# TECHNICAL DATA

# REPCON® 928 FS



Very rapid setting concrete repair mortar with corrosion inhibitor

# **DESCRIPTION**

RepCon® 928 FS is a very rapid setting polymer modified, fiber reinforced, 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 FS is formulated to meet the requirements of ASTM C928 Packaged, Dry, Rapid Hardening Cementitious Material for Concrete Repair and AASHTO T260. RepCon® 928 FS 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 added flexural 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 set

### APPLICATION

#### **Surface Preparation**

The concrete must be sound and free of all foreign material, including oil, grease, dust, laitance or other surface contaminants. Square edges by saw cutting the perimeter of the repair 1/8" deeper than the depth of the repair, creating a notched, reinforced edge for maximum durability. Mechanically abrade the surface by an engineered approved method, such as grinding, abrasive blasting, or scarifying. All concrete of poor quality that is in contact with reinforcing steel should be removed. Remove rust from exposed reinforcing steel by brushing or sandblasting prior to repairing with RepCon® 928 FS. Have all necessary tools and materials as near work areas as possible to permit rapid and continuous placement of RepCon® 928 FS. All surfaces to be repaired should be in a saturated-surface-dry (SSD) condition with no standing water on the surface.

Mix 4.75 - 5.25 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 FS powder. Mix 2-3 minutes. Mix only what can be applied within the setting period. Depending on the area dimensions, RepCon® 928 FS can be applied in applications from 1" to 6" in a lift without extension.

<u>Deep Applications</u>: For repair applications over 2", Rep-Con® 928 FS can be extended with clean, SSD, 3/8" aggregate up to 100% by weight (50lbs) and mixed an additional 2 min. Choose a clean (free of organic material)

well-graded 3/8" aggregate. Aggregate should be predampened prior to mixing with RepCon® 928 FS. The total mixing water for the batch shall be reduced by the amount of free water found in the aggregate. 100% extension will add approx 0.34 cu-ft to the unit yield and should be placed within 10 min.

#### **Placement**

Trowel, or screed RepCon® 928 FS firmly into the prepared area, ensuring intimate contact with the bonding surface. Finish RepCon® 928 FS level with the surrounding concrete and allow to take an initial set. After the initial set, when RepCon® 928 FS is surface hard, finish by

# **TYPICAL TEST DATA**

Test Data based on 5.0 pints water	
Set Time at 70°F (ASTM C-266)	
Initial Set	15 min
Final Set	25 min
Compressive Strength (ASTM C-109)	
1 hour	3000 psi
1 day	5450 psi
7 days	8550 psi
28 days	10,000 psi
Bond Strength (ASTM C-882 modified)	
24 Hours	1300 psi
Flexural Strength (ASTM C-348)	
24 Hours	600 psi
28 days	1150 psi
Yield	
Yield Per Bag	.42 cu-ft
Water Absorption	0.4 %
Abrasion resistance (24 hours)	5 g
Drying Shrinkage (4 Days)	0.04 %
Soluble chlorides by weight	0.008 %
Water soluble sulfates by weight	0.014 %



1511 Baltimore Ave, Suite 600 Kansas City, MO 64108 www.specchemllc.com 866.791.8700 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. RepCon® 928 FS is self-curing under most conditions. In severe drying conditions, use an ASTM C-309 compliant, water based SpecChem curing compound.

# SPECIFICATIONS/COMPLIANCE

ASTM C-928 (Rapid Hardening Mortar) AASHTO T-260

## **PACKAGING**

50 lb bag

• 3,000 lb SuperSack

Coverage: approx 20 sq-ft @ 1/4"

## **CLEAN UP**

Tools and equipment may be cleaned with water before RepCon® 928 FS 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 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 FS is a fast setting product, so mixing equipment should be cleaned with water as soon as possible. Use only potable water for mixing.

Cold Weather Application: Application at temperatures below 40°F/30°C optimal results will be reached by following the cold weather concrete procedures outlined in ACI 306. 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.

In adverse temperatures, follow ACI recommendations for hot/cold weather concreting practices.

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 Material Safety Data Sheet (MSDS), product labels, and technical literature. Please read this information prior to using the product.

DO NOT EXPOSE TO OR APPLY NEAR FIRE OR FLAMES. FOR WELL VENTILATED OR EXTERIOR USE ONLY!

# **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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