

## 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

- Bonding primer as part of a concrete repair system
- Reinforcement corrosion protection as part of a concrete repair system

#### CHARACTERISTICS / ADVANTAGES

- One component system requiring only the addition of clean water
- Easy application with brush, roller or spray
- Excellent bonding to steel and concrete
- High impermeability to water and chlorides
- Moisture insensitive
- High mechanical strength
- Non-toxic
- Alkaline passivation of reinforcement steel
- Sprayable using wet spray method
- Containing corrosion inhibitors

#### PRODUCT INFORMATION

Packaging	5 kg bags
Appearance / Colour	Grey powder
Shelf life	Min. 6 months from date of production if stored properly
Storage conditions	Store properly in undamaged original sealed packaging, in dry cool conditions between +5°C and +35°C. Protect from direct sunlight, heat and moisture.
Bulk Density	~1.15 kg/l

#### TECHNICAL INFORMATION

Compressive Strength	≥ 45 N/mm <sup>2</sup> after 28 days	(ASTM C349 / C109)
Tensile Strength in Flexure	≥ 4 N/mm <sup>2</sup> after 28 days	(ASTM C348)
Tensile Adhesion Strength	~1.5 N/mm <sup>2</sup> after 28 days	(ASTM D4541)

## SYSTEM INFORMATION

<b>System Structure</b>	Sika MonoTop®-610 is a part of Sika MonoTop® system comprising of: Bonding Primer/ Reinforcement Corrosion Protection	Sika MonoTop®-610
	High performance polymer modified repair mortar	Sika MonoTop® R or Sika MonoTop®-618 VN
	or High build polymer modified repair mortar (recommended for overhead application)	Sika MonoTop®-615 HB

## APPLICATION INFORMATION

<b>Mixing ratio</b>	20 – 22% About 1.0 – 1.1 litres of clean water per 5 kg bag
<b>Fresh mortar density</b>	~2.15 kg/l
<b>Consumption</b>	As bonding primer: 1.5 – 2.0 kg/m <sup>2</sup> (depending on the substrate roughness) As reinforcement protection: ~2.0 kg/m <sup>2</sup> /coat per 1 mm layer thickness (2 layers are required)
<b>Yield</b>	5 kg of powder yields approximately 2.8 litres
<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>Ambient Air Temperature</b>	+6°C minimum; +40°C maximum
<b>Pot Life</b>	~30 minutes at +27°C/ 65% r.H
<b>Waiting Time / Overcoating</b>	Apply concrete repair mortar 'wet on wet' with bonding primer. Apply concrete repair mortar 'wet on dry' with reinforcement corrosion protection coating.

## 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.

## IMPORTANT CONSIDERATION

- 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.

## 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 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.

## MIXING

Sika MonoTop®-610 can be mixed with a low speed ( $\leq 500$  rpm) hand drill mixer or by hand for small quantities.

Pour the recommended water quantity in a suitable mixing container. Add the powder to the water and mix thoroughly to obtain the consistency of cement paste, usually 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 hard to the finger nail, 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 mortar.

## CURING TREATMENT

As reinforcement corrosion protection: protect fresh coating immediately from premature drying and contamination using an appropriate curing method.

## CLEANING OF TOOLS

Clean all tools and application 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

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 (Vietnam)

Nhon Trach 1 Industrial Zone,  
Nhon Trach Dist., Dong Nai Province,  
Vietnam

Tel: (84-251) 3560 700

Fax: (84-251) 3560 699

sikavietnam@vn.sika.com



### Product Data Sheet

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