

## 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

- Suitable as a bonding primer as part of a concrete repair system
- Suitable as reinforcement corrosion protection as part of a concrete repair system

### CHARACTERISTICS / ADVANTAGES

- Easy to use, just add water
- Adhesion to concrete and steel
- Good resistance to water and chloride penetration
- Can be applied with a brush or by wet spray technique

### APPROVALS / STANDARDS

### PRODUCT INFORMATION

<b>Chemical Base</b>	Portland cement, silica fume, re-dispersible polymer powder, selected aggregates and additives
<b>Packaging</b>	25 kg bags
<b>Appearance / Colour</b>	Grey powder
<b>Shelf Life</b>	12 months
<b>Storage Conditions</b>	Store properly in undamaged original sealed packaging, in dry cool conditions between +5 °C and +35 °C

### TECHNICAL INFORMATION

<b>Compressive Strength</b>	~30 -35 MPa after 28 days*	(EN 12190)
<b>Tensile Adhesion Strength</b>	~2.0 MPa after 28 days	(EN 1542)
<b>Shear Adhesion</b>	Pass	(EN 15184)
<b>Diffusion Resistance to Water Vapour</b>	~300 µH <sub>2</sub> O	
<b>Diffusion resistance to carbon dioxide</b>	~3800 µCO <sub>2</sub>	
<b>Corrosion Test</b>	Pass	(EN 15183)

### SYSTEM INFORMATION

## 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®-412S

Sika MonoTop®-412 NFG

Sika MonoTop®-615 HB

### **Levelling/ Smoothing Mortar**

Sika MonoTop®-620

## APPLICATION INFORMATION

<b>Mixing Ratio</b>	For hand application ~5.5 litre water (22%) per 25 kg bag For spraying application ~5.0 litre water (20%) per 25 kg bag
<b>Fresh mortar density</b>	~1.80 kg/l
<b>Consumption</b>	As Bonding Primer - This depends on the substrate roughness and thickness of layer applied. As a guide, ~1.5 - 2.0 kg of powder per m <sup>2</sup> per mm thick. As Reinforcement Corrosion Protection - As a guide, ~2.0 kg of powder per m <sup>2</sup> per 1 mm layer thickness
<b>Yield</b>	25 kg of powder yields approximately 14.3 litres
<b>Layer Thickness</b>	As bonding primer - sufficient to coat the concrete surface in a thin layer filling unevenness, pores and pits. As reinforcement corrosion protection- 2 mm minimum thickness
<b>Ambient Air Temperature</b>	+5 °C minimum; +30 °C maximum
<b>Substrate Temperature</b>	+5 °C minimum; +30 °C maximum
<b>Pot Life</b>	~90 to 120 minutes at +20 °C
<b>Waiting Time / Overcoating</b>	Apply concrete repair wet on wet with bonding primer Apply concrete repair wet on dry reinforcement corrosion protection

## 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.

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 a small quantity.

Pour the recommended water in a suitable mixing container. While stirring slowly, add the powder to the water and mix thoroughly at least 3 minutes.

### APPLICATION

As 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 shall appear a dark matt appearance without glistening and surface pores and pits shall not contain water. Using a suitably clean brush, roller or suitable spraying equipment cover the substrate in a thin layer filling all unevenness, pits and pores.

As Reinforcement Corrosion Protection

Using a suitably clean brush or spraying equipment apply a first layer to cover the reinforcement bars approximately 1 mm thick. When first coat is hard to the finger nail, apply second layer approximately 1 mm thick. If using a spray method, protect substrate from excessive over-spray wiping away any concentrated accumulation and wait until completely dry before to apply repair mortar.

### CURING TREATMENT

As reinforcement corrosion protection- protect the fresh mortar immediately from premature drying and contamination using an appropriate curing method.

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## CLEANING OF TOOLS

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 Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## 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.

## 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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

### Sika South Africa (Pty) Ltd

9 Hocking Place,  
Westmead, 3608  
South Africa  
Phone +27 31 792 6500  
www.sika.co.za



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