunshine is a two-component ready-mixed mortar with low modulus of elasticity. It comprises of a cementitious-based powder, modified with special synthetic polymers and silica fume, containing fine particle size selected aggregates, admixtures, and an emulsion that offers flexibility to the mix. It can be reinforced with alkali-resistant glass fibre net for waterproofing substrates subjected to flexural strain.

### USES

SikaTop®-129 Sunshine is used:

- As a waterproofing coating suitable for direct contact with swimming pool water
- As a concrete surface protection coating, to improve durability
- For waterproofing and protection of hydraulic structures such as basins, tanks, swimming pools, concrete piping
- As a flexible protective coating for reinforced concrete structures, against the effects of de-icing salts, freeze-thaw cycles and carbon dioxide
- For waterproofing and protection of roofs and relatively small pool, weather exposed surrounding areas (subject only to foot traffic).

SikaTop®-129 Sunshine is suitable for:

- Moisture control (Principle 2, Method 2.3 of EN 1504-9:2008)
- For increasing resistivity (Principle 8, Method 8.3 of EN 1504-9:2008)

### CHARACTERISTICS / ADVANTAGES

- High waterproofing level
- Pre-batched components
- Resistant to substrate's flexural strains, if not followed by substrate cracking
- Water vapour permeable
- Very good adhesion to many substrates, such as concrete, mortars, stones, bricks, e.t.c.
- Free from shrinkage cracking
- Easy application even onto vertical walls and ceiling

### APPROVALS / CERTIFICATES

- CE-marking and Declaration of Performance as Surface protection product – Coating according to EN 1504-2

### PRODUCT INFORMATION

<b>Composition</b>	Part A: liquid polymer with additives Part B: modified cement, containing selected aggregates and admixtures	
<b>Packaging</b>	Part A	6 kg pails
	Part B	25 kg bags
	Part A + B	31 kg units
<b>Appearance / Colour</b>	Part A: white liquid. Other colors: light blue, grey, beige (upon request) Part B: white powder Mix: white. Other colors: light blue, grey, beige (upon request)	

<b>Shelf life</b>	12 months from date of production	
<b>Storage conditions</b>	Store in original, undamaged, unopened and sealed containers, in dry and cool conditions, at temperatures between +5 °C and +35 °C.	
<b>Maximum grain size</b>	$D_{\max} = \sim 0,5 \text{ mm}$	
<b>Product declaration</b>	CE-marking and Declaration of Performance as Surface protection product – Coating according to EN 1504-2:2004, based on certificate of factory production control issued by notified factory production control certification body and type testing.	

## TECHNICAL INFORMATION

<b>Tensile adhesion strength</b>	0,8MPa	(EN 1542)				
<b>Reaction to fire</b>	NPD					
<b>Freeze thaw de-icing salt resistance</b>	$\geq 0,8\text{MPa}$	(EN 13487-1)				
<b>Permeability to water vapour</b>	Class I $S_D < 5 \text{ m}$ (permeable to water vapour)	(EN ISO 7783)				
<b>Capillary absorption</b>	$w < 0,1 \text{ kg/m}^2 \cdot \text{h}^{0,5}$	(EN 1062-3)				
<b>Water penetration under pressure</b>	<table border="1"> <thead> <tr> <th>Applied pressure</th> <th>Results</th> </tr> </thead> <tbody> <tr> <td>1,5 bar for 7 days</td> <td>No penetration</td> </tr> </tbody> </table>	Applied pressure	Results	1,5 bar for 7 days	No penetration	EN 14891 A.7
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## APPLICATION INFORMATION

<b>Mixing ratio</b>	Comp. A : Comp. B = 1 : 4 (parts by weight)	
<b>Fresh mortar density</b>	$\sim 1,65 \text{ kg/L}$	
<b>Consumption</b>	As a guide, $\sim 2.0 \text{ kg/m}^2 / \text{mm}$	
<b>Layer thickness</b>	Maximum recommended thickness per coat is 2mm. For waterproofing and concrete protection, the total application thickness must be at least 4mm.	
<b>Ambient air temperature</b>	+8 °C min. / +30 °C max.	
<b>Substrate temperature</b>	+8 °C min. / +30 °C max.	
<b>Pot Life</b>	$\sim 50 \text{ minutes}$ (at +20°C)	

## APPLICATION INSTRUCTIONS

### EQUIPMENT

SikaTop®-129 Sunshine must be mechanically mixed using a forced action mixer (max. 500 rpm).

### 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, e.t.c. The concrete's "pull off" (tensile adhesive) strength must be  $> 1,5\text{N/mm}^2$ .

The substrate should be prepared by suitable mechanical preparation techniques, such as high water pressure or grit blasting. Non-impact/vibrating cleaning methods are preferred. Remove all dust from the substrate, e.g. using vacuum cleaner. Damaged, delaminated or weak concrete must be repaired using suitable repair mortars from Sika MonoTop® or SikaRep®

product range.

Pre-wet the surface up to saturation. The wetted surface should achieve a dark matt appearance, without glistening and without any standing water.

