

PRODUCT DATA SHEET

Sika MonoTop[®]-2250 MP

ONE-COMPONENT, EARLY STRENGTH GAINING, MULTI-PURPOSE CEMENTITIOUS PATCHING MATERIAL

PRODUCT DESCRIPTION

Sika MonoTop[®]-2250 MP is a multi-purpose, one-component, early strength gaining, cementitious patching material for horizontal, vertical and overhead repair of concrete.

USES

- On grade, above and below grade on concrete and mortar
- As a repair material for spalled horizontal, vertical, and overhead concrete surfaces, walkways, ramps, steps, ect.

CHARACTERISTICS / ADVANTAGES

- Multiple mixing consistencies for various applications
- Easy-to-use; just add water
- Suitable for exterior and interior applications
- Not flammable
- Easily applied to clean, sound substrate
- High early strengths

PRODUCT INFORMATION

Packaging	50 lb. (22.7 kg) bag
Shelf Life	12 months from date of production if stored properly in original, sealed packaging
Storage Conditions	Store dry at 40-95 °F (4-35 °C). Protect from moisture. If damp, discard material.
Appearance / Color	Gray powder

TECHNICAL INFORMATION

Compressive Strength

	Vertical/Overhead (6.0 pints)		(ASTM C-109) 73 °F (23 °C) 50% R.H.
	Water	Latex R	
1 day	>3,900 psi (26.9 MPa)	>3,200 psi (22.1 MPa)	
7 days	>6,000 psi (41.4 MPa)	>6,000 psi (41.4 MPa)	
28 days	>7,000 psi (48.3 MPa)	>7,700 psi (53.1 MPa)	
	Horizontal(6.5 pints)		
	Water	Latex R	
1 day	>3,600 psi (24.8 MPa)	>2,300 psi (15.9 MPa)	
7 days	>6,200 psi (42.7 MPa)	>6,000 psi (41.4 MPa)	
28 days	>6,500 psi (44.8 MPa)	>7,800 psi (53.8 MPa)	

Flexural toughness

	Vertical/Overhead		(ASTM C-78) 73 °F (23 °C) 50% R.H.
	Water	Latex R	
28 days	>1,250 psi (8.6 MPa)	>1,500 psi (10.3 MPa)	
	Horizontal		
	Water	Latex R	
28 days	>1,100 psi (7.6 MPa)	>1,600 psi (11.0 MPa)	

Splitting tensile strength

	Vertical/Overhead		(ASTM C-496) 73 °F (23 °C) 50% R.H.
	Water	Latex R	
28 days	300 psi (2.1 MPa)	450 psi (3.1 MPa)	
	Horizontal		
	Water	Latex R	
28 days	350 psi (2.4 MPa)	350 psi (2.4 MPa)	

Slant Shear Strength

	Vertical/Overhead		(ASTM C-882 Modified)*
	Water	Latex R	
28 days	>1,800 psi (12.4 MPa)	>1,450 psi (10 MPa)	
	Horizontal		
	Water	Latex R	
28 days	>1,000 psi (6.9 MPa)	>1,500 psi (10.3 MPa)	

*Mortar scrubbed into substrate (73 °F (23 °C) and 50% R.H.)

Shrinkage

	Vertical/Overhead	Horizontal	(ASTM C-157)* 73 °F (23 °C) 50% R.H.
7 day	<0.08%	<0.07%	
28 days	<0.1%	<0.1%	

*Shrinkage data is for Water and Latex R

APPLICATION INFORMATION

Mixing Ratio	Vertical/Overhead	Horizontal	
	5.5 - 6.0 pints of water (3.1 - 3.4 L)	6.5 pints of water (3.7 L)	
Coverage	Vertical/Overhead	Horizontal	
	0.41 ft ³ (0.01 m ³)	0.42 ft ³ (0.01 m ³)	
(Coverage figures do not include allowance for surface profile and porosity or material waste)			
Layer Thickness	Neat (Vertical/Overhead/ Horizontal)	Min.	Max.
	Water and Diluted SikaLatex R	1/4" (6 mm)	1.5" (38 mm)
	Undiluted SikaLatex R	1/8" (3 mm)	1.5" (38 mm)
	Extended (Horizontal)	Min.	Max.
Water and SikaLatex R	1" (25 mm)	4" (100 mm)	
Product Temperature	65-75 °F (18-24 °C)		
Ambient Air Temperature	> 45 °F (7 °C)		
Substrate Temperature	> 45 °F (7 °C)		
Pot Life	~ 15 minutes As the temperature will affect the pot life, application temperature: <ul style="list-style-type: none"> ▪ Above 73 °F (23 °C) will reduce the pot life ▪ Below 73 °F (23 °C) will extend the pot life 		
Finishing time	~ 20 to 40 minutes		

