

RepCon® 928

Polymer-modified rapid-setting concrete repair mortar with corrosion inhibitor

DESCRIPTION

RepCon® 928 is a single-component, polymer-modified, fiber reinforced, rapid-setting concrete repair mortar with corrosion inhibitor for use on concrete floors, highway pavements, bridge decks and other applications requiring early resumption of traffic or use.

RepCon® 928 is formulated to meet the requirements of ASTM C928 Packaged, Dry, Rapid-Hardening Cementitious Material for Concrete Repair and AASHTO T260. RepCon® 928 incorporates the latest in polymer technology offering superior durability, performance and ease of application without liquid activators for horizontal and vertical form & pour applications.

FEATURES/BENEFITS

- One-component, dry-polymer modified. Just add water.
- Fiber-reinforced for early integral strength
- Air entrained for excellent freeze-thaw durability
- Natural concrete-gray color
- Suitable for horizontal and formed vertical application
- Takes foot traffic in 1 hour after final set
- Long work time for hot weather applications (available in fast-set version **RepCon® 928 FS**)

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.

Mix 4.75 - 5.0 pints (depending on desired consistency) of clean water per 50 pound bag of material. Mix with a low speed drill or mortar mixer. Add recommended amount of clean water into the container, followed by slowly adding the RepCon® 928 powder. For non-DOT applications, up to 5.25 pints can be used for greater flow. Mix 2-3 minutes. Mix only what can be applied within the setting period. Depending on the application and area dimensions,

APPLICATION (con't)

RepCon® 928 can be applied in applications from 1" to 2" without extension. Consult SpecChem tech service for further details.

Deep Applications: For DOT and heavy traffic applications (bridge deck, roadways, parking structures, etc) over 1", RepCon® 928 should be extended with clean, SSD, 3/8" aggregate up to 60% by weight (30lbs). Greater extension will create a stiffer more lean mortar. Choose a clean (free of organic material) well-graded 3/8" aggregate. Aggregate should be pre-dampened prior to mixing with RepCon® 928. The total mixing water for the batch shall be reduced by the amount of free water found in the aggregate. 60% extension will add approx. 0.18 cu-ft.

TYPICAL TEST DATA

Modulus of Elasticity Test Data based on 5.0 pints water	
Set Time at 70°F (ASTM C266)	
Initial Set	40 min
Final Set	45 min
Compressive Strength (ASTM C109)	
3 hour	3250 psi
1 day	5215 psi
7 days	7350 psi
28 days	9025 psi
Bond Strength (ASTM C882 modified)	
7 days	2245 psi
Flexural Strength (ASTM C-348)	
7 days	1250 psi
28 days	1350 psi
Freeze-Thaw Resistance (ASTM C666)	
Procedure A (300 cycles)	99% Durability Factor
Rapid Chloride Permeability (ASTM C1202)	
28 days	866 coulombs
Length Change (ASTM C157)	
Air Cured	-.05%
Water Cured	+.03%
Modulus of Elasticity (ASTM C 469)	5.5 x 10 ⁶ psi

SPEC CHEM
Solution to Service

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APPLICATION (con't)

Placement: Trowel, or screed RepCon® 928 firmly into the prepared area, ensuring intimate contact with the bonding surface. Finish RepCon® 928 level with the surrounding concrete and allow to take an initial set. After the initial set, when RepCon® 928 is surface hard, finish by hand trowelling. Excessive troweling is not required.

Finishing/Curing: Finish the repair material to the desired texture to best match the surrounding concrete. Do not add additional water to the surface during finishing. Lightly spray SpecFilm as a finishing aid on this and any other polymer modified mortars to assist in finishing.

In all DOT applications or severe drying conditions (hot/windy), use an ASTM C309 compliant, DOT approved water based SpecChem curing compound.

SPECIFICATIONS/COMPLIANCE

ASTM C 928 R3 (Rapid-hardening Mortar)
AASHTO T-260

LIMITATIONS/PRECAUTIONS

Minimum thickness for horizontal repairs subjected to heavy or severe traffic is 1/2". Do not retemper after initial mixing. Do not add other cements or additives to this product. RepCon® 928 is a fast-setting product, so mixing equipment should be cleaned with water as soon as possible. Use only potable water for mixing.

Application range 40°F to 90°F. Please consult SpecChem for special instructions on any application outside this temperature range.

Adverse Weather Application: In adverse temperatures, follow ACI recommendations for hot/cold weather concreting practices. For optimum results, condition material to between 65°F and 85°F.

Cold Weather applications should follow procedures outlined in ACI 306. Conditioning the material before mixing to 65°F and 85°F, heating the repair area, using warm water for mixing, and tenting or insulating the patch area after application will increase strength development. Do not use direct, unvented heat on the patch after installation. Do not allow repairs to freeze until the material has reached a minimum of 1000 psi compressive strength.

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.

PACKAGING

- 50 lb bag
- 3,000 lb SuperSack

Coverage: approx 20 sq-ft @ 1/4" (.42 cu-ft per 50 lbs)

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.

CLEAN UP

Tools and equipment may be cleaned with water before RepCon® 928 hardens.

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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