BUILDING TRUST

PRODUCT DATA SHEET

Sika MonoTop®-1010

Cement-based reinforcement corrosion protection 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
- Bonding primer on concrete surfaces
- 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.
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 1504-7:2006 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 acc. EN 1504-7 en_AT
- WRAS Approval Number: 2305560

PRODUCT INFORMATION

Chemical Base	Portland cement, cement replacement, re-dispersible polymer powder, selected aggregates and additives	
Packaging	Standard bag	12 kg plastic pail and 25 kg paper bag
	Refer to the current price list for available packaging variations.	
Colour	Grey	

Shelf Life	Standard bag	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)
Colour	Powder	

TECHNICAL INFORMATION

Compressive Strength	Cured 28 d at +21 °C	50 MPa	(EN 12190)
Tensile adhesion strength	≥ 2.0 MPa		(EN 1542)
Diffusion Resistance to Water Vapour	100 μH_2O		(DIN EN ISO 12572)
Corrosion Test	Pass		(EN 15183)
Lap Shear Strength	1200 μCO_2		(EN 1062-6)

APPLICATION INFORMATION

Mixing Ratio

Machine-applied	5.0 L per 25 kg bag (20 % water addition)
Brush-applied	5.25 L per 25 kg bag (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
1.5–2.0 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

Fresh 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 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 Concrete Repair

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 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. 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 (saturated surface dry).

MIXING

1. Pour the minimum specified quantity of clean water into the mixing vessel.
2. Gradually add the powder to the water while stirring slowly.
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
1. Do not apply the Product in direct sun, strong winds or both.

REINFORCEMENT CORROSION PROTECTION
Preconditions
If using spray equipment, the substrate has been protected from overspray.
1. Use a clean brush or spraying equipment to apply a first coat of Sika MonoTop®-1010 1 mm thick to cover the reinforcement bars.
2. When the first coat is fingernail-hard, apply a second coat of Sika MonoTop®-1010 1 mm thick.
3. Wait until completely dry before applying repair mortar.

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

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.

SIKA IRELAND LIMITED
Ballymun Industrial Estate
Ballymun
Dublin 11, Ireland
Tel: +353 1 862 0709
Web: www.sika.ie
Twitter: @SikaIreland