

# PRODUCT DATA SHEET

## Sika MonoTop®-112 MultiUse Repair

### CONCRETE REPAIR MORTAR

#### PRODUCT DESCRIPTION

Sika MonoTop®-112 MultiUse Repair is a 1-component ready to use, thixotropic mortar, based on cementitious binder and selected aggregates, containing synthetic microfibers, for concrete repair.

#### USES

- Restoration and repair of concrete elements (columns, balcony edges)
- Resurfacing of damaged areas on vertical or horizontal surfaces of concrete
- Reprofiling of concrete surfaces

#### CHARACTERISTICS / ADVANTAGES

- Easy to apply, even overhead
- Good adhesion to most common building materials as concrete, stone, bricks, steel
- Easy to mix, just add water
- Good mechanical properties

#### APPROVALS / STANDARDS

Repair mortar for structural and non-structural repair of concrete according to EN 1504-3:2005, Declaration of Performance 69245044, certified by notified factory production control certification body 0546, certificate of conformity of the factory production control 18774, and provided with the CE marking.

#### PRODUCT INFORMATION

Chemical Base	Cement binder and selected aggregates, synthetic microfibers and specific additives
Packaging	5 kg aluminium bag packed in a cardboard box containing 4 units
Appearance / Colour	Grey powder
Shelf Life	18 months
Storage Conditions	Store properly in undamaged original sealed packaging, in dry cool conditions.
Density	Fresh mortar density: ~2.05 kg/l
Maximum Grain Size	D <sub>max</sub> : 2.5 mm
Soluble Chloride Ion Content	≤ 0.05% (EN 1015-17)

#### TECHNICAL INFORMATION

Compressive Strength	~50 MPa after 28 days (EN 12190)
Modulus of Elasticity in Compression	~15.7 GPa (EN 13412)
Tensile Adhesion Strength	~2 MPa (EN 1542)

<b>Thermal Compatibility</b>	~2 MPa (Part 1- Freeze-Thaw)	(EN 13687-1)
<b>Reaction to Fire</b>	Euroclass A1	(EN 13501-1)
<b>Capillary Absorption</b>	$\leq 0.5 \text{ kg} \cdot \text{m}^{-2} \cdot \text{h}^{-0.5}$	(EN 13057)
<b>Carbonation Resistance</b>	$dk \leq \text{control concrete (MC (0.45))}$	(EN 13295)

## APPLICATION INFORMATION

<b>Mixing Ratio</b>	0.7–0.84 litres of water for 5 kg of powder. 14 % – 16 % litres of water by weight of powder.
<b>Consumption</b>	This depends on the substrate roughness and thickness of layer applied. As a guide, ~18 kg/m <sup>2</sup> per cm thick per m <sup>2</sup> .
<b>Yield</b>	5 kg of powder yields approximately 2.83 litres of mortar.
<b>Layer Thickness</b>	5 mm min. / 25 mm max.  For a higher thickness just add over more layers when the previous one has hardened.
<b>Ambient Air Temperature</b>	+5 °C minimum / +35 °C maximum
<b>Substrate Temperature</b>	+5 °C minimum / +35 °C maximum
<b>Pot Life</b>	~60 minutes at +23 °C

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY / PRE-TREATMENT

Concrete:

The substrate must be structurally sound and free from dust, dirt, loose material, surface contamination as oil or grease, cement laitance.

Steel reinforcement:

Steel surface must be clean from rust products, oil, grease, dust and other loose materials which may reduce bond or may contribute to corrosion.

### MIXING

Sika MonoTop®-112 MultiUse Repair can be mixed with a low speed hand drill mixer. In small quantity the Product can also be manually mixed.

Pour the recommended water in a suitable mixing container. While stirring slowly, add the powder to the water and mix thoroughly at least for 3 minutes. Add additional water during this time if necessary to the maximum specified amount and adjust to the required consistency.

### APPLICATION

Thoroughly pre-wet the prepared substrate. Keep the surface wet and do not allow to dry. Before application, remove excess of 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.

For small restoration works such as repair of concrete structures, decoration of balconies, sides of pillars Sika MonoTop®-112 MultiUse Repair can be applied with a trowel. First make a scratch coat by firmly scrapping the repair mortar over the substrate surface to form a thin layer. Build up layers from bottom to top by press-

ing the mortar well into the repair area.

The surface can be finished with a sponge trowel, to pass a few minutes after application, as soon as the mortar has started to stiffen.

### CURING TREATMENT

Protect the fresh mortar immediately from premature drying using an appropriate curing method, e.g. curing compound, moist geotextile membrane, polythene sheet, etc.

### 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.
- Do not add water over recommended dosage.
- Apply only to sound, prepared substrate.
- Do not add additional water during the surface finishing as this will cause discolouration and cracking.
- Protect freshly applied material from freezing.
- Do not add anything to the product that is not specified in this product data sheet.

## 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.

## 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.

## 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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