SECTION 09 67 23-RESINOUS FLOORING

PROCRYL IS – Impregnating Concrete Sealer System

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This section includes the following:
   1. Resinous flooring system as shown on the drawings and in schedules.
B. Related sections include the following:
   1. Cast-in-Place Concrete, section 03 30 00
      Concrete Curing, section 03 39 00

1.3 SYSTEM DESCRIPTION

A. The work shall consist of preparation of the substrate, the furnishing and application of an Acrylic sealer.
B. The system shall be clear as specified by the Owner with a nominal thickness of 2-3 mils. It shall be applied to the prepared area(s) as defined in the plans strictly in accordance with the Manufacturer's recommendations.

1.4 SUBMITTALS

A. Product Data: Latest edition of Manufacturer's literature including performance data and installation procedures.
B. Manufacturer's Safety Data Sheet (SDS) for each product being used.
C. Samples: A 3 x 4 inch concrete sample of the proposed impregnating sealer system.
D. LEED Submittals:
   1. Product data for Credit EQ 4.2: For flooring system, documentation including VOC content and chemical composition.
   2. MR Credit 2.1, 2.2: Construction waste management, packaging can be recycled.
   3. MR Credit 6: For flooring system, documentation includes renewable content and chemical composition.

1.5 QUALITY ASSURANCE

A. The Manufacturer shall have a minimum of 5 years' experience in the production, sales, and technical support of epoxy urethane and acrylic industrial flooring and related materials.
B. The Applicator shall have been approved by the flooring system manufacturer in all phases of surface preparation and application of the product specified.
C. No requests for substitutions shall be considered that would change the generic type of the specified System.

D. System shall be in compliance with requirements of United States Department of Agriculture (USDA), Food, Drug Administration (FDA), and local Health Department.

E. A pre-installation conference shall be held between Applicator, General Contractor and the Owner to review and clarification of this specification, application procedure, quality control, inspection and acceptance criteria and production schedule.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Packaging and Shipping
   1. All components of the system shall be delivered to the site in the Manufacturer's packaging, clearly identified with the product type and batch number

B. Storage and Protection
   1. The Applicator shall be provided with a storage area for all components. The area shall be between 60°F and 85°F, dry, out of direct sunlight and in accordance with the Manufacturer's recommendations and relevant health and safety regulations.
   2. Copies of Safety Data Sheets (SDS) for all components shall be kept on site for review by the Engineer or other personnel.

C. Waste Disposal
   1. The Applicator shall be provided with adequate disposal facilities for non-hazardous waste during installation of the system.

1.7 PROJECT CONDITIONS

A. Site Requirements
   1. Application may proceed while air, material and substrate temperatures are between 50°F and 85°F providing the substrate temperature is above the dew point. Outside of this range, the Manufacturer shall be consulted.
   2. The relative humidity in the specific location of the application shall be less than 85% and the surface temperature shall be at least 5°F above the dew point.
   3. The Applicator shall be supplied with adequate lighting equal to the final lighting level during the preparation and installation of the system.

B. Conditions of new concrete to be coated with ProREZ System.
   1. New concrete shall be moisture cured for a minimum of 7 days and have fully cured a minimum of 30 days in accordance with ACI-308 prior to the application of the coating system pending moisture tests. Outside of these parameters manufacturer shall be consulted.
   2. Concrete shall have a flat rubbed finish, float or light steel trowel finish (a hard steel trowel finish is neither necessary nor desirable).
   3. Sealers and curing agents should not to be used.
   4. Concrete surfaces on grade shall have been constructed with a vapor barrier to protect against the effects of vapor transmission and possible delamination of the system.

C. Safety Requirements
   1. The Owner shall be responsible for the removal of foodstuffs from the work area.
   2. Non-related personnel in the work area shall be kept to a minimum.

1.8 WARRANTY

A. ProREZ Performance Resins & Coatings warrants that material shipped to buyers at the time of shipment substantially free from material defects and will perform substantially to ProREZ Performance Resins & Coatings published literature if used in accordance with the latest prescribed procedures and prior to the expiration date.
B. ProREZ Performance Resins & Coatings liability with respect to this warranty is strictly limited to the value of the material purchase.
C. ProREZ Performance Resins & Coatings has no responsibility for the application and processing of products and is under no circumstances liable to any third party whatsoever.

