

SECTION 09650
RESILIENT FLOORING

PART 1 GENERAL

1.1 SUMMARY

- A. Related Sections:
 - 1. Drawings and general provisions of Contract including General and Supplementary Conditions and all Division 1 specification sections.
 - 2. Provision of waste management: Section 01 74 19, Construction Waste Management and Disposal.

1.2 SECTION INCLUDES

- A. Resilient slip resistant vinyl sheet, vinyl plank and vinyl tile flooring, base, stair and accessories.
- B. Substrate preparation for resilient flooring and accessories.

1.3 SUBMITTALS

- A. Section 01340 - Submittal Procedures: Submittal procedures.
- B. Product Data: Submit data on product characteristics, performance criteria, limitations, and adhesives.

1.4 SYSTEM DESCRIPTION

- A. Resilient Flooring: Conform to applicable code for flame/smoke rating requirements of 75/450 in accordance with ASTM E84 and critical radiant flux (CRF) of 0.45 per ASTM E648.

1.5 EXTRA MATERIAL

- A. Provide 5% of resilient flooring of each type, color and pattern.

PART 2 PRODUCTS

2.1 VINYL COMPOSITION TILE: Refer to Interior Finish Legend for schedule of materials.

- A. Vinyl Composition tile, VCT: ASTM F 1066, Homogeneous, Mannington Essentials/Designer Essentials, or equal.
 - 1. ASTM F-1066 Class 2
 - 2. Wearing Surface: Smooth
 - 3. Total Thickness: 1/8 inch.
 - 4. Size: 12 by 12 inches
 - 5. Fire – Test- Response Characteristics:
 - 6. Colors: As indicated
 - 7. Manufacturers:
 - a. Armstrong World Industries Inc.
 - b. Azrock Industries Inc.
 - c. Mannington Commercial
 - d. Johnsonite / Tarkett Inc.

2.4 CONCRETE SUBSTRATE VAPOR BARRIERS – Refer to 01001 Allowance Items for further information.

- A. Vapor Barriers: For moisture vapor emission rate (MVER) exceeding 3 lb/1000 sq. ft., employ the following strategies:
1. For moisture vapor emission rate (MVER) between 3 and 8 lb/1000 sq. ft., use one of the following products:
 - a. M-Guard V-68 Ultra Premium Commercial Adhesive by Mannington
 - b. Hydroseal by Formulators
 - i. For VCT and carpet tile use Hydroseal PSA
 - ii. For VCT, Carpet and Sheet vinyl use Hydroseal Multi
 - c. Koester VAP I-2000 (with flooring manufacturers recommended adhesive).
 2. For moisture vapor emission rate (MVER) between 8 and 10 lb/1000 sq. ft., use the following products:
 - a. Hydroseal PSA or Hydroseal Multi with the addition of Hydroseal Primer
 - b. Koester VAP I-2000 (with flooring manufacturers recommended adhesive).
 3. For moisture vapor emission rate (MVER) between 10 and 12 lb/1000 sq. ft., use the following products:
 - a. Hydroseal PSA or Hydroseal Multi with the addition of Hydroseal Primer and Hydroseal Membrane.
 - b. Koester VAP I-2000 (with flooring manufacturers recommended adhesive).
 4. For moisture vapor emission rate (MVER) above 12 lb/1000 sq. ft., use the following product:
 - a. Koester VAP I-2000 (with flooring manufacturers recommended adhesive).

2.5 ACCESSORIES

- A. Subfloor Filler: Type recommended by floor material manufacturer.
- B. Primers and Adhesives: Waterproof, type recommended by floor material manufacturer.
1. Flooring Adhesive: VOC emissions not to exceed 50 g/L .
 2. Cove Base Adhesive: VOC emissions not to exceed 50 g/L.
- C. Vinyl Base: Vinyl top set coved as scheduled: Refer to Interior Finish Legend for schedule of materials.
1. Height: 4 inch.
 2. Thickness: 0.080 inch thick.
 3. Finish: Satin
 4. Length: Roll.
 5. Manufacturers:
 - a. Armstrong World Industries Inc.
 - b. Azrock Industries Inc.
 - c. Johnsonite/ Tarkett Inc.
- D. Resilient Molding Accessories - Types Include the Following As Applicable: Carpet edge for glue-down applications, nosing for carpet, nosing for resilient floor covering, reducer strip for resilient floor covering, reducer strip for carpet, joiner for tile and carpet, and substrate leveler system.
1. Material: Rubber or vinyl, as indicated.
 2. Profile and Dimensions: As indicated.
 3. Manufacturers:
 - a. Johnsonite / Tarkett Inc.
 - b. Roppe Corporation

