

## PRODUCT DATA SHEET

# Sika MonoTop<sup>®</sup>-212 DE

Fibre-reinforced, polymer-modified repair mortar

### DESCRIPTION

Application for repair of normal and lightweight concretes as well as concretes with low old concrete classes.

Can be applied manually or by spraying.

Sika MonoTop<sup>®</sup>-212 DE is a 1-component cement mortar with a lightweight aggregates, fibre reinforcement and polymer-modified (PCC).

Sika MonoTop<sup>®</sup>-212 DE is low in chromate according to TRGS 613.

### USES

- Repair of normal and lightweight concrete
- Interior and exterior use
- Partial and full-surface reprofiling

### PRODUCT INFORMATION

<b>Packaging</b>	25 kg bag
<b>Shelf life</b>	12 months from date of production
<b>Storage conditions</b>	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions.
<b>Density</b>	Fresh mortar density: ~1,85 kg/dm <sup>3</sup> Raw density: ~1,6 kg/dm <sup>3</sup>
<b>Maximum Grain Size</b>	D <sub>max</sub> : 1,2 mm

### CHARACTERISTICS / ADVANTAGES

- 1-component mortar
- Easy application
- Very well suited for "overhead" processing
- Ready to use (only add water)
- Low density of fresh mortar
- Low modulus of elasticity
- Fibre-reinforced
- Can be applied by hand or wet spraying process
- Fire classification A1 according to EN 13501-1

### APPROVALS / CERTIFICATES

Sika MonoTop<sup>®</sup>-212 DE meets the requirements Class R2 of EN 1504-3 for Principles 3 and 7, Procedures 3.1, 3.3, 7.1, and 7.2.

## TECHNICAL INFORMATION

<b>Compressive Strength</b>	<b>Time</b>	<b>Compressive Strength</b>
	1d	~3,5 N/mm <sup>2</sup>
	7d	~17,5 N/mm <sup>2</sup>
	28d	~23,5 N/mm <sup>2</sup>
<b>Modulus of Elasticity in Compression</b>	~15.000 N/mm <sup>2</sup> (static) ~17.500 N/mm <sup>2</sup> (dynamic)	
<b>Tensile Strength in Flexure</b>	<b>Time</b>	<b>Tensile Strength in Flexure</b>
	1d	~1,3 N/mm <sup>2</sup>
	7d	~3,5 N/mm <sup>2</sup>
	28d	~5,4 N/mm <sup>2</sup>
<b>Tensile Adhesion Strength</b>	≥ 0,8 N/mm <sup>2</sup>	
<b>Shrinkage</b>	0,9 mm/m	
<b>Reaction to Fire</b>	Classification A1	(EN 13501-1)

## APPLICATION INFORMATION

<b>Mixing Ratio</b>	4,25 – 4,50 litres of water for 25 kg bag Sika MonoTop®-212 DE : Wasser = 100 : 17-18 (parts by weight)	
<b>Consumption</b>	~1,55 kg/m <sup>2</sup> per mm	
<b>Layer Thickness</b>	Layer Thickness per working process: 4 - 50 mm Total Layer Thickness: 50 mm (maximum) Reprofiling of outbreaks: 80 mm	
<b>Ambient Air Temperature</b>	min. +5 °C max. +35 °C	
<b>Substrate Temperature</b>	min. +5 °C max. +35 °C	
<b>Pot Life</b>	+5 °C	~100 minutes
	+20 °C	~60 minutes
	+30 °C	~30 minutes

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY / PRE-TREATMENT

The concrete must be structurally sound, thoroughly clean, free from oil, grease, dust, loose material, surface contamination and materials which will reduce adhesion strength. Laitance, delaminated, weak, damaged and deteriorated concrete and where necessary sound concrete must be removed by suitable mechanical preparation (acknowledged rule of technology), e.g. compressed air blasting with solid abrasive or high-pressure water blasting (from 400 bar) until tensile adhesion strength  $\geq 0.8 \text{ N/mm}^2$  is achieved. In individual cases, a test area must be created to determine the adhesion of the PCC mortar to the concrete surface.

Corroded reinforcement steels must be exposed in accordance with the acknowledged rule of technology and blasted to degree of preparation SA 2 ½ in accordance with DIN EN ISO 12944, Part 4.

The concrete surface must be matt damp before application Sika MonoTop®-212 DE. As bonding bridge you can use Sika MonoTop®-910 N (only required for manual processing).

### MIXING

Pour approx. 90% of the maximum amount of water into a suitable clean mixing container. While stirring slowly add the complete bag of powder into the water. The remaining residual quantity of 10% may be required for consistency adjustment. Mix continuously for at least 3 minutes to achieve a uniform and lump free smooth consistency. Do not add more water than the maximum specified and no other additives / admixtures.

## APPLICATION

Sika MonoTop®-212 DE can be applied by hand or wet spray. As bonding bridge, Sika MonoTop®-910 N is to be brushed under pressure into the matt damp concrete surface. Sika MonoTop®-212 DE is applied immediately wet on wet to the previously applied bonding bridge and compact well.

For application without bonding bridge, a thin scratch coat must be applied first and then the intended layer thickness applied wet on wet.

Avoid cavities. The maximum layer thickness per working process must not be exceeded. If necessary, apply Sika MonoTop®-212 DE in several layers.

### Wet spraying process

Sika MonoTop®-212 DE can be applied with all suitable wet spraying machines, e.g. PFT, Putzmeister, Mader, etc.

The specifications of the machine manufacturers regarding air, water and power supply must be observed. In order to achieve the best possible spraying results (high compaction, low rebound), the spraying angle should be 90 degrees.

Our recommendation of processing equipment is based on tests. Sika assumes no liability for success or failure in the use of the equipment.

## CURING TREATMENT

After application the surface must be protect for at least 3 days against water evaporation and frost exposure until the sufficient strength has been achieved.

Suitable curing treatment:

- Water spray
- Foil covers with jute strips, thermal foils or moisturing cover strips

## CLEANING OF EQUIPMENT

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

## 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.

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### PRODUCT DATA SHEET

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## 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

CE Marking  
see Declaration of Performance

Hazard Information  
GHS CODE: ZP 1  
see Safety Data Sheet

## 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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