Construction

SikaQuick® VOH

Fast Setting, one component, cementitious vertical and overhead repair mortar with superior high build properties

Description	SikaQuick VOH is a fast setting, one component, ready-to-use repair mortar for vertical and overhead applications using specialty cement blends.
Where to Use	■ 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.
Advantages	■ Minimal time required between lifts. ■ Fast finishing time ■ Time/labor-saving material; application up to 3 inches 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. ■ Not a vapor barrier ■ Overhead thickness up to 2" ■ Fiber reinforced and polymer modified ■ Contains corrosion inhibitor
Coverage	~.44 cu. ft.
Packaging	44 lb bag

How to Use

Surface Preparation

Concrete/Mortar: Remove all deteriorated concrete, dirt, oil, grease, and all bond-inhibiting materials from surface. 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 in. (CSP-5). After preparation, substrate strength should be verified prior to patch placement. Substrate should be saturated surface dry (SSD) with no standing water during application.

Typical Data ***(Material and curing conditions @ 73°F (23°C) and 50% R.H.)***

RESULTS MAY DIFFER BASED UPON STATISTICAL VARIATIONS DEPENDING UPON MIXING METHODS AND EQUIPMENT, TEMPERATURE, APPLICATION METHODS, TEST METHODS, ACTUAL SITE CONDITIONS AND CURING CONDITIONS. THIS DATA REFLECTS MATERIAL TESTED AT A MIXING RATIO OF 6.25 PINTS/UNIT.

Shelf Life:	One year in original, unopened bags.			
Storage Conditions:	Store dry at 40°-95°F (4°-35°C).			
Product Conditioning:	Condition material to 65°-75°F before using.			
Color:	Concrete gray.			
Mixing Ratio:	6 - 6.5 pints/unit			
Density (Wet mix):	~ 125 lbs. / cu. ft.			
Application Time:	Approximately 20 minutes.			
Finishing Time:	20-30 minutes			
Lift Height:	Max: 3”	Min: 1/8”		
Time Between Lifts:	After final set			
Splitting Tensile Strength, psi (ASTM C-496)		**1 day** 200	**7 days** 250	**28 days** 500
Compressive Strength, psi (ASTM C-109):	**3 hrs** >2000	**1 day** >3000	**7 days** >4500	**28 days** 5500
Flexural Strength, psi (ASTM C-293):		**1 day** 400	**7 days** 600	**28 days** 1000
Bond Strength*, psi (ASTM C-882 modified):		**1 day** 1000	**7 days** 1600	**28 days** 2000
Modulus of Elasticity, psi (ASTM C-469)			**7 days** >2.2 x 10^6	
Bond Strength, psi - Direct Tensile (IRCI No. 210.3):		Substrate failure >250		
Shrinkage (50% R.H.) (ASTM C-157; ICRI protocol):		<.05%		
Initial Set, min. (ASTM C-266)		20-25		
Final Set, min. (ASTM C-266)		30-40		

*Mortar scrubbed into substrate

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	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. **Priming:** **Reinforcement Steel:** For priming of reinforcement steel use Sika Armatec 110 EpoCem (Consult Technical Data Sheet). **Concrete Substrate:** A scrub coat of SikaQuick VOH should be applied prior to placement of mortar. The repair mortar has to be applied into the wet scrub coat before it dries. The use of Sika Armatec 110 EpoCem as a bonding agent for concrete is not recommended.
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 with stated properties. **With water:** Start mixing with 6 pints of water per 44 lb. bag. Adjust the water dosage by a maximum amount of +/- 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 Latex R:** Start mixing with 6 pints of Sika Latex R per 44 lb. bag. Adjust the Sika Latex R dosage by a maximum amount of +/- 1/2 pint, if necessary, to achieve the desired consistency.
Application	The mixed SikaQuick VOH 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. 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. Saturate surface of the lift with clean water. If previous layers are over 6 hours old, mechanically prepare the substrate and dampen.
Tooling and Finishing	Curing: 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. 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.
Removal	Cured product must be removed mechanically.
Over Painting	Acrylic waterbased systems - 4 hrs Epoxy/PU based systems - 6 hrs Compatibility and adhesion testing is always recommended.
Limitations	■ Application thickness: Minimum: With water: 1/8 inch (3 mm). Maximum in one lift: 3 inches (75 mm) vertical, 2 inches (51 mm) overhead. ■ Minimum ambient and surface temperatures 45°F (7°C) and rising at time of application. ■ To control setting times, cold water should be used in hot weather and hot water used in cold weather. ■ 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. ■ Do not use Sika Armatec 110 EpoCem as a bonding agent with SikaQuick VOH.
Caution	**WARNING: IRRITANT.** Contains quartz (CAS:14808-60-7), calcium carbonate (CAS:471-34-1), portland cement (CAS:65997-15-1), cement, alumina, chemicals (CAS:65997-16-2), and magnesium carbonate (CAS:546-93-0). Causes severe eye irritation. May cause eye injury, effects may be delayed. May cause respiratory tract/skin irritation. May cause gastrointestinal disturbance if swallowed. **WARNING!** This product contains a chemical known in the State of California to cause cancer and birth defects or other reproductive harm.

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First Aid	**Eyes –** Hold eyelids apart and flush thoroughly with water for 15 minutes. **Skin –** Remove contaminated clothing. Wash skin thoroughly for 15 minutes with soap and water. **Inhalation –** Remove to fresh air. **Ingestion –** Do not induce vomiting. Dilute with water. Contact physician. **In all cases contact a physician immediately if symptoms persist.**
Handling and Storage	Avoid direct contact. Wear personal protective equipment (chemical resistant goggles/ gloves/clothing) to prevent direct contact with skin and eyes. Use only in well ventilated areas. Open doors and windows during use. Use a properly fitted NIOSH respirator if ventilation is poor. Wash thoroughly with soap and water after use. Remove contaminated clothing and launder before reuse.
Clean Up	Use personal protective equipment (chemical resistant gloves/ goggles/clothing). Without direct contact, sweep up spilled or excess product and place in suitable sealed container. Dispose of excess product and container in accordance with applicable local, state, and federal regulations.

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

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Regional Information and Sales Centers. For the location of your nearest Sika sales office, contact your regional center.

Sika Corporation
201 Polito Avenue
Lyndhurst, NJ 07071
Phone: 800-933-7452
Fax: 201-933-6225

Sika Canada Inc.
601 Delmar Avenue
Pointe Claire
Quebec H9R 4A9
Phone: 514-697-2610
Fax: 514-694-2792

Sika Mexicana S.A. de C.V.
Carretera Libre Celaya Km. 8.5
Fracc. Industrial Balvanera
Corregidora, Queretaro
C.P. 76920
Phone: 52 442 2385800
Fax: 52 442 2250537

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