

SECTION 096519  
RESILIENT TILE FLOORING

PART 1 - GENERAL

1.1 SUMMARY

- A. Related Sections:
1. Section 096513 – Resilient Base and Accessories
  2. Section 096816 – Sheet Carpeting.

1.2 SUBMITTALS

- A. General: Submit in accordance with Section 013300.
- B. Product Data:
1. Submit product information for each product.
  2. Include information for accessories and other required components.
  3. Include color charts for finish indicating manufacturer's full range of colors available for selection.
- C. Samples:
1. Illustrate: Style, pattern, color, and size.
  2. Verification of Selection:
    - a. Quantity: Four.
    - b. Tile: Submit actual tile unit.
    - c. Wall Base: Submit 12 inch lengths.
    - d. Trim Components: Submit 12 inch lengths.
- D. Submit following Informational Submittals:
1. Certifications specified in Quality Assurance article.
  2. Qualification Data: Installer's qualification data.
  3. Manufacturer's Instructions:
    - a. Application temperature and humidity range.
    - b. Floor moisture content range.
    - c. Bond and moisture test procedures including frequency and duration.
    - d. Special procedures.
    - e. Perimeter conditions requiring special attention.
- E. Closeout Submittals:
1. Submit under provisions of Section 017800.
  2. Maintenance data. Include polishing/waxing information.

1.3 QUALITY ASSURANCE

- A. Single Source Responsibility: Obtain each type, color, and pattern of resilient flooring products from a single source with resources to provide products of consistent quality in appearance and physical properties without delaying progress of the Work.
- B. Installer Qualifications: Acceptable to manufacturer with experience on at least 5 projects of similar nature in past 5 years.
- C. Regulatory Requirements:
1. Comply with local regulations controlling use of volatile organic compounds for installation products.

2. Slip resistance: ASTM D2047, minimum static coefficient of friction; 0.6 for floors, 0.8 for ramps.

D. Certifications:

1. Manufacturer's certification that products furnished for project meet or exceed specified requirements.
2. Installer Certification: Manufacturer's certification attesting that Installer is trained and approved for application of materials.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Comply with requirements of Section 016000.
- B. Deliver materials to Job Site in manufacturer's unopened containers clearly marked with manufacturer's name, brand, size, thickness, grade, color, and design.

1.5 PROJECT CONDITIONS

A. Environmental Requirements:

1. Maintain minimum air and subfloor temperature required by adhesive manufacturer in spaces to receive products for at least 72 hours prior to installation, during installation, and for not less than 48 hours after installation.
2. Store products in spaces where they will be installed for at least 72 hours before beginning installation to achieve temperature stability.
3. Do not install products until they are at same air and subfloor temperature as space where they are to be installed.
4. After installation, maintain minimum air and subfloor temperature of 55 degrees F in areas where work is completed.

1.6 SEQUENCING

- A. Install products after other finishing operations, including painting, have been completed.
- B. Do not install resilient products on top of concrete slabs until they are cured and are sufficiently dry to achieve bond with adhesive as determined by resilient material manufacturer's recommended bond and moisture test.
- C. Coordinate installation of resilient base, reducer strips, and transition strips with installation of:
  1. Carpet specified in Section 096813.

1.7 MAINTENANCE

A. Maintenance Materials:

1. Furnish under provisions of Section 017820.
2. Furnish extra tile and resilient base in quantity equal to 2 percent of total material furnished but not less than:
  - a. One unopened box of tile of each type, pattern and color.
  - b. 50 feet of each type and color base installed.
3. Store at job site where directed. Ensure boxes are identified by manufacturer, pattern, style, and color.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Vinyl Composition Tile Manufacturers

1. Armstrong Floor Division, Armstrong World Industries, Inc., Lancaster, PA.
2. Congoleum Corporation.
3. Mannington Mills, Inc.

4. Tarkett, Inc.

## 2.2 MATERIALS

### A. Vinyl Composition Tile:

1. Tile standard: ASTM F 1066, Class 2, through-pattern tile.
2. Wearing Surface: Smooth.
3. Thickness: 0.125 inch (3.2 mm).
4. Size: 12 by 12 inches (305 by 305 mm).
5. Colors and sizes: Refer to Color and Materials Schedule on Drawings.