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

ENVIRONMENTAL, HEALTH AND SAFETY

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

- Surface must be clean and sound. Remove all deteriorated concrete, dirt, oil, grease, and other bond-inhibiting materials from the area to be repaired.
- Be sure repair area is not less than 1/4" (6.3 mm) deep.
- Preparation work should be done by high pressure water blast, scabber, or other appropriate mechanical means. Obtain an exposed aggregate surface with a minimum surface profile of $\pm 1/8"$ (3 mm) (CSP-6) 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 preferred and a dovetail is

recommended.

- Substrate should be Saturated Surface Dry (SSD) with clean water prior to application. No standing water should remain during application.

SURFACE PREPARATION

PRIMING

- Reinforcing steel: Steel reinforcement should be thoroughly prepared by mechanical cleaning to remove all traces of rust. Where corrosion has occurred due to the presence of chlorides, the steel should be high pressure washed with clean water after mechanical cleaning.
- Concrete Substrate: A scrub coat of Sika MonoTop®-2250 MP can be applied prior to placement of the mortar. The repair mortar has to be applied into the wet scrub coat before it dries.

MIXING

Vertical/Overhead Applications: Start with 5.5 pints (3.1 L) of water added to the mixing vessel. Add 1 bag of Sika MonoTop®-2250 MP while mixing with a low-speed drill (400-600 rpm) and mixing paddle or in an appropriate mortar mixer. Add up to another 0.5 pint (0.3 L) of water to achieve desired consistency. Do not over-water.

Horizontal Applications: Start with 6.0 pints (3.4 L) of water added to the mixing vessel. Add 1 bag of Sika MonoTop®-2250 MP while continuing to mix with a low-speed drill (400-600 rpm) and mixing paddle or in an appropriate mortar mixer. Add up to another 0.5 pint (3.7 L) of water to achieve desired consistency. Do not over-water.

Extension with Aggregates:

- For applications greater than 1.5" (38 mm) in depth, add 3/8" (9.5 mm) coarse aggregate.
- The aggregate must be non-reactive (reference ASTM C-1260, C-227 and C-289), clean, well graded, SSD, have low absorption and high density, and comply with ASTM C-33 size number 8 per Table 2.
- Variances in aggregate may result in different strengths.
- The addition rate is 32 lb. (14.5 kg) of aggregate per bag. It is approximately 2.5-3 gal. (9.5-11.3 L) by loose volume of aggregate.
- Water may be varied to achieve the desired consistency. Do not over water.

APPLICATION

- At the time of application, surfaces should be SSD with no standing water.
- Mortar must be scrubbed into the substrate, filling all pores and voids. Force material against edge of repair, working toward center.
- After filling repair, consolidate, then screed. Material may be applied in multiple lifts. The thickness of each lift must be 1/4" (6 mm) minimum. Where multiple lifts are required score top surface of each lift to produce a roughened surface for next lift. Allow preceding lift to reach final set, 30 minutes minimum before applying fresh material. SSD of the lift with clean water. Scrub fresh mortar into preceding lift.
- Allow mortar to set to desired stiffness, then finish with wood or sponge float for a smooth surface, or texture as required.

CURING TREATMENT

- As per ACI recommendations for Portland cement concrete, curing is required.
- Moist cure with wet burlap and polyethylene, a fine mist of water or Sika® Antisol®-250 W.
- Curing compounds adversely affect the adhesion of following lifts of mortar, leveling mortar or protective coatings.
- Moist curing should commence immediately after finishing. Protect freshly applied mortar from direct sunlight, wind, rain and frost.

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Product Data Sheet

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OTHER RESTRICTIONS

See Legal Disclaimer.

LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- FOR PROFESSIONAL USE ONLY

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