



**Specification Document**  
**Product: SpecPoxy Mortar**

**DIVISION 3 - CONCRETE**  
Section 03 54 00 Concrete Restoration and Rehabilitation

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**Part 1 – General**

**1.01 Summary**

A. This specification outlines the application of SpecPoxy Mortar, a three-component, 100% solids epoxy mortar system designed for the repair and overlay of interior horizontal concrete surfaces.

**1.02 Quality Assurance**

- A. Manufacturer qualifications: SpecChem must have an ongoing quality assurance program, independently audited regularly.
- B. Contractor qualifications: Must have successful experience in concrete construction.
- C. 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.

**1.03 Delivery, Storage, and Handling**

- A. Ensure all materials are delivered in their original, unopened packaging, labeled with content identification, batch numbers, and expiration dates. Inspect materials for damage upon arrival.
- B. Store materials in a dry, well-ventilated area between 45°F and 95°F. Protect from direct sunlight and moisture.
- C. Handle products according to SpecChem's recommendations to avoid contamination and ensure product integrity.



#### **1.04 Job Conditions**

- A. Application Conditions: Do not apply if the substrate and ambient temperatures are below 50°F. Ensure the substrate is dry and free from standing water or ice.
- B. Surface Protection: Take measures to protect adjacent areas from spillage and overspray. Provide adequate ventilation in confined areas.

#### **1.05 Submittals**

- A. Submit manufacturer's technical data sheets, including installation instructions, SDS, and material warranty information.

### **Part 2 – Products**

#### **2.01 Materials**

- A. Main System: SpecPoxy Mortar Kit, pre-measured for proper proportioning of resin, hardener, and aggregate.
- B. Performance Criteria: Conform to ASTM (C881, Type III, Grade I) standards for epoxy mortar systems, ensuring high tensile, compressive, and flexural strengths suitable for industrial and commercial flooring.

#### **2.02 Performance Criteria**

##### **A. Compressive Strength (ASTM C579):**

- 9,600 psi

##### **B. Bond Strength (ASTM C882):**

- 2,650 psi

##### **C. Tensile Strength (ASTM C307):**

- 1,650 psi

##### **D. Flexural Strength (ASTM C580):**

- 3,450 psi

##### **E. Hardness (ASTM D2240, Shore D):**



- 85

**F. Water Absorption (ASTM D570):**

- Less than 0.5%

**Part 3 – Execution**

**3.01 Surface Preparation**

A. Cleaning the Surface: Ensure all surfaces are clean, dry, and free from oil, grease, dirt, laitance, curing compounds, and other foreign materials. Mechanical abrasion or sandblasting is recommended to remove contaminants and create a profile suitable for bonding.

**3.02 Mixing and Application**

A. Mixing Instructions: Ensure air, material, and surface temperatures are between 50°F and 90°F. Precondition materials to approximately 70°F for easier mixing. Mix components separately before combining. Mix one part of component A with one part of component B by volume for 2-3 minutes using a low-speed drill and Jiffy mixer or paddle. Mix only as much material as can be used within the product's pot life. Gradually add part C (aggregate) to the mixed components A and B, ensuring all aggregates are thoroughly coated with the epoxy resin.

B. Placing the Mortar: Apply the mixed epoxy mortar immediately, or within 30-40 minutes, to the prepared surface using a trowel or rake. Use SpecChem Solvent 100 as a finishing aid to lubricate the trowel for a smooth finish. For increased texture and improved traction, broadcast additional dry sand into the wet mortar immediately after application.

**3.03 Coverage and Curing**

A. The coverage rate for a 1/2 cubic foot unit at a 1/4" thickness is approximately 24 sq-ft.



B. SpecPoxy Mortar cures to a light gray mortar color, ready for foot traffic in 12 hours and vehicle traffic in 24 hours.

### **3.04 Cleaning**

A. Clean tools and equipment immediately with an appropriate solvent before the material hardens. Dispose of waste according to local, state, and federal regulations.