

F.S.P.M.A. CARPET SPECIFICATION  
FOR GENERAL EDUCATIONAL FACILITIES USE

Spec. No.  
DIVISION 9 - FINISHES  
SECTION 09680 INDOOR CARPETING

(Insert carpet type)

PART 1 – GENERAL

- 1.01 GENERAL All technical and non-technical specification, general and supplementary conditions and requirements apply to the work specified in this section.
- 1.02 SCOPE The contractor shall provide and install all material, labor, tools, equipment, services and other incidentals required to perform the work in these specifications and drawings.
- 1.03 RELATED SECTIONS include the following:
- A. Division 2 for removing existing floor covering
  - B. Division 9 for resilient wall base and accessories
  - C. Division 3 for concrete
- 1.04 SUBMITTALS
- A. Product data: Submit technical data describing physical characteristics, performance characteristics, sizes, patterns and colors available.
  - B. Samples: Submit samples illustrating color and pattern for each carpet material specified.
  - C. Shop Drawing: Submit shop drawings showing extent of carpet, existing carpet to be removed, existing flooring to remain, direction of carpet, seam locations and method of seaming, location of insets and borders, transition details and accessories.
  - D. Installation Instructions: Submit a copy of the manufacturer's written recommended installation instructions.
  - E. Maintenance Instructions: Maintenance manual that includes recommended method of cleaning for specific carpet, including cleaning and stain removal products and procedures and manufacturer's recommended cleaning schedule. Information should also include precautions for cleaning materials and methods that could be detrimental to carpet.
- 1.05 QUALITY ASSURANCE

- A. Dealer Qualifications: The dealer should be a company specializing in commercial carpet and shall be approved by the manufacturer.
- B. Manufacturer Qualifications: The manufacturer should be a company specializing in commercial carpet and have a minimum of 5 years experience in the manufacturing of commercial carpet.
- C. Installing Contractor Qualifications: Installing contractor shall be certified or approved by the manufacturer and meet any local school district requirements.
- D. Installing Contractor Experience: Installing contractor shall have a minimum of five years experience in installation of commercial carpet.

#### 1.06 SUBSTITUTIONS

- A. Proposed substitutions to be considered must be submitted to the architect 10 days prior to bid and must be listed on the certified FSPMA list. Any product not on the certified products list will not be considered.

#### 1.07 DELIVERY, STORAGE AND HANDLING

- A. Must comply with CRI 104, Section 6.1 "Site Conditions, Temperature and Humidity."
- B. Product must be delivered to the site in manufacturer's original packaging listing manufacturer's name, product name, identification number and related information.
- C. Do not install carpet until wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at the levels indicated for project when occupied for its intended use.
- D. Store in dry location minimum 60 degrees Fahrenheit. Protect from damage and soiling. Store materials in area of installation for a minimum period of 48 hours prior to installation. Follow manufacturer's recommended guidelines.
- E. Do not install carpet over concrete slabs until slabs have cured and are sufficiently dry to bond with adhesive and concrete slabs have a ph range recommended by carpet manufacturer.
- F. Calcium Chloride test must be performed and must comply with manufacturer's guidelines specific to the product specified. Test results must be made available to manufacturer.

#### 1.08 WARRANTY

- A. Manufacturer shall guarantee their product against delamination, zippering, edge ravel, excessive surface wear for a period of not less than (15) fifteen years from the date of installation. Warranty shall be non-prorated.
1. Delamination of the secondary backing from the primary backing containing the face fiber.
  2. Zippering
  3. Edge ravel
  4. Excessive Surface Wear defined by the loss of more than 10% of pile face fiber by weight.

## PART 2 – PRODUCT

### 2.01 CARPET

- A. Only carpets listed on the FSPMA certified carpet list may be used in this section.
- B. The carpet covered by this specification is intended for general educational facilities use as an interior finish, subject to the building code and flammability requirements for specific use areas and to the manufacturer's recommended materials & method(s) of installation.

### 2.02. REQUIREMENTS.

Specifications listed below show minimal FSPMA recommendations for use in educational facilities. Carpets on the FSPMA certified carpet list have been tested and meet these requirements.

- A. Product Type FSPMA has divided carpets into 6 basic categories. Each type is intended for a specific use in educational facilities. **Specify carpet category here.**
- Category #PBCS-1: Broadloom unitary or enhanced unitary, non-cushion. Non -action back.
  - Category #PBCS-2A: Broadloom non-latex performance backing closed cell vinyl cushion (includes woven)
  - Category #PBCS-2B: Broadloom non-latex performance backing non-vinyl cushion (urethane, vinyl composite) (includes woven)
  - Category #PBCS-3: Broadloom non-latex performance backing non-cushion (includes woven).

