

PRODUCT DATA SHEET

Sika MonoTop®-107 Plus ES

Cementitious mortar for waterproofing, based on cement and synthetic resins

DESCRIPTION

Sika MonoTop®-107 Plus ES is a one component waterproofing mortar, cement based, selected aggregates, recycled material and admixture.

USES

It can be used with or without reinforcement, on concrete, mortar, stone, asbestos cement substrates, and is indicated for:

- Waterproofing tanks, swimming pools, channels, etc.
- Inside waterproofing basements.
- External waterproofing of buried walls.
- Repair and protection of surfaces exposed to the action of ice and thawing salts: parapets of bridges, cantilevered terraces and roofs, etc.
- Protection of concrete structures in marine environments.
- Waterproofing of drinking water tanks.

Sika MonoTop®-107 Plus ES can be used to protect concrete structures.

FEATURES

- Easy mixing and application.
- Excellent adhesion on healthy support.
- Waterproofing, but permeable to water vapour.
- High resistance to frost and thawing salts.
- Slightly more flexible than a normal mortar.
- It slows the progression of carbonation.
- Does not damage reinforcement or metallic elements.
- Non-corrosive, non-toxic, non-flammable

SUSTAINABILITY

- Conformity with LEED v4 MRc 2 (Option 1): Building Product Disclosure and Optimization – Environmental Product Declarations
- Conformity with LEED v4 MRc 3 (Option 2): Building Product Disclosure and Optimization - Sourcing of Raw Materials
- Conformity with LEED v4 MRc 4 (Option 2): Building Product Disclosure and Optimization - Material Ingredients
- IBU Environmental Product Declaration (EPD) available

CERTIFICATES AND TEST REPORTS

- CE Marking and Declaration of Performance to EN 1504-2 - Surface protection product for concrete - Coating

PRODUCT INFORMATION

Composition	Based on cement, selected aggregates, recycled material and admixture
Packaging	10 kg and 25 kg bag
Shelf life	12 months from date of production
Storage conditions	Store properly in undamaged and unopened original packaging in cool and dry conditions, protect from humidity.

Appearance and colour	White powder
Maximum grain size	0.5 mm

TECHNICAL INFORMATION

Compressive strength	3 days	~ 14 N/mm ²	EN 12190
	28 days	~ 33 N/mm ²	
Modulus of elasticity in compression	16 GPa		EN 12190
Flexural-strength	3 days	~ 3 N/mm ²	EN 12190
	28 days	~ 7 N/mm ²	
Tensile adhesion strength		Requirement	EN 1542
	Tensile Adhesion Strength (7days)	≥ 1 N/mm ²	
	Tensile Adhesion Strength (28 days)	≥ 1 N/mm ²	
Coefficient of thermal expansion	≤ 30 μm/m °C (-20 °C / 40 °C)		UNE EN 1770
Water permeability	w < 0.1 kg/m ² h ^{0.5}		EN 1062-3
Permeability to water vapour	Class I		UNE EN ISO 7783
Chloride Ion Ingress	Very low: 363 Coulombs		ASTM C1202-12
Reaction to fire	A1 / A1 _{FL}		EN 13501-1:2019

SYSTEM INFORMATION

System structure	Sika MonoTop®-107 Plus ES can be placed with Armatop®-100 reinforcement.		
	Armatop®-100:		
	Material	Anti-alkali fiberglass mesh	
	Weight	0.172 kg/m ²	
	Tensile strength	Warp: 180 daN/ 5 cm	
		Plot: 180 daN/ 5 cm	
Packing	Roll of 1 m x 50 m		

APPLICATION INFORMATION

Fresh mortar density	~ 1,8 kg/l
Consumption	<p>At least 2 coating layers are required. It might be necessary to reach 3 layers in areas where there are extremely strong leakage. As a guide:</p> <ol style="list-style-type: none"> 1. Frost protection: 2 kg/m² and layer. 2. Waterproofing; depending on the column water height: <ul style="list-style-type: none"> ▪ With H < 1 m.: up to 1.5 kg/m² and layer. ▪ With H > 1 m.: up to 2 kg/m² and layer. <p>The maximum consumption per layer should not exceed 4 kg/m² (2 mm thickness).</p>
Layer thickness	min. 1 mm / max. 2 mm
Ambient air temperature	min. +5 °C / max. +35 °C
Mixing ratio	<p>~ 4.5 l of water per bag of 25 kg</p> <p>~ 1.8 l of water per bag of 10 kg</p> <p>18%</p>
Substrate temperature	min. +5 °C / max. +35 °C

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.

