1. **GENERAL**
   1. **SECTION INCLUDES**
      1. Applied concrete sealer system.
      2. Related Sections
         1. Section 03 30 0 Concrete.
         2. Section 09 65 20, Resilient Tile Flooring.
         3. Section 09 68 00, Sheet Carpet
   2. **PERFORMANCE REQUIREMENTS**
      1. Vapor emissions floor treatment shall reduce vapor emissions from on-grade slabs to levels satisfactory to resilient flooring manufactures requirements and warranties.
      2. Vapor emission floor treatment shall prevent negative side moisture migration through concrete floor and shall allow for all types of flooring surface treatment systems.
      3. Vapor emission floor treatment shall be alkali-neutralizing and shall penetrate into concrete materials and chemically form protective crystalline barrier between surfaces. Inner barrier so formed shall not be affected by Ultra-violet light, abrasion and chemicals and shall permanently seal and waterproof concrete against harmful effects of water intrusion, freeze-thaw cycle damage, de-icing salts and chloride migration.
   3. **SUBMITTALS**
      1. Product data describing physical and performance characteristics.
      2. Manufacturer’s written installation instructions.
      3. Manufacturer’s certificate indicating applicator is accepted installer.
      4. Moisture vapor emission test results. Indicate environmental conditions, installation procedures used, deficiencies and corrective actions taken for filler, vapor emissions coating and membrane.
   4. **QUALITY ASSURANCE**
      1. Applicator: Company approved and certified by vapor emission floor treatment manufacturer.
      2. Requirements of Regulatory Agencies: Materials used in formulation of product shall conform to all local, State, and Federal air quality and environmental control standards.
   5. **PRODUCT DELIVERY, STORAGE AND HANDLING**
      1. Deliver materials in original sealed containers, clearly marked with manufacturer's name and brand name.
      2. Store materials in accordance with manufacturer's recommendations.
   6. **WARRANTY**
      1. Submit under provisions of Division 1, General Requirements.
      2. Provide 10-year warranty against defects in product and installation.
      3. Include all costs for replacement of failed flooring material installed over moisture seal membrane.
2. **PRODUCTS**
   1. **MANUFACTURERS**
      1. Products of following manufacturers form basis for design and quality intended.
      2. Creteseal, Santa Ana, CA. Product: CS 2000.
      3. Or equal as approved in accordance with Division 1, General Requirements for substitutions.
   2. **MATERIALS**
      1. Vapor emission floor treatment: Silicate-based solution to penetrate on-grade concrete floor surfaces to form protective crystalline moisture barrier.
      2. Sealer/Hardener/Vapor Barrier/Curing Compound, with minimum of 5 years documented experience to control moisture vapor emission, having 34 percent solid content, compatible with all flooring materials, adhesives, bond breakers and Overlayments. Complies with ASTM C-309, ASTM C-1315. Surface treatment shall be applied the day of concrete pour on slabs receiving resilient flooring, sheet vinyl and vinyl composition tile, rubber tile, wood flooring.
      3. Accessory Materials: As recommended by manufacturer/or intended application.
3. **EXECUTION**
   1. **EXAMINATION**
      1. Verify surfaces are dry and free of dirt and contaminates.
      2. Verify existing concrete conditions are suitable to receive the Work of this Section.
      3. Repair concrete where required according to manufacturer’s recommendations.
      4. Do not begin application until unsuitable conditions have been corrected.
      5. Beginning of Installation means acceptance of existing substrate and site conditions.
   2. **PREPARATION**
      1. Prepare surface by removal of laitence, grease and foreign matter. Use mechanical means (scarifing or bead blasting) where required.
      2. Thoroughly clean all cracks.
      3. Apply to structurally sound concrete surfaces, free of voids and cracks. If needed apply cementitious patch or approved epoxy filler to any voids or cracks.
      4. Clean expansion joints and provide slip joint as required.
      5. Maintain building temperature above 65 degrees Fahrenheit for a period of 48 hours prior to start of installation of base coat.
   3. **APPLICATION**
      1. Apply concrete-moisture seal materials in accordance with manufacturer’s written instructions.
      2. Spray apply two uniform "wet on wet" flood coats of CS2000 on pre-dampened concrete at rate of approximately 200 square feet per gallon applied at right angles of each other in cross-hatched manner, using low pressure power sprayer or airless spraying rig (.025 average. tip size). Do not dilute product. Surfaces may be opened to foot traffic immediately after surface is dry.
      3. Squeegee or broom out excess product that puddles one hour after application.
      4. If the proposed floor covering required additional smoothing or leveling to substrate, use manufacturer’s recommended product.
   4. **PROTECTION**
      1. Prohibit traffic on finish floor surface prior to installation of finish floor covering.

**3.05 CLEAN UP**

**A.** Pick up all trash and dispose of it legally off site.

**END OF SECTION**