



## PRODUCT DATA SHEET

# Sika MonoTop<sup>®</sup>-1010

Cement-based bonding primer and reinforcement protection slurry containing recycled raw materials and corrosion inhibitors

### PRODUCT DESCRIPTION

Sika MonoTop<sup>®</sup>-1010 is a 1-part, cementitious, polymer-modified coating material. It is used as bonding primer and as reinforcement corrosion protection. It contains corrosion inhibitors and recycled raw materials, resulting in a lower carbon footprint than a comparable mortar of equal performance.

### WHERE TO USE

As part of a concrete repair system, Sika MonoTop<sup>®</sup>-1010 is used as:

- Bonding primer on concrete surfaces
- Reinforcement corrosion protection
- Control of anodic areas (Principle 11, method 11.1 of EN 1504-9), creating conditions in which potentially anodic cathodic areas of reinforcement are unable to take part

Sika MonoTop<sup>®</sup>-1010 is used for interior and exterior applications.

Please note:

- The Product may only be used by experienced professionals.

### CHARACTERISTICS / ADVANTAGES

- Uses recycled raw materials
- Easy to use, just mix with water
- Good adhesion to concrete and steel
- Good resistance to water and chloride penetration
- Applied with a brush or by wet spray equipment

### PRODUCT INFORMATION

#### Composition / Manufacturing

Portland cement, cement replacement, re-dispersible polymer powder,

### ENVIRONMENTAL INFORMATION

- Contributes towards satisfying Materials and Resources (MR) Credit: Building product disclosure and optimization — Environmental Product Declarations under LEED<sup>®</sup> v4
- Contributes towards satisfying Materials and Resources (MR) Credit: Building Product Disclosure and Optimization — Sourcing of Raw Materials under LEED<sup>®</sup> v4
- Contributes towards satisfying Materials and Resources (MR) Credit: Building Product Disclosure and Optimization — Material Ingredients under LEED<sup>®</sup> v4
- Specific Environmental Product Declaration (EPD) in accordance with EN 15804. EPD independently verified by BRE Global

### APPROVALS / CERTIFICATES

- CE marking and declaration of performance based on EN 1504-7:2006 Products and systems for the protection and repair of concrete structures — Reinforcement corrosion protection

	selected aggregates and additives	
<b>Packaging</b>	12 kg and 25 kg Refer to the current price list for available packaging variations.	
<b>Shelf Life</b>	12 months from date of production	
<b>Storage Conditions</b>	The Product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C and +35 °C. Always refer to the packaging Refer to the current Safety Data Sheet for information on safe handling and storage.	
<b>Appearance / Colour</b>	Grey powder	
<b>Soluble Chloride Ion Content</b>	≤ 0.01 %	(EN 1015-17)

## TECHNICAL INFORMATION

<b>Compressive Strength</b>	Cured 28 d at +21 °C	50 MPa	(EN 12190)
<b>Pull-Off Strength</b>	≥ 2.0 MPa		(EN 1542)
<b>Shear Adhesion Strength</b>	Pass		(EN 15184)
<b>Diffusion Resistance to Water Vapour</b>	100 μH <sub>2</sub> O		(DIN EN ISO 12572)
<b>Diffusion resistance to carbon dioxide</b>	1200 μCO <sub>2</sub>		(EN 1062-6)
<b>Corrosion Test</b>	Pass		(EN 15183)

## SYSTEMS

<b>System Structure</b>	Sika MonoTop®-1010 is part of a range of Sika mortars with a reduced carbon footprint:		
	<b>Layer</b>	<b>Product</b>	
	Bonding primer / Reinforcement corrosion protection	Sika MonoTop®-1010	
	Concrete repair mortar	Sika MonoTop®-4012	
	Levelling mortar	Sika MonoTop®-3020	

## APPLICATION INFORMATION

<b>Fresh Mortar Density</b>	2.0 kg/l		
<b>Consumption</b>	Bonding primer	1.5-2.0 kg/m <sup>2</sup> per mm of thickness	
	Reinforcement corrosion protection	2.0 kg/m <sup>2</sup> per mm of thickness	
	Note: Consumption data is theoretical and does not allow for any additional material due to surface porosity, surface profile, variations in level, wastage or any other variations. Apply the Product to a test area to calculate the exact consumption for the specific substrate conditions and proposed application equipment.		
<b>Yield</b>	14.3 L of mortar per 25 kg bag		
<b>Layer Thickness</b>	Bonding primer	sufficient to coat the concrete surface in a thin layer filling pores and voids	
	Reinforcement corrosion protection	2 mm minimum thickness	

