BUILDING TRUST

PRODUCT DATA SHEET

Sika MonoTop®-1010

Cement-Based Reinforcement Corrosion Protection Slurry and Bonding Primer

PRODUCT DESCRIPTION

Sika MonoTop®-1010 is a one-part, cementitious, polymer-modified coating material. It is used as reinforcement corrosion protection and as a bonding primer.

USES

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

- Reinforcement corrosion protection as part of a concrete repair system.
- Bonding primer on concrete surfaces as part of a concrete repair system.
- Control of anodic areas (Principle 11, method 11.1 of EN 1504-9), by treating the surface of the reinforcement to prevent corrosion.
- Sika MonoTop®-1010 is used for interior and exterior applications.
- Suitable for use on dynamically loaded structures (e.g. bridges).

Please note:

- The Product may only be used by experienced professionals.

CHARACTERISTICS / ADVANTAGES

- Contains supplementary cementitious material.
- 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.

ENVIRONMENTAL INFORMATION

- Contributes towards satisfying Materials and Resources (MR) Credit: Building Product Disclosure and Optimization — Environmental Product Declarations under LEED® v4 — 1 point.
- Contributes towards satisfying Materials and Resources (MR) Credit: Building Product Disclosure and Optimization — Material Ingredients under LEED® v4 — 1 point.
- LEED Attestation, Sika MonoTop-1010, Eurofins, Test Report No. 392-2025-00352801_H_EN.
- Specific Environmental Product Declaration (EPD) in accordance with EN 15804. EPD independently verified by BRE Global.

APPROVALS / STANDARDS

- CE marking and declaration of performance based on EN 1504-7: Products and systems for the protection and repair of concrete structures — Reinforcement corrosion protection.
- Tensile bond strength after vibrational stress DAfStb guideline, Sika MonoTop®-4012, kiwa, Test report No. P 11864-1-E.
- Initial testing on corrosion protection in accordance with EN 1504-7 en_AT.
- Certified as a bonding primer with Sika MonoTop®-4012. Drinking Water Certificate: Water Regulations Advisory Scheme Ltd (WRAS) Approval Number: 2305560.

PRODUCT INFORMATION

Chemical Base	Portland cement, cement replacement, redispersible polymer powder, selected aggregates and synergystic additives.
Packaging	Standard bag — 25 kg Refer to the current price list for available packaging variations.
Appearance / Colour	Grey powder
Shelf Life	12 months from date of production
Storage Conditions	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.
Soluble Chloride Ion Content	≤ 0.01 % (EN 1015-17)

TECHNICAL INFORMATION

Compressive Strength	Cured 28 days at +21 °C	~50 MPa	(EN 12190)
Tensile adhesion strength	≥ 2.0 MPa **NOTE:** Tested after 28 days.		(EN 1542)
Diffusion Resistance to Water Vapour	~100 μH_2O		(DIN EN ISO 12572)
Permeability to CO2	~1,200 μCO_2		(EN 1062-6)
Corrosion Test	Pass		(EN 15183)

APPLICATION INFORMATION

Mixing Ratio

Machine-applied	5.0 L per 25 kg bag (i.e. 20 % water addition)
Brush-applied	5.25 L per 25 kg bag (i.e. 21 % water addition)

Consumption

AS REINFORCEMENT CORROSION PROTECTION

For a total layer thickness of 2 mm, in two layers of 1 mm thickness each:

Rebar Diameter	Amount of Powder Per Metre
8 mm	~100 g/m (~50 g/m per layer)
16 mm	~200 g/m (~100 g/m per layer)

AS BONDING PRIMER ON MINERAL SURFACES

1.5 to 2.0 kg powder per m² and mm layer thickness, depending on substrate conditions

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.

Yield

Mixed material per standard bag — ~15 L for 25 kg bag

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.

Layer Thickness	Reinforcement corrosion protection	Minimum 2 mm
	Bonding primer	Sufficient to coat the concrete surface in a thin layer, filling pores and voids
Product Temperature	Maximum	+30 °C
	Minimum	+5 °C
Ambient Air Temperature	Maximum	+30 °C
	Minimum	+5 °C
Substrate Temperature	Maximum	+30 °C
	Minimum	+5 °C

Pot Life

Application	Water Addition	Time at +20 °C
Machine-applied	20 %	~90 minutes
Brush-applied	21 %	~120 minutes

Waiting Time / Overcoating	Apply concrete repair mortar 'wet-on-wet' onto bonding primer. Apply concrete repair mortar 'wet-on-dry' onto reinforcement corrosion protection.
Fresh mortar density	~2.0 kg/L (EN 1015-6)

SYSTEM INFORMATION

System Structure	Sika MonoTop®-1010 is a reinforcement corrosion protection primer in accordance with EN 1504-7 as part of the Sika® Repair System. It is the first component of the system, followed by the application of Sika MonoTop® or SikaEmaco® concrete repair mortars.

VALUE BASE

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

- Concrete Repair Site Handbook.
- Sika® Method Statement 850 32 01 Repairing Concrete Using Sika® Ready To Use Mortars.

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

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 handheld 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. Ensure the back of the rebar is also clean.

PRE-WETTING

Sufficient saturation of the concrete substrate prior to application enables the mortar to gain its full mechanical properties.

1. Thoroughly pre-wet the prepared concrete substrate for a minimum of 2 hours before application.
2. Keep the surface wet and do not allow to dry.
3. The final pre-wetted surface must achieve a dark matt appearance without standing water (i.e. satur-

ated surface dry).

MIXING

1. Pour the minimum specified quantity of clean, potable water into the mixing vessel.
2. Gradually add the powder to the water while stirring slowly (use a low speed [<500 rpm] electric single or double paddle mixer, or by hand for small quantities).
3. Mix for at least for 3 minutes until a uniform, lump-free consistency is achieved.
4. If necessary, add small amounts of water, within the allowed range, to adjust consistency. Do NOT exceed the maximum water content.
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 application in direct sun or strong winds

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

REINFORCEMENT CORROSION PROTECTION
Pre-conditions
If using spray equipment, the substrate shall be protected from overspray.

1. Use a clean brush or spraying equipment to apply a first coat of Sika MonoTop®-1010 at 1 mm thick to cover the reinforcement bars.
2. When the first coat is fingernail-hard, apply a second coat of Sika MonoTop®-1010 at 1 mm thick.
3. Wait until completely dry before applying repair mortar (i.e. 'wet-on-dry').

BONDING PRIMER

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 a thin layer of Sika MonoTop®-1010 over the complete substrate surface to fill surface pores or cavities.
3. Apply the subsequent layer of repair mortar 'wet-on-wet'.

CURING TREATMENT

Protect from wind, rain, frost and direct sunlight after application.

CLEANING OF TOOLS

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

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 LIMITED
Watchmead
Welwyn Garden City
Hertfordshire, AL7 1BQ
Tel: 01707 394444
Web: www.sika.co.uk
Twitter: @SikaLimited