

SECTION 09 65 10 - RESILIENT TILE FLOORING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes resilient floor tile.
- B. Refer to Division 01 Sections for requirements regarding:
 - 1. LEED credit achievement goals as summarized by the LEED Scorecard attached to Section 01 81 13 "Sustainable Design Requirements."
 - 2. Requirements for documentation of LEED credits.
 - 3. Payment application requirements as they relate to LEED documentation requirements.

1.2 SUBMITTALS

- A. Product Data: Submit product data for each type of product indicated.
- B. Sustainable Design Submittals:
 - 1. Completed "LEED Criteria Worksheet," for each material of the product, assembly, or used in the installation of Work of this section. Refer to Division 01 Section 01 81 13 "Sustainable Design Requirements."
 - 2. Credit IEQ 4.xx for VOC Content: Submit product data for VOC content of all products provided under this section.
 - a. Provide documentation on supplier's letterhead of the VOC content of each product provided under this section. Express quantity in g/L or the unit of measurement used in the applicable LEED Reference Guide for that particular type of product.
 - 3. Credit MR 4.xx and Credit ID for Recycled Content:
 - a. Weight Component Documentation: For material assemblies or products having recycled content submit documentation indicating the weight of the material assembly or product and the percentages by weight of post-consumer and pre-consumer recycled content of the material assembly or product. The recycled fraction of the material assembly or product will be multiplied by the total cost of the material assembly or product to determine the recycled content value as prescribed by LEED protocol. Document the weight of the material assembly or product and the post-consumer and pre-consumer recycled contents on the letterhead of the supplier of the material assembly or product.
 - b. Cost Component Documentation: Provide the material cost for every component that comprises a material assembly or product that is composed of recycled content provided under this section. Document the material cost on the letterhead of the supplier for each material assembly or product.

4. Credit IEQ 4.3 for hard surface flooring: For projects where 25% of the finished floor area other than carpet, the floor finish shall be FloorScore Certified. Non-carpet flooring adhesives (if any) and their finish (if any) shall meet the requirements of IEQ Credit 4.1 and IEQ Credit 4.2 respectively.
 5. Credit MR 5.xx and Credit ID for Local/Regional Materials: Provide the location of manufacture and/or final assembly for each locally/regionally extracted, processed, and manufactured material incorporated into the work. Locally/regionally extracted or processed is defined as materials having their source as a raw material from within a 500 miles radius of the site. Locally/regionally manufactured is defined as materials having been assembled as a finished product within a 500 miles radius of the project site. Assembly does not include on-site assembly, erection or installation of finished components, as in structural steel, miscellaneous iron or systems furniture. For building materials or products shipped in part by rail or water, the total distance to the project shall be determined by weighted average, whereby the portion of the distance transported by rail is divided by three, the portion of the distance transported by inland waterways is divided by two, the portion of the distance transported by sea is divided by 15, and added to the portion of the distance transported by any other means other than by rail, inland waterways, sea, or road, provided the total weighted average distance does not exceed 500 miles.
 - a. Location Documentation: Include distance from the location of manufacture and/or final assembly to the project site for each locally/regionally extracted, processed, and manufactured material incorporated into the work. If only a fraction of the material is extracted and manufactured locally, indicate the percentage by weight. Submit this documentation on the letterhead of the supplier for each locally/regionally extracted, processed, and manufactured material incorporated into the work.
 - b. Cost Documentation: Include a printed statement of cost for each regionally extracted, processed, and manufactured material. Submit this documentation on the letterhead of the supplier for each locally/regionally extracted, processed, and manufactured material incorporated into the work.
- C. Samples: Submit full-size units of each color and pattern of resilient floor tile required.
- D. Maintenance Data: Submit maintenance data for resilient floor tile and floor finish products.

1.3 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:
1. 48 hours before installation.
 2. During installation.
 3. 48 hours after installation.
- B. After postinstallation period, maintain temperatures within range recommended by manufacturer, but not less than 55 deg F or more than 95 deg F.

