

PRODUCT DATA SHEET

SikaQuick® VOH

FAST SETTING, ONE COMPONENT, CEMENTITIOUS VERTICAL AND OVERHEAD REPAIR MORTAR WITH SUPERIOR HIGH BUILD PROPERTIES

PRODUCT DESCRIPTION

SikaQuick® VOH is a fast setting, one component, ready-to-use repair mortar for vertical and overhead applications using specialty cement blends. SikaQuick® VOH LD is a low dust formula also available as a separate item.

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.
- As a fast setting repair material for new construction defects.

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
- High early and ultimate strength
- Increased freeze/thaw durability and resistance to deicing salts
- Suitable for exterior and interior applications.
- Overhead thickness up to 2" (50 mm)
- Fiber reinforced and polymer modified
- Contains corrosion inhibitor
- Use in cold temperatures with SikaQuick WinterBoost (20° - 45 °F)
- Low dust version available

APPROVALS / STANDARDS

- Meets ASTM C-928, type R2

PRODUCT INFORMATION

Chemical Base	<ul style="list-style-type: none">▪ SikaQuick® VOH is a polymer modified, cement blends.▪ SikaQuick® VOH LD is a polymer modified, cement blends with dust reduction technology.
Packaging	<ul style="list-style-type: none">▪ 44 lb (20 kg) bag
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		73 °F (23 °C)	20 °F (-7 °C) with 1 cup of Sika-Quick® Winter Boost	(ASTM C-109) 50 % R.H.
	3 hours	> 1,500 psi (10.3 MPa)	400 psi (2.8 MPa)	
	1 day	> 3,000 psi (20.7 MPa)	1,800 psi (12.4 MPa)	
	7 days	> 4,500 psi (31.0 MPa)	2,400 psi (16.6 MPa)	
	28 days	5,500 psi (37.9 MPa)	4,500 psi (31.0 MPa)	
* Consult SikaQuick® Winter Boost Product Data Sheet.				
Modulus of Elasticity in Compression	7 days	2.2x10 ⁶ psi (15.2 GPa)		(ASTM C-469)
Flexural Strength	1 day	400 psi (2.8 MPa)		(ASTM C-293)
	7 days	600 psi (4.1 MPa)		73 °F (23 °C)
	28 days	1,000 psi (6.9 MPa)		50 % R.H.
Splitting Tensile Strength	1 day	200 psi (1.4 MPa)		(ASTM C-496)
	7 days	250 psi (1.7 MPa)		73 °F (23 °C)
	28 days	500 psi (3.4 MPa)		50 % R.H.
Slant Shear Strength	1 day	1,000 psi (6.9 MPa)		(ASTM C-882 modified*)
	7 days	1,600 psi (11.0 MPa)		
	28 days	2,000 psi (13.8 MPa)		
* Mortar scrubbed into substrate at 73 °F (23 °C) and 50 % R.H.				
Pull-Out Resistance	> 250 psi (1.7 MPa) Substrate failure		(ASTM C-1583) 73 °F (23 °C) 50 % R.H.	
Shrinkage	< 0.05 %		(ASTM C-157 modified per ASTM C-928)	
Rapid Chloride Permeability	28 days	Low range		(ASTM C-1202 AASHTO T-277)

APPLICATION INFORMATION

Mixing Ratio	6–6.5 pts (2.8–3.1 L) per bag		
Fresh Mortar Density	125 lb/ft ³ (2.0 kg/L)		(ASTM C-138)
Coverage	0.44 ft ³ (0.01 m ³) per bag (Coverage figures do not include allowance for surface profile and porosity or material waste)		
Layer Thickness		Min.	Max.
	Overhead	1/8" (3 mm)*	2" (51 mm)
	Vertical	1/8" (3 mm)*	3" (75 mm)
* Minimum thickness is 1/2" (12.7 mm) with the use of SikaQuick® Winter Boost			
Product Temperature	65–75 °F (18–24 °C)		
Ambient Air Temperature	> 45 °F (7 °C)		
	20 - 45 °F (-6.7 - 7 °C) with the use of SikaQuick® Winter Boost		

Substrate Temperature	> 45 °F (7 °C) 20 - 45 °F (-6.7 - 7 °C) with the use of SikaQuick® Winter Boost	
Set Time	10-25 min	(ASTM C-266)
Final Set Time	< 35 min	(ASTM C-266)
* To control setting times, cold water should be used in hot weather and hot water used in cold weather.		
Application Time	~ 15 minutes	
Finishing Time	20–30 minutes	
Waiting / Recoat Times	Time between lifts	Final set time
	Acrylic waterbased	4 hrs
	Epoxy/PU based	6 hrs
Compatibility and adhesion testing is always recommended.		