- c. Mannington Mills Inc.
- E. Vinyl welding rod: Types recommended by flooring material manufacturer.
- F. Sealer and Wax: Types recommended by floor material manufacturer.

PART 3 EXECUTION

3.1 EXAMINATION AND PREPARATION

- A. **Prior to material order**, conduct tests as required to verify that concrete floors are dry to maximum moisture content of 7 percent, and exhibit negative alkalinity, carbonization, and dusting.
- B. Fill minor low spots and other defects with subfloor filler.
- C. Clean substrate.
- D. Apply primer as required to prevent "bleed-thru" or interference with adhesion by substances that cannot be removed.

3.2 PROJECT CONDITIONS

- A. Maintain temperatures within range recommended by manufacturer, but not less than 70 deg F or more than 95 deg F in spaces to receive floor tile during the following time periods.
- B. 48 hours before installation.
- C. During installation.
- D. 48 hours after installation.
- E. After post installation period, maintain temperatures within range recommended by manufacturer, but not less than 55 deg F or more than 95 deg F.
- F. Close spaces to traffic during floor covering installation.
- G. Close spaces to traffic for 48 hours after floor covering installation.
- G. Install resilient products after other finishing operations, including painting, have been completed.

3.3 INSTALLATION – CONCRETE VAPOR BARRIERS

- A. Concrete Substrates: Provide sound concrete surfaces free of laitance, glaze, efflorescence, curing compounds, form-release agents, dust, dirt, grease, oil, and other contaminants incompatible with resinous flooring.
 - 1. Prepare according to ASTM F 710.
 - 2. Repair damaged and deteriorated concrete according to resilient flooring manufacturer's written recommendations.
 - 3. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.
 - 4. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.

- a. Perform anhydrous calcium chloride test, ASTM F 1869. Proceed with application only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. in 24 hours.
 - b. Perform additional moisture tests recommended by manufacturer. Proceed with application only after substrates pass testing.
 - c. If moisture vapor emissions exceed 3lb/1000 sq. ft., application of moisture abatement product is required.
5. Verify that concrete substrates have neutral pH and that resilient flooring will adhere to them. Perform tests recommended by manufacturer. Proceed with application only after substrates pass testing.
 6. Provide written copies of test to Owner's Rep. and Architect.

3.4 INSTALLATION - SHEET AND TILE MATERIAL

- A. Install in accordance with manufacturer's instructions.
- B. Spread adhesive and set flooring in place. Press with heavy roller to attain full adhesion.
- C. Install tile flooring with joints and seams parallel to building lines, with grain running in one direction. Allow minimum 1/2 full size tile width at room or area perimeter.
- D. Install sheet flooring with seams parallel to width of room. Provide minimum of 1/3 full roll width. Double cut sheet and continuously seal with heat weld and butt joints hairline.
- E. Scribe flooring to produce tight joints at items that penetrate flooring.
- F. Where floor finishes are different on opposite sides of door, terminate flooring under centerline of door.
- G. Install edge strips at unprotected or exposed edges, where flooring terminates, at face of tub/shower units, and where indicated. Secure resilient strips by adhesive.
- H. Metal Edge Strips: Extruded aluminum with mill finish of width shown, of height required to protect exposed edges of tiles, and in maximum available lengths to minimize running joints.

3.6 INSTALLATION - BASE MATERIAL

- A. Adhere base tight to wall and floor surfaces.
- B. Fit joints tightly and make vertical. Miter internal corners. At external corners, V cut back of base strip to 2/3 of its thickness and fold.

3.8 CLEANING

- A. Remove excess adhesive from surfaces without damage.
- B. Clean, seal, and wax surfaces in accordance with manufacturer's instructions prior to substantial completion.

END OF SECTION