## 2.3 TRIM COMPONENTS

### A. Resilient Flooring Reducer Strip:

1. Description:
  - a. Material: Homogeneous rubber composition.
  - b. Width: 1 inch, minimum.
  - c. Align flush with top of resilient flooring on side of strip.
  - d. Tapered or bullnose edge on side opposite of resilient flooring.
  - e. Colors: Selected by Architect from manufacturer's full range of colors.
2. Acceptable Products:
  - a. Tile Reducer Strip No. 92, Flexco Company, Tuscumbia, AL.
  - b. RRS-XX-C Series, Johnsonite, Chagrin Falls, OH.
  - c. Tile Reducer No. 633, Burke/Mercer Products Company, Inc., Eustis, FL.
  - d. Reducer Strip No. 172, Roppe Corporation, Fostoria, OH.

### B. Carpet Reducer Strip:

1. Description:
  - a. Material: Homogeneous rubber composition.
  - b. Profile: Fabricate to accommodate 5/16 inch glue-down carpet.
  - c. Width: 2 inch, minimum.
  - d. Align flush with top of carpet on side of strip.
  - e. Tapered or bullnose edge on side opposite of carpet.
  - f. Colors: Selected by Architect from manufacturer's full range of colors.
2. Acceptable Products:
  - a. Deluxe Reducer Strip No. 78, Flexco Company, Tuscumbia, AL.
  - b. EG-XX-G Series, Johnsonite, Chagrin Falls, OH.
  - c. Super Imperial Reducer No. 705, Burke/Mercer Products Company, Inc., Eustis, FL.
  - d. Carpet Reducer Strip No. 174, Roppe Corporation, Fostoria, OH.

### C. Transition Strip:

1. Description:
  - a. Tapered overlapping cap shape for transition from 1/8 inch thick resilient flooring to 1/4 inch thick carpet.
  - b. Material: Homogeneous rubber composition.
  - c. Cap Width: 1 inch, minimum.
  - d. Align flush with top of flooring on each side of strip.
  - e. Colors: Selected by Architect from manufacturer's full range of colors.
2. Acceptable Products:
  - a. Adapter CTA-XX-A, Johnsonite, Chagrin Falls, OH.
  - b. Joiner No. 150, Burke/Mercer Products Company, Inc., Eustis, FL.
  - c. Joiner No. 177, Roppe Corporation, Fostoria, OH.

## 2.4 ACCESSORIES

### A. Leveling, Patching and Underlayment Compounds:

1. Cementitious types required by resilient flooring manufacturer; gypsum based compounds not allowed.
  2. Capable of being extended to a feather-edge.
  3. Capable of sustaining loads without indentation
  4. Vapor retarder underlayment: Underlayment compound having a moisture permeance no greater than 1 perm.
- B. Primers and Adhesives:
1. Waterproof.
  2. Materials required by resilient product manufacturer for particular product and substrate moisture content and condition.
  3. Removable adhesive with antimicrobial additive; approved by resilient product manufacturer.
  4. Volatile organic compound: 3 g/L, maximum.
- C. Polish:
1. Materials required by manufacturer for particular flooring product.
  2. Capable of providing a minimum slip resistant coefficient of friction value of 0.8 determined in accordance with ASTM D2047.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine conditions and proceed with work in accordance with Section 017300.
- B. Site Verification of Conditions:
1. Verify that concrete floor moisture content, alkalinity, carbonization, and dusting are within floor manufacturer's limitations.
  2. Verify that floor and wall surfaces to receive flooring and base are free of substances which may adversely affect adhesive and resilient materials.

