

PRODUCT DATA SHEET

Sika MonoTop®-613 DE

Repair Mortar

DESCRIPTION

Sika MonoTop®-613 DE is a 1-part, cementitious, fibre reinforced, low shrinkage repair mortar.

USES

Sika MonoTop®-613 DE may only be used by professionals.
Repairs to all types of reinforced concrete structures and components for concrete, stone and mortar substrates. Particularly suitable for overhead application and on vertical surfaces.

CHARACTERISTICS / ADVANTAGES

- Only mixed with water
- C₃A free
- Low shrinkage
- Hand and machine application (wet spray technique)
- Sulphate resistant
- Does not require a bonding primer
- Useable in drinking water

APPROVALS / CERTIFICATES

- LPM, Labor für Präparation und Methodik, Beinwil am See, Nr. A-25383-1
- Schwingbeanspruchung nach TL BE-PCC (ZTV-SIB 90), BAM, Berlin
- Das Produkt entspricht den DVGW Arbeitsblättern W 347 und W 270

PRODUCT INFORMATION

Packaging	25 kg bag
Appearance / Colour	grey powder
Shelf life	12 months from date of production
Storage conditions	The product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C and +25 °C. Always refer to packaging.
Bulk density	ca. 2.1 kg/l (fresh mortar)
Maximum grain size	2 mm

TECHNICAL INFORMATION

Compressive strength	~ 50 N/mm ²
Modulus of elasticity in compression	approx. 21,000 N/mm ²
Tensile strength	~ 8 N/mm ²

APPLICATION INFORMATION

Mixing ratio	Water : mortar = 12.5 - 13.5 : 100 approx. 3.25 l water per 25kg bag till 3.70 l for wet spray application	
Consumption	~2.00 kg/m ² /mm Consumption depends on the roughness and absorbency of the substrate. This figure is theoretical and does not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc.	
Layer thickness	Without bonding bridge min. 9 mm / max. 40 mm. With bonding bridge Sikatop® Armatec®-110 EpoCem® or Sika MonoTop®-602 NEU max. 30 mm. Overhead max. 15 mm per layer, max. 30 mm in 2 layers	
Ambient air temperature	min. +5 °C max. +30 °C	
Substrate temperature	min. +5 °C max. +30 °C	
Application time	+23 °C	40-50 minutes
Waiting time to overcoating	bonding bridge / Sika MonoTop®-613 DE	wet in wet
	Sika MonoTop®-613 DE / Sika MonoTop®-613 DE	24 hours
	Sika MonoTop®-613 DE / fine mortar	24 hours

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.

ECOLOGY, HEALTH AND SAFETY

GISCODE: ZP 1

For the use of our products, the essential, physical, safety-related, toxicological and ecological data are to be taken from the safety data sheets. The relevant regulations, such as the Ordinance on Hazardous Substances, must be observed.

For the selection of suitable protective equipment, our information data sheets "General notes on occupational safety" (reference number 7510) and "General notes on wearing protective gloves" (reference number 7511) are available at www.sika.de.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

The substrate must be thoroughly clean, free from dust, loose material, surface contamination and material which reduce adhesion or prevent suction or wetting by repair materials. De-laminated, weak, damaged and deteriorated substrate and where necessary sound substrate must be removed by suitable preparation equipment. Ensure sufficient concrete is removed from around corroded reinforcement to allow cleaning, corrosion protection coating (where required) and compaction of the repair material. Repair surface areas must be prepared to provide simple square or rectangular layouts to avoid shrinkage stress concentrations and cracking while the repair material cures. This can also avoid structural stress concentrations from thermal movement and loading during the service life.

MIXING

Put the minimum recommended clean water quantity into a suitable mixing container / equipment. While stirring slowly, add the powder to the water and mix thoroughly for at least for 3 minutes adding additional water if necessary to the maximum specified amount and adjust to the required consistency to achieve a smooth consistent mix. The consistency must be checked after every mix.

APPLICATION

manual application

Sika MonoTop®-613 DE can be applied with a trowel. As a bonding bridge, Sika MonoTop®-602 NEW, SikaTop® TW or SikaTop® Armatec®-110 EpoCem® can be used as a bonding bridge. For layer thicknesses of more than 40 mm, Sika MonoTop®-613 DE must be applied in several layers. Once the mortar has set, it can be rubbed down with a wooden or polystyrene friction disc.

No additional water may be used in this process. The mortar must be protected against drying out too quickly. In general, the usual mortar after-treatment is recommended. If a fine surface finish is desired or if a protective coating is applied, Sika MonoTop®-613 DE can be applied with Sika MonoTop®-622, Icoment®-520 mortar or Sikagard®-720 EpoCem®. can be applied over the surface.

Sprayed application - Wet Spray

The wet mixed Sika MonoTop®-613 DE must be placed into the spraying equipment and applied onto the pre-wetted substrate (pre-wet procedure as hand application) between the minimum and maximum layer thicknesses without the formation of voids. Where layers are to be built up, to prevent sagging or slumping, each layer must be allowed to harden before applying subsequent layers "wet on wet".

Surface finishing

Finishing for all types of application must be carried out to the required surface texture using suitable finishing tools as soon as the mortar has started to harden.

CURING TREATMENT

Protect fresh mortar immediately from premature drying using an appropriate curing method, e.g. curing compound, moist geotextile membrane, polythene sheet, etc.

CLEANING OF EQUIPMENT

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

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.

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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