

PRODUCT DATA SHEET

Sika MonoTop®-610

Bonding primer and reinforcement corrosion protection cement based slurry

DESCRIPTION

Sika MonoTop®-610 is a cementitious, polymer modified one-component coating material containing silica fume used as bonding primer and reinforcement corrosion protection.

USES

This product 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

CHARACTERISTICS / ADVANTAGES

- Easily applied by brush, roller or spray, just add water
- Adhesion to concrete and steel
- Good resistance to water and chloride penetration
- Excellent bonding to steel and concrete
- Can be applied to damp substrates
- High mechanical strengths
- Non-toxic
- Alkaline passivating effect due to high cement content
- Contains corrosion inhibitors

PRODUCT INFORMATION

Packaging	25 kg bag
Appearance / Colour	Grey powder
Shelf life	6 months from date of production
Storage conditions	Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +35 °C. Always refer to packaging.
Product declaration	EN 1504-7

TECHNICAL INFORMATION

Compressive strength	45 – 55 N/mm ² (after 28 days / +25°C)
Modulus of elasticity in compression	~ 20,000 N/mm ² (static)
Tensile adhesion strength	bond strength ~2-3 MPa after 28 days (EN 1542)
Shear adhesion strength	Pass (EN 15184)
Diffusion resistance to water vapour	~80 µH ₂ O
Diffusion resistance to carbon dioxide	~200 µCO ₂

SYSTEMS

System structure	Sika MonoTop®-610 is part of the range of Sika Mortars and comprising of: Bonding Primer/ Reinforcement Corrosion Protection	Sika MonoTop®-610
	Repair Mortar	Sika MonoTop®-612
	Levelling / Smoothing Mortar	Sika MonoTop®-620

APPLICATION INFORMATION

Mixing ratio	For brush application ~5,25 litre water (21 %) per 25 kg bag For spraying application ~5,0 litre water (20 %) per 25 kg bag
Fresh mortar density	~2,0 kg/l
Consumption	Bonding Primer - Depends on the substrate roughness and thickness of layer applied. ~1,5–2,0 kg of powder per m ² per mm thick. Reinforcement Corrosion Protection ~2,0 kg of powder per m ² per 1 mm layer thickness
Yield	25 kg of powder yields approximately 14,3 litres
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 minimum; +30 °C maximum
Substrate temperature	+5 °C minimum; +30 °C maximum
Pot Life	~90 to 120 minutes at +20 °C
Waiting time to overcoating	Apply concrete repair mortar wet on wet with bonding primer Apply concrete repair mortar wet on dry reinforcement corrosion protection coating

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Concrete:

The concrete shall 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 shall be removed by suitable means. Ensure sufficient concrete is removed from around corroded reinforcement to allow cleaning, 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 shall be removed. Surfaces shall be prepared using abrasive blast cleaning techniques or high pressure water-blasting to Sa 2 (ISO 8501-1).

MIXING

Sika MonoTop®-610 can be mixed with a low speed (<500 rpm) hand drill 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 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 should appear as a dark matt appearance without glistening. Surface pores and voids shall not contain water. Using a suitable clean brush, roller or spraying equipment, cover the substrate in a thin layer filling all pits and voids.

Reinforcement Corrosion Protection:

Using a suitable clean brush or spraying equipment apply a first coat to cover the whole exposed circumference of the reinforcement bars approximately 1 mm thick. When first coat is finger nail hard, apply a second coat approximately 1 mm thick. If using a spray method, protect substrate from excessive overspray. Wait until completely dry before applying repair

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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 application equipment with water immediately after use. Hardened material can only be mechanically removed.

LIMITATIONS

- Avoid application in direct sun and/or strong wind and/or rain
- Do not add water over the recommended dosage
- Apply only to sound, prepared substrates
- Refer to the Method Statement for Concrete Repair using Sika MonoTop® system for more information.

BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

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.

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.

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.

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