#### 3.2 PREPARATION

- A. Comply with ASTM F710.
- B. Bond and Moisture Tests:
1. Perform in accordance with flooring manufacturer's requirements to determine suitability of concrete subfloor for receiving resilient flooring with regard to moisture content and curing compounds.
  2. Test concrete slabs in accordance with ASTM E1907 to ensure moisture content is 3 percent or less.
  3. Test with calcium chloride in accordance with ASTM F1864 to ensure vapor transmission rate less than 4 pounds per 1000 sq. ft.
  4. Submit report to Owner. If subfloor's moisture vapor permeance is in excess of flooring manufacturer's limits for issuing warranty, prepare slab and apply vapor retarder underlayment system acceptable to manufacturer, or use manufacturer's adhesive for application on substrates containing excessive moisture.
- C. Remove ridges, bumps, trowel marks and protrusions from substrate.
- D. Fill depressions, low spots, cracks, joints, holes, indentations, and other defects with leveling and patching compounds. Trowel to smooth, flat surface producing substrate to within tolerance of 1/4 inch in 10'-0".
- E. Clean substrate to remove paint, dirt, oil, grease, sealers, release agents, hardening compounds, curing compounds, residual adhesives, and harmful substances which could impair performance of adhesive materials used with resilient products.
- F. Vacuum clean substrate.

- G. Prime substrate in accordance with manufacturer's requirements.
- H. Unroll rolled products minimum 24 hours before installation, unless not required by manufacturer.

### 3.3 INSTALLATION

#### A. General:

- 1. Comply with Section 017300.
- 2. Adhesive:
  - a. Apply with notched trowel at rate and in pattern required by manufacturer.
  - b. Gun application is not permitted.
  - c. Apply to provide continuous bond between resilient material and substrate. Do not allow adhesive to bleed through joints.
  - d. Spread only enough adhesive to permit installation of materials before adhesive's initial set.
  - e. Allow solvent to flash off and adhesive to become tacky in accordance with manufacturer's requirements before applying resilient product.
- 3. Scribing:
  - a. Produce tight hairline joints.
  - b. Scribe to walls, columns, cabinets, floor outlets, floor penetrations, and other appurtenances.
  - c. Scribe, cut and fit exposed edges at adjoining construction and neatly abut.

#### B. Flooring—General:

- 1. Set in place, press with roller to attain full adhesion and eliminate air bubbles and wrinkles. Use roller of weight required by resilient flooring manufacturer.
- 2. Extend unexposed edges under set-on bases and similar trim work.
- 3. Terminate at centerline of door openings where adjacent floor finish is dissimilar.
- 4. Install in pan type floor access covers; maintain pattern of surrounding flooring.
- 5. Extend into closets and offsets and under movable equipment of rooms and spaces indicated or scheduled to receive flooring, including recessed covers within those spaces.

#### C. Tile Flooring:

- 1. Comply with manufacturer's installation requirements to match color, texture, and pattern by random selection of tile from different cartons and lots.
- 2. Lay tile symmetrically about center line of room or space. Adjust so edge units are not less than one-half of tile width.
- 3. Lay tile with bottom surface securely bonded to substrate and top surface left smooth, clean, and free of imperfections.
- 4. Fit tiles tightly so each unit is in contact with surrounding tiles and joints aligned.
- 5. Joint Pattern: Checkerboard with joints aligned in both directions in square pattern.

#### D. Reducer and Transition Strips:

- 1. Provide reducer strips at unprotected edges, exposed edges, and where flooring and carpet terminates.
- 2. Provide transition strips at transitions from resilient flooring to carpet.
- 3. Center strip under door where flooring terminates at door openings.
- 4. Install in longest lengths practicable with minimal joints.
- 5. Fit joints tightly.
- 6. Secure resilient strips to subfloor by using adhesive.

### 3.4 CLEANING

- A. Immediately remove excess adhesive from surfaces without damage.
- B. Replace scuffed, scratched, broken, and discolored products.
- C. Re-install loose products.

- D. Clean surfaces in accordance with manufacturer's requirements. Do not use materials and methods which may damage finish and surrounding construction.
- E. Polish Application:
  - 1. Comply with flooring and polish manufacturers' requirements.
  - 2. Comply with flooring manufacturer's requirements regarding scheduling of initial cleaning and application of polish.
  - 3. Apply first coat of polish as required by flooring manufacturer.
  - 4. Near completion of project and just prior to final inspection:
    - a. Clean flooring and apply second coat of polish.
    - b. Buff thoroughly with mechanical buffers.

### 3.5 PROTECTION

- A. Protect in accordance with Section 017300.
- B. Prohibit traffic on floor finish for minimum of 72 hours after installation.
- C. Protect work from damage from subsequent construction operations so there will be no indication of use and damage at time of acceptance.

END OF SECTION 096519