1. GENERAL
   1. SUMMARY
      1. Section Includes:

Revise list below to suit Project.

* + - 1. Cementitious concrete floor underlayment.
  1. ACTION SUBMITTALS
     1. Product Data: For each type of product indicated.
  2. INFORMATIONAL SUBMITTALS

Retain paragraph below if Contractor is responsible for field quality-control testing.

* + 1. Field quality-control test reports.
    2. Submittal of certification by underlayment manufacturer and supplier.
  1. QUALITY ASSURANCE
     1. Installer: Company specializing in installing work of this Section and Certified in writing by the underlayment manufacturer and supplier.
  2. DELIVERY, STORAGE, AND HANDLING
     1. Deliver materials in original packages and containers, with seals unbroken, bearing manufacturer's labels indicating brand name and directions for storage, mixing with other components, and application.
     2. Store materials to comply with manufacturer's written instructions to prevent deterioration from moisture or other detrimental effects.
  3. PROJECT CONDITIONS
     1. Environmental Limitations: Comply with manufacturer's written instructions for substrate temperature and moisture content, ambient temperature and humidity, ventilation, and other conditions affecting concrete floor topping performance.
     2. Close areas to traffic during topping application and, after application, for time period recommended in writing by manufacturer.

1. PRODUCTS
   1. CONCRETE FLOOR UNDERLAYMENT
      1. Factory-prepared and dry-packaged cementitious underlayment material capable of application from a feather edge to one half inch (1/2”) thickness over existing, prepared concrete floor slab.
         1. Basis of Design Product: Ardex ‘Feather Finish’
         2. Subject to compliance with requirements, other products by the following manufacturers:
            1. Mapei
            2. CTS Cement Manufacturing Corp.
            3. Or Approved Equal.
      2. The material shall be hydraulic cement based, non-metallic with no added chlorides. It shall be pre-blended requiring only the addition of water.
   2. RELATED MATERIALS

Retain first paragraph below for joint filler to fill contraction joints and, if required, construction joints.

* + 1. Primer: Manufacturer's recommended for concrete surfaces. Primer must be by same manufacturer as topping product.
  1. MIXING

Retain one of first two paragraphs below if bonding slurry is used to bond topping to new, hardened concrete. Delete both if epoxy adhesive is required for existing, aged concrete or if topping is monolithically placed on plastic concrete. Retain first paragraph if mixing a neat-cement slurry. Retain second paragraph if mixing a sand-cement slurry alone or in combination with an acrylic-bonding agent.

* + 1. Floor Topping: Mix concrete floor topping materials and water according to manufacturer's written instructions. Do not overwater.

1. EXECUTION
   1. EXAMINATION
      1. Examine substrates, with Contractor present, for conditions affecting performance of concrete floor topping.
      2. Verify that base slabs are visibly dry and free of moisture. Test for capillary moisture by the plastic sheet method according to ASTM D 4263.
      3. Proceed with application only after unsatisfactory conditions have been corrected.
      4. Installer shall provide submittal in writing indicating base slab is acceptable prior to beginning work. Commencement of work constitutes acceptance of existing conditions.
   2. PREPARATION
      1. Prepare and clean existing base slabs according to concrete floor topping manufacturer's written instructions. Fill voids, cracks, and cavities in base slabs. Remove contaminants from existing concrete that might impair bond of floor topping.
      2. Thoroughly clean extraneous material such as dirt, loose chips, and dust from concrete surface. If compressed air is used, it shall be free of oil.
      3. Concrete surface shall be saturated with potable water. Standing water shall be removed from surface to achieve a saturated-surface-dry (SSD) condition.
   3. APPLICATION

Select application method from one of first two paragraphs below. Retain both paragraphs if decision is left to Contractor's option. See Evaluations for further discussion.

Retain first paragraph below if bonding floor topping monolithically to plastic concrete.

Retain first paragraph below if using epoxy-bonding adhesive over existing base slabs.

* + 1. Apply primer if required, mixed according to manufacturer's written instructions.
    2. Start floor underlayment application in presence of manufacturer's technical representative.
    3. Place underlayment continuously in a single layer, consolidating to achieve tight contact with bonding surface.
    4. Level all areas to receive new Rubber Sheet Flooring with trowelable concrete underlayment material to produce a uniform and smooth substrate.
    5. Coat face of construction joint with epoxy adhesive at locations where concrete floor topping is placed against hardened or partially hardened concrete floor topping.
  1. REPAIRS
     1. Defective Underlayment: Repair and patch defective concrete floor underlayment areas, including areas that have not bonded to concrete substrate as directed by Owner's Representative.
  2. CURING
     1. Cure installations per manufacturer’s recommendations.
  3. CLEAN UP
     1. Maintain a clean, orderly work area.
     2. Clean excess material from surrounding areas immediately.
     3. Protect adjacent surfaces that may be damaged, with drop cloths, waterproof paper, or other means to maintain surfaces free of material splashes, water, and debris.

Retain first paragraph below to identify who shall perform tests and inspections. If retaining second option, retain "Field quality-control test reports" Paragraph in "Informational Submittals" Article.

**END OF SECTION**