

## SECTION 09680

### CARPET

#### PART 1 - GENERAL

##### 1.1 Summary

- A. This Section includes carpet, carpet adhesive, and carpet accessories.
- B. Carpet Design Goals – It is in the best interest of Florida State University and our environment to specify products that promote sustainability. Sustainability refers to the longevity of a product, the amount of recycled content, and if the product can be recycled at the end of its life.

##### 1.2 Submittals

- A. Product Data: Provide complete product data for each type of carpet material, adhesive, and installation accessory required. Submit written data, and test results as required below, on physical characteristics, durability, appearance retention characteristics, and fire performance characteristics. Provide seam locations as a shop drawing for approval
- B. Design Guideline Compliance: The carpet manufacturer shall fill out the “Carpet Compliance Checklist,” attached at the end of this document, and submit it to the FSU Project Manager assigned to the project.
- C. Required Overages: Each project requires a percentage of USEABLE overage of the installed area, as listed below, for each carpet type, color, and pattern; delivered, wrapped and labeled. Carpet manufacturer shall include the required amount of overage in their bids as follows:
  - 1 sy – 500sy ordered = 5% but not less than one carton
  - 501 – 1000sy ordered = 4% but not less than 25sy
  - 1001 – 2500sy ordered = 2% but not less than 40sy
  - 2500sy – higher ordered = 1% but not less than 50sy
  - Broadloom carpet requires a minimum single piece size of 12ft x 10ft.
- D. Samples: Provide samples for verification purposes in manufacturer's standard size, showing full range color, texture, and pattern variations expected. Provide six (6) additional larger 12” x 12” samples for testing purposes. Prepare samples from same material to be supplied to the Owner.
- E. Warranties: The carpet manufacturer shall supply copies of all warranties required below with their bids.

##### 1.3 Quality Assurance

- A. General: Provide carpet identical to that tested as required below, by independent, approved testing agencies. All carpet supplied to each project under this contract shall be clearly identified with appropriate markings of the applicable testing and inspecting organization for each test required below.

- B. **Fire Performance Characteristics:** Provide carpet meeting or exceeding the following fire performance characteristics or the current requirements of Code authorities, whichever is more restrictive.
1. Carpet Surface Burning Characteristics – small scale ignition test (Pill Test):
    - a) Test Method: CPSC FF 1-70.
    - b) Rating: Pass.
  2. Critical Radiant Flux:
    - a) Test Method: ASTM E-648; NFPA 253.
    - b) Rating: Class I.
  3. Smoke Generation Characteristics:
    - a) Test Method: ASTM E-662.
    - b) Rating: 0 - 450.
- C. **Appearance Retention Characteristics** – Provide carpet meeting or exceeding the following:
1. Texture Appearance Retention Rating (TARR):
    - a) Test Method: Carpet and Rug Institute (CRI) TM103 rated in accordance with ASTM D-7330 using ASTM D-5252 (commercial hexapod).
    - b) Rating:
      - Severe Use (3.5 min. TARR rating) for corridors, assemblies, entries, lobbies, dining areas, and lounges
      - Heavy Use (3.0 min. TARR rating) for conference rooms, classrooms, staff and administration offices
  2. Soiling Resistance:
    - a) Treatment by fiber manufacturer
  3. Stain Resistance:
    - a) Treatment by carpet manufacturer

#### 1.4 Warranties

- A. **General:** The manufacturer shall supply unrestricted, full replacement non-prorated warranties as listed below.
- B. **Wear:** No more than 10% yarn loss by weight for a minimum of 15 years of carpet under normal use.
- C. **Edge Ravel:** Guaranteed no edge ravel in normal use for a minimum of 15 years of normal carpet use.
- D. **Tuft Bind:** Guaranteed not to zipper for a minimum of 15 years of normal carpet use.
- E. **Delamination:** Primary and secondary backings guaranteed not to delaminate for a minimum of 15 years of normal carpet use.
- F. **Dimensional Stability:** Guaranteed not to lose dimensional stability for a minimum of 15 years of normal carpet use.

## **PART 2 - PRODUCTS**

### **2.1 Modular Carpet and 6' roll goods with hard back**

- A. Carpet Materials – recommended use: general use where additional cleanability, acoustical dampening and durability is desired. Available in modular and 6' roll goods (hard back). Modular carpet is recommended in areas where frequent carpet replacement is anticipated and/or where replacement of roll goods is impractical due to obstructions in the space.
1. Construction: tufted - level or multi-level loop pile.  
-Tip shear allowable:
    - 30% or less of the total pattern
    - projects less than 10,000sf
    - Restricted to corridors not adjacent to entries, conference rooms, staff and administration suite or offices
  2. Yarn: Invista Antron Legacy, or Invista Antron Lumena type 6,6 nylon. No substitutions.
  3. Dye Method: 100% yarn dyed, 100% solution dyed or a combination of yarn dyed and solution dyed.  
-Continuous and piece dyed: allowable in projects less than 10,000sf
  4. Pile yarn weight: 20 oz per square yard or higher measured according to ASTM D-5848.
  5. Average pile yarn density: 5500 minimum measured according to HUD/FHA UM-44d
  6. Gauge: 1/10, 1/12, 5/64, 1/16, or 1/20, measured according to ASTM D-5793.
  7. Stitches per inch: 8.0 minimum measured according to ASTM D-5793.
  8. Backing:
    - Primary: Tufted – 100% reinforced synthetic, woven or non-woven
    - Secondary: High performance, and moisture impermeable
- B. Carpet Adhesive: Provide adhesive by the carpet manufacturer for intended use condition. No substitutions. All adhesive used for modular carpet tile shall be a releasable adhesive.

