

# PRODUCT DATA SHEET

## Sika MonoTop®-614 HS

### HIGH STRENGTH POLYMER MODIFIED REPAIR MORTAR

#### DESCRIPTION

Sika MonoTop®-614 HS is a cementitious, one component, high strength polymer modified, repair mortar containing reactive microsilica. Sika MonoTop®-614 HS is part of Monotop system for concrete repair and protection.

#### USES

- The lightweight nature of Sika MonoTop®-614 HS enables thick layers to be applied in vertical and overhead applications.
- It is ideal for use in repairing damaged and spalled concrete caused by reinforcement corrosion.
- Sika MonoTop®-614 HS can be used for most types of general concrete repair and refurbishment work.

#### CHARACTERISTICS / ADVANTAGES

- High strength repair mortar.
- Excellent high build and workability characteristics.
- Enables rapid repair work to be undertaken.
- One component-just add water and mix.
- Layer thickness up to 30 mm are possible in vertical application.
- Micro silica and polymer modified.
- Good resistance to water and chloride ion penetration.
- Improve sulphate resistance.

#### PRODUCT INFORMATION

<b>Composition</b>	Cement based
<b>Packaging</b>	20 kg bag
<b>Appearance / Colour</b>	Powder / Grey
<b>Shelf life</b>	9 months from date of production if stored properly in unopened original packing.
<b>Storage conditions</b>	Stored in dry condition between +10 °C - +30 °C
<b>Density</b>	~1.9 kg/L of freshly mixed mortar

#### TECHNICAL INFORMATION

<b>Compressive Strength</b>	1 day	~14.0 N/mm <sup>2</sup>	(ASTM C-109)
	7 days	~45.0 N/mm <sup>2</sup>	
	28 days	~55.0 N/mm <sup>2</sup>	

<b>Tensile Strength in Flexure</b>	1 day	~4.0 N/mm <sup>2</sup>	(ASTM C-348)
	7 days	~7.0 N/mm <sup>2</sup>	
	28 days	~10.0 N/mm <sup>2</sup>	
<b>Tensile Adhesion Strength</b>	28 days	~1.5 N/mm <sup>2</sup> (concrete failure)	

## APPLICATION INFORMATION

<b>Mixing Ratio</b>	Water : Powder = 1 : 7.14 parts by weight or 14 % water by weight of Sika MonoTop®-614 HS (i.e. approx 2.8 litre water per bag 20 kg)		
<b>Layer Thickness</b>	Maximum 30 mm - vertical application (maximum thickness for overhead application up to 20 mm per layer)		
<b>Ambient Air Temperature</b>	+10 °C - +35 °C		
<b>Pot Life</b>	~20 min.		

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY / PRE-TREATMENT

- The concrete substrate must be sound clean and free from oils, grease or surface contaminants.
- All loose materials and surface laitance must be removed by high pressure water jet blasting or by other mechanical means.
- Small areas and spot repairs should be mechanically prepared by needle gunning, bush hammering or similar.
- The prepared substrate should be dampened with clean water (SSD). Sika MonoTop®-614 HS should be applied over a bonding coat slurry of SikaTop-121 or Sika MonoTop 910 N (refer to each data sheets).
- All feathered edges around the area to be repaired should be squared off with an angle grinder and chiselled down to a minimum depth of 10 mm.

### MIXING

Pour 2.8 litres of clean water into a suitable mixing container and slowly add all the powder while mixing continuously with a mixing paddle attached to a low speed electric drill (max 500 rpm, with power approx. 1000 watt). Thoroughly mix until a smooth, lump free consistency is achieved. A minimum mixing time of 3 minutes is recommended. The water can be adjusted ± 5 % to suit the consistency desired.

### APPLICATION

While bonding coat of SikaTop-121 or Sika MonoTop-910 N is still tacky, pack the mortar well into the cavity of repair. Use a placing rather than a rendering technique to fill all voids and ensure thorough compaction is achieved. Force the Sika MonoTop®-614 HS against the edge of the repair and progressively work towards the center. For repair in excess of 30 mm thick, apply in layers ensuring that each previous layer is sufficiently hardened and well keyed. If previous layers are over 48 hours old, scabble the surface and dampen. SikaTop-121 or Sika MonoTop-910 N may be used as a bonding slurry between layers. Steel trowel the final layer if required to achieve a smooth, tight finish.

### CURING TREATMENT

As with all cementitious based mortar, Sika MonoTop®-614 HS must be protected against direct sunlight and wind while hardening. Cover all exposed mortar with wet hessian, plastic sheeting or use Sika curing compound.

## BASIS OF PRODUCT DATA

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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