BUILDING TRUST

PRODUCT DATA SHEET

SikaRepair® SHA

Fast-setting, one component, cementitious repair mortar with superior high build properties

PRODUCT DESCRIPTION

SikaRepair® SHA is a fast-setting, one-component, cementitious ready to use repair mortar. The incorporation of low density aggregates allows high build applications on vertical and overhead surfaces. SikaLatex® R or SikaLatex® may be used instead of water for a two component, polymer-modified repair mortar.

USES

- Fast repairs to overhead and vertical concrete and mortar surfaces on grade, above and below grade
- As a repair material for building facades, parking structures, industrial plants, bridges, etc.

CHARACTERISTICS / ADVANTAGES

- Minimal time required between lifts
- Fast finishing time
- Time/labor-saving material; application up to 3" (76.2 mm) on vertical surfaces in one layer
- Easy to use; just add water
- High bond strength ensures excellent adhesion
- Good, early and ultimate strength
- Increased freeze/thaw durability and resistance to deicing salts
- Easy to clean
- Suitable for exterior and interior applications

PRODUCT INFORMATION

Packaging	SikaRepair® SHA: 50 lb. (22.7 kg) bag SikaLatex® (R): 1 gal. (3.8 L) plastic jug and 5 gal. (19 L) pail
Appearance / Color	Gray powder
Shelf Life	12 months from date of production if stored properly in original, unopened and undamaged sealed packaging
Storage Conditions	Store dry at 40–95 °F (4–35 °C). Protect from moisture. If damp, discard material

TECHNICAL INFORMATION

Compressive Strength

	Water	SikaLatex® R	
1 day	2,000 psi (13.8MPa)	2,500 psi (17.2 MPa)	(ASTM C-109) 73 °F (23 °C) 50 % R.H.
7 days	3,000 psi (20.7 MPa)	3,500 psi (24.1 MPa)	
28 days	4,500 psi (31.0 MPa)	5,000 psi (34.5 MPa)	

Flexural Strength

	Water	SikaLatex® R	
28 days	800 psi (5.5 MPa)	1,100 psi (7.6 MPa)	(ASTM C-293) 73 °F (23 °C) 50 % R.H.

Slant Shear Strength

	Water	SikaLatex® R	
28 days	1,000 psi (6.9 MPa)	1, 800 psi (12.4 MPa)	(ASTM C-882 modified)*

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

APPLICATION INFORMATION

Mixing Ratio

3/4 - 1 gal. (2.8 - 3.8 L) of liquid

Fresh mortar density

106 lbs./ft³ (1.70 kg/l) (ASTM C-138)

Coverage

0.55 ft³ (0.02 m³)
(Coverage figures do not include allowance for surface profile and porosity or material waste)

Layer Thickness

	Min.	Max. vertical	Max. overhead
Water	1/4" (6 mm)	3" (75 mm)	1.5" (38 mm)
SikaLatex® R	1/8” (3 mm)	3" (75 mm)	1.5" (38 mm)

Product Temperature

65–75 °F (18–24 °C)

Ambient Air Temperature

> 45 °F (7 °C)

Substrate Temperature

> 45 °F (7 °C)

Pot Life

~ 10–15 minutes
As the temperature will affect the pot life, application temperature:
- Above 73 °F (23 °C) will reduce the pot life and flow
- Below 73 °F (23 °C) will extend the pot life and flow

Waiting / Recoat Times

< 1 hour between lifts

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

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

DIRECTIVE 2004/42/CE - LIMITATION OF EMISSIONS OF VOC

0 g/L (EPA Method 24)

LIMITATIONS

- Do not use solvent based curing compounds. As with all cement based materials, avoid contact with aluminum to prevent adverse chemical reaction and possible product failure. Insulate potential areas of contact by coating aluminum bars, rails, posts etc. with an appropriate epoxy such as Sikadur® Hi-Mod 32
- Not a vapor barrier
- Refer to Sika® Antisol®-250 W product data sheet for use.

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

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.
- Preparation work should be done by high pressure water blast, scabbler or other appropriate mechanical means to obtain an exposed aggregate surface profile of ±1/16" (1.6 mm) (CSP-5).
- 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.

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. For priming of reinforcing steel use Sika® Armatec® 110 EpoCem (consult PDS).

- Concrete Substrate:
  - Prime the prepared substrate with a brush or sprayed applied coat of Sika® Armatec® 110 EpoCem (consult PDS).
  - Alternately, a scrub coat of SikaRepair® SHA 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

- **With water**: Start with 3/4 gal. (2.8 L) of water added to the mixing vessel. Add 1 bag of SikaRepair® SHA 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 1/4 gal (1 L) of water to achieve desired consistency. Do not over-water.

- **With SikaLatex® R**: Pour 3/4 gal. (2.8 L) of SikaLatex® R into the mixing container. Slowly add powder, mix and adjust as above.

- **With diluted SikaLatex® R**: SikaLatex® R may be diluted up to 5:1 (water: SikaLatex® R) for projects requiring minimal polymer modification. Pour 3/4 gal. (2.8 L) of the mixture into the mixing container. Slowly add powder, mix and adjust as above.

APPLICATION

- The mixed SikaRepair® SHA must be worked well into the primed substrate, filling all pores and voids. Compact well. Force material against edge of repair working towards the center. Thoroughly compact the mortar around exposed reinforcement.
- After filling repair, consolidate, then screed.
- Finish with steel, wood, plastic floats, or damp sponges, depending on the desired surface texture.
- Where multiple lifts are required, score top surface on each lift to produce a roughened substrate for next lift.
- Allow preceding lift to harden before applying fresh material.
- SSD of the lift with clean water, if previous layers are over 48 hours old, mechanically prepare the substrate and dampen.

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.

* Pretesting of curing compound is recommended.

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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