

SECTION 09 67 00
MULTI-LAYERED WATERPROOF FLOOR SURFACING SYSTEM

1.0 PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. The Work of this Section as shown or specified shall be in accordance with the requirements of the Contract Documents.

1.2 WORK INCLUDED:

- A. Work of this Section includes all labor, materials, equipment and services necessary to complete multi-layered troweled waterproof floor surfacing as scheduled on the drawings and/or specified herein. The Contractor shall visit the site and examine the Drawings to determine the extent of Work to be provided.

1.3 RELATED WORK:

1. Appropriate Sections in Divisions 15 & 16

1.4 SUBMITTALS

- A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.
- B. Product Data: Submit manufacturer's technical data, application instructions and general recommendations for slip-retardant epoxy floor coating specified herein.
- C. Samples for initial selection purposes in form of manufacturer's color charts showing full range of colors and finishes available.
- D. Material Certificates signed by the manufacturer certifying that the floor coating complies with requirements specified herein.
- E. Maintenance Instructions: Submit manufacturer's written instructions for recommended maintenance practices.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced Installer or applicator who has specialized in installing resinous flooring types similar to that required for this Project and who is acceptable to the manufacturer of the primary materials.
- B. Single-Source Responsibility: Obtain epoxy floor coating materials including primers, slip-retardant aggregates, resins, hardening agents and finish coats from a single manufacturer.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original packages and containers with seals unbroken and bearing manufacturer's labels containing brand name and directions for storage and mixing with other components.

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- B. Store materials to comply with manufacturer's directions to prevent deterioration from moisture, heat, cold, direct sunlight, or other detrimental effects.

1.7 PROJECT CONDITIONS

- A. Environmental Conditions: Comply with slip-retardant epoxy coating manufacturer's directions for maintenance of ambient and substrate temperature, moisture, humidity, ventilation, and other conditions required to execute and protect work.

2.0 PART 2 - PRODUCTS

2.1 MATERIALS

- A. Multi-layered trowel applied waterproof flooring surfacing shall be equivalent to:
Dex-O-Tex Posi-Tred M-E Flooring II as manufactured by Crossfield Products Corp.; Rancho Dominguez, California; Roselle Park, New Jersey; Hinsdale, Illinois.
- B. Multi-layered trowel applied waterproof flooring surface system shall be composed of a primer bondcoat, waterproof membrane, traffic surfacing and finish coats, and shall conform to the following standards:
1. Traffic surface binder and all rubber emulsions shall be compounded with an aqueous synthetic rubber liquid containing no hydrocarbon solvents.
 2. Aggregate for traffic surface coating shall be suitably graded mineral aggregate passing a #20 mesh sieve and retained on a #80 mesh sieve.
 3. Fabric used as reinforcement for waterproof base and floor shall be 7 1/2 oz. woven polypropylene fabric.
 4. Final Finish dressing shall be a single component, water-phase acrylic latex emulsion material, pigmented and of a consistence suitable for roller application.

2.2 PROPERTIES

- A. Colors: Selected from manufacturer's standard colors.
- B. Physical Properties: Provide a waterproof flooring system that meets or exceeds the listed minimum physical property requirements when tested according to the referenced standard test method in parentheses.

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| Weight: | 1.65 lbs. per sq. ft. |
| Freeze-Thaw (ASTM C-67) | No breakage or weight loss |
| Tensile Strength (ASTM D-1117) | |
| Elongation Dry | 29.0% |
| Breakload Dry | 79 lbs. per inch |
| Elongation Wet | 31.0% |
| Breakload Wet | 67 lbs. per inch |
| Waterproofness: | 50 lbs. per inch water pressure w/ no transmission |
| (Ceramic Tile Institute test method) | |

WARD 3D PHYSICAL THERAPY RENOVATION
06-08M
VA WNY Health Care System
3495 Bailey Ave
Buffalo, New York

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| Strip Adhesion: | 19.2 lbs. per inch |
| Indentation Characteristics (MIL-D-3134) | |
| Steady Load | < 5% |
| Impacted Load | No Cracking or Delamination |
| Flammability (ASTM E-84) | Flame Spread 50 |
| Chemical Resistance (ASTM D-2299) | |
| Industrial Detergent | No change in texture or color |
| Salt (20%) | No change in texture or color |
| Ammonia Solution (5%) | No change in texture or color |
| Muriatic Acid (10%) | No change in texture or color |
| Chlorine (10%) | No change in texture or color |
| Kerosene | No change in texture or color |
| Turpentine | Slight temporary softening of surface |
| Paint Thinner | Slight temporary softening of surface |
| Volatile Organic Content | None |

3.0 PART 3 - EXECUTION

3.1 INSPECTION

- A. Examine the areas and conditions where the multi-layered troweled waterproof flooring surfacing is to be installed and notify the Architect of conditions detrimental to the proper and timely completion of the work. Do not proceed with work until unsatisfactory conditions have been corrected by the Contractor in a manner acceptable to the Architect.

3.2 PREPARATION

- A. Substrate: Perform preparation and cleaning procedures according to waterproof floor surfacing manufacturer's instructions for particular substrate conditions involved, and as specified. Provide clean, dry, and neutral substrate for waterproof flooring application.
- B. Concrete Surfaces: Shot-blast, acid-etch or power scarify as required to obtain optimum bond of multi-layered troweled waterproof flooring surfacing to existing or new concrete. Remove sufficient material to provide a sound surface free of laitance, glaze, efflorescence, and any bond-inhibiting curing compounds or form release agents. Remove grease, oil, and other penetrating contaminants. Repair damaged and deteriorated concrete to acceptable condition. Leave surface free of dust, dirt, laitance and efflorescence.
- C. Materials: Mix aqueous emulsions and aggregate when required as per manufacturer's instructions. Prepare materials according to waterproof flooring system manufacturer's instructions.

3.3 APPLICATION

WARD 3D PHYSICAL THERAPY RENOVATION

06-08M

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- A. General: Apply each component of multi-layered troweled waterproof flooring system according to manufacturer's directions to produce a uniform monolithic surface.
- B. Apply synthetic rubber waterproof membrane solution at all vertical junctures. Embed polypropylene fabric into membrane liquid.
- C. Apply synthetic rubber waterproof membrane solution with polypropylene fabric reinforcement to entire area to be coated. Overlap all seams a minimum of 2 inches.
- D. Trowel apply elasticized resin emulsion and aggregate composition traffic surfacing over all surfaces previously covered with waterproof membrane. Sand surface to remove trowel marks or small surface imperfections.
- E. Roller apply two coats of final finish dressing to a uniform finish.
- F. Finished waterproof mechanical equipment room floor surfacing shall be a nominal 3/16 inch thick, uniform in color and texture.

3.4 CURING, PROTECTION AND CLEANING

- A. Cure multi-layered troweled waterproof flooring surface materials according to manufacturer's directions, taking care to prevent contamination during application stages and before completing curing process. Close application area for a minimum of 24 hours.

END OF SECTION