

SECTION 09 68 00 – CARPET

PART 1 - GENERAL

1.1 RELATED DRAWINGS

- A. *Section 01 78 23 – Operation and Maintenance Data*

1.2