# SECTION 09681 - CARPET TILE

## 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 modular, tufted carpet tile.

B. Related Requirements:

1. Section 01732 "Selective Demolition" for removing existing floor coverings.
2. Section 09653 "Resilient Wall Base and Accessories" for resilient wall base and accessories installed with carpet tile.

### 1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include manufacturer's written data on physical characteristics, durability, and fade resistance.
2. Include installation recommendations for each type of substrate.
3. Product Data for carpet tile, documentation indicating compliance with testing and product requirements of CRI's "Green Label Plus" program.
4. Product Data for installation adhesive, documentation including printed statement of VOC content.

B. 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-long Samples.

C. Product Schedule: For carpet tile. Use same designations indicated on Drawings.

### 1.4 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.

## 1.5 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.

## 1.6 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.

## 1.7 QUALITY ASSURANCE

A. Installer Qualifications: An experienced installer who is certified by the Floor Covering Installation Board or who can demonstrate compliance with its certification program requirements.

B. Fire-Test-Response Ratings: Where indicated, provide carpet tile identical to those of assemblies tested for fire response according to NFPA 253 by a qualified testing agency.

## 1.8 DELIVERY, STORAGE, AND HANDLING

A. Comply with CRI 104.

## 1.9 FIELD CONDITIONS

A. Comply with 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 occupancy levels 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.

1.10 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, more than 10 percent edge raveling, snags, runs, dimensional stability, excess static discharge, loss of tuft bind strength, loss of face fiber, and delamination.
3. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 CARPET TILE: C-5 & C-9

A. Basis-of-Design Product: Subject to compliance with requirements, provide 2Square Tile Style #59391 by Shaw Contract Group or comparable product by one of the following:

1. Interface.

B. Color: As per the finish schedule on the drawings.

C. Fiber Type: Eco Solution Q nylon.

D. Density: 7500 oz./cu. yd.

E. Pile Thickness: 0.144 for finished carpet tile according to ASTM D 6859.

F. Stitches: 12 stitches per inch.

G. Gage: 1/12.

H. Total Weight: 30 oz./sq. yd. for finished carpet tile.

I. Primary Backing/Backcoating: Manufacturer's standard composite materials.

J. Secondary Backing: Ecoworx Tile.

K. Size: 24 by 24 inches.

L. Applied Soil-Resistance Treatment: Manufacturer's standard material.

M. Performance Characteristics: As follows:

1. Dry Breaking Strength: Not less than 100 lbf according to ASTM D 2646.
2. Dimensional Tolerance: Within 1/32 inch of specified size dimensions, as determined by physical measurement.
3. Dimensional Stability: 0.2 percent or less according to ISO 2551 (Aachen Test).
4. Resistance to Insects: Comply with AATCC 24.

5. Colorfastness to Crocking: Not less than 4, wet and dry, according to AATCC 165.
6. 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.
7. Electrostatic Propensity: Less than 3.5 kV according to AATCC 134.
8. Emissions: Provide carpet tile that complies with testing and product requirements of CRI's "Green Label Plus" program.

2.2 CARPET TILE C-6 & C-8

A. Basis-of-Design Product: Subject to compliance with requirements, provide 4Square Tile Style #59392 by Shaw Contract Group or comparable product by one of the following:

1. Interface.

B. Color: As per the finish schedule on the drawings.

C. Fiber Type: Eco Solution Q nylon.

D. Density: 7552 oz./cu. yd.

E. Pile Thickness: 0.143 for finished carpet tile according to ASTM D 6859.

F. Stitches: 12 stitches per inch.

G. Gage: 1/12.

H. Total Weight: 30 oz./sq. yd. for finished carpet tile.

I. Primary Backing/Backcoating: Manufacturer's standard composite materials.

J. Secondary Backing: Ecoworx Tile.

K. Size: 24 by 24 inches.

L. Applied Soil-Resistance Treatment: Manufacturer's standard material.

M. Performance Characteristics: As follows:

1. Dry Breaking Strength: Not less than 100 lbf according to ASTM D 2646.
2. Dimensional Tolerance: Within 1/32 inch of specified size dimensions, as determined by physical measurement.
3. Dimensional Stability: 0.2 percent or less according to ISO 2551 (Aachen Test).
4. Resistance to Insects: Comply with AATCC 24.
5. Colorfastness to Crocking: Not less than 4, wet and dry, according to AATCC 165.
6. 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.
7. Electrostatic Propensity: Less than 3.5 kV according to AATCC 134.

