

SECTION 096813

TILE CARPETING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Carpet tile, fully adhered B.  
Removal of existing carpet tile.

1.02 RELATED REQUIREMENTS

- A. Section 090561 - Common Work Results for Flooring Preparation: Removal of existing floor coverings, cleaning, and preparation.

1.03 REFERENCE STANDARDS

- A. ASTM D2859 - Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials; 2016 (Reapproved 2021).
- B. ASTM E648 - Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source; 2023.
- C. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring; 2022.
- D. ASTM F1869 - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride; 2023.
- E. ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes; 2019a.
- F. CRI 104 - Standard for Installation of Commercial Carpet; 2015.
- G. CRI 105 - Standard for Installation of Residential Carpet; 2015.
- H. CRI (GLP) - Green Label Plus Testing Program - Certified Products; Current Edition.
- I. NFPA 253 - Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source; 2023.

1.04 SUBMITTALS

- A. Product Data: Provide data on specified products, describing physical and performance characteristics; sizes, patterns, colors available, and method of installation.
- B. Shop Drawings: Indicate < layout of joints; direction of carpet pile; location of edge moldings
- C. Samples: Submit << two carpet tiles illustrating color and pattern design for each carpet color selected.
- D. Accessory Samples: Submit two samples of edge strip and wall base
- E. Sustainable Design Submittal: Submit VOC content documentation for adhesives.
- F. Concrete Subfloor Test Report: Submit a copy of the moisture and alkalinity (pH) test reports.
- G. Manufacturer's Qualification Statement.
- H. Installer's Qualification Statement.
- I. Operation and Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning.
- J. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.

1. Extra Carpet Tiles: Quantity equal to 5 percent of total installed or 1 carton of each color and pattern installed. Review with KSU Prior to order placement.

## 1.05 QUALITY ASSURANCE

- Manufacturer Qualifications: Company specializing in manufacturing specified carpet tile.
- Installer Qualifications: Company specializing in installing carpet tile with minimum five; year's experience.
- Testing Agency Qualifications: Independent firm specializing in performing testing and inspections of the type specified in this section.

## 1.06 FIELD CONDITIONS

- Store materials in area of installation for minimum period of 24 hours prior to installation.

PART 2 PRODUCTS

### 2.01 MANUFACTURERS

- Tile Carpeting:
  1. Bentley Mills
  2. Interface, Inc
  3. Mannington Commercial
  4. Milliken & Company
  5. Tarkett Commercial
  6. Substitutions must be submitted for review and approval. Provide full specification and (2) full size samples. Kent State University to review and approve prior to order placement.

### 2.02 MATERIALS

- Tile Carpeting Tufted carpet, level or multi-level loop pile; manufactured in one color dye lot.
  1. Yarn Type: Solution Dyed Nylon, Type 6,6
  2. Dye Method : 100% Solution Dyed
  3. Texture Appearance Retention Rating (TARR) : In accordance with the CRI
    - a. Severe: TARR greater than or equal to 3.5
      - 1) Applications: High Traffic Corridors, public spaces, classrooms, dining areas and other areas with heavy foot traffic
    - b. Heavy: TARR greater than or equal to 3.0
      - 1) Applications: Conference Rooms, Open Office and general office space
  4. Tile Size: Per manufacturer standard offerings. Confirm size with Owner.
  5. Color: As selected by Owner from manufacturer's full range
  6. Pattern: As selected by Owner from manufacturer's full range
  7. Pile Weight: Not less than 16 oz/sq yd.
  8. Density Factor: minimum of 6,000 kilotex
  9. Critical Radiant Flux: Class 1. Minimum of 0.45; watts/sq cm, when tested in accordance with ASTM E648 or NFPA 253.
  10. Flammability: Class 1, Radiant Panel Test per ASTM E648
  11. Surface Flammability Ignition: Pass ASTM D2859 (the "pill test").

12. Maximum Electrostatic Charge: By permanent means and without chemical treatment, static generation must be below 3.5 Kv at 20 percent relative humidity, per AATCC Test Method 134.
13. Light Fastness:
  - a. Colorfastness to Crocking: AATCC TM 165, minimum rating of 4 using the AATCC Chromatic Transference Scale
  - b. Colorfastness to Light: Not less than 4 after 40 AFU (AATCC fading units) according to AATCC 16, Option E
14. Primary Backing Material: woven or non-woven synthetic material, standard by manufacturer.

## 2.03 ACCESSORIES

- A. Subfloor Filler: White premix latex; type recommended by flooring material manufacturer.
- B. Edge Strips: Vinyl or Rubber, as selected by Owner. Specified in section 09 65 00.
- C. Adhesives:
  1. Compatible with materials being adhered; maximum VOC content of 50 g/L; CRI (GLP) certified; in lieu of labeled product, independent test report showing compliance is acceptable.
- D. Carpet Tile Adhesive: Recommended by carpet tile manufacturer

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Verify that subfloor surfaces are smooth and flat within tolerances specified for that type of work and are ready to receive carpet tile.
- B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive carpet tile.
- C. Verify that subfloor surfaces are dust-free and free of substances that could impair bonding of adhesive materials to subfloor surfaces.
- D. Cementitious Subfloor Surfaces: Verify that substrates are ready for flooring installation by testing for moisture and alkalinity (pH).
  1. Test in accordance with Section 09 05 61.
  2. Test as Follows:
    - a. Alkalinity (pH): ASTM F710.
    - b. Internal Relative Humidity: ASTM F2170.
    - c. Moisture Vapor Emission: ASTM F1869.
  3. Obtain instructions if test results are not within limits recommended by flooring material manufacturer and adhesive materials manufacturer.
  4. Follow moisture and alkalinity remediation procedures in Section 09 05 61. E. Verify that required floor-mounted utilities are in correct location.

### 3.02 PREPARATION

- A. Remove existing carpet tile.
- B. Prepare floor substrates for installation of flooring in accordance with Section 09 05 61.
- C. Prepare floor substrates as recommended by flooring and adhesive manufacturers.
- D. Remove subfloor ridges and bumps. Fill minor or local low spots, cracks, joints, holes, and other defects with subfloor filler.
- E. Apply, trowel, and float filler to achieve smooth, flat, hard surface. Prohibit traffic until filler is cured.
- F. Vacuum clean substrate.

### 3.03 INSTALLATION

- A. Starting installation constitutes acceptance of subfloor conditions.
- B. Install carpet tile in accordance with manufacturer's instructions and CRI 104 (Commercial).
- C. Blend carpet from different cartons to ensure minimal variation in color match.
- D. Cut carpet tile clean. Fit carpet tight to intersection with vertical surfaces without gaps.
- E. Lay carpet tile in pattern as indicated on drawings or as directed by owner.
- F. Locate change of color or pattern between rooms under door centerline.
- G. Fully adhere carpet tile to substrate.
- H. Trim carpet tile neatly at walls and around interruptions.
- I. Complete installation of edge strips, concealing exposed edges.

### 3.04 INSTALLATION ON STAIRS

- A. Use one piece of carpet for each tread and the riser below. Apply seam adhesive to all cut edges.
- B. Lay carpet with pile direction in the length of the stair.
- C. Adhere carpet tight to stair treads and risers.

### 3.05 CLEANING

- A. See Section 017000 - Execution and Closeout Requirements for additional requirements.
- B. Remove excess adhesive without damage, from floor, base, and wall surfaces.
- C. Clean and vacuum carpet surfaces. END OF SECTION