LIMITATIONS OF USE

- Sika MonoTop®-107 Plus ES is not advisable to mix larger amounts of which can be placed in about 30 or 40 minutes.
- For the product to act efficiently, apply at least 2 coats, and a total minimum thickness of approx. 2 mm.
- The minimum consumption per coat of Sika MonoTop®-107 Plus ES is 1.5 kg/m² up to 2 kg/m².
- Sika MonoTop®-107 Plus ES 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.
- Avoid application in direct sun and/or strong wind.
- Apply only to sound, prepared substrates. Do not exceed maximum layer thickness.
- Protect freshly applied material from freezing conditions and rain etc.
- Sika MonoTop®-107 Plus ES does not provide a trafficable finish.

IMPORTANT CONSIDERATIONS

Refer to the Sika MonoTop®-107 Plus ES Sika Method Statement and System Data Sheet.

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

EQUIPMENT

Electrical mixer, trowel and spray machine

SUBSTRATE QUALITY

The concrete "pull off" (tensile adhesive) strength must be > 1.0 N/mm².

SUBSTRATE PREPARATION

Remove deteriorated concrete by mechanical means, sandblasting or pressurized water, until a healthy and-drought, cohesive substrate is obtained. The substrate must be sound, clean, free of grease, oil, friable parts, laitance.

In case of irregularities in the substrate, it can be first regularized with SikaMonotop®-125 Thick ES or another from SikaMonotop® range.

All singular points should be treated first with Sika-Monotop®-125 Thick ES or another from SikaMonotop® appropriate range.

Before applying Sika MonoTop®-107 Plus ES, the substrate must be moistened until saturated without flooding it.

MIXING

The kneading is preferably carried out using a low speed electric mixer. The mixing is preferable to be performed in a wide container, in which water will be poured in the amount needed, and gradually add Sika MonoTop®-107 Plus ES and mix for 2-3 minutes until a homogeneous mass.

APPLICATION

Without reinforcement:

Use a notched trowel with teeth of 3-4 mm. The first layer is applied with serrated edge and the second with straight edge, following the direction of the grooves.

It can also be applied by brush with the same consumption.

The second layer of mortar is applied when the first has hardened enough, generally past 4-6 hours of the first applied.

Sika MonoTop®-107 Plus ES will extend as uniform as possible, avoiding accumulate material at corners, cavities or crevices where they might appear fissures.

With reinforcement:

Sika MonoTop®-107 Plus ES reinforced with ArmaTop®-100 anti-alkali fiberglass mesh, are capable of absorbing certain movements that may occur in the element on which they are applied, and act as a bridge in the case where the support shows retraction fissures.

The reinforcement must be placed carefully, avoiding any air occlusion by any folds or pockets in the fiberglass.

The connection between different mesh is made by overlapping, with a width between 3 and 5 cm.

The amount of Sika MonoTop®-107 Plus ES to apply should be the required to fully cover the reinforcement.

CURING TREATMENT

They should take appropriate measures to prevent premature drying, placing a sheet of polyethylene or curing product Sika® Antisol®-3 E

CLEANING OF EQUIPMENT

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

PRODUCT DATA SHEET

Sika MonoTop®-107 Plus ES

July 2024, Version 02.01

020701010010000414

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.

Sika Services AG

Tüffenwies 16
8048 Zürich
Tel: +41 58 436 4040
www.sika.com



PRODUCT DATA SHEET

Sika MonoTop®-107 Plus ES
July 2024, Version 02.01
020701010010000414

SikaMonoTop-107PlusES-en-CORP-(07-2024)-2-1.pdf

