

PRODUCT DATA SHEET

Sika MonoTop®-1010

Bonding primer and reinforcement corrosion protection cement based slurry containing recycled waste materials (replaces Sika MonoTop-910 ECO)

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
- 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

SUSTAINABILITY

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

APPROVALS / CERTIFICATES

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

PRODUCT INFORMATION

| | | |
|------------------------------|---|---------------|
| Product declaration | Pass | (EN 1504-7) |
| Composition | 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 and colour | Grey powder | |
| Soluble chloride ion content | ≤ 0,01 % | (EN 1015-17)) |

TECHNICAL INFORMATION

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|--|------------------------|------------|
| Compressive strength | ~50 MPa after 28 days | (EN 12190) |
| Tensile adhesion strength | ~2,0 MPa after 28 days | (EN 1542) |
| Shear adhesion strength | Pass | (EN 15184) |
| Diffusion resistance to water vapour | ~100 μH ₂ O | |
| Diffusion resistance to carbon dioxide | ~1200 μCO ₂ | |
| Corrosion test | Pass | (EN 15183) |

SYSTEM INFORMATION

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|------------------|--|--------------------------|
| 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

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|----------------------|---|---|
| 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 m ² per 1 mm layer thickness Depends on substrate roughness and thickness of layer applied. |
| | Reinforcement Corrosion Protection | ~2,0 kg of powder per m ² 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 | |

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| 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 to overcoating | 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

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 INFORMATION

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

IMPORTANT CONSIDERATIONS

- 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

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

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 glistening. 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 EQUIPMENT

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 declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

LEGAL NOTES

Any information or suggestions for use concerning Sika's products, which we either in writing or orally have given buyers or end-users of the product, have been given in good faith based on our own experiences and based on approved praxis and the technological and scientific knowledge on the time of giving such suggestions and information, which are given without any type of guarantees, and which do not lead to any further responsibility from Sika Danmark A/S, besides what is stated in the sales agreement in question. The buyer or end-user should themselves investigate or otherwise make sure, that our products are suitable for the use in question and further make sure that the products are kept and used correct and in agreement with the published rules and considering the actual conditions in order to avoid damages or less satisfactory results. Any order is accepted and any deliverance is affected according to the general terms of sales and delivery from Sika Danmark A/S, which are considered known and accepted, and which could be handed out when asked for. Our catalogues are not up-dated automatically. The present product data sheet is only for use in Denmark. Values stated in the present product data sheet should be seen as recommended, unless stated otherwise.

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