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

- Surface must be clean, sound and free of frost.
- 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, scabber or other appropriate mechanical means to obtain an exposed aggregate surface profile of $\pm 1/16"$ (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.

With SikaQuick® Winter Boost

- All the above recommendations have to be followed.
- The concrete must be frost free before the 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: A scrub coat of SikaQuick® VOH / SikaQuick® VOH LD 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

- Wet down all tools and mixer to be used.
- Mix mechanically with a low-speed drill (400–600 rpm) and mixing paddle or mortar mixer.
- Mix to a uniform consistency, maximum 3 minutes.

- Manual mixing can be tolerated only for less than a full unit.
- Thorough mixing and proper proportioning of the powder and liquid is necessary.
- Inaccurate proportioning of the powder to liquid will result in a finished product that may not conform to the typical published performance property values.

With water

- Start mixing with 6 pints (2.8 L) of water per bag.
- Adjust the water dosage by a maximum amount of $\pm 1/2$ pint, if necessary, to achieve the desired consistency.
- Do not over-water. Over-watering may result in difficulty handling and/or not meeting stated property values.

With Sika Latex R

- Start mixing with 6 pints (2.8 L) of Sika Latex® R per bag.
- Adjust the Sika Latex® R dosage by a maximum amount of $\pm 1/2$ pint, if necessary, to achieve the desired consistency.
- Do not overdose with SikaLatex® R. Using too much SikaLatex®-R may result in difficulty handling and/or not meeting typical published performance property values.

With SikaQuick® Winter Boost

- Pour the recommended volume of clean, potable water [$> 34^{\circ}\text{F}$ (-1°C)] into a suitably sized and clean mixing container.
- Add $1/2$ or 1 cup per bag into the water and mix until it is dissolved.
- Add the contents of the SikaQuick® VOH / SikaQuick® VOH LD bag while continuing to mix.
- Refer to the current Product Data Sheet for complete and detailed instructions on the use of the SikaQuick® Winter Boost.

APPLICATION

- The mixed SikaQuick® VOH / SikaQuick® VOH LD must be worked well into the prepared 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, magnesium, wood, plastic floats, or damp sponges, depending on the desired surface texture.

MULTIPLE LIFTS

- Where multiple lifts are required, score top surface on each lift to produce a roughened substrate for next lift.
- Allow preceding lift to harden and achieve initial set before applying fresh material.
- SSD previous lift by lightly misting with clean water. Remove all standing droplets.
- Repeat procedure until desired installation thickness is achieved. Finish the final lift of SikaQuick® VOH / SikaQuick® VOH LD as described above.
- If previous layers are over 6 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 a water based* compatible curing compound that meets ASTM C-309.
- 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.

CLEANING OF TOOLS

- Uncured product may be cleaned from tools and surfaces with water.
- Cured product must be removed mechanically.

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.
- Remixing product after it begins to set is prohibited.
- Bonding agents like Sika® Armatec® 110 EpoCem and others, which cure at a slower rate than SikaQuick® VOH / SikaQuick® VOH LD, should not be used. If bonding agents are used, follow cure times for the

bonding agents used as a guide prior to putting SikaQuick® VOH / SikaQuick® VOH LD in service. Assure suitability with the manufacturer of the bonding agent.

- Not a vapor barrier
- If a bonding agent is absolutely necessary, and surfaces are not scheduled to receive a vapor barrier coating, consider Sikadur® 32, Hi-Mod and moist cure for a minimum 24 hours prior to putting SikaQuick® VOH / SikaQuick® VOH LD into service.
- SikaQuick® VOH / SikaQuick® VOH LD is not a vapor barrier after cure.
- Ensure temperature do not drop below 20°F the first 3 hours after application of the SikaQuick® VOH mixed with SikaQuick® Winter Boost.

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.

OTHER RESTRICTIONS

See Legal Disclaimer.

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.

LEGAL DISCLAIMER

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

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to

meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs.

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Product Data Sheet
SikaQuick® VOH
November 2018, Version 01.03
020302040040000019

SikaQuickVOH-en-US-(11-2018)-1-3.pdf

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