BUILDING TRUST

PRODUCT DATA SHEET

Sika MonoTop®-1010 ZA

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

DESCRIPTION

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

USES

Sika MonoTop®-1010 ZA 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
- 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

PRODUCT INFORMATION

Chemical Base	Portland cement, cement replacement, re-dispersible polymer powder, selected aggregates and additives
Packaging	20 kg bag
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
Maximum Grain Size	D_{max}: 0.5 mm

TECHNICAL INFORMATION

Compressive Strength	~50 MPa after 28 days	(EN 12190)
Tensile Adhesion Strength	~2,0 MPa after 28 days	(EN 1542)
Diffusion Resistance to Water Vapour	~177 μH_2O	

Equivalent Air Layer Thickness for Water Vapour	SD=0.679	
Corrosion Test	Pass	(EN 15183)

SYSTEM INFORMATION

System Structure	Sika MonoTop®-1010 ZA is part of the range of Sika Mortars and comprising of:	
	Bonding Primer/ Reinforcement Corrosion Protection	
	Sika MonoTop®-1010 ZA	Reduced carbon footprint
	Repair Mortar	
	Sika MonoTop®-4012 ZA	Reduced carbon footprint
	Smoothing/ levelling mortar	
	Sika MonoTop®-3020 ZA	Reduced carbon footprint

APPLICATION INFORMATION

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	~11.4 L per 20 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	
Mixing Ratio	For brush application	~4,2 L water (21 %) per 20 kg bag
	For spraying application	~4,0 L water (20 %) per 20 kg bag
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	~90 minutes for 20 % water (machine applied) ~120 minutes for 21 % water (manual application)	

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.

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

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Concrete
The concrete must be thoroughly clean, free from dust, loose material, surface contamination and ma-

terials 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).

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

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.

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 South Africa (Pty) Ltd
9 Hocking Place,
Westmead, 3608
South Africa
Phone +27 31 792 6500
www.sika.co.za