

## **SECTION 09680**

### **CARPET**

#### **PART 1 GENERAL**

##### **1.01 SECTION INCLUDES**

- A. Sheet carpet, vinyl cushion underlay.
- B. Accessories.

##### **1.02 RELATED SECTIONS**

- A. Section 09651 - Resilient Flooring: Base finish.

##### **1.03 REFERENCES**

- A. ASTM D 418 - Methods of Testing PileYarn Floor Covering Construction.
- B. ASTM D 2859 - Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials; 2004.
- C. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2005.
- D. ASTM E 648 - Standard Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source; 2006.
- E. CRI 102 - Soil Resist Treatment; Carpet and Rug Institute; 2002.
- F. CRI 104 - Standard for Installation of Commercial Textile Floorcovering Materials; Carpet and Rug Institute; 2002.
- G. AATCC 16E - Colorfastness Test Method, Lightfastness; American Association of Textile Chemists and Colorists.
- H. AATCC 134 - Static Control Test, Mullen Bursting Strength (Various Methods); American Association of Textile Chemists and Colorists.
- I. California Code of Regulations (CCR), Title 24, California Building Code (CBC), Chapter 11B, Accessibility to Public Buildings.

##### **1.04 SUBMITTALS**

- A. See Section 01300 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate seaming plan, method of joining seams, direction of carpet pile and pattern, location of edge moldings and edge bindings.
- C. Product Data: Provide data on specified products, describing physical and performance characteristics; sizes, patterns, colors available, and method of installation.
- D. Samples: Submit six samples 24 x 24 inch (608 x 608 mm) in size illustrating color and pattern for each carpet and cushion material specified.
- E. Submit six, six inch (152 mm) long samples of edge strip for each color specified.
- F. Manufacturer's Installation Instructions: Indicate special procedures.
- G. Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning.
- H. Certificates: Submit certificate stating that the register numbers identify goods manufactured in accordance with this section.

### **1.05 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing specified carpet with minimum fifteen years documented experience.
- B. Installer Qualifications: Company specializing in installing carpet with minimum three years experience and approved by manufacturer.
- C. Provide firm carpet/cushion installation that complies with CBC Section 1124B.3. Carpet shall have a level loop, textured loop, level-cut, or level-cut/uncut pile texture and maximum pile height of ½" per Section 1124.B3. Carpet edges shall comply with Section 1124B.2.

### **1.06 SUSTAINABLE REQUIREMENTS**

- A. Product must meet FTC guides for recyclability and must be one -hundred percent (100%) closed-loop recyclable back into carpet. Products containing both recyclable and non-recyclable component, manufacturer must adequately report which portions of the product are recyclable per FRTC guides 16 CFR Section 260.7(d). Note: A manufacturer cannot claim that a product and any portion of a product that is incinerated is recyclable, even if incineration is used to produce heat and power (i.e. waste-to-energy) per FTC guides 16 CFR Section 260.7(d) example 3.
- B. Recyclability of a product installed must be the same as those required by Project requirements.
- C. No antimicrobials are to be added to the product during the manufacturing process for the purpose of health claims. Antimicrobial treatments are registered pesticides with EPA as preservatives of the products only and no health benefit should be claimed or expected.
- D. Air quality requirements must meet CHPS 0135 and CRI Green Label Plus. All claims must be third party certified.
- E. Recycled content requirements: yarn- 10%, backing- 40%. All claims must be third party certified.
- F. Yarn type: 6,6 HRC Invista, EPP certified.
- G. Lifecycle requirements: No less than thirty (30) years of proven success in an educational environment with similar or like product.
- H. Reclamation prohibitions: Down-cycling and incineration.
- I. Recycled content prohibitions: Fly ash.

### **1.07 DELIVERY, STORAGE AND HANDLING**

- A. Deliver carpeting and accessories to the job site in the manufacturer's original wrapping. Register number tags or stencils shall be intact on each roll of carpeting.
- B. Storage and Protection:
  - 1. Store materials under cover in well ventilated spaces designated by the Contractor immediately after delivery.
  - 2. Use all means necessary to protect the materials of this section before, during and after installation.

### **1.08 WARRANTY**

- A. Manufacturer's non-prorated twenty-five year warranty shall cover against and specifically define the following:
  - 1. Excessive Surface Wear: More than 15% loss of pile fiber weight.
  - 2. Excessive Static Electricity: More than 3.0 kV per AATCC 134.
  - 3. Resiliency Loss of Backing: More than 10% loss of backing resiliency.
  - 4. Delamination.

5. Edge Ravel.
6. Zippering.

- B. Tuft Bind warranty in lieu of edge ravel and zippering is not acceptable.
- C. Provide certification and warranty that product is 100% recyclable through manufacturer's currently operational recycling program into infinitely recyclable products.

#### 1.09 ENVIRONMENTAL REQUIREMENTS

- A. Store materials in area of installation for minimum period of 24 hours prior to installation.
- B. Maintain minimum 70 degrees F (21 degrees C) ambient temperature 24 hours prior to, during and 24 hours after installation.
- C. Ventilate installation area during installation and for 72 hours after installation.

#### 1.10 EXTRA MATERIALS

- A. See Section 01600 - Product Requirements, for additional requirements.
- B. Provide 3% of each type of carpeting, color, and pattern specified in original, appropriately labeled rolls.

### PART 2 PRODUCTS

#### 2.01 MANUFACTURERS

- A. Carpet:
  1. Tandus/C&A Floorcoverings, Dalton, Georgia; Product - "Aragon" Powerbond RS Vinyl Cushion.