- Category #PBCS-4: Modular tile cushion.
- Category #PBCS-5: Modular tile non-cushion.

B. Face Yarn

1. Nylon Pile Fiber Identity. The pile fiber shall consist of 100% branded (i.e., federally registered trademark) soil hiding and static resistant, with a permanent integral static control element (antistatic topical coatings are not acceptable), advanced generation continuous filament nylon which may contain reclaimed nylon polymer with the following attributes:
2. Dye Method. Yarn dyed or solution dyed.
3. Fluorochemical Finish. A minimum average of 400 ppm fluorine on the pile fiber when 3 separate tests are conducted in accordance with CRI TM-102 test method.
4. Soil / Stain Resistance. Durable stain inhibitor should be applied to the fiber during product manufacturing to resist fiber staining and soiling. After market topical treatments are not accepted. Carpets shall have a minimum of 6 when tested in accordance with AATCC 175 and a minimum of 3 when tested in accordance with AATCC 195.
5. Electrostatic Propensity. A peak electrostatic charge generation not to exceed 3.5 KV maximum, when tested according to AATCC Method 134 (step & scuff method).
6. Colorfastness.
  - a. To light. A color contrast between the exposed and unexposed carpet areas equivalent to a minimum of Grade 4 on the Gray Scale for Color Change after an exposure of 60 AFU (AATCC fading units) for all colors when tested as specified in Table I.

C. Construction

1. Width 6', 9' 12' or modular tiles
2. Gauge as per manufacturer's specifications.
3. Carpet Pile Density average pile yarn density as calculated by  $36W \div (t)$  where:

t = The average pile thickness computed in accordance with ASTM D-418 (section 10 or 11) and applies to all carpet textures except textures F and G. UM-44d further defines textures F and G as “cut pile heat set plied” and “cut pile heat set singles” respectively.

W = Average pile yarn weight expressed in ounces/square yard.

4. Finished Pile Yarn Weight (w). oz. per sq. yd. shall be identified.
5. Stitches per inch shall be identified.

D. Backing

1. Backing Material. The backing shall consist of the following:
  - a. A primary backing made from 100% synthetic materials.
  - b. A polyurethane or latex sealant precoat.
  - c. Broadloom - A permanent reaction-bonded secondary backing.
2. Roller Chair Test (For cushion backing only and if owner requested).
3. Moisture Penetration by Dynamic Impact (For cushion backing only) No penetration 10 psi @ 10,000 cycles
4. Backing Compression Deflection (for cushion backing only). 7 psi minimum, 25 psi maximum
5. Backing Density (For cushion backing only) 18.5 lbs. per cu. ft. maximum.
6. Backing Compression Set. (For cushion backing only) 10% maximum @ 25% deflection.
7. Aachen Dimensional Stability (For modular tile only)  $\pm 0.15\%$  maximum

E. Performance Requirements.

1. Tuft Bind
    - a. Broadloom - 10 lbs. minimum average
    - b. Tile – 8 lbs. minimum average
  2. Delamination Resistance of the Secondary Backing. No delamination when tested.
  3. Anti-microbial Treatment (Optional) The Antimicrobial agent shall be applied during the fiber production or carpet manufacturing process and must pass anti-bacterial and anti-fungal activity when tested in accordance with AATCC Test Method 174-1993, Antimicrobial Activity Assessment of Carpets. Carpet specimens must pass the antimicrobial and the fungicide tests, as applicable, after being washed 15 times in accordance with AATCC Test Method 138.
- F. Appearance Retention
1. Hexapod Walker Drum. Minimum 3 @ 12,000 cycles
- G. Building Code Requirements.
1. Fire Codes. The carpet must comply with the specific flammability criteria of the State Requirements for Educational Facilities (SREF), Sec. 5.3 (c) (Interior Finish Flame Spread General Requirements), which are appropriate for the product's intended use (as defined by the type and location of surface to which it will be applied and by the recommended method(s) of installation, when applicable).
    - a. Flooring Radiant Panel Test Class I, Direct Glue Down Installation. A minimum critical radiant flux of greater than or equal to 0.45 watts per cm. sq., when tested over fiber cement board according to ASTM E 648.
    - b. Smoke Density (Flaming and Non-Flaming) A maximum specific optical density (corrected) of less than or equal to 450 based on when tested in the flaming mode according to ASTM E-662.
    - c. Flammability Compliance with Federal Flammability Standard CPSC FF 1-70(Methenamine Tablet

Test/Pill Test),when tested according to ASTM D 2859.

2. Indoor Air Quality. Must comply with the requirements in the CRI IAQ green Label Plus Carpet Testing Program. Not to exceed following emissions factor measured at the 24 hour test period
  - a. Total volatile Organic Compounds. 0.5 mg/m<sup>2</sup>·hr
  - b. Formaldehyde. 0.05 mg/m<sup>2</sup>·hr
  - c. 4- Phenylcyclohexene (4-PC). 0.05 mg/m<sup>2</sup>·hr
  - d. Styrene. 0.4 mg/m<sup>2</sup>·hr
4. Adhesion ADA Carpet should be secured in compliance with Americans with Disabilities Act, Section 4.5.3.
4. Florida Building Code Must comply with Florida Building Code.

G. Environmental.

1. Manufacturer shall indicate whether their product:
  - a. is recyclable.
  - b. contains recycled or reclaimed fiber.
  - c. has recycled or reclaimed backing.
  - d. is renewable.
  - e. Climate neutral
  - f. ISO 14001

H. Warranty.

1. Refer to Section 1.08 and per manufacturer's warranty.

2.03. CERTIFICATION.

- A. Products must be certified by the FSPMA Carpet Specification Committee and must appear on the FSPMA Certified Products List.
- B. Products are certified by submitting bi-annually to FSPMA a fully completed Laboratory Analysis Request, Form B & Form E, for each product along with copies of Independent Laboratory reports showing the results of the tests listed on Table 1. The test must have been done within the last 12 months.

- C. Test Procedures. Tests shall be conducted in accordance with the standard test methods specified in the attached Table (summary sheet). Unless otherwise noted, all test methods cited are the latest published revisions.

## PART 3 – EXECUTION

All work should comply with CRI 104 Installation Instructions and manufacturer's written procedures.

### 3.01 EXAMINATION

- A. Verify that surfaces are smooth and flat and ready to receive work.
- B. Verify that floor temperature is a minimum of 60 degrees F.
- C. Verify that floor ph does not exceed 9. A reading above 9 requires corrective measures.
- D. Verify that moisture vapor transmission does not exceed 3 lbs. Per 1,000 square feet per 24 hours as determined by the calcium chloride test. A reading above 3 requires corrective measures or approval by manufacturer.
- E. Verify that the substrate is free of any curing compounds, sealers, hardeners, old adhesive and other materials that would interfere with adhesive bond per manufacturer's instructions.
- F. Flooring contractor shall verify that floor meets the above requirements. Any adverse conditions should be corrected before installation begins.

### 3.03 PREPARATION

- A. The sub-floor should be structurally sound, clean, dust free, smooth and level per CRI-104 and manufacturer's instructions.

### 3.04 LAY-OUT AND PLANNING

- A. Proper layout and planning must be completed prior to any application of adhesive or carpet to comply with submittals for shop drawings & seam diagrams.
- B. Locate seams in area of least traffic, out of areas of pivoting traffic and parallel to main traffic. Minimize excessive seams per manufacturer.

### 3.05 INSTALLATION

- A. Carpet should be installed in accordance with manufacturer's instructions.

- B. Carpet should be secured in compliance with Americans with Disabilities Act, Section 4.5.3 and the Florida Building Code.
- C. Carpet should be installed in compliance with CRI 104 and per manufacturer's recommendations using manufacturer's recommended low V.O.C. adhesives and seam sealer and applied at proper adhesive spread rate.
- D. Carpet should be installed in compliance with CRI 104 and per manufacturer's recommendations using proper adhesive spread rate.
- E. Install carpet flat and tight on sub-floor, well fastened at edges, with a uniform appearance. Carpet tiles should be tight but not compresses to the point that peaking occurs.
- F. Cut and fit carpet to butt tightly to vertical surfaces, permanent fixtures, built-in cabinets, pipes, outlets, edgings, thresholds and nosings.
- G. Extend carpet into toe spaces, door reveals, closets, removable flanges, alcoves and similar openings.

3.06 CLEANING AND PROTECTION

- A. Remove all trash and debris daily.
- B. Remove excess adhesive, seam sealer and other surface blemishes from floor, base and wall surfaces using manufacturer's recommended cleaner without damage.
- C. Vacuum entire carpet using commercial machine with a rotating brush head.
- D. Protect carpet against damage and soiling from construction operations and placement of equipment and furnishings during the remainder of the construction period.

3.07 MAINTENANCE

- A. Manufacturer shall provide written instructions and on-site training in the maintenance of the carpet for custodial staff if requested by owner.

VI. FSPMA PRODUCT SPECIFICATIONS APPROVAL

ORIGINAL MC-#    APPROVED  
 REVISION MC-#    EFFECTIVE

---

PRESIDENT, FLORIDA SCHOOL PLANT MANAGEMENT ASSOCIATION

---

CHAIRPERSON, CARPET SPECIFICATION COMMITTEE