#### **SECTION 096513**

#### RESILIENT BASE AND ACCESSORIES

# PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

## 1.2 SUMMARY

- A. Section Includes:
  - 1. Resilient base.
  - 2. Resilient stair accessories.
  - 3. Resilient molding accessories.
- B. Related Sections:
  - 1. Division 09 Section "Resilient Tile Flooring" for resilient floor tile.

# 1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. LEED Submittals:
  - 1. Product Data for Credit MR 2.2: Environmentally Preferable Materials.
    - a. Local production. Provide materials that were extracted, processed, and manufactured within 500 miles of the home.
    - b. Recycled Content: Provide materials that include at least 25% postconsumer or 50% preconsumer (postindustrial) recycled material.
    - c. Low or No emissions of VOC: Provide materials that comply with VOC limits in reference tables.
- C. Samples for Initial Selection: For each type of product indicated.
- D. Samples for Verification: For each type of product indicated, in manufacturer's standard-size Samples but not less than 12 inches long, of each resilient product color, texture, and pattern required.
- E. Product Schedule: For resilient products.

# 1.4 QUALITY ASSURANCE

A. Fire-Test-Response Characteristics: As determined by testing identical products according to ASTM E 648 or NFPA 253 by a qualified testing agency.

1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.

### 1.5 DELIVERY, STORAGE, AND HANDLING

A. Store resilient products and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F or more than 90 deg F.

## 1.6 PROJECT CONDITIONS

- A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F or more than 95 deg F, in spaces to receive resilient products during the following time periods:
  - 1. 48 hours before installation.
  - 2. During installation.
  - 3. 48 hours after installation.
- B. Until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 deg F or more than 95 deg F.
- C. Install resilient products after other finishing operations, including painting, have been completed.

#### 1.7 EXTRA MATERIALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Furnish not less than 10 linear feet for every 500 linear feet or fraction thereof, of each type, color, pattern, and size of resilient product installed.

# PART 2 - PRODUCTS

# 2.1 RESILIENT BASE

#### A. Resilient Base:

- 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Armstrong World Industries, Inc.
  - b. Burke Mercer Flooring Products; Division of Burke Industries, Inc.
  - c. Endura Rubber Flooring; Division of Burke Industries, Inc.
  - d. Flexco, Inc.
  - e. Johnsonite.
  - f. Musson, R. C. Rubber Co.
  - g. Nora Rubber Flooring; Freudenberg Building Systems, Inc.
  - h. Roppe Corporation, USA.
- B. Resilient Base Standard: ASTM F 1861.

- 1. Material Requirement: Type TP (rubber, thermoplastic).
- 2. Manufacturing Method: Group I (solid, homogeneous).
- 3. Style: Cove (base with toe). Straight (flat or toeless) at carpet.
- C. Minimum Thickness: 0.125 inch.
- D. Height: 4 inches.
- E. Lengths: Coils in manufacturer's standard length.
- F. Outside Corners: Job formed.
- G. Inside Corners: Job formed.
- H. Finish: Satin.
- I. Colors and Patterns: As selected by Architect from full range of industry colors.

## 2.2 RESILIENT STAIR ACCESSORIES

- A. Resilient Stair Treads:
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Flexco, Inc.; Type 650 Square Nose.
    - b. Johnsonite; Heavy Duty Diamond (VIC).
    - c. Musson, R. C. Rubber Co.; No. GS 626VI.
- B. Resilient Stair Treads Standard: ASTM F 2169.
  - 1. Material Requirement: Type TS (rubber, vulcanized thermoset).
  - 2. Surface Design:
    - a. Class 1, Smooth (flat).
    - b. Class 2, Pattern: Raised-Circle design.
  - 3. Manufacturing Method: Group 1, tread with embedded abrasive strips.
- C. Nosing Style: Square, adjustable to cover angles between 60 and 90 degrees.
- D. Nosing Height: 1-1/2 inches.
- E. Thickness: 1/4 inch and tapered to back edge.
- F. Size: Lengths and depths to fit each stair tread in one piece or, for treads exceeding maximum lengths manufactured, in equal-length units.
- G. Risers: Smooth, flat, coved-toe, 7 inches high by length matching treads; produced by same manufacturer as treads and recommended by manufacturer for installation with treads.
  - 1. Thickness: 0.125 inch.
- H. Colors and Patterns: As selected by Architect from full range of industry colors.

# 2.3 RESILIENT MOLDING ACCESSORY

- A. Resilient Molding Accessory:
  - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Johnsonite.
- B. Material: Vinyl.
- C. Profile and Dimensions:
  - 1. Transition Strip between VCT and Carpet: CE-XX-A by Johnsonite or approved substitute.
  - 2. Reducer Strip between Concrete and VCT: RRS-XX-C by Johnsonite or approved substitute.
- D. Colors and Patterns: As selected by Architect from full range of industry colors.

