

SECTION 09 68 13 - TILE CARPETING

PART 1 - GENERAL

1.1 SUMMARY

- A. Provide the work of this Section in accordance with requirements of the Contract Documents.
- B. Section includes modular carpet tile **CPT-01, CPT-02, CPT-03**.
- C. Related Work:
 - 1. Division 02, Section 02 41 19 "General and Selective Demolition" for removing existing floor coverings.
 - 2. Division 09, Section 09 65 13 "Resilient Base and Accessories" for resilient wall base and accessories installed with carpet tile.

1.2 ACTION SUBMITTALS

- A. Product Data:
 - 1. Submit product data for each type of product.
 - 2. Include manufacturer's written data on physical characteristics, durability, and fade resistance.
 - 3. Include manufacturer's written installation recommendations for each type of substrate.
- B. Sustainable Design Submittals:
 - 1. Building Product Disclosure and Optimization - Sourcing of Raw Materials:
 - a. Bio-based Materials: For bio-based products and materials other than wood, submit documentation of product data and testing results in compliance with LEED requirements.
 - b. Recycled Content: For products having recycled content, indicate percentages by weight of post-consumer and pre-consumer recycled content.
 - 1) Include statement indicating costs for each product having recycled content.
 - c. Regional Materials: For products that are required to comply with requirements for regional materials, indicating location of material manufacturer and point of extraction, harvest, or recovery for each raw material.
 - 1) Include statement indicating distance to Project, cost for each regional material and the fraction by weight that is considered regional.
 - 2. Indoor Environmental Quality, Low Emitting Materials: Building Products must be tested and compliant with the California Department of Public-Health (CDPH) Standard Method v1.2 2017, using the applicable exposure scenario.

- a. Adhesives and Sealants: For wet applied on-site products, submit printed statement showing compliance with the applicable chemical content requirements of SCAQMD Rule 1168, effective July 1, 2005, and rule amendment date of January 7, 2005.
 - b. For Carpeting products, submit documentation of VOC emissions testing compliance for carpet products in the form of Carpet and Rug Institute (CRI) Green Label Plus certification or CDPH Standard Method v1.2 compliance verification.
- C. Shop Drawings: For carpet tile installation, plans showing the following:
 - 1. Columns, doorways, enclosing walls or partitions, built-in cabinets, and locations where cutouts are required in carpet tiles.
 - 2. Carpet tile type, color, and dye lot.
 - 3. Type of subfloor.
 - 4. Type of installation.
 - 5. Pattern of installation.
 - 6. Pile direction.
 - 7. Type, color, and location of edge, transition, and other accessory strips.
 - 8. Transition details to other flooring materials.
- D. Samples: For each of the following products and for each color and texture required. Label each Sample with manufacturer's name, material description, color, pattern, and designation indicated on Drawings and in schedules.
 - 1. Carpet Tile: Full-size Sample.
 - 2. Exposed Edge, Transition, and Other Accessory Stripping: 12-inch- (300-mm-) long Samples.

1.3 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Product Test Reports: For carpet tile, for tests performed by a qualified testing agency.
- C. Sample Warranty: For special warranty.
- D. Sustainable Design Submittals:
 - 1. Building Product Disclosure and Optimization - Environmental Product Declarations
 - a. Submit product specific type III EPDs or Industry wide (generic) EPDs, USGBC approved program declaration or products with a publicly available, critically reviewed life-cycle assessment conforming to ISO 14044 that have at least a cradle to gate scope.
 - 2. Building Product Disclosure and Optimization - Material Ingredients
 - a. Material Ingredient Reporting: Submit documentation confirming chemical inventory of products to at least 0.1 % (1000pm) with at least one of the following:
 - 1) Submit published manufacturer inventory of ingredients identified by name and Chemical Abstract Service Registration Number (CASRN)
 - 2) Submit documentation that product has been certified as Cradle-to-Cradle v3 at the Bronze Level or better

- 3) Submit Declare product label indicating that all ingredients have been disclosed down to 1000 ppm or designated as Red List Free or Declared
 - 4) Living Product Challenge
 - 5) Product Lens Certification
 - 6) USGBC approved program.
- b. Material Ingredient Optimization: Submit documentation confirming chemical inventory of products to at least 0.01 % (100ppm) and/or that has a compliant material ingredient optimization report with at least one of the following:
- 1) Submit GreenScreen V1.2 Benchmark: Third party report prepared by a licensed GreenScreen List Translator, or a full GreenScreen Assessment.
 - 2) Submit third-party verified documentation that product has been certified as Cradle-to-Cradle v3 at the Bronze Level or better
 - 3) Submit third-party verified Cradle to Cradle v3 Material Health certificate at the Bronze Level or better
 - 4) Submit third-party verified Declare product label indicating that all ingredients have been disclosed down to 100 ppm
 - 5) Submit third-party verified documentation that product is Living Product Challenge certified with a Red List Free or LBC Red List Free Declare label.
 - 6) Submit documentation that product has a manufacturer prepared action plan with material inventory to at least 1000 ppm.

