



Specification Document
Product: RepCon® 928

Division 3 - Concrete
Section 03 01 00 - Maintenance of Concrete
Section 03 99 20 - Concrete Patching & Resurfacing

Part 1 - General

1.01 Summary

- A. Read this Specification in its entirety. Each Section encompasses complete work of various trades. It is the Contractor's responsibility to clarify the scope for Subcontractors and manage overlapping work.

1.02 Submittals

- A. Provide Technical Data Sheets and Safety Data Sheets (SDS). Submit proof of Contractor's qualifications.

1.03 Quality Assurance

- A. Manufacturer qualifications: SpecChem must have an ongoing quality assurance program, independently audited regularly.
- B. Comply with all safety and environmental conditions as recommended by SpecChem and local, state, and federal regulations. Refer to Safety Data Sheets (SDS) for safety and handling practices.

1.04 Delivery, Storage, and Handling

- A. Deliver in original, unopened containers. Store off the ground, protected from elements. Follow manufacturer's recommendations for material conditioning.



1.05 Job Conditions

- A. Apply only when ambient and surface temperatures are above 45°F and rising. Take precautions to protect adjacent areas from damage.

Part 2 – Products

2.01 Manufacturer

- A. Specified product: RepCon® 928 by SpecChem.

2.02 Materials

- A. RepCon® 928 is a one-component, polymer-modified, fiber-reinforced mortar, incorporating advanced polymer technology for superior durability. It is suitable for horizontal, vertical, and overhead applications.

2.03 Performance Criteria

- **Compressive Strength (ASTM C109):**
 - 3 Hours: 3,200 psi
 - 1 Day: 6,100 psi
 - 7 Days: 8,250 psi
 - 28 Days: 9,625 psi
- **Bond Strength (ASTM C882 Modified):**
 - 7 Days: 2,245 psi
- **Flexural Strength (ASTM C348):**
 - 7 Days: 750 psi
 - 28 Days: 1,150 psi
- **Freeze-Thaw Resistance (ASTM C666):**
 - Durability Factor at 300 Cycles: 99%
- **Rapid Chloride Permeability (ASTM C1202):**
 - 28 Days: 866 coulombs
- **Length Change (ASTM C157):**



- Air Cured: -0.05%
- Water Cured: +0.03%
- **Modulus of Elasticity (ASTM C469):**
 - 28 Days: 5.5×10^6 psi
- **Setting Time (ASTM C266):**
 - Initial Set: 40 minutes
 - Final Set: 45 minutes

Part 3 – Execution

3.01 Surface Preparation

- A. **Clean the Surface:** Ensure the concrete is sound, free from oil, grease, dust, laitance, or contaminants. Saw cut the perimeter of the repair area 1/8" deeper than the repair depth for a notched edge, enhancing durability.
- B. **Abrade the Surface:** Mechanically abrade to a minimum Concrete Surface Profile (CSP) of 5, following ICRI 310.2 guidelines, ensuring a saturated-surface-damp (SSD) condition without standing water.
- C. **Steel Reinforcement:** Clean exposed steel of rust and apply SpecPrep SB. Apply a spray or brush coat of SpecPrep SB to SSD concrete and proceed with the repair mortar application wet on wet or within the open time specified in the SpecPrep SB datasheet.

3.02 Mixing and Application

- A. **Mixing Instructions:** Use 4.75 to 5.0 pints (up to 5.25 pints for non-DOT, more flowable applications) of clean water per 50-pound bag. Mix with a low-speed drill or mortar mixer, adding water to the container first, then gradually the RepCon® 928 powder. Mix for 2-3 minutes until homogenous.
- B. **Application Depth:**
 - a. Apply from 1" to 2" without aggregate extension. For deeper repairs in heavy traffic areas, extend with clean, SSD 3/8" aggregate up to 60% by weight for



over 1" repairs or up to 100% for over 4" repairs, mixing for an additional 2 minutes. Pre-dampen the aggregate and adjust the mixing water accordingly.

C. Placement

- a. Firmly trowel or screed RepCon® 928 into the area, ensuring full contact with the surface. Allow initial set before finishing with a hand trowel. Excessive troweling isn't required.

D. Finishing and Curing

- a. Match the texture with surrounding concrete without adding water during finishing. Use SpecFilm as a finishing aid if needed. In DOT applications or severe conditions, use an ASTM C309 compliant SpecChem curing compound.

3.03 Specifications/Compliance

- A. Complies with ASTM C 928 R3 and AASHTO T-260 standards.
- B. **Limitations/Precautions:** Minimum application temperature is 40°F. Follow ACI guidelines for hot/cold weather concreting. Do not retemper or add other additives. Clean mixing equipment promptly. Protective gear recommended due to irritation risk from cement.
- C. **Packaging:** Available in 50 lb bags and 3000 lb SuperSack, with approximately 20 sq-ft coverage at 1/4" thickness.
- D. **Shelf Life:** 12 months when stored in dry conditions. Store away from direct sunlight in a cool, dry area.
- E. **Clean-Up:** Wash tools and equipment with water before RepCon® 928 hardens.