BUILDING TRUST

PRODUCT DATA SHEET

Sika MonoTop®-3100 RSM

RAPID HARDENING REPAIR MORTAR

DESCRIPTION

Sika MonoTop®-3100 RSM is a one component, shrinkage compensated, rapid hardening, early strength gaining, cementitious flowable material for concrete.

USES

- Use on grade, above and below grade on concrete
- Highway overlays and repairs
- Structural repair material for concrete roadways, parking structures, bridges, dams and ramps
- Economical patching material for horizontal repairs of concrete and mortar

CHARACTERISTICS / ADVANTAGES

- Easy to use, labour saving material
- No added chlorides
- High early strength
- Fast setting
- Open to foot traffic in 60 minutes, to vehicle traffic in 3 hour (at 27 °C)

PRODUCT INFORMATION

Chemical Base	Cementitous
Packaging	25 kg bag
Appearance / Colour	Powder / Concrete Grey
Shelf Life	6 months from date of production if stored properly in undamaged unopened, original sealed packaging.
Storage Conditions	Store in dry conditions at temperatures between 4 °C and 35 °C. Protect from direct sunlight and frost.

TECHNICAL INFORMATION

Compressive Strength	2 hour	~20 N/mm²	EN 13892 at 27 °C
	3 hours	~30 N/mm²	
	1 day	~40 N/mm²	
	7 days	~50 N/mm²	
	28 days	~55 N/mm²	
Tensile Strength in Flexure	28 days	>7 N/mm²	EN 13892 at 27 °C
Tensile Adhesion Strength	28 days	> 1.5 N/mm²	

APPLICATION INFORMATION

Mixing Ratio	3.25 litre / 25 kg bag (water / powder ratio 13%)
Consumption	Yield : 2380 kg/ m³ (approx. 84 bags of Sika MonoTop®-3100 RSM for 1 m³ of mortar)
Pot Life	~ 20mins (at 27 °C) (after adding powder to the water)
Application Time	~ 20min. (at 27 °C)
Initial Set Time	~ 30 mins. (at 27 °C)
Final Set Time	~ 90 mins. (at 27 °C)

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.

LIMITATIONS

- Minimum ambient and surface temperatures +7 °C and rising
- Minimum application thickness 5 mm as a mortar
- Use only potable water

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.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Surface must be clean and sound. Remove all deteriorated concrete, dirt, oil, grease and other contaminates from the area to be repaired. Be sure repair area is not less and 5 mm deep. Preparation work should be done by appropriate means. Obtain an exposed aggregate surface with a minimum surface profile of 3 mm on clean, sound concrete. To ensure optimum repair results, the effectiveness of decontamination and preparation should be assessed by a pull-off test. Saw cutting of edges is recommended. Saturate surface to be repaired with clean water. Substrate should be saturated surface dry (SSD) prior to application.

PRIMING

Pour the “Monoset® Primer” liquid into a suitable mixing vessel and slowly add the powder mixing with slow speed drill until homogeneous mixture is achieved. Apply the “Monoset® Primer” by brush or sprayer to the surfaces of concrete substrates and vertical contact surfaces of adjacent bay of concrete. Sika MonoTop®-3100 RSM should be applied when the primer is still wet or tacky.

MIXING

Mechanically mix in an appropriately sized mortar mixer. Wet down all tools and mixer to be used.
Put 3.25 L of water added to the mixing vessel. Add slowly 1 bag of Sika MonoTop®-3100 RSM while continuing to mix. Mix for about 2 – 3 minutes until even consistency achieved.

APPLICATION

The prepared mortar must be scrubbed into the substrate. Be sure to fill all pores and voids. Force material against the edge of the repair, working toward the centre. After filling the repair, screed of excess. Allow concrete to set to desired stiffness, then finish. If a smoother finish is desired, a magnesium float should be used.
For applications greater than 25 mm in depth add 10 mm coarse aggregate.The aggregate must be clean, well graded and smooth. To control setting times, cold water should be used in hot weather and hot water used in cold weather. Maximum 10kg 5-10mm aggregate can be added to each 25kg bag of Sika MonoTop®-3100 RSM.

CURING TREATMENT

Moist cure should commence immediately after finishing. If necessary, protect newly applied material from rain. To prevent from freezing, cover with insulating material.

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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