### MIXING

Shake carefully Comp. A before using. Then pour  $\sim \frac{1}{2}$  Comp. A into a suitable clean mixing container and add Comp. B slowly while mixing. When this mix has become homogeneous, add the remaining amount of Comp. A and mix thoroughly at least for 3-4 minutes, until a lump-free final mix is achieved.

Do not add water or other ingredients to the mix! Each packaging unit must be entirely mixed, to avoid faulty particle size distribution of aggregates contained in the powder component (B).

## APPLICATION

Apply the mortar onto the suitably prepared and levelled substrate. Apply a first coat using a notched (3x3 mm) trowel, exerting good and even pressure onto the substrate in order to achieve a regular, consistent thickness. Place onto the first fresh mortar layer a suitable alkali-resistant glass fibre net (weight >90g/m<sup>2</sup>, spacing about 5 mm), exactly trimmed, fully embedding it into the mortar using a flat trowel. After this first layer has hardened, apply a second layer of SikaTop®-129 Sunshine by flat trowel, crosswise. SikaTop®-129 Sunshine can also be sprayed by suitable fine mortar pump.

In case of application onto rigid substrates, as a protective coating for reinforced concrete without aiming to waterproofing it, SikaTop®-129 Sunshine can be applied without the glass fibre net in two layers.

An excellent surface finish can be achieved using a sponge-coated float when mortar starts stiffening. A perfectly smooth finish is also achieved using a flat smooth metal float.

Corresponding to possible floor joints and other critical zones (for instance interface of horizontal and vertical surfaces), it is recommended to reinforce the waterproofing layer using Sika® Seal Tape F.

Maximum recommended thickness per coat is 2mm.

For waterproofing and concrete protection, the total application thickness must be at least 4mm.

Hydraulic load can be applied on the final applied coating approximately, 5 - 7 days after its completion, continuously and without interruption, in order to prevent discoloration and aesthetic disparities during curing. Keep walls damp if the filling of the pool takes more than one day. Do not apply hydraulic load if the coating has not completely hardened. It is recommended not to carry out any chemical treatment to water during the first week of full coating coverage with water. Then, proceed with disinfection treatment of water during the following weeks and until pH's stabilization. After the adjustment of the pH, however, you can start checking, and adjusting, if necessary, the mineralization of the water.

## CLEANING OF EQUIPMENT

Removal of fresh remnants from tools and application equipment can be carried out using water immediately after use. Hardened / cured material can only be mechanically removed.

## FURTHER INFORMATION

In order to increase the durability of the applied coat of SikaTop®-129 Sunshine on trafficable areas (not as a protection coating of submerged SikaTop®-129 Sunshine in swimming pool applications), apply on the last coating of SikaTop®-129 Sunshine, after curing, one coat of Sikagard® 790 All-in-One Protect, which doesn't alter the aesthetics of the product. Avoid applying excess material or ponding of Sikagard® All-in-One Protect on the surface of SikaTop®-129 Sunshine.

## IMPORTANT CONSIDERATIONS

- Protect fresh mortar from rain for at least 6 hours after application.
- Avoid application under and protect freshly applied material from direct sunlight and/or strong wind and rain.
- Substrate must be statically sound and fitted with regular expansion joints to absorb all the expected structural displacements.
- Do not apply mortar layers onto SikaTop®-129 Sunshine. If necessary, substrate has to be levelled and profiled before SikaTop®-129 Sunshine application.
- SikaTop®-129 Sunshine is not certified according to EN 14891 for use beneath ceramic tiles.
- Some advice regarding treatment and maintenance of swimming pools:
- Use only products specifically designed for swimming pools and follow the dosage recommended by the manufacturer.
- Do not place concentrated products (disinfectants, pH correctors) in direct contact with the coating. For example, do not pour the products along the walls or let them loose on the bottom.
- Excessively concentrated shock treatment can degrade the coating.
- Avoid using the product in case of electrolytic water treatment systems based on magnesium/potassium salts, which may damage the coating.
- Do not use copper sulfate as anti-algae and hydrochloric acid to clean the pool.
- The general guidelines for optimal treatment of swimming pool, maintains the water's chemical balance (pH around 7 with a hardness within 10-15°F).
- In the case of automatic pH control, ensure the smooth operation of the device. In case of failure, placing excessive pH corrector can cause a drop in pH and water demineralization, causing the degradation of the coating.
- Like all similar coatings, SikaTop®-129 Sunshine may be subject to the development of microorganisms (algae, fungi, e.t.c.) that occur sometimes in the form of spots of various colors (brown, grey, green, e.t.c.). This proliferation of microorganisms is caused by external agents and you need a specific treatment to deal with this (algaecide, biocide, bactericide, e.t.c.).
- For cleaning the existing coating do not use metal utensils (brushes, spatulas, e.t.c.), as there is the risk of particle deposition, oxidation and rust.
- Even temporary contact with organic substances (e.g. leaves) or ground may stain the coating.
- It's not possible to exclude light color shade of the product due to the float finishing method. This is not related with the quality of the product.

## 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

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.

## 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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