

REPCON® V/O



Single-component polymer-modified concrete repair mortar with corrosion inhibitor

DESCRIPTION

REPCON® V/O is a single-component, polymer-modified, fiber reinforced concrete repair mortar with integral corrosion inhibitor for use in a variety of horizontal, vertical and overhead repair applications.

REPCON® V/O incorporates the latest in polymer technology offering superior durability, performance and ease of application in industrial, commercial, and infrastructure (DOT) applications.

FEATURES/BENEFITS

- One-component dry polymer-modified, just add water
- Dry polymer technology and fiber-reinforced for excellent strength and freeze thaw durability
- Hand-applied or spray applied for large projects
- Easy-to-apply/finish consistency up to 2"
- Concrete-gray in color
- Designed for vertical and overhead repairs
- Contains integral corrosion inhibitor
- Complies with CDPH Version V1.2,
- USGBC's LEED v4 compliance

APPLICATION

Surface Preparation: The concrete must be sound and free of all foreign material, including oil, grease, dust, laitance or other surface contaminants. For maximum durability, saw cut the perimeter of the repair 1/8" deeper than the depth of the repair, creating a notched, reinforced edge. Mechanically abrade the surface by an engineered approved method in accordance with ICRI 310.2 Guideline to a minimum CSP 5. **All concrete surfaces to be repaired must be in a saturated-surface-damp (SSD) condition with no standing water on the surface.**

Priming/Scrub Coat: Thoroughly clean all exposed steel reinforcing of rust and coat with **SpecPrep SB**.

Prepared concrete must be SSD and primed with a spray or brush coat of **SpecPrep SB** and the repair mortar applied wet on wet or up to the recommended open time (see **SpecPrep SB** technical data sheet).

As an alternative, apply a scrub coat of the properly mixed repair mortar by scrubbing a thin layer into the pre-dampened substrate with a stiff brush. Place the repair mortar immediately before the bond coat dries.

Mixing: Mix 6.25 – 6.75 pints (depending on desired consistency) of clean water per 50 pound bag of material. Mix with a low speed drill. Add recommended amount of clean water into the container, followed by the REPCON® V/O. Mix 2 to 3 minutes. Mix only what can be applied within the setting period.

Placement: Trowel REPCON® V/O firmly into the prepared area, ensuring intimate contact with the bonding surface. Use slightly more material than is needed and roughly shape during placement.

APPLICATION (con't)

After the initial set, when REPCON® V/O is surface hard, shave the material to the desired final shape using a steel trowel. Maximum depth of neat repair mortar is 2" for each lift. Additional lifts can be placed after the original lift has achieved set. The original lift should be left with a rough surface to improve bond between lifts.

Finishing/Curing: Finish the repair material to the desired texture to match the surrounding concrete. REPCON® V/O is self-curing under most conditions. In severe drying conditions, use an ASTM C309 compliant, water based SpecChem curing compound.

TYPICAL TEST DATA

Set Time at 70°F (ASTM C266)	
Initial Set	50 min
Final Set	90 min
Compressive Strength (ASTM C109)	
1 day	3650 psi
7 days	5470 psi
28 days	7450 psi
Bond Strength (ASTM C882)	
7 days	2185 psi
Direct Bond Strength (ASTM C1583)	396 psi
Flexural Strength (ASTM C348)	
7 days	650 psi
28 days	1210 psi
Split Tensile Strength (ASTM C496)	
28 days	730 psi
Length Change (ASTM C157)	
Wet Cure @ 28 days	+ .01%
Air Cure @ 28 days	- .06%
Freeze-Thaw (ASTM C666 Procedure A)	
Durability Factor @ 28 days = 95.8	
Surface Resistivity (AASHTO T 358) = 59.8 kΩ-cm	
Modulus of Elasticity (ASTM C469)	4.8 x 10 ⁶ psi



1511 Baltimore Ave, Suite 600
 Kansas City, MO 64108
www.specchem.com 866.791.8700

SPECIFICATION/COMPLIANCE

ASTM C928 Rapid-hardening Cementitious Mortar
ASTM C109 Compressive Strength
ASTM C882 Slant Shear Bond Strength
Complies with CDPH Standard Method V1.2
USGBC's LEED v4 compliance

PACKAGING

50 lb bag (also available in a 50 lb plastic pail)
Yield per 50 lb unit = .43 cu-ft

CLEAN UP

Tools and equipment may be cleaned with water before REPCON® V/O hardens.

SHELF LIFE

Shelf life of unopened bags stored in a dry facility is 12 months. Excessive temperature differential and/or high humidity can shorten the shelf life expectancy. Store in a cool, dry area away from direct sunlight.

LIMITATIONS/PRECAUTIONS

Minimum thickness for vertical/overhead repair is 1/8" in severe conditions for maximum durability. Do not retemper after initial mixing. Do not add other cements, or additives to this product. REPCON® V/O is a fast setting product, so mixing equipment should be cleaned with water as soon as possible.

Do not allow repairs to freeze until the material has reached a minimum of 1000 psi compressive strength. In adverse temperatures, follow ACI recommendations for hot/cold weather concreting practices. Use only potable water for mixing. Minimum surface and ambient temperature of 45°F and rising is required at the time of application. For optimum results, condition material to between 65°F and 85°F.

Caution: Contains Portland cement and sand. Cement will cause irritation. Avoid contact. A dust respirator, safety goggles, and rubber gloves are recommended. Avoid prolonged contact with clothing. In case of contact with eyes, immediately flush with water for at least 15 minutes. Get prompt medical attention. Do not wear contact lenses when working with this product. DO NOT take internally. Keep out of reach of children. Avoid hazards by following all precautions found in the Safety Data Sheet (SDS), product labels, and technical literature. Please read this information prior to using the product.

WARRANTY

NOTICE-READ CAREFULLY CONDITIONS OF SALE

SpecChem offers this product for sale subject to and limited by the warranty which may only be varied by written agreement of a duly authorized corporate officer of SpecChem. No other representative of or for SpecChem is authorized to grant any warranty or to waive limitation of liability set forth below.

WARRANTY LIMITATION

SpecChem warrants this product to be free of manufacturing defects. If the product when purchased was defective and was within use period indicated on container or carton, when used, SpecChem will replace the defective product with new product without charge to the purchaser. SpecChem makes no other warranty, either expressed or implied, concerning this product. There is no warranty of merchantability. NO CLAIM OF ANY KIND SHALL BE GREATER THAN THE PURCHASE PRICE OF THE PRODUCT IN RESPECT OF WHICH DAMAGES ARE CLAIMED.

INHERENT RISK

Purchaser assumes all risk associated with the use or application of the product.

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1511 Baltimore Ave, Suite 600
Kansas City, MO 64108
www.specchem.com 866.791.8700