

**SECTION 071800 VEHICULAR TRAFFIC COATING**

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 SECTION INCLUDES

- A. The Work of this Section includes all labor, materials, equipment, and services necessary to complete the traffic coating as shown on the drawings and specified herein, including, but is not necessarily limited to, the following:

- 1. Waterproofing vehicular traffic coating.
- 2. Accessories.

1.3 RELATED SECTIONS

- A. Cast-in-Place Concrete - Section 033000.

1.4 QUALITY ASSURANCE

- A. Applicator Qualifications: Applicators shall be approved by manufacturer as licensed applicators.
- B. Requirements of Regulatory Agencies: Materials used in the Vehicular deck coating system shall meet existing VOC regulations

1.5 SUBMITTALS

- A. Product Data: Submit manufacturer's product literature and installation instructions.
- B. Samples: Submit samples of specified traffic deck coating system. Samples shall be construed as examples of finished color and texture of traffic deck coating system only.
- C. License Certificate: Submit a currently dated Applicator's License Certificate issued by manufacturer. The certificate shall verify the applicator's qualifications to properly install the manufactured system and shall commit manufacturer to the acceptance of the applicator as a co-signer under the joint responsibility provisions of the Maintenance Agreement required by these specifications.
- D. Maintenance Agreement: Upon completion of installation of the system, submit joint Maintenance Agreement.
  - 1. Maintenance Agreement Requirements: The materials and workmanship involved in this application shall be guaranteed, on a single document, by manufacturer and the licensed applicator for five years. In accordance with provisions of the Maintenance Agreement, ruptures caused by cracking of the substrate up to 1/16" in width are covered; otherwise, no liability is assumed for defects in the substrate. Liability for damage in any respect, to the building or contents thereof is specially excluded from the Maintenance Agreement.

1.6 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Delivery: Materials shall be delivered in original sealed containers, clearly marked with supplier's name, brand name and type of material.
- B. Storage and Handling: Recommended material storage temperature is 75 deg. F. Handle products to avoid damage to container. Do not store for long periods in direct sunlight.

1.7 JOB CONDITIONS

- A. Environmental Conditions
  - 1. Do not proceed with application of materials when deck temperature is less than 40 deg. F.
  - 2. Do not apply materials unless surface to receive coating is clean and dry, or if precipitation is imminent.
- B. Protection: After completion of application, do not allow traffic on coated surfaces for a period of at least 48 hours at 75 deg. F. and 50% R.H., or until completely cured.

1.8 WARRANTY

- A. Provide manufacturer's standard warranty with available options and flashing endorsement, signed by Applicator and authorized representative of manufacturer, and warranting decking materials against failures resulting from normal exposure for a period of five (5) years.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Troweled waterproof neoprene co-polymer composition vehicular traffic-bearing waterproof surfacing system shall be "Auto-Gard-E" by Neogard, "Vulkem 350/950NF/950NF" by Tremco Inc. or approved equal.
- B. The trowel-applied waterproof neoprene co-polymer composition vehicular traffic bearing waterproof surfacing system shall be composed of a co-polymer bond coat, neoprene waterproof membrane, and cementitious co-polymer traffic topping surfacing.
  - 1. All resin binders and all rubber emulsions shall be compounded with neoprene or polyacrylate co-polymer liquids and shall have a minimum polymer, neoprene, solids content of 35% when tested by the dry cup method.
  - 2. Aggregate for traffic surface coating shall be suitably graded, fine trap-rock passing a #20 mesh sieve and retained on a #40 mesh sieve.
  - 3. Fabric used as reinforcement for waterproof membrane shall be 7-1/2 oz. woven polypropylene fabric.
  - 4. Finish Coating Thickness: Minimum 1/8".
    - a. 40 mils, minimum, at parking stalls and walking surfaces.
    - b. 55 mils, minimum, at drive lanes and ramps.

## 2.2 MATERIAL PERFORMANCE CRITERIA

- A. Minimum Performance Requirements: The minimum performance requirements for the coating system to be used on this project shall meet the man
1. Tensile Strength (ASTM D 412): 2500 psi.
  2. Water Vapor Permeance (ASTM E 96): Less than 0.10 perms.
  3. Surface Burning Characteristics (ASTM E 84): 0-25 flame spread index; 0-450 smoke developed index.
  4. Abrasion (ASTM D 1242): 9 mils.
  5. Adhesion (ASTM D 4541): > 400 psi.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Cleaning: Surfaces contaminated with oil or grease shall be vigorously scrubbed with a power broom and a strong non-sudsing detergent. Thoroughly wash, clean, and dry. Areas where oil or other contaminants penetrate deep into the concrete may require removal by mechanical methods.
- B. Etching: Treat concrete surfaces with 10% to 15% solution of muriatic acid to remove laitance and impurities. After acid has stopped foaming or boiling, immediately rinse thoroughly with water. Re-rinse as required to remove muriatic acid solution. Note: If acid etching is not practical, steel shot blasting is an acceptable alternative.
- C. Damaged areas of concrete are to be restored to match adjacent areas. Repair areas in accordance with manufacturers requirements.

### 3.2 APPLICATION

- A. General: Apply each component of waterproof neoprene co-polymer composition vehicular traffic bearing waterproof surfacing system according to manufacturer's directions to produce a uniform, monolithic surface of thickness indicated.
- B. Apply surface conditioner/primer to surfaces shown to receive traffic coating if recommended by the system manufacturer. Joints, Cracks and Terminations: Prepare control joints, non-moving cracks, moving cracks and terminations in accordance with the manufacturer's recommendations, prior to application of membrane.
1. Flashings: Products and systems as shown and as specified applied in accordance with membrane manufacturer's recommendations. Build a 1/2 inch minimum cant strip of cant material where horizontal and vertical surfaces intersect.
  2. Non-Moving Joints and Cracks: Provide treatment as recommended by membrane manufacturer, but not less than the following:
    - a. Rake and fill joint using membrane material. Stripe joint using membrane manufacturer's recommended material.
  3. Moving Joints and Cracks: Provide treatment as recommended by the membrane manufacturer, but not less than the following:
    - a. Remove loose material. Install sealant, struck flush with surface. Apply 20 mil stripe coat of membrane material extended not less than 3 inches each side of joint.

C. Application

1. Base Coat: Apply membrane to a total thickness of 24 to 30 mils. Apply additional material to correct areas deficient in thickness by procedures recommended by the membrane manufacturer.
2. Top Coat: Apply membrane to a total thickness of 12 to 15 mils. Apply additional material to correct areas deficient in thickness by procedures recommended by membrane manufacturer. Coat to desired finish profile. Apply additional texture coat to ramps and high use areas.

3.3 TESTING

- A. Test installation for leaks immediately after nominal cure of the completed coating. Flood each area to a depth of one (1) inch for twenty-four (24) hours. Repair all leaks and repeat test until no leakage is observable.

3.4 CLEANING

- A. Remove debris resulting from completion of coating operation from the project site.

3.5 PROTECTION

- A. Institute protection and surveillance procedures as needed to ensure that work will be without damage or deterioration at time of final acceptance and after completion of other construction work.

END OF SECTION 071800