

PRODUCT DATA SHEET

Sika MonoTop®-615 HB

R4 High build repair and re-profiling mortar

DESCRIPTION

Sika MonoTop®-615 HB is a high build cementitious, polymer modified, one component repair and reprofiling mortar containing silica fume and Ferrogard corrosion inhibitor.

USES

- Suitable for restoration work (Principle 3, method 3.1 & 3.3 of EN 1504-9). Repair of spalling and damaged concrete in buildings, bridges, infrastructure and superstructure works.
- Suitable for structural strengthening (principle 4, method 4.4 of EN 1504-9). Increasing the bearing capacity of the concrete structure by adding mortar.
- Suitable for preserving or restoring passivity (principle 7, method 7.1 and 7.2 of EN 1504-9). Increasing cover with additional mortar and replacing contaminated or carbonated concrete.

CHARACTERISTICS / ADVANTAGES

- Polymer modified for increased durability
- Superior workability and finishing
- Suitable for hand and machine application
- Can be applied up to 70 mm thick per layer
- Class R4 of EN 1504-3
- Structural repair
- Very low shrinkage behaviour
- Contains corrosion inhibitor
- Low permeability

PRODUCT INFORMATION

Chemical Base	Cement and crystalline free silica aggregate		
Packaging	20 kg/bag		
Shelf Life	12 Months in original, unopened packaging		
Storage Conditions	Store properly in undamaged original sealed packaging, in dry cool conditions.		
Appearance / Colour	Powder Grey When Mixed		
Maximum Grain Size	D _{max} : 1.1 mm		
Density	Fresh mortar density ~ 1.65kg/litre		
Compressive Strength	Class R4		
	24 Hours ~ 18 MPa	7 days ~ 38 MPa	28 days ~ 46 MPa

(EN 12190)

SYSTEM INFORMATION

System Structure

Sika MonoTop®-615 HB is part of the range of Sika mortars complying with the relevant part of European Standard EN 1504 and comprising of:

Bonding Primer / Reinforcement

Corrosion Protection

Sika® MonoTop® 610	Low demand requirements
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SikaTop® Armatec® 110 EpoCem®	Demanding requirements
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Repair Mortar

Sika MonoTop®-615 HB	Class R4 concrete repair hand and & machine applied
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Levelling Mortar

Sikagard®-720 EpoCem®	Demanding requirements
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APPLICATION INFORMATION

Mixing Ratio	3.5 to 4.0 litres of water for 25 kg powder
Consumption	This depends on the substrate roughness and thickness of layer applied. As a guide, ~ 19 kg of powder per cm thick per m²
Yield	25 kg of powder yields approximately 15.0 litres of mortar
Layer Thickness	min. 5 mm / max. 70 mm
Ambient Air Temperature	Min.5 °C / Max.35 °C
Substrate Temperature	Min.5 °C / Max.30 °C

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.

LIMITATIONS

Freshly applied Sika® MonoTop® -615 HB should be protected from damp, condensation and water for at least 12 hours.

When spray applying Sika® MonoTop® products, water jet blasting is the preferred method of surface preparation and the surface profile should be greater than 2mm.

Sika® MonoTop®-610 should be used as bonding slurry for hand and spray applied applications.

When curing with polythene sheets, ensure all edges are fastened down and that air movement/circulation over the surface of the fresh mortar cannot occur.

Once Sika® MonoTop®-615HB has started to set, it should be discarded. Do not add more water to improve workability.

Concrete should be a minimum of 28 days old.

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 (MSDS) containing 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.

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) Reference shall be made to EN1504-10 for specific requirements.

MIXING

Sika MonoTop®-615 HB can be mixed with a low speed (< 500 rpm) hand drill mixer or for machine application, using a force action mixer 2 to 3 bags or more at once depending the type and size of mixer. 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 adding additional water if necessary within the mixing time to the maximum specified amount and adjust to the required consistency.

APPLICATION

Bonding Primer:

Refer to the **System Information** above for compatible Sika products and refer to the relevant Product Data Sheet for instructions. Any bonding primer shall be applied on a pre-wet substrate and subsequent application of the repair mortar shall be applied wet on wet with the bonding primer.

Reinforcement Corrosion Protection:

Where a reinforcement coating is required the application of a repair mortar shall be applied wet on dry with the reinforcement corrosion protection. Refer to the **System Information** above for compatible Sika products and refer to the relevant Product Data Sheet for more detailed information about the reinforcement corrosion product.

Sika MonoTop®-615 HB can be applied either manually using traditional techniques or mechanically using wet spray equipment. 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.

Build up layers from bottom to top by pressing mortar well into the repair area. The surface can be finished according to the requirements using a float while wet or with a relevant rough-cast tool as soon as the mortar has started to stiffen.

CLEANING OF TOOLS

Application and mixing tools should be cleaned with water immediately after use. Hardened material must be removed mechanically.

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.

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.



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