1.4 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For carpet tiles to include in maintenance manuals. Include the following:
1. Methods for maintaining carpet tile, including cleaning and stain-removal products and procedures and manufacturer's recommended maintenance schedule.
 2. Precautions for cleaning materials and methods that could be detrimental to carpet tile.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
1. Carpet Tile: Full-size units equal to 5 percent of amount installed for each type indicated, but not less than 10 sq. yd. (8.3 sq. m).

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who is certified by the International Certified Floorcovering Installers Association at the Commercial II or Master II certification level.
- B. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for fabrication and installation.
1. Build room corner mockups of the Gate and Boarding area to be constructed in the field include the following:
 - a. Carpet tile.

- b. Transitions to terrazzo flooring.
 - c. Ceiling
 - d. Lighting in accordance with Division 26.
 - e. Gate counter.
 - f. Furniture.
- 2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
- 3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Comply with the Carpet and Rug Institute's **CRI-104**.

1.8 FIELD CONDITIONS

- A. Comply with the Carpet and Rug Institute's CRI 104 for temperature, humidity, and ventilation limitations.
- B. Environmental Limitations: Do not deliver or install carpet tiles until spaces are enclosed and weathertight, wet-work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at levels planned for building occupants during the remainder of the construction period.
- C. Do not install carpet tiles over concrete slabs until slabs have cured and are sufficiently dry to bond with adhesive and concrete slabs have pH range recommended by carpet tile manufacturer.
- D. Where demountable partitions or other items are indicated for installation on top of carpet tiles, install carpet tiles before installing these items.

1.9 WARRANTY

- A. Special Warranty for Carpet Tiles: Manufacturer agrees to repair or replace components of carpet tile installation that fail in materials or workmanship within specified warranty period.
 - 1. Warranty does not include deterioration or failure of carpet tile due to unusual traffic, failure of substrate, vandalism, or abuse.
 - 2. Failures include, but are not limited to, the following:
 - a. More than 10 percent edge raveling, snags, and runs.
 - b. Dimensional instability.
 - c. Excess static discharge.
 - d. Loss of tuft-bind strength.
 - e. Loss of face fiber.
 - f. Delamination.
 - 3. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 CARPET TILE

A. Carpet Tile **CPT-01**:

1. Basis-of-Design Product: Shaw Contract Portal 637P5, color BC38L.
2. Installation: Monolithic.
3. Fiber Content: Eco Solution Q Nylon.
4. Dye Method: 100% Solution dyed.
5. Pile Characteristic: Multi-level pattern loop.
6. Average Density: 7,814 oz./cu. yd. (0.289 g/cu.cm).
7. Pile Thickness: 0.149 inches (3.78 mm) for finished carpet tile.
8. Stitches: 9.5 per inch (37.4 per 100 mm)
9. Gage: 1/12 inch (47.2 per 10 100 mm).
10. Total Weight: 32 oz./sq. yd. (1,085 g/sq. m) for finished carpet tile.
11. Primary Backing: Manufacturer's standard synthetic materials.
12. Secondary Backing: Ecoworx Tile.
13. Size: 24 by 24 inches (610 by 610 mm).
14. Applied Treatments:
 - a. Soil-Resistance Treatment: Manufacturer's standard SSP Shaw Soil Protection treatment
 - b. Antimicrobial Treatment:
 - 1) Antimicrobial Activity: Not less than 2-mm halo of inhibition for gram-positive bacteria, not less than 1-mm halo of inhibition for gram-negative bacteria, and no fungal growth, according to AATCC 174.
15. Performance Characteristics:
 - a. Electrostatic Propensity: Less than 3.5 kV according to AATCC 134.

B. Carpet Tile **CPT-02**:

1. Basis-of-Design Product: Mohawk Ceo II, color 358 scientist.
2. Installation: Quarter Turn
3. Fiber Content: ColorStrand Nylon
4. Dye Method: Solution dyed / yarn dyed.
5. Pile Characteristic: Textured multi colored loop
6. Average Density 4286 oz./cu. yd. (0.289 g/cu.cm).
7. Stitches: 10 per inch (39.37 per 100 mm)
8. Gage: 1/10 inch (39.37 row per 100 mm).
9. Total Weight: 15 oz./sq. yd. (509 g/sq. m) for finished carpet tile.
10. Primary Backing: Manufacturer's standard synthetic materials
11. Size: 24 by 24 inches (610 by 610 mm).
12. Applied Treatments:
 - a. Soil-Resistance Treatment: Manufacturer's standard added polymer during manufacturing.
13. Performance Characteristics:

- a. Electrostatic Propensity: Less than 3.5 kV according to AATCC 134.

C. Carpet Tile **CPT-03**:

1. Basis-of-Design Product: Interface 146500250H, color 101143 Ceruleo
2. Installation: Quarter turn.
3. Fiber Content: Post-Consumer Content Nylon.
4. Dye Method: 100% Solution dyed.
5. Pile Characteristic: Tufted textured loop.
6. Average Density: 7,485 oz./cu. yd. (0.277 g/cu.cm).
7. Pile Thickness: 0.10 inches (3.0 mm) for finished carpet tile.
8. Stitches: 10.0 per inch (11.68 per 100 mm)
9. Gage: 1/12 inch (47.2 per 10 100 mm).
10. Total Weight: 18 oz./sq. yd. (712 g/sq. m) for finished carpet tile.
11. Primary Backing: Manufacturer's standard synthetic materials.
12. Size: 19.69 x19.69 inches (500mm x 500 mm)
13. Applied Treatments:

- a. Soil-Resistance Treatment: Manufacturer's standard added polymer during manufacturing.