#### 2.02 CARPET

- A. Face Construction:
  1. Construction - Textured Patterned Loop
  2. Gauge - 1/13
  3. Pile Units per Inch - 8.2 (ASTM D 418).
  4. Tuft Density - 106.6 tufts/sq. in.
  5. Pile Height Average - 0.117 inch (ASTM D 418).
  6. Pile Thickness - 0.074 inch (ASTM D 418).
  7. Density Factor - 9,370 oz./cu. yd.
  8. Fiber System - Dupont Nylon (100% type 6.6 nylon).
  9. Dye Method - 85% Solution Dyed/15% Yarn Dyed.
  10. Soil/Stain Protection - Ensure.
  11. Color - As selected by the Architect
- B. Powerbond Cushion Backing System:
  1. Product Width - 6 ft.
  2. Primary Tufting Substrate Synthetic Non-Woven.
  3. Fusion Coat - Sealant Vinyl.
  4. Backing - Closed-Cell Vinyl Cushion.
    - a. Weight - 35.5 oz./sq.yd.
    - b. Density - 18.5 lbs./cu.ft.
    - c. Thickness - 0.156 inch.
    - d. Compression Set - Max.10%.
    - e. Compression Deflection - Min. 7 lbs./sq.in. @ 25%.  
Max. 25 lbs./sq.in. @ 25%.
  5. RS Adhesive System - Microencapsulated Tackifier applied to 100% of backing during manufacturing.
  6. Total Product Weight - 82.7 oz./sq.yd.

- C. Performance Characteristics:
  - 1. Surface Flammability - Passes CPSC FF 1-70 (ASTM D 2859).
  - 2. Flooring Radiant Panel - Class 1 (ASTM E 648).
  - 3. Electrostatic Propensity - 3.0 kV or lower (AATCC 134).
  - 4. Colorfastness to Light -  $\geq 4$  after 100 hours (AATCC 16E).
  - 5. Fluorine - Minimum 500 ppm (CRI TM 102).

### **2.03 ACCESSORIES**

- A. Materials recommended by the manufacturer for patching, priming, chemically welding seams, etc.
- B. Sub-Floor Filler: Type recommended by carpet manufacturer.
- C. Transitional Moldings and Edge Strips: BurkeMercer Super Imperial Reducer #705 and Custom Edge #400, or equal, color as selected. Provide as conditions require.
- D. Adhesive System: Microencapsulated tackifier applied 100% of backing during manufacturing and protected with a recyclable plastic release liner for a "peel and stick" installation technique.
- E. Seam Adhesive: Recommended by manufacturer.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify that sub-floor surfaces are smooth and flat within the tolerances specified for that type of work and are ready to receive carpet.
- B. Verify that sub-floor surfaces are dust-free and free of substances which would impair bonding of adhesives to sub floor surfaces.
- C. Verify that concrete sub-floor surfaces are ready for carpet installation by testing for moisture emission rate and alkalinity; obtain instructions if test results are not within the following limits:
  - 1. Moisture emission rate: Not greater than 3 lb per 1000 sq ft (7.1 kg per 100 sq m) per 24 hours when tested using calcium chloride moisture test kit for 72 hours.
  - 2. Alkalinity: pH range of 5-9.

#### **3.02 PREPARATION**

- A. Remove sub-floor ridges and bumps. Fill minor or local low spots, cracks, joints, holes, and other defects with sub-floor filler.
- B. Apply, trowel, and float filler to achieve smooth, flat, hard surface. Prohibit traffic until filler is cured.
- C. Clean substrate.

#### **3.03 INSTALLATION - GENERAL**

- A. Install carpet and cushion in accordance with manufacturer's instructions.
- B. Installed carpet to be securely attached to floor in accordance with CBC 1124B.3. Exposed edges of carpet shall be adhered to floor surfaces and have trim along the entire length of exposed edge.
- C. Verify carpet match before cutting to ensure minimal variation between dye lots.
- D. Lay out carpet and locate seams in accordance with shop drawings:
  - 1. Locate seams in area of least traffic, out of areas of pivoting traffic, and parallel to main traffic.
  - 2. Do not locate seams perpendicular through door openings.
  - 3. Align run of pile in same direction as anticipated traffic and in same direction on adjacent

pieces.

4. Locate change of color or pattern between rooms under door centerline.
5. Provide monolithic color, pattern, and texture match within any one area.

E. Install carpet tight and flat on subfloor, well fastened at edges, with a uniform appearance.

#### **3.04 "PEEL AND STICK" CARPET**

- A. Double cut carpet seams, with accurate pattern match. Make cuts straight, true, and unfrayed.
- B. Chemically weld all seams with manufacturer's recommended seam sealer. Make sure the seam is fully sealed.
- C. Roll with appropriate roller for complete contact of carpet with mill-applied adhesive to subfloor.
- D. Trim carpet neatly at walls and around interruptions.
- E. Complete installation of edge strips, concealing exposed edges. Bind cut edges where not concealed by edge strips.

#### **3.05 INSTALLATION ON STAIRS**

- A. Use one piece of carpet for each tread and the riser below. Chemically weld all seams.
- B. Install carpet with pile direction in the length of the stair.
- C. Adhere carpet tight to stair treads and risers.

#### **3.06 CLEANING AND PROTECTION**

- A. Remove excess adhesive from floor and wall surfaces without damage.
- B. Clean and vacuum carpet surfaces.
- C. Cover carpet in traffic areas during construction period with 6 mil polyethylene or Sisalkraft Seekure.

**END OF SECTION**