<b>Product Temperature</b>	Maximum	+30 °C	
	Minimum	+5 °C	
<b>Ambient Air Temperature</b>	Maximum	+30 °C	
	Minimum	+5 °C	
<b>Mixing Ratio</b>	Machine applied	5.0 L per 25 kg bag (20 % water addition)	
	Brush applied	5.25 L per 25 kg bag (21 % water addition)	
<b>Substrate Temperature</b>	Maximum	+30 °C	
	Minimum	+5 °C	
<b>Pot Life</b>	<b>Application</b>	<b>Water addition</b>	<b>Time at +20 °C</b>
	Machine applied	20 %	90 minutes
	Brush applied	21 %	120 minutes
<b>Waiting Time / Overcoating</b>	Apply concrete repair mortar wet on wet onto bonding primer Apply concrete repair mortar wet on dry onto reinforcement corrosion protection.		

## BASIS OF PRODUCT DATA

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

## FURTHER INFORMATION

- Concrete repair site handbook
- 850 3201 Method Statement Concrete Repair (01/2021) 3

## ENVIRONMENT, HEALTH & 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

### SUBSTRATE PREPARATION

#### CONCRETE

1. Clean the substrate thoroughly so it is free from dust, loose material, surface contamination and material which reduces adhesion, prevents suction or wetting by the repair materials.
2. Remove delaminated, weak, damaged and deteriorated concrete and where necessary, sound concrete. Remove using mechanical hand-held tools,

- high or ultra-high-pressure water blasting equipment.
3. Remove sufficient concrete from around corroded reinforcement to allow cleaning, application of a corrosion protection coating (where required) and compaction of the concrete repair mortar.
4. Prepare repair surface areas in simple square or rectangular layouts to avoid shrinkage stress concentrations and cracking while the repair material cures. This can also avoid structural stress concentrations from thermal movement and loading during the service life.

## STEEL REINFORCEMENT

1. Remove rust, scale, mortar, concrete, dust and other loose and deleterious material which reduces bond or contributes to corrosion.
2. Prepare surfaces to bright steel, Sa 2 (ISO 8501-1), using abrasive blast cleaning or high-pressure water blasting equipment.

## MIXING

1. Pour the minimum amount of water into a suitable clean mixing container or equipment.
2. Gradually add the powder to the water while stirring slowly.
3. Mix thoroughly for at least for 3 minutes, add additional water if necessary. Note Do not add more water than the maximum specified amount.
4. Adjust to the required consistency to achieve a smooth consistent mix.
5. Check the consistency after every mix.

## APPLICATION

### IMPORTANT

#### Strictly follow installation procedures

Strictly follow installation procedures as defined in Method Statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

### IMPORTANT

#### Risk of cracking due to exposure to frost

1. Protect freshly applied material from freezing and frost.

### IMPORTANT

#### Risk of cracking due to application in direct sun or strong winds

1. Do not apply the Product in direct sun, strong winds or both.

### IMPORTANT

#### Poor Product performance due to insufficient substrate pre-wetting

Insufficient substrate saturation prior to application will cause the mortar to not gain its full mechanical properties.

1. Only apply the Product to stable, prepared substrates.
2. Thoroughly pre-wet the prepared substrate for a minimum of 2 hours before application.
3. Keep the surface wet and do not allow to dry.
4. The final pre-wetted surface must achieve a dark matt appearance (saturated surface dry).

## BONDING PRIMER APPLICATION

1. Remove excess water from within the surface pores and cavities with a clean sponge.
2. Use a brush, roller or spray equipment to apply the Product over the complete substrate surface to form a thin layer to fill surface pores or cavities.

## REINFORCEMENT CORROSION PROTECTION

1. Use a clean brush or spraying equipment to apply a first coat to cover the reinforcement bars ~1 mm thick.
2. When first coat is finger nail hard, apply a second layer ~1 mm thick. Note If using a spray method, protect the substrate from over-spray.
3. Wait until completely dry before applying repair mortar.

## CURING TREATMENT

- Protect fresh mortar immediately from premature drying using an appropriate curing method, such as curing compound, moist geotextile membrane or polythene sheet.
- Do not use curing compounds if they could adversely affect subsequently applied products and systems.

## CLEAN UP

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

## 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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: [www.sika.ca](http://www.sika.ca)

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### **Other locations**

Boisbriand (Quebec)  
Brantford; Cambridge;  
Sudbury; Toronto (Ontario)  
Edmonton (Alberta)  
Surrey (British Columbia)

### **Product Data Sheet**

Sika MonoTop®-1010  
June 2024, Version 03.01  
020302020010000054