8. Emissions: Provide carpet tile that complies with testing and product requirements of CRI's "Green Label Plus" program.

2.3 CARPET TILE : C-4 & C-7

A. Basis-of-Design Product: Subject to compliance with requirements, provide 12Square Tile Style #59393 by Shaw Contract Group or comparable product by one of the following:

1. Interface.

B. Color: As per the finish schedule on the drawings.

C. Fiber Type: Eco Solution Q nylon.

D. Density: 8308 oz./cu. yd.

E. Pile Thickness: 0.130 for finished carpet tile according to ASTM D 6859.

F. Stitches: 11 stitches per inch.

G. Gage: 1/12.

H. Total Weight: 30 oz./sq. yd. for finished carpet tile.

I. Primary Backing/Backcoating: Manufacturer's standard composite materials.

J. Secondary Backing: Ecoworx Tile.

K. Size: 24 by 24 inches.

L. Applied Soil-Resistance Treatment: Manufacturer's standard material.

M. Performance Characteristics: As follows:

1. Dry Breaking Strength: Not less than 100 lbf according to ASTM D 2646.
2. Dimensional Tolerance: Within 1/32 inch of specified size dimensions, as determined by physical measurement.
3. Dimensional Stability: 0.2 percent or less according to ISO 2551 (Aachen Test).
4. Resistance to Insects: Comply with AATCC 24.
5. Colorfastness to Crocking: Not less than 4, wet and dry, according to AATCC 165.
6. 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.
7. Electrostatic Propensity: Less than 3.5 kV according to AATCC 134.
8. Emissions: Provide carpet tile that complies with testing and product requirements of CRI's "Green Label Plus" program.

2.4 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 complies with flammability requirements for installed carpet tile and is recommended by carpet tile manufacturer for releasable installation.

1. Adhesives shall have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

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. Examine carpet tile for type, color, pattern, and potential defects.

B. Concrete Subfloors: Verify that concrete slabs comply with ASTM F 710 and the following:

1. Slab substrates are dry and free of curing compounds, sealers, hardeners, and other materials that may interfere with adhesive bond. Determine adhesion and dryness characteristics by performing bond and moisture tests recommended by carpet tile manufacturer.
2. Subfloor finishes comply with requirements specified in Section 03300 "Cast-in-Place Concrete" for slabs receiving carpet tile.
3. Subfloors are free of cracks, ridges, depressions, scale, and foreign deposits.

C. For painted subfloors, verify the following:

1. Perform bond test recommended in writing by adhesive manufacturer.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

E. Comply with manufacturer’s written installation guidelines.

3.2 PREPARATION

A. General: Comply with CRI 104, Section 6.2, "Site Conditions; Floor Preparation," and with carpet tile manufacturer's written installation instructions for preparing substrates indicated to receive carpet tile installation.

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 wide or wider and protrusions more than 1/32 inch unless more stringent requirements are required by manufacturer's written instructions.

C. 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 carpet tile manufacturer.

D. Clean metal substrates of grease, oil, soil and rust, and prime if directed by adhesive manufacturer. Rough sand painted metal surfaces and remove loose paint. Sand aluminum surfaces, to remove metal oxides, immediately before applying adhesive.

E. Broom and vacuum clean substrates to be covered immediately before installing carpet tile.

## 3.3 INSTALLATION

A. General: Comply with CRI 104, Section 14, "Carpet Modules," and with carpet tile manufacturer's written installation instructions.

B. Installation Method: As recommended in writing by carpet tile manufacturer.

C. Maintain dye lot integrity. Do not mix dye lots in same area.

D. 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.

E. Extend carpet tile into toe spaces, door reveals, closets, open-bottomed obstructions, removable flanges, alcoves, and similar openings.

F. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on finish flooring as marked on subfloor. Use nonpermanent, nonstaining marking device.

G. 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, seam sealer, 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 CRI 104, Section 16, "Protecting Indoor Installations."

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 09681