PART 2 – PRODUCTS

2.1 FLOORING- ProREZ Performance Resins & Coatings: ProCryl IS Acrylic Impregnating/Sealer system.

1. System Materials:
   a. Primer: ProREZ ProCryl IS ("Impregnating Sealer") single component application.
   b. 2nd Coat: ProREZ ProCryl IS single component application.
2. Patch Materials:
   a. Shallow /Deep Fill and Patching: Use ProREZ Performance Resins & Coatings, ProCryl Binder (up to 1/4").
   b. Deep Fill and Sloping Material (over 1/4"): Use ProREZ Performance Resins & Coatings, ProCryl Cove Resin and Hardener combined with graded quartz aggregate.

2.2 MANUFACTURER

A. ProREZ Performance Resins & Coatings, 47 Inwood Road, Rocky Hill, CT 06067.
B. Manufacturer of Approved System shall be single source and made in the USA.

2.3 PRODUCT REQUIREMENTS (Refer to Product Data Sheet for specific performance.)

PART 3 – EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas and conditions, with Applicator present, for compliance with requirements for maximum moisture content, installation tolerances and other conditions affecting flooring performance.
   1. Verify that substrates and conditions are satisfactory for flooring installation and comply with requirements specified.

3.2 PREPARATION

A. General
   1. New and existing concrete surfaces shall be free of oil, grease, curing compounds, loose particles, moss, algae growth, laitance, friable matter, dirt, and bituminous products.
   2. There shall be no visible moisture present on the surface at the time of application of the system. Compressed oil-free air and/or a light passing of a propane torch may be used to dry the substrate.

3. Mechanical Surface Preparation
   a. Diamond Grind all surfaces to receive flooring system with 80-100 grit diamond pads/blades, with dust recycling machine. All surface and embedded accumulations of paint, toppings hardened concrete layers, laitance, power trowel finishes and other similar surface characteristics shall be completely removed leaving a bare concrete surface having a minimum profile of CSP 2 as described by the International Concrete Repair Institute.
4. Patching
   a. At spalled or worn areas, mechanically remove loose or delaminated concrete to a sound concrete and patch per manufactures recommendations.

3.3 APPLICATION

A. General
   1. The system shall be applied in three distinct steps as listed below:
      a. Substrate preparation
      b. Priming
      c. 2nd Application
   2. Immediately prior to the application of any component of the system, the surface shall be dry and any remaining dust or loose particles shall be removed using a vacuum or clean, dry, oil-free compressed air.
   3. The handling, mixing and addition of components shall be performed in a safe manner to achieve the desired results in accordance with the Manufacturer's recommendations.

B. Primer/Sealer & 2nd application
   1. APPLICATION: Apply Sealer with a low-pressure pump type sprayer. Position the spray tip approximately 8"-10" (200-300mm) from the concrete surface, using an overlapping spray pattern. Apply at a rate of 200 sq. ft per gallon or 5 sq. m/l with two passes, and applying the second pass immediately after the first has penetrated into the surface (normally 5 to 20 minutes). Apply the second application at 90° to the first ("cross hatch" spray pattern). Completely saturate the substrate but DO NOT PUDDLE. Use a 3/8" non-shedding nap roller to distribute ALL puddles immediately.
   2. Allow the material to fully cure.

3.4 FIELD QUALITY CONTROL

A. Tests, Inspection – The following tests shall be conducted by the Applicator:
   1. Temperature
      a. Air, substrate temperatures and, if applicable, dew point.
   2. Coverage Rates
      a. Rates for all layers shall be monitored by checking quantity of material used against the area covered.

3.5 CLEANING AND PROTECTION

A. Cure flooring material in compliance with manufacturer's directions, taking care to prevent any contamination during stages of application and prior to completion of the curing process.
B. Remove masking. Perform detail cleaning at floor termination, to leave cleanable surface for subsequent work of other sections.