

## **DIVISION 9 - FINISHES**

### **Section 09650 – Resilient Flooring**

#### **Summary**

Section includes, Resilient tile flooring, Resilient base and accessories, Resilient stair treads, risers and landings.

#### **Introduction**

Consider project areas where resilient flooring is appropriate for increased durability, ease of maintenance, ease of replacement and impermeability to liquids. These areas include but are not limited to, high traffic public corridors, breakrooms, flooring areas adjacent to countertop sinks / food and beverages, elevator floors, retail sales floors, resident life facilities or areas where inlaid custom logos or wayfinding is a desired design feature.

Product selections should take advantage of sustainable options as much as possible. Consider manufacturers who practice environmental responsibility through programs of source reduction, recycling, reuse, and conservation. Considerations for sustainability and recyclability of products include: certified Low Emitting products and adhesives, Indoor Air Quality FloorScore certified products, products with Pre-Consumer Recycled Content, products and adhesives certified to meet LEED IEQ Low Emitting Interiors and Green Label Plus #GLP08020.

Specify products with cushion backing where Acoustic properties are required.

Require pre-installation meeting to verify project requirements and substrate conditions.

Require Single-Source Responsibility: provide types of flooring and accessories supplied by one manufacturer, including leveling and patching compounds, and adhesives.

#### **Part 1 – General**

- During the Design Phase, present full size product selection samples to the User Group for pre-approval of finish colors, patterns and textures.
- Include flooring type, color and any special layout provisions (borders, transitions etc.) in the construction documents. Provide a Finish floor plan to indicate pattern type(s), location, tile (plank) direction and installation method.
- Specify product numbers and colors for resilient base and accessories. Detail transition(s) to other flooring materials. For renovation projects, consider matching the existing, building standard product and color for continuity and ease of maintenance replacement. In large classrooms i.e. auditorium or tiered classrooms, detail flooring transition strips at tiers, aisles and stair nosing. Require high performance epoxy adhesive for installation longevity.
- Require that manufacturer(s) and installer(s) demonstrate at least 5 years' successful performance with similar commercial resilient flooring installations.
- Require submission of manufacturer's technical literature for specified products, describing physical and performance characteristics, size/pattern/colors, test reports, VOC content, and flame spread characteristics. ASTM F970 Static Load, ASTM F1914 Residual Indentation, ASTM F1515 Resistance to Light, ASTM F925 Chemical Resistance, ASTM D2047 Slip resistance, ADA Compliant.
- Require submission of an "as-built" color and material schedule for each product installed with the closeout documents, including Descriptive location, Manufacturer (pattern/name/number) and Color (name/number).
- Require submission of Manufacturer's Warranty and recommended maintenance and cleaning procedures to include precautions against cleaning materials and methods detrimental to finishes and performance.

- Require delivery to the Owner / FM of maintenance stock, from the same manufactured lot as materials installed. Furnish 120 LF (one carton) for each color and type of wall base installed. Furnish 3% of the total square footage of the major field color of the flooring installed. Furnish one full carton for each accent color or border pattern installed. Package in protective covering with labels clearly describing the contents and installation locations. Include the following wording with the maintenance stock specification - "It is unacceptable to consider this maintenance stock for standard installation overages. This is "attic stock" to arrive on site cleanly wrapped and labeled as "attic stock" for the owner to use for future repair and maintenance. It is not considered as waste stock or overages that the contractor bids for installation purposes." Require legible Transmittal, clearly itemizing all products with descriptive name/numbers/colors and quantities that are delivered to FM. Verification and signature from FM is required to confirm the quantities received.
- Specify special warranty provisions as follows:
  - Two Year Installation Warranty: signed by the contractor and installer, agreeing to repair or replace defective materials and workmanship over a TWO year period from date of Substantial Completion.
  - 10 Year: Manufacturing Defects Warranty, Limited Commercial Wear Warranty and Underbed Warranty (No Dent). Product Warranties must be from the manufacturer, and must be offered as the manufacturer's warranty.

