

SPECIFICATION SECTION 09 96 59 – SPECIALTY COATINGS

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. This section includes the following resinous wall and ceiling system.
 - 1. Seamless Epoxy System: Integrated system for walls and ceilings consisting of 100% solids accelerated aliphatic amine cured epoxy primer, body and wear coats.

1.02 REFERENCE STANDARDS

- A. SSPC Painting Volume 1 and 2
- B. PDCA Standards 1-24.
- C. EPA Method 24.

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Pre-installation Meeting. Prior to the installation of the specified system, a meeting shall be held at the project site with the manufacturer's representative, the installer, the engineer/architect, general contractor, and the Owner's representative. General Contractor to document meeting discussions and furnish a copy to each participant. Meeting topics to include, but not be limited to:
 - 1. Planned start and completion timing for each mobilization.
 - 2. Safety procedures.
 - 3. Coordination of other trades in the area.
 - 4. Existing and new slab conditions.
 - 5. To discuss required testing.
 - 6. Existing substrate conditions.
 - 7. Surface preparation.
 - 8. Required environmental conditions.
 - 9. Installation sequencing and cure times.
 - 10. Protection of completed work.

1.04 SUBMITTALS

- A. With bid proposal
 - 1. List of no less than five (5) projects of similar size and complexity, using the approved coating systems, including Owner's names, contract amount, contact numbers, date of substantial completion.
 - 2. Manufacturer's data on specified products, describing physical and performance characteristics; sizes, patterns and colors available.
 - 3. Written verification from local distributor that installer is versed on Polymer Nation system specified.
 - 4. Failure to provide the above noted submittals shall cause bid to be rejected.
- B. Upon Contract
 - 1. Product Data. For each product to be used in the system, include manufacturer's technical data sheet, application instructions and SDS.
 - 2. Provide pertinent Detail Drawings including terminations, keyways, cove etc.
 - 3. Samples. For each resinous system specified herein, provide, when requested, two samples applied to a rigid backing, minimum size 12" X 12".
 - 4. Additional LEED Submittals if required to meet project design requirements.

1.05 QUALITY ASSURANCE

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- A. Source Limitations. Obtain all resinous materials, including waterproofing membranes, grouts, resins, curing agents, grout coats, aggregates, topcoats, patching and fill materials, joint sealants, and repair materials from a single manufacturer.
- B. Manufacturer Qualifications:
 - 1. Company specializing in manufacturing specified products, in the USA with minimum 3 years documented experience in the production, sales, and technical support of application.

1.06 MOCKUP

- A. Apply a mockup of each coating system to establish a benchmark of finish, thickness, texture, process, color, and quality.
 - 1. Mockup shall be applied to the specified substrate(s).
 - 2. Mockup shall be no larger than 100 square feet.
 - 3. Approved mockups may become part of completed Work if undisturbed at the time of Substantial Completion.
 - 4. If a cove base is to be included on the project, mockup shall include the same.
 - 5. Cost of mockup shall be included in bid proposal.
 - 6. Install mockup, as directed by Owner's representative, in properly lighted area.
 - 7. Do not proceed with work prior to receipt of written acceptance of mock-up.

1.07 DELIVERY, STORAGE & HANDLING

- A. Materials shall be delivered in original packages and containers, with seals unbroken, bearing manufacturer's labels indicating brand name and directions for storage and mixing with other components.
- B. Store materials in a location to prevent deleterious effects from sunlight, moisture, excessive heat, or cold.
- C. Storage of materials shall comply with all fire and safety regulations.

1.08 PROJECT CONDITIONS

- A. Environmental Limitations. Comply with coatings manufacturer's technical data sheet for acceptable substrate and ambient temperatures, concrete moisture levels, ventilation, and other environmental conditions that may negatively affect resinous flooring application or performance.
- B. Lighting. Proper lighting is required for installation. When possible, lighting shall simulate permanent lighting conditions during coatings application and is the responsibility of the Owner or General Contractor to provide.
- C. Installation. Close spaces to traffic during coatings application and for not less than 48-hours after application unless manufacturer recommends a longer period.
- D. Airborne Contamination. Coating systems should not be applied in areas where excessive dust or other airborne particulate matter may generate an unacceptable finish.
- E. Install coatings only when environment meets coating manufacturers requirements and for 72 hours prior to, during and 24 hours after installation of material.

PART 2 – PRODUCTS

2.01 MANUFACTURERS

- A. Manufacturer
 - 1. Polymer Nation, Waukegan, IL basis of design sales@polymernation.com **FLORIDA**
CONTACT: Floor Coating Source, 239-424-8692, info@floorcoatingsource.com
 - 2. Proposed substitutions must be equivalent or superior to basis of design materials in performance, history of use, layers, and overall system thickness.

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3. All substitution requests must be received 14 days prior to bid date and must be approved by architect, via addenda, prior to bid date.
4. No substitutions will be considered without written approval from architect.

