

# PRODUCT DATA SHEET

## Sika MonoTop®-115 GP

### CEMENTITIOUS GENERAL PURPOSE CONCRETE REPAIR MORTAR

#### PRODUCT DESCRIPTION

Sika® MonoTop®-115GP is a one component cement based polymer modified general purpose repair and reprofiling mortar, meeting the requirements of Class R3 of BS EN 1504-3

#### USES

- For repairing all types of structures not exposed to water submersion.
- Overhead and vertical repairs
- Hand applied repairs
- For exterior and interior use
- In place of R1& R2 mortars

#### CHARACTERISTICS / ADVANTAGES

- Pre-bagged for quality
- Just add water to amount required
- Contains no chloride admixtures
- High build
- Low wastage

#### APPROVALS / STANDARDS

Conforms to the requirements of BS EN 1504-3 R3 Classification

#### PRODUCT INFORMATION

|                            |  |
|----------------------------|--|
| <b>Chemical Base</b>       | Portland cement, polymer powder, selected aggregates and additives.                    |
| <b>Packaging</b>           | 25 kg bag  |
| <b>Appearance / Colour</b> | Grey powder  |
| <b>Shelf Life</b>          | 9 months   |
| <b>Storage Conditions</b>  | Store in original unopened, sealed and undamaged packaging in dry and cool conditions. |
| <b>Density</b>             | Fresh mortar density: ~ 1.70 kg/l  |
| <b>Maximum Grain Size</b>  | D <sub>max</sub> : 1.5 mm  |

#### TECHNICAL INFORMATION

|                             |         |         |
|-----------------------------|---------|---------|
| <b>Compressive Strength</b> | 1 day   | ~ 10MPa |
|                             | 7 days  | ~ 25MPa |
|                             | 28 days | ~ 30MPa |

## APPLICATION INFORMATION

|                                |   |
|--------------------------------|---|
| <b>Mixing Ratio</b>            | Hand Application: ~ 2.5 to 2.7 L of water for 25 kg powder  |
| <b>Consumption</b>             | This depends on the substrate roughness and thickness of layer applied. As a guide, ~ 1.70 kg/m <sup>2</sup> /mm. |
| <b>Layer Thickness</b>         | 3.0 mm min. / 30 mm max.  |
| <b>Ambient Air Temperature</b> | +5°C min. / +30°C max.  |
| <b>Substrate Temperature</b>   | +5°C min. / +30°C max.  |
| <b>Pot Life</b>                | ~ 30-50 minutes (at +23°C)  |

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY / PRE-TREATMENT

#### Concrete

The concrete shall be free from dust, loose material, surface contamination and materials which reduce bond or prevent suction or wetting by repair materials.

#### Steel reinforcement

Rust, scale, mortar, concrete, dust and other loose and deleterious material which reduces bond or contributes to corrosion shall be removed to a minimum standard of SA2½.

Reference should also be made to BS EN1504-10:2003 for specific requirements.

#### Substrate Preparation/Bonding Primer/Reinforcement Coating

##### Concrete:

Delaminated, weak, damaged and deteriorated concrete and where necessary sound concrete shall be removed by suitable mechanical or very high pressure waterblasting [up to 110 mPa (16500 psi)] techniques. Tying wire fragments, nails and other metal debris embedded in the concrete should be removed where possible.

The edges where concrete is removed should be cut at a minimum angle of 90° to avoid undercutting and a maximum angle of 135° to reduce the possibility of debonding with the top surface of the adjacent sound concrete and should be roughened sufficiently to provide a mechanical key between the original material and Sika® MonoTop®-115GP.

Ensure sufficient concrete is removed from around reinforcement to allow coating and compaction of the repair material.

##### Steel reinforcement:

Surfaces should be prepared using abrasive blast cleaning techniques or high pressure waterblasting [up to 60 mPa (9000 psi)] techniques.

Where exposed reinforcement is contaminated with chloride or other material which may cause corrosion, the reinforcement shall be cleaned by low pressure waterblasting [up to 18 mPa (2700 psi)].

##### Bonding primer:

On a well prepared and roughened substrate a bonding primer is generally not required.

When a bonding primer is not required pre-wet the surface. The surface should not be allowed to dry before application of the concrete repair mortar. The surface should achieve a dark matt appearance without glistening and surface pores and pits should not con-

tain water.

When a bonding primer is necessary apply Sika® MonoTop®-610 (Refer to the relevant Product Data Sheet).

Site adhesion values - Structural Repair 1.2-1.5 mPa  
Non Structural repairs minimum value 0.7 mPa

#### Reinforcement coating:

Where a reinforcement coating is required as a barrier apply to the whole exposed circumference two coats of Sika® MonoTop®-610 or SikaTop® Armatec-110 Epo-Cem® if chlorides are present.(Refer to the relevant Product Data Sheet).

Reference should also be made to BS EN1504-10:2003 for specific requirements.

### MIXING

Sika® MonoTop®-115GP can be mixed with a slow speed (< 500 rpm) electric drill mixer.

In small quantities only, product can also be mixed by hand.

Pour the water in the correct proportion into a suitable mixing container. While stirring slowly, add the powder to the water. Mix thoroughly for at least 3 minutes to the required consistency.

### APPLICATION

#### Hand Applied

If a bonding primer has been used apply repair mortar "wet on wet". The repair mortar shall be worked into the prepared pre-wetted substrate between the minimum and maximum layer thicknesses and shall be compacted without inclusion of entrapped air pockets using a trowel or gloved hand.

Where layers are to be built up to prevent sagging or slumping, each layer should be allowed to stiffen before applying subsequent layers "wet on wet". When layers cannot be applied "wet on wet", or if more than 24 hours between layers apply a bonding primer of Sika® MonoTop-610 and apply repair mortar "wet on wet".

Finishing should be done to the required surface texture as soon as mortar has started to stiffen.

Reference shall be made to BS EN1504-10:2003 for specific requirements.

### CURING TREATMENT

It is essential to cure the repair mortar immediately after application for a minimum of 3 days to ensure full cement hydration and to minimise cracking. Use

polythene sheeting taped down at the edges or other approved method.

Curing compounds shall not be used when they adversely affect subsequently applied products and systems.

Reference shall also be made to BS EN1504-10:2003 for specific requirements.

### CLEANING OF TOOLS

Clean all tools and application equipment with water immediately after use. Hardened/cured material can only be mechanically removed.

### LIMITATIONS

- Refer to recommendations provided in BS EN 1504-10.
- Avoid application in direct sun and/or strong wind and/or rain.
- Do not add water over recommended dosage.
- Apply only to sound, prepared substrates.
- Do not add additional water during the surface finishing as this will cause discoloration and cracking.
- Protect freshly applied material from freezing.

### VALUE BASE

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 Material Safety Data Sheet 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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