14. Performance Characteristics:

- a. Electrostatic Propensity: Less than 3.0 kV according to AATCC 134.

D. Low-Emitting Materials:

1. Adhesives and Sealants wet-applied inside the weather-proofing system must meet the VOC general emissions testing criteria of CDPH Standard Method v1.2.
2. All adhesives and sealants wet-applied inside the weather-proofing system must have VOC content in compliance with the applicable VOC limits (g/L) found in tables in Division 01 Section 01 81 13.14 "Sustainable Design Requirements - LEED v4 BD+C."
3. All flooring products must be Floorscore certified or compliant with the VOC emissions testing criteria of CDPH Standard Method v1.2.

2.2 INSTALLATION ACCESSORIES

- A. Trowelable Leveling and Patching Compounds: Latex-modified, hydraulic-cement-based formulation provided or recommended by carpet tile manufacturer.
- B. Adhesives: Water-resistant, mildew-resistant, nonstaining, pressure-sensitive type to suit products and subfloor conditions indicated, that comply with flammability requirements for installed carpet tile, and are recommended by carpet tile manufacturer for releasable installation.
- C. Metal Edge Strips:
 1. Refer to Division 09, Section 09 30 00 "Tiling".
 2. Of height required to protect exposed edge of carpet, and of maximum lengths to minimize running joints.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for maximum moisture content, alkalinity range, installation tolerances, and other conditions affecting carpet tile performance.
- B. Examine carpet tile for type, color, pattern, and potential defects.
- C. Concrete Slabs: Verify that new concrete finishes comply with requirements specified in Division 03, Section 03 30 00 "Cast-in-Place Concrete" and that new and existing concrete surfaces are free of cracks, ridges, depressions, scale, and foreign deposits that will affect installation of work of this section.
 - 1. Moisture Testing: Perform tests so that each test area does not exceed 200 sq. ft. (18.6 sq. m) and perform no fewer than three tests in each installation area and with test areas evenly spaced in installation areas.
 - a. Anhydrous Calcium Chloride Test: ASTM F1869. 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.
 - b. Relative Humidity Test: Using in situ probes, ASTM F2170. Proceed with installation only after substrates have a maximum 75 percent relative humidity level measurement.
 - c. Perform additional moisture tests recommended in writing by adhesive and carpet tile manufacturers. Proceed with installation only after substrates pass testing.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. General: Comply with the Carpet and Rug Institute's CRI 104 and with carpet tile manufacturer's written installation instructions for preparing substrates indicated to receive carpet tile.
- B. Use trowelable leveling and patching compounds, according to manufacturer's written instructions, to fill cracks, holes, depressions, and protrusions in substrates. Fill or level cracks, holes and depressions 1/8 inch (3 mm) wide or wider, and protrusions more than 1/32 inch (0.8 mm) unless more stringent requirements are required by manufacturer's written instructions.
- C. Concrete Substrates: Remove coatings, including curing compounds, and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, without using solvents. Use mechanical methods recommended in writing by adhesive and carpet tile manufacturers.
- D. Broom and vacuum clean substrates to be covered immediately before installing carpet tile.

3.3 INSTALLATION

- A. General: Comply with the Carpet and Rug Institute's CRI 104, Section 10, "Carpet Tile," and with carpet tile manufacturer's written installation instructions.

- B. Installation Method: As recommended in writing by carpet tile manufacturer, glue down; install every tile with full-spread, releasable, pressure-sensitive adhesive.
- C. Maintain dye-lot integrity. Do not mix dye lots in same area.
- D. Maintain pile-direction patterns recommended in writing by carpet tile manufacturer and approved by Architect.
- E. Cut and fit carpet tile to butt tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings. Bind or seal cut edges as recommended by carpet tile manufacturer.
- F. Extend carpet tile into toe spaces, door reveals, closets, open-bottomed obstructions, removable flanges, alcoves, and similar openings.
- G. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on carpet tile as marked on subfloor. Use nonpermanent, nonstaining marking device.
- H. Install pattern parallel to walls and borders.

3.4 CLEANING AND PROTECTION

- A. Perform the following operations immediately after installing carpet tile:
 - 1. Remove excess adhesive and other surface blemishes using cleaner recommended by carpet tile manufacturer.
 - 2. Remove yarns that protrude from carpet tile surface.
 - 3. Vacuum carpet tile using commercial machine with face-beater element.
- B. Protect installed carpet tile to comply with the Carpet and Rug Institute's CRI 104, Section 13.7.
- C. Protect carpet tile against damage from construction operations and placement of equipment and fixtures during the remainder of construction period. Use protection methods indicated or recommended in writing by carpet tile manufacturer.

END OF SECTION