

## PRODUCT DATA SHEET

# Sika® MonoSeal-101 H

ONE COMPONENT CEMENTITIOUS MORTAR FOR CONCRETE AND MASONRY WATER-PROOFING



### DESCRIPTION

Sika® MonoSeal-101 H is a mixture of special cements and aggregates, containing waterproof admixtures, that is mixed with water to form a brushable paste.

### USES

Sika® MonoSeal-101 H is suitable for stiff waterproofing on concrete, masonry and rendered substrates. It is suitable for waterproofing in cases of either negative or positive pressure. Some typical examples of Sika® MonoSeal-101 H waterproofing include the following:

- External wall surfaces to be backfilled in the ground
- Elevator shafts
- Basement walls (internal)
- Trenches and pits
- Tanks and basins

### CHARACTERISTICS / ADVANTAGES

- Efficient, cost-effective waterproofing of existing structures
- Simple, easy application by brush
- High resistance against positive pressure
- Medium resistance against negative pressure

- Good adhesion on many substrates, including concrete, cementitious mortars, stone, e.t.c.
- Approved-certified product for contact with drinking water. Complies with the quality demands from the French Ministry of Health, in accordance with the instructions of the Supreme Council of Public Health of France, regarding its compatibility in contact with drinking water.
- CE certified

### APPROVALS / CERTIFICATES

- CE-marking and Declaration of Performance as Surface Protection Product - Coating according to EN 1504-2:2004, Principle 2 (Moisture Control) - Method 2.3 and Principle 8 (Increasing Resistivity) - Method 8.3 according to EN1504-9:2008, based on certificate of factory production control issued by notified factory production control certification body and type testing.
- Certificate of Compliance for contact with potable water (conforms with positive list results, CARSO-Department of Health and Environmental Hygiene of Lyon), dated 29/06/2017, version number 17 CLP LY 040 (grey) and 17 CLP LY 041 (white).
- According to the German specifications DWG 347 & W 320 concerning products in contact with potable water

### PRODUCT INFORMATION

<b>Chemical base</b>	Cement modified with polymers, and selected aggregates
<b>Packaging</b>	25 kg bags (grey) 20 kg bags (white)
<b>Appearance / Colour</b>	Powder, grey or white
<b>Shelf life</b>	12 months from the date of production
<b>Storage conditions</b>	The product has to be stored properly in the original packaging, in cool and dry conditions, at temperatures between +5°C and +35°C. Protect from direct sunlight.

Density	Density of fresh mortar (EN 1015-6) White: ~ 2.02 kg/L Grey: ~ 2.05 kg/L
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Maximum Grain Size	0.3 mm
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## TECHNICAL INFORMATION

Compressive Strength	<b>1 day</b>	<b>7 days</b>	<b>28 days</b>	(EN 12190)
	≥ 10MPa	≥ 25MPa	≥ 35MPa	

Tensile Strength in Flexure	<b>1 day</b>	<b>7 days</b>	<b>28 days</b>	(EN 196-1)
	≥ 2 MPa	≥ 3 MPa	≥ 5 MPa	

Tensile Adhesion Strength	≥ 1.0 MPa	(EN 1542)
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Capillary Absorption	w < 0.1 kg/m <sup>2</sup> ·h <sup>0.5</sup>	(EN 1062-3)
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Water Penetration under Pressure	No penetration (1.5 bar / 3 days)	(EN 12390-08)
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## APPLICATION INFORMATION

Mixing Ratio	4.8 - 5.3 lt of water per 20 kg bag (white)
	6.0 - 6.6 lt of water per 25 kg bag (grey)

Consumption	~ 1.5 kg/m <sup>2</sup> /mm of thickness layer
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Layer Thickness	Maximum thickness is 2mm
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Ambient Air Temperature	+5°C min. / +35°C max.
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Substrate Temperature	+5°C min. / +35°C max.
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Pot Life	~ 60 minutes
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Waiting Time / Overcoating	Recommended waiting time between coats is 2h. Sika® MonoSeal-101 H must be properly hardened before overcoating or contact with water. As a guide:	

	<b>+10°C</b>	<b>+20°C</b>
Immersion in water	~ 7 days	~ 2 days

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY / PRE-TREATMENT

- The substrate should be prepared by suitable mechanical preparation techniques, such as high water pressure (400 bar), wire-brushing, grit blasting, water jetting, e.t.c.
- Dust must be removed using electric vacuum cleaner.
- If necessary, repair damaged, delaminated or weak concrete using Sika MonoTop® / SikaRep® range of repair mortars.
- Smooth down all corners or sharp profile variation (floor and wall intersections, e.t.c.), shaping them in the form of concave coves, using Sika MonoTop® range, in order to improve the efficiency of the application.
- Dampen the substrate up to saturation. Avoid standing water or condensed water on the surface prior to the application (the surface must have a dark, matt appearance). Never apply the product in the presence of any amount of stagnant water.

### MIXING

Sika® MonoSeal-101 H can be mixed using an electric low speed stirrer (~ 500 r.p.m.), adding the correct amount of water, according to the required consistency. Once a homogeneous mix is obtained, continue mixing for 3-4 minutes. The mortar must be homogeneous and lump-free. Don't add anything else in the mix. Mix whole bags, in order to avoid non-homogeneous distribution of particles and aggregates.

### APPLICATION

Mortar can be applied by brush. The first coat of product shall carefully penetrate in the dampened subgrade. Work accurately on corners and edges. Generally 2 or 3 layers are required. Mortar layers should be applied crosswise.

### 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.

## IMPORTANT CONSIDERATIONS

- Corresponding to possibly joints subject to limitate displacements and other critical zones (for instance interface with vertical surfaces), the waterproof layer must be reinforced with the special tape Sika® SealTape-S. It must be applied on the fresh first layer and then covered by the second layer.
- Corresponding to structural joints (subject to high movements), the use of Sikadur®-Combiflex®-SG is mandatory.
- Sika® MonoSeal-101 H cannot be applied at temperature below +5°C (both ambient and substrate).
- Sika® MonoSeal-101 H cannot be applied on oozing substrate for waterproofing, because the mortar would be washed away prior to hardening.
- As all hydraulic-setting materials, Sika® MonoSeal-101 H must be protected from fast evaporation.
- Sika® MonoSeal-101 H can be neither overpainted with water-based paints nor plastered. If required, overpaint it with a solvent-based lacquer.
- The product is suitable for high positive water pressure and medium negative water pressure.

## 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.

Sika Hellas ABEE  
15 Protomagias Str.  
14568 Kryoneri  
Attica-Greece  
Tel.: +30 210 8160 600  
Fax: +30 210 8160 606  
www.sika.gr | sika@gr.sika.com



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