

PRODUCT DATA SHEET

Sika MonoTop®-614 T

High Performance Repair Mortar

DESCRIPTION

Sika MonoTop®-614 T is a cementitious, silicafume containing, fibre reinforced, high performance, polymer modified one-component repair mortar. Meet the requirements of Class R4 of BS EN 1504-3.

USES

- Concrete repairs, especially for vertical applications.
- Filling / repair mortar for voids, honeycombed areas.
- Repair of spalled concrete caused by reinforcement corrosion.
- Marine, tunnels, bridges and buildings structures

CHARACTERISTICS / ADVANTAGES

- To be mixed with water only
- Excellent workability
- Adjustable consistency
- Excellent thixotropic behaviour, especially suitable for vertical applications
- Good mechanical strengths
- Excellent frost resistance
- Applicable in vertical layer up to 30 - 50 mm depending on the applicator's skill and surface roughness of the area to be repaired
- Non corrosive, non toxic
- Suitable for wet spray application (consult technical service team for the suitable machine)

APPROVALS / CERTIFICATES

Conforms to the requirements of BS EN 1504-3 R4 Classification.

PRODUCT INFORMATION

Packaging	20 kg / bag
Shelf life	6 months from the date of production If stored properly in undamaged, original, sealed packaging
Storage conditions	Store in dry conditions, protected from direct sunlight
Appearance and colour	Grey Powder
Density	2.10 kg/L (at 20°C)

TECHNICAL INFORMATION

Compressive strength	2.3L water	2.5L water	(ASTM C109)
	(MPa)	(MPa)	
1 day	≥ 32	≥ 30	
28 days	≥ 60	≥ 55	
Tensile adhesion strength	>2.0 N/mm ² at 28 days (on prepared substrate)		

APPLICATION INFORMATION

Mixing ratio	Water : Powder = 1 : 8.7 - 8.0 parts by weight Water : Powder = 1 : 5.4 - 5.0 parts by volume (based on approx. 2.3 to 2.5 litres of water per 20 kg bag)		
Consumption	For 1 litre of fresh mortar 1.9 kg of powder is required. Material consumption depends on concrete surface and application method. On a level substrate consumption is approx. 19.0 - 20.0 kg of dry mortar (powder) per m ² at 10 mm layer thickness.		
Layer thickness	Horizontal	Vertical	Overhead
	Min.	5 mm	5 mm
	Max.	60 mm	30-50 mm
Pot Life	20-30 minutes at 30°C (Pot life start when the mixing has been completed)		

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 CONSIDERATIONS

- Always respect the water/powder ratio (1 part of water for 5.4 to 5.0 parts of powder by volume).
- If a mix has thickened due to delayed application do not dilute further with water.
- In case of wet-spray applications, always consult technical service team for the suitable equipment.

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.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Substrate must be sound, free of loose or weak particles, dust and dirt. Oil and wax containing layers, as well as laitance must be completely removed. The substrate must be thoroughly wetted down prior to the mortar application.

MIXING

Always respect the water/powder ratio (1 part of water for 5.4 to 5.0 parts of powder by volume or 2.3 to 2.5 Ltr. of water per bag 20 kg). Place minimum recommended water ratio in mixing container., Progressively add powder whilst mixing by low speed (maximum 600 rpm) electric drill., Add more water if required to suit the desired consistency and flow properties but not exceed maximum dosage., Mixed thoroughly at least for 3 minutes or until required consistency is obtained.

APPLICATION

Sika MonoTop®-614 T can be applied by wet-spray equipment* or manually by trowelling. (*consult technical service team for the suitable equipment)
If in the area to be repaired, steel reinforcement is corroded due to insufficient concrete cover, Sika® MonoTop® -610 T reinforcement protective coating, must be applied in two layers (refer to Sika® MonoTop®-610 T datasheet).

Sika MonoTop®-614 T has a good bond strength to the concrete. However, Sika® MonoTop® -610 T can be used as a bonding agent for achieving highest mechanical performances. The application of Sika MonoTop®-614 T onto the bonding bridge Sika® MonoTop®-610 T must be wet on wet.

For thickness greater than 50 mm on vertical surface, Sika MonoTop®-614 T must be applied in several layers. As soon as the mortar has started to set, it can be smoothed by wooden or synthetic float or a styrofoam block.

CURING TREATMENT

- Sika MonoTop®-614 T cures with low shrinkage. To prevent premature drying out of the mortar, keep it moist if exposed to strong sunshine as wind.
- Standard curing methods are recommended.

CLEANING OF EQUIPMENT

Application and mixing tools should be cleaned with water while material is still fresh. Hardened material can only 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.

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