

**Product Data Sheet**  
Edition 09/05/2016  
Identification no:  
010302040010000004  
Sika® MonoTop®-612

# Sika® MonoTop®-612

Wet sprayed/hand placed fibre reinforced repair mortar

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## Product Description

Sika® MonoTop®-612 is a cementitious, polymer modified, low permeability, high strength mortar containing silica fume and synthetic fibre reinforcement.

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## Uses

Sika® MonoTop®-612 is designed as a high strength repair and repointing system for concrete substrates. It is particularly suitable for application on overhead and vertical surfaces using the wet spray method and can also be placed by hand.

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## Characteristics / Advantages

- Excellent workability characteristics
- Adjustable consistency
- Excellent slump resistance
- Sprayable by the wet spray method
- Good mechanical strength
- Easily sprayed in layer thickness up to 30mm
- Good resistance to water and chloride penetration
- Synthetic fibre reinforced

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## Tests

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## Approval / Standards

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Construction



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## Product Data

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### Form

Appearance / Colour	Powder	Grey when mixed
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Packaging	25kg bags
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### Storage

Storage Conditions / Shelf-Life	12 months in original, unopened packaging. Store in a dry area between +5°C and +30°C. Protect from direct sunlight and moisture.
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## Technical Data

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Chemical Base	Cement and crystalline free silica aggregate
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Density	Approx. 2,1kg/litre fresh mortar
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Layer Thickness	Min.5mm - Max.30mm
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### Mechanical Properties

Compressive Strength	(23°C/50% RH)	10 N/mm <sup>2</sup> @ 24hrs	40 N/mm <sup>2</sup> @ 28 day
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## System Information

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System Structure	<b>Primer:</b> SikaTop Armatec <sup>®</sup> -110 EpoCem <sup>®</sup> / Sika <sup>®</sup> MonoTop <sup>®</sup> -610 <b>Repair Mortar:</b> Sika <sup>®</sup> MonoTop <sup>®</sup> -612 (5 – 30mm layer thickness)
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### Application Details

Consumption /Dosage	Volume yield: 12 litres per 25kg bag
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Substrate Quality	<p>The concrete substrate must be sound and of sufficient compressive strength (min.20 N/mm<sup>2</sup> (MPa) with a minimum pull off strength of 1.5 N/mm<sup>2</sup> (MPa)).</p> <p>The surface must be dry and free of all contaminants such as oils, grease, coatings and surface treatments etc.</p> <p>The substrate must be prepared mechanically to remove cement laitance and achieve a profile open textured surface.</p> <p>Weak concrete should be removed and surface defects such as honeycombed areas; blowholes and voids must be fully exposed.</p> <p>Repairs to substrate, filling of blowholes/voids and surface levelling should be carried out using the appropriate product from the Sikafloor<sup>®</sup>, SikaDur<sup>®</sup> and SikaGard<sup>®</sup> range of products.</p>
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Substrate Preparation / Priming	<p><b>Precise and efficient surface preparation is essential to achieve the high adhesive qualities of Sika<sup>®</sup> MonoTop<sup>®</sup>.</b></p> <p>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 similar mechanical means. Small areas and 'spot' repairs should be mechanically prepared by needle gunning, bush-hammering or similar means.</p> <p><b>The prepared substrate should be thoroughly soaked with clean water until uniformly saturated, leaving no standing water.</b> Apply Sika<sup>®</sup> MonoTop<sup>®</sup>-610 as the bonding bridge.</p> <p>Steel reinforcement should be grit blasted to a bright steel condition to remove all traces of rust and contamination prior to applying Sika<sup>®</sup> MonoTop<sup>®</sup>-610 corrosion protection.</p>
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**Application  
Conditions /  
Limitations**

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**Substrate Temperature** Min. 5 °C - Max. 30 °C.

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**Ambient Temperature** Min. 5 °C - Max. 35 °C.

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**Substrate Humidity** < 10 %

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**Relative Air Humidity** 80 %

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**Application  
Instructions**

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**Mixing (Ratio/Dosage)** Mixing can only be achieved using either a slow speed drill (set at 400 - 600 rpm) fitted with a clean, rust free, mixing paddle, or standard mortar mixing equipment.  
**DO NOT ATTEMPT TO MIX BY HAND.**

3,0 - 3,5 litres water per 25kg powder (depending on application).

Pour clean water in the correct proportion into a clean mixing vessel. Add the Sika® MonoTop®-612 slowly while mixing continuously. To avoid entraining too much air use a slow speed mixer (max. 600 rpm) for minimum of 3 minutes. By gradually adding the powder in portions, the desired application consistency can be obtained.

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**Application Method /  
Tools**

Thoroughly wet the substrate to a saturated surface dry condition. Apply Sika® MonoTop®-612 by the wet spray method. It can also be applied wet on wet by hand with a trowel or spatula onto the Sika® MonoTop®-610 bonding bridge. For depths greater than 30mm thick, Sika® MonoTop®-612 should be applied in layers.

In this case, as soon as the material has reached initial set, the surface should be given an open texture by rubbing with a wooden or plastic float prior to application of the next layer. Use Sika® MonoTop®-610 bonding bridge for day joints and between layers if they are left to cure for more than 24 hours.

If a finer surface finish is required or a protective coating is to be applied, Sika® MonoTop®-612 can be overcoated with Sika MonoTop®-620 surface leveling compound as required.

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**Cleaning of Tools**

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

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**Waiting Time /  
Overcoatability**

Sika® MonoTop®-612 must be kept moist while curing and protected from sunshine and extremes of temperature. Standard concrete curing practice is recommended.

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**Notes on Application /  
Limits**

Freshly applied Sika® MonoTop®-612 should be protected from damp, condensation and water for at least 12 hours.

Concrete should be a minimum of 28 days old.

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 a 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®-612 has started to set, it should be discarded. Do not add more water to improve workability.

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**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.

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**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.

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**Health and Safety Information**

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**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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