BUILDING TRUST

PRODUCT DATA SHEET

Sika MonoTop®-1010

Bonding primer and reinforcement corrosion protection cement based slurry containing recycled waste materials

PRODUCT DESCRIPTION

Sika MonoTop®-1010 is a 1-part, cementitious, polymer modified coating material used as bonding primer and reinforcement corrosion protection. It contains recycled waste materials which leads to a reduced carbon footprint compared to an equivalent performing mortar.

USES

Sika MonoTop®-1010 may only be used by experienced professionals.

- Bonding primer as part of a concrete repair system
- Reinforcement corrosion protection as part of a concrete repair system
- Suitable for control of anodic areas (Principle 11, method 11.1 of EN 1504-9)
- Interior and exterior use

CHARACTERISTICS / ADVANTAGES

- Uses recycled waste materials
- Easy to use, just add water
- Good adhesion to concrete and steel
- Good resistance to water and chloride penetration
- Can be applied with a brush or by wet spray technique

ENVIRONMENTAL INFORMATION

- Conformity with LEED v4 MRc 2 (Option 1): Building Product Disclosure and Optimization – Environmental Product Declarations

APPROVALS / STANDARDS

- CE Marking and Declaration of Performance to EN 1504-7- Product for reinforcement corrosion protection

PRODUCT INFORMATION

Product Declaration	Pass	(EN 1504-7)
Chemical Base	Portland cement, cement replacement, re-dispersible polymer powder, selected aggregates and additives	
Packaging	25 kg bag Refer to current price list for packaging variations.	
Shelf Life	12 months from date of production	
Storage Conditions	Product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C and +35 °C. Always refer to packaging.	
Appearance / Colour	Grey powder	
Soluble Chloride Ion Content	≤ 0,01 %	(EN 1015-17))

TECHNICAL INFORMATION

Compressive Strength	~50 MPa after 28 days	(EN 12190)
Tensile adhesion strength	~2,0 MPa after 28 days	(EN 1542)
Lap Shear Strength	Pass	(EN 15184)
Diffusion Resistance to Water Vapour	~100 μH_2O	
Lap Shear Strength	~1200 μCO_2	
Corrosion Test	Pass	(EN 15183)

SYSTEM INFORMATION

System Structure

Sika MonoTop®-1010 is part of the range of Sika Mortars and comprising of:

Bonding Primer/ Reinforcement Corrosion Protection

Sika MonoTop®-1010	Reduced carbon footprint

Repair Mortar

Sika MonoTop®-4012	Reduced carbon footprint

Smoothing/ levelling mortar

Sika MonoTop®-3020	Reduced carbon footprint

APPLICATION INFORMATION

Mixing Ratio	For brush application	~5,25 L water (21 %) per 25 kg bag
	For spraying application	~5,0 L water (20 %) per 25 kg bag
Fresh mortar density	~2,0 kg/l	
Consumption	Bonding Primer	~1,5–2,0 kg of powder per m² per 1 mm layer thickness Depends on substrate roughness and thickness of layer applied.
	Reinforcement Corrosion Protection	~2,0 kg of powder per m² per 1 mm layer thickness
	Consumption depends on the roughness and absorbency of the substrate. This figure is theoretical and does not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc.	
Yield	~14,3 L per 25 kg of powder	

Layer Thickness	Bonding primer: sufficient to coat the concrete surface in a thin layer filling pores and voids. Reinforcement: corrosion protection - 2 mm minimum thickness.
Ambient Air Temperature	+5 °C min. / +30 °C max
Substrate Temperature	+5 °C min. / +30 °C max
Pot Life	~90 minutes for 20 % water (machine applied) ~120 minutes for 21 % water (manual application)
Waiting Time / Overcoating	Apply concrete repair mortar wet on wet onto bonding primer. Apply concrete repair mortar wet on dry onto reinforcement corrosion protection.

VALUE BASE

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

FURTHER DOCUMENTS

- Sika Method Statement: Concrete Repair Using Sika MonoTop® System
- EN 1504-7 - Reinforcement corrosion protection

LIMITATIONS

- Avoid application in direct sun and/or strong wind and/or rain.
- Do not add water over recommended dosage.
- Apply only to stable, prepared substrates.

ECOLOGY, HEALTH AND SAFETY

Local safety regulations must be observed and it advisable to wear PPI when working with this product with particular attention paid to cutting and handling. Transportation Class: The product is not classified as hazardous good for transport. Disposal: The material is recyclable. Disposal must be according to local regulations. Please contact your local Sika sales organisation for more information.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Concrete
The concrete must be thoroughly clean, free from dust, loose material, surface contamination and materials which reduce bond or prevent suction or wetting by repair materials. De-laminated, weak, damaged and deteriorated concrete and where necessary sound concrete must be removed by suitable means. Ensure sufficient concrete is removed from around corroded reinforcement to allow cleaning for corrosion protection (where required) and compaction of the repair material.
Steel reinforcement
Rust, scale, mortar, concrete, dust and other loose and deleterious material which reduces bond or contributes to corrosion must be removed. Surfaces must be prepared using abrasive blast cleaning techniques or high pressure water-blasting to Sa 2 (ISO 8501-1). Reference must be made to EN 1504-10 for specific requirements.

MIXING

Mix with a low speed (<500 rpm) electric single or double paddle mixer or by hand for small quantities. Pour the recommended water quantity in a suitable mixing container. While stirring slowly, add the powder to the water and mix thoroughly for at least for 3 minutes.

APPLICATION

Bonding primer
Thoroughly pre-wet the prepared substrate a recommended 2 hours before application. Keep the surface wet and do not allow to dry. Before application remove excess water e.g. with a clean sponge. The surface must appear a dark matt appearance without glistering. Surface pores and voids must not contain water. Using a suitable clean brush, roller or suitable spraying equipment, cover the substrate in a thin layer filling all unevenness, pits and voids.
Reinforcement corrosion protection
Using a suitable clean brush or spraying equipment, apply a first coat to cover the reinforcement bars ~1 mm thick. When first coat is finger nail hard, apply a second layer ~1 mm thick. If using a spray method, protect substrate from excessive over-spray. Wait until completely dry before applying repair mortar.

CURING TREATMENT

Reinforcement corrosion protection: protect fresh coating immediately from premature drying and contamination using an appropriate curing method.

CLEANING OF TOOLS

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

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 the 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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