## Part 2 - Products

- Resilient Wall base
  - Material: Rubber, Style B (cove - with toe), 4" high, ASTM F1861, Type TS (Rubber), Group 1 (solid, homogenous).
  - Cut lengths 48 inches preferred, or coils in manufacturer's standard length, per project requirements.
  - Job formed corners are preferred. Miter inside corners. At outside corners, "V" cut back base strip to 2/3 of its thickness and fold. Avoid specifying preformed corners, as they tend to come loose during routine cleaning operations and become an ongoing maintenance issue.
- Stair Covering
  - Material: Rubber, FS-RR-T-650, ASTM F 2169, Class I, Type TS (Rubber, vulcanized thermoset), Class 2 (Pattern, embossed, grooved or ribbed), Group 2 (Contrasting color for Visually Impaired). Stair risers and stair nosing (square): full length, height and depth in one piece. Landing Tile to match.
- Rubber Tile
  - Per project requirements Type 1 (homogenous rubber sheet flooring) or Type II (heterogeneous rubber sheet flooring); layered composition of 100% natural and synthetic rubbers) to meet the performance requirements of ASTM F1859, "Standard Specification for Rubber Sheet Floor Covering without backing".
- Vinyl Composition Tile
  - ASTM F 1066, "Standard Specification for Vinyl Composition Floor Tile", Class 2, Through Pattern, ISO 10595, Type II. Asbestos Free. Wear Layer thickness: 1/8 inch minimum.
- Resilient Linoleum Sheet Flooring
  - (Homogeneous mixture, primarily of natural materials consisting of wood flour, limestone, color pigments, linseed oil and resin binders, mixed and calendered onto a jute backing). ASTM F 2034, Type I, "Standard Specification for Sheet Linoleum Floor Covering Without Backing". Colors and pattern detail shall be dispersed throughout the thickness of the wear layer. Provide integral flash cove wall base where hygienic base condition is a project requirement. Comply with ASTM 1516 for seamless installations (heat-welded seams).

- Solid Vinyl Floor Tile and Luxury Vinyl Plank
  - Commercial Grade, ASTM F 1700 “Standard Specifications for Solid Vinyl Tile”, Class III. Type B, (embossed surface)- per project requirements. Construction: layered product consisting of urethane wearlayer decorative printed film and backing with pre-and-post consumer content.
    - Wear Layer thickness –per project requirements. Min. 20 mil or 0.020 inch (0.51 mm) for office and light traffic areas. 30 mil (0.76mm) or higher wear layer is preferred for increased durability in high use corridors, retail and healthcare installations.
    - Edge: Square Edge Preferred for maintenance.

### **Part 2.1 – Installation Materials**

- Trowelable Leveling and Patching Compounds: recommended by floor tile manufacturer for applications indicated.
- Adhesives: Water-resistant type recommended by floor tile and adhesive manufacturers to suit floor tile and substrate conditions indicated.
- Floor Polish: Provide protective, neutral pH liquid floor-polish products recommended by floor tile manufacturer.

### **Part 3 – Execution**

- Require floor leveling and patching, for both new and renovation projects, in this Section.
- Lay out floor tiles from center marks established with principal walls, so tiles at opposite edges of room are of equal width. Adjust as necessary to avoid using cut widths that equal less than one-half tile or plank at perimeter.
- Require that installation be accomplished in accordance with manufacturer’s recommendations Clean, seal and polish/wax floor and base surfaces in accordance with manufacturer’s instructions.
- Require subfloor moisture testing in accordance with ASTM F 2170, “Standard Test Method for Determining Relative Humidity in Concrete Slabs. Require Concrete pH Testing: Perform pH tests on concrete floors regardless of their age or grade level. Follow manufacturer’s requirements for installation longevity.
- Describe requirements protecting installation until Substantial Completion in this Section.

**End of Section 09650**