- C. Close spaces to traffic during floor covering installation.
- D. Close spaces to traffic for 48 hours after floor covering installation.
- E. Install resilient products after other finishing operations, including painting, have been completed.

1.4 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Floor Tile: Furnish 1 box for every 50 boxes or fraction thereof, of each type, color, and pattern of floor tile installed.

PART 2 - PRODUCTS

2.1 RESILIENT FLOOR TILE (RT-)

- A. Products and Manufacturers: Refer to the drawings and the Finish Schedule. Nominal thickness not less than 1/8 inch unless greater thickness is scheduled.

2.2 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based formulation provided or approved by resilient product 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. VCT and Asphalt Tile Adhesives: Not more than 50 g/L.
 - b. Rubber Floor Adhesives: Not more than 60 g/L.
- C. 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.
- D. Vinyl Composition Tile Protective Floor Polish: Product recommended by manufacturer to suit resilient products indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for installation tolerances, moisture content, and other conditions affecting performance.
 - 1. 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.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare concrete substrates according to manufacturer's written recommendations to ensure adhesion of resilient products.
- B. Concrete Substrates: Prepare concrete substrates as follows:
 - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
 - 2. **[Alkalinity and]**Adhesion Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.
 - 3. Moisture Testing:
 - a. Perform anhydrous calcium chloride test, ASTM F 1869. Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. in 24 hours.
 - b. Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.
- C. Remove paint, sealers, substrate coatings, existing floor covering adhesive residues (if any), and other substances that are incompatible with adhesives using mechanical methods recommended by manufacturer. Do not use solvents.
- D. Use trowelable leveling and patching compound to fill cracks, holes, and depressions in substrates.
- E. Apply primer to concrete slabs, if recommended by the flooring manufacturer, prior to application of adhesive.
- F. Move resilient products and installation materials into spaces where they will be installed at least 48 hours in advance of installation.
 - 1. Do not install resilient products until they are same temperature as space where they are to be installed.

- G. Sweep and vacuum clean substrates to be covered by resilient products immediately before installation.

3.3 INSTALLATION

- A. Lay out tiles 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 at perimeter.
 - 1. Lay tiles square with room axis unless otherwise indicated. .
- B. Match tiles for color and pattern by selecting tiles from cartons in the same sequence as manufactured and packaged, if so numbered. Discard broken, cracked, chipped, or deformed tiles.
- C. Scribe, cut, and fit tiles to butt neatly and tightly to vertical surfaces and permanent fixtures including built-in furniture, cabinets, pipes, outlets, edgings, door frames, thresholds, and nosings. Extend unexposed edges of flooring under set on bases and similar trim work.
- D. Extend tiles into toe spaces, door reveals, closets, and similar openings.
- E. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on floor tiles as marked on substrates. Use chalk or other nonpermanent, nonstaining marking device.
- F. Install tiles on covers for telephone and electrical ducts and similar items in finished floor areas. Maintain overall continuity of color and pattern with pieces of tile installed on covers. Tightly adhere tile edges to substrates that abut covers and to cover perimeters.
- G. Adhere tiles to flooring substrates using a full spread of adhesive applied to substrate to produce a completed installation which is smooth, clean and free from imperfections such as open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.

3.4 CLEANING AND PROTECTION

- A. 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.
 - 4. Do not wash or apply floor polishes until flooring adhesives have cured unless otherwise recommended by the flooring manufacturer.
- B. Protect resilient products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period. Use protection methods recommended in writing by manufacturer.

1. Apply protective floor polish to horizontal surfaces that are free from soil, visible adhesive, and surface blemishes using methods as recommended in writing by the floor polish manufacturer. Apply no fewer than 2 coats of floor polish unless additional coats are recommended by the floor polish manufacturer for the application indicated.
 - a. Use commercially available product acceptable to manufacturer.
2. Cover products installed on horizontal surfaces with undyed, untreated building paper until Substantial Completion.
3. Do not move heavy and sharp objects directly over surfaces. Place hardboard or plywood panels over flooring and under objects while they are being moved. Slide or roll objects over panels without moving panels.

END OF SECTION 09 65 10