Specification Document
Product: SpecPoxy Coating

DIVISION 9 - FINISHES
Section 09900 High-Performance Coatings

Part 1 – General

1.01 Summary

A. This specification outlines the application of a 100% solids, high-build epoxy coating, SpecPoxy Coating, designed for concrete and steel surfaces requiring high abrasion resistance and protection against chemical attack. The product provides aesthetic versatility through a selection of colors while maintaining superior protective qualities.

1.02 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.

1.03 Delivery, Storage, and Handling

A. Delivery: Materials shall be delivered in their original, unopened containers, labeled with the manufacturer's information, product identification, and batch number.

B. Storage: Store materials in a dry area between 50°F and 80°F. Protect from exposure to extreme temperatures and direct sunlight.

C. Handling: Handle materials following SpecChem's guidelines. Ensure containers are sealed when not in use.

1.04 Job Conditions

A. Environmental Requirements: Do not apply when temperatures are below 50°F or above 90°F. Ensure the substrate is dry and free from contaminants.

B. Surface Conditions: Confirm the surface is prepared according to SpecChem's guidelines prior to application.

Part 2 – Products

2.01 Materials

A. Main Coating: SpecPoxy Coating by SpecChem, a 100% solids epoxy system designed for high-build applications.

B. Colors: Standard Gray, Clear, Red, Beige, and Black. Additional colors are available upon special order.

2.02 Performance Criteria

A. Compressive Strength: Should meet or exceed 11,000 psi after 28 days of curing.

B. Hardness: Shore D rating of 75-85.

C. Chemical Resistance: Must provide excellent resistance against a variety of chemicals including oils, gasoline, and common cleaning solutions.

Part 3 – Execution

3.01 Surface Preparation

A. Concrete Surfaces: Ensure concrete is at least 28 days old with an open texture. Remove all curing compounds, sealers, oil, dirt, debris, and unsound concrete. Mechanically prepare the surface using sandblasting, shotblasting, or scarifying to achieve an open profile. Vacuum thoroughly to remove dust. Acid etching is only acceptable when mechanical preparation is not feasible, and thorough cleaning must follow to remove all residues.

B. Steel Surfaces: Must be free of paint, oil, grease, and sandblasted down to white metal for optimal adhesion.

C. Joints and Edges: Sawcut edges 1/4" deep if subjected to heavy wheel traffic. Maintain moving joints through the coating. Fill cracks over 1/16" wide with a 100% solids epoxy mortar.

3.02 Mixing and Application

A. Mixing: Condition materials between 60°F and 90°F. Mix Parts A and B separately before combining. For ease, add Part B to Part A (2 Parts A to 1 Part B). Mix for 3 minutes with a low-speed drill until well blended.

B. Application: Apply with a notched squeegee or roller. Backroll with a spiked roller to reduce surface imperfections and improve bond. For a non-slip finish, broadcast clean, dry aggregate over the freshly applied coating before it levels out.

C. Top Coat: Additional coats or a seal coat can be applied once the initial coating is tack-free, typically 4 to 18 hours after application. Select a topcoat based on desired chemical and wear resistance.

3.03 Coverage and Cleaning

A. Coverage is approximately 75-125 sq ft per gallon, varying by surface texture. Two coats are recommended for optimal appearance and protection.

3.04 Cleaning and Disposal

A. Clean tools and spills with SpecChem Solvent 100, Xylene, toluene, or MEK immediately after use.

B. Dispose of all waste according to local, state, and federal regulations.

3.05 Curing and Post-Application

A. Allow the first coat to become tack-free before applying the second coat. Do not exceed 18 hours between coats.

B. Traffic: The coating is suitable for foot traffic after 24 hours and vehicular traffic after 72 hours under normal conditions.

3.06 Limitations

A. Do not apply in wet conditions or if rain is expected within 24 hours of application.

B. Avoid application if surface or air temperatures are outside the specified range.

C. Ensure good ventilation when applying indoors.