2.02 SYSTEM

- A. Seamless Epoxy System: Integrated system for walls and ceilings consisting of 100% solids accelerated aliphatic amine cured epoxy primer, body and wear coats.
 1. Poly-Guard 110 as manufactured by Polymer Nation.
 2. System Characteristics/Performance Requirements:
 - a) Color and Pattern. As selected by Owner from manufacturer's full range.
 - b) Cove Base. Per room finish schedule if required.
 - c) System Thickness. Walls – minimum 32 mils DFT, Ceiling minimum 20 mils DFT
 - d) VOC's. <50 g/lit per EPA Method 24 for each component.
 - e) Product Composition. 100% solids, cycloaliphatic, Bisphenol A epoxy with zero nonylphenol or benzyl alcohol.
 - f) High or Low Solids solvent based, and all water-based systems excluded.
 - g) Integrated Micro Guard final finish as independently tested per JIS Z 2801 to reduce surface Microbes by 99.9997%.
 3. System Components
 - a) Wall Primer Coat: P-30 for porous substrates, F-01 for non-porous substrates
 - b) Wall body Coat: W-80
 - c) Wear Coat: W-80
 4. General Performance Requirements.
 - a) Resinous flooring system shall meet minimum published standards in accordance with Polymer Nation products as specified in this Section.

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Testing Activities During Resinous Coating Application.
 1. Examine substrate for conditions that may hinder proper preparation and installation.
 2. Examine work environment to ensure area is conducive to installation requirements.

3.02 PREPARATION

- A. General. Prepare and clean substrates in accordance with manufacturer's written instructions for substrate indicated.
- B. Concrete Masonry Units.
 1. Masonry contractor is responsible to provide an acceptable surface for specified coating system. A visual inspection by the onsite manufacturer's representative is required to ensure that the substrate is acceptable to receive the specified coating. Any deficiencies shall be corrected by the Masonry contractor. Requirements for an acceptable surface are as follows:
 - a) Mortar shall have a minimum of 28-days cure prior to coating.
 - b) Mortar joints are struck clean and filled tightly to avoid gaps or holes and to provide a neat, uniform appearance in accordance with procedures as outlined under Division 4 – Masonry.
 - c) Removal of all mortar spatter, protruding mortar edges or any excessive mortar.
 - d) All rough edges are to be ground smooth.
 - e) Concrete masonry units are to be cleaned as specified under requirements as outlined under Division 4 – Masonry.

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f) All surfaces shall be clean, dry, free of efflorescence, or other contaminants.

C. New Concrete Walls.

1. Concrete shall have a minimum of 28-days to cure prior to coating.
2. Abrasive blast or mechanically abrade to open the skin of concrete surface and to create the proper anchor profile of CSP2 or CSP3 in accordance with ICRI Guideline 03732.
3. Exposed bug holes or honey combing shall be filled with manufacturer's recommended epoxy filler prior to installing coating system.
4. All surfaces shall be clean, dry, and free of contaminants prior to installing coating system.

D. Cement Board:

1. Remove any loose coating using random orbital sanders.
2. Patch damaged areas using epoxy patching materials as recommended by manufacturer.
3. All joints shall be filled and taped by coatings contractor with manufacturer's recommended epoxy joint filler.
4. All surfaces shall be clean, dry, and free of contaminants prior to installing coating system.

3.03 INSTALLATION

A. General. Apply components of resinous coating system according to manufacturer's written instructions to produce a uniform, monolithic wearing surface at the specified thickness. Coordinate application of components to provide optimum adhesion of resinous floor system to substrate.

B. Installation.

1. Patch holes, imperfections, and non-moving joints to make them smooth.
2. Apply clear primer at 8-12 mils WFT using 3/8" nap roller cover.
3. Apply pigmented body coat at 8 mils WFT using 3/8" nap roller cover.
4. Sand off roller hairs and other imperfections using 150 grit or higher and then tack rag to remove dust.
5. Apply pigmented wear coat at 8 mils WFT using 3/8" nap roller cover.

3.04 CURING

A. Cure resinous flooring components according to manufacturer's written instructions.

1. Temperatures shall be maintained at 65°F - 85°F with less than 50% relative humidity.
2. Water leaks must be prevented as they may damage finish sheen.
3. Prevent contamination during curing processes.

3.05 CLEANING

- A. Work area shall be left clean.
- B. Remove all trash from work area.
- C. Consult coating manufacture for recommended cleaning materials and procedures.

3.06 WARRANTY

- A. Polymer Nation warrants that material shipped to buyers at the time of shipment are substantially free from material defects and will perform substantially to Polymer Nations published literature if used in accordance with the latest prescribed procedures and prior to the expiration date.
- B. Polymer Nation liability with respect to this warranty is strictly limited to the value of the material purchase.

END OF SECTION