## 2.4 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic-cement-based formulation provided or approved by manufacturer for applications indicated.
- B. Adhesives: Water-resistant type recommended by manufacturer to suit resilient products and substrate conditions indicated.
  - 1. Use adhesives that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
    - a. Cove Base Adhesives: Not more than 50 g/L.
    - b. Rubber Floor Adhesives: Not more than 60 g/L.
- C. Stair-Tread-Nose Filler: Two-part epoxy compound recommended by resilient tread manufacturer to fill nosing substrates that do not conform to tread contours.
- D. Epoxy Adhesives: Two-part epoxy compound recommended by resilient tread manufacturer to adhere rubber treads and risers to substrates.
  - 1. Use adhesives that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
    - a. Rubber Floor Adhesives: 60 g/L.
- E. Floor Polish: Provide protective liquid floor polish products as recommended by resilient stair tread manufacturer.

## PART 3 - EXECUTION

# 3.1 EXAMINATION

A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.

- B. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of resilient products.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

# 3.2 SUBSTRATE TESTING

- A. General: Conduct testing using an independent agency with a minimum of five years experience in moisture emission testing or as pre-approved by the manufacturer of the flooring material.
- B. Moisture Emission Testing: Conduct moisture emission testing of concrete slabs-on-grade and elevated slabs to receive floor coverings or coatings by the calcium chloride test method. Perform tests in accordance with ASTM F-1869.
  - 1. Conduct a minimum of three tests for the first 1,000 sq. ft. and one additional test for each additional 1,000 sq. ft.
  - 2. Ambient test environment shall conform to ASTM-1869 and be reflective of the building's normal operational environment.
  - Conduct tests on bare concrete, free of surface contaminants, adhesives, curing compounds or sealers.
  - 4. Locate test locations a minimum of five feet from exterior walls or interior walls that penetrate the floor. Do not conduct tests over random cracks or within five feet of control or construction joints.
  - 5. Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. (1.36 kg of water/92.9 sq. m) in 24 hours.
- C. Internal Relative Humidity Testing: Conduct internal relative humidity testing of concrete slabs-on-grade and elevated slabs to receive floor coverings or coatings in accordance with ASTM F-2170.
  - 1. Proceed with installation only after substrates have a maximum 75 percent relative humidity level measurement.
- D. Surface Alkalinity Testing: Conduct alkalinity testing of the concrete surface at all moisture emission test locations in accordance with ASTM F710 5.3.1.
- E. Submit all test results to the Architect, flooring installer and manufacturer of the flooring materials before installation of the flooring materials.

# 3.3 PREPARATION

- A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of resilient products.
- B. Concrete Substrates for Resilient Stair Treads and Accessories: Prepare according to ASTM F 710.
  - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
  - 2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
- C. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound and remove bumps and ridges to produce a uniform and smooth substrate.

- D. Do not install resilient products until they are same temperature as the space where they are to be installed.
  - 1. Move resilient products and installation materials into spaces where they will be installed at least 48 hours in advance of installation.
- E. Sweep and vacuum clean substrates to be covered by resilient products immediately before installation.

# 3.4 RESILIENT BASE INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient base.
- B. Apply resilient base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required.
- C. Install resilient base in lengths as long as practicable without gaps at seams and with tops of adjacent pieces aligned.
- D. Tightly adhere resilient base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.
- E. Do not stretch resilient base during installation.
- F. On masonry surfaces or other similar irregular substrates, fill voids along top edge of resilient base with manufacturer's recommended adhesive filler material.
- G. Job-Formed Corners:
  - 1. Outside Corners: Use straight pieces of maximum lengths possible. Form without producing discoloration (whitening) at bends.
  - 2. Inside Corners: Use straight pieces of maximum lengths possible.

## 3.5 RESILIENT ACCESSORY INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient accessories.
- B. Resilient Stair Accessories:
  - 1. Use stair-tread-nose filler to fill nosing substrates that do not conform to tread contours.
  - 2. Tightly adhere to substrates throughout length of each piece.
  - 3. For treads installed as separate, equal-length units, install to produce a flush joint between units.
- C. Resilient Molding Accessories: Butt to adjacent materials and tightly adhere to substrates throughout length of each piece. Install reducer strips at edges of carpet and resilient floor covering that would otherwise be exposed.

# 3.6 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protection of resilient products.
- B. Perform the following operations immediately after completing resilient product installation:

- 1. Remove adhesive and other blemishes from exposed surfaces.
- 2. Sweep and vacuum surfaces thoroughly.
- 3. Damp-mop surfaces to remove marks and soil.
- C. Protect resilient products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
- D. Floor Polish: Remove soil, visible adhesive, and surface blemishes from resilient stair treads before applying liquid floor polish.
  - 1. Apply one coat.
- E. Cover resilient products until Substantial Completion.

END OF SECTION