### **2.2 Broadloom Carpet**

- A. Carpet:
1. Construction: tufted - level or multi-level loop pile.
  2. Yarn: Invista Antron Legacy, or Invista Antron Lumena type 6,6 nylon.

No substitutions.

3. Dye Method: 100% yarn dyed, 100% solution dyed or a combination of yarn dyed and solution dyed.

4. Pile yarn weight: 20 oz per square yard minimum, measured according to ASTM D-5848.

5. Average pile yarn density: 5500 minimum measured according to HUD/FHA UM-44d

6. Gauge: 1/10, 1/12, 5/64, 1/16, or 1/20, measured according to ASTM D-5793.

7. Stitches per inch: 8.0 minimum measured according to ASTM D-5793.

8. Backing:

-Primary: Tufted - 100% synthetic, woven or non-woven

-Secondary: High performance, and moisture impermeable

B. Carpet Adhesive: Provide adhesive by the carpet manufacturer for intended use condition. No substitutions.

### 2.3 Solution Dyed Carpet

A. Carpet Materials – required use: areas with direct sunlight exposure over a long period of time and/or potential exposure to bleaching agents. Examples of such areas include atriums, spaces with large window areas facing south or west, spaces adjacent to laboratories, adjacent to food prep/service areas, or janitor/custodial closets.

B. 100% solution dyed

C. All other requirements of 2.1 - 2.3 above.

### 2.4 Acceptable Carpet Manufacturers

A. Subject to the requirements of this specifications, provide carpet manufacturers as follows:

1. Mohawk

2. Mannington

3. Tandus

4. Masland

5. Avant

6. Bentley Mills

7. Other, if approved in advance

## **PART 3 – EXECUTION**

### **3.1 Installation**

- A. Comply with manufacturer’s requirements, guidelines, and recommendations**
- B. Comply with Carpet & Rug Institute (CRI 104) – latest edition of the Carpet Installation Standard**

# Carpet Compliance Checklist **Sample**

Date: **10/02/2015 (edit red text)**

Vendor: **Mannington**

Style/color: **Offline Loop/linked**

Proposed location: **Classroom**

Broadloom, 6' hard backed, or Modular: **Modular**

\*location and size restrictions are listed in the FSU Design Guidelines

\*\*higher rating required depending on location, refer to FSU Design Guidelines at: <https://www.facilities.fsu.edu/depts/designConstr/guidelines.php>

\*\*\*statement of compliance to be determined by FSU facilities staff

Specification Category	Test Reference	FSU Specification Requirement	Proposed Product Specification
Pill test	CPSC FF 1-70	Pass	Pass
Critical radiant flux	ASTM E684	Class I	Class I
Density of smoke	ASTM E 662	0-450	Less than 450
Fiber	Antron Certified	Antron Lumena or Antron Legacy	Lumena
Tufting	n/a	*Modular: loop, multilevel loop, tip shear <30% *Broadloom: loop or multilevel loop	loop
Dye method	n/a	*Modular: solution, yarn, piece, or continuous - *Broadloom: solution or yarn	solution
Pile yarn weight	ASTM 5848	20oz per sq. yd. minimum	22oz per sq. yd.
Pile yarn density	HUD/FHA UM 44d	5500 minimum	6,655
Gauge	ASTM D-5793	1/10, 1/12, 5/64, 1/16, 1/20	5/64
Stitches per inch	ASTM D-5793	8 minimum	9.66
Texture Appearance Retention Rating (TARR)	CRI TM 103	3.0 minimum**	3.5
Stain resistance	n/a	by manufacturer	XGUARD
Primary backing	n/a	Modular: Tufted reinforced synthetic Broadloom: Tufted synthetic	Infinity Modular, tufted reinforced synthetic
Secondary backing	n/a	High performance(HP), moisture impermeable	Infinity Modular, HP moisture impermeable
Warranties for: wear, edge ravel, tuft bind, delamination, & dimensional stability	n/a	15 year minimum	limited lifetime
Product Compliance			***

# Carpet Compliance Checklist

Date: \*location and size restrictions are listed in the FSU Design Guidelines

Vendor: \*\*higher rating required depending on location, refer to FSU Design Guidelines

Style/color: at: <https://www.facilities.fsu.edu/depts/designConstr/guidelines.php>

Proposed location: \*\*\*statement of compliance to be determined by FSU facilities staff

Broadloom, 6' hard backed, or Modular:

Specification Category	Test Reference	FSU Specification Requirement	Proposed Product Specification
Pill test	CPSC FF 1-70	Pass	
Critical radiant flux	ASTM E684	Class I	
Density of smoke	ASTM E 662	0-450	
Fiber	Antron Certified	Antron Lumena or Antron Legacy	
Tufting	n/a	*Modular: loop, multilevel loop, tip shear <30% *Broadloom: loop or multilevel loop	
Dye method	n/a	*Modular: solution, yarn, piece, or continuous - *Broadloom: solution or yarn	
Pile yarn weight	ASTM 5848	20oz per sq. yd. minimum	
Pile yarn density	HUD/FHA UM 44d	5500 minimum	
Gauge	ASTM D-5793	1/10, 1/12, 5/64, 1/16, 1/20	
Stitches per inch	ASTM D-5793	8 minimum	
Texture Appearance Retention Rating (TARR)	CRI TM 103	3.0 minimum**	
Stain resistance	n/a	by manufacturer	
Primary backing	n/a	Modular: Tufted reinforced synthetic Broadloom: Tufted synthetic	
Secondary backing	n/a	High performance(HP), moisture impermeable	
Warranties for: wear, edge ravel, tuft bind, delamination, & dimensional stability	n/a	15 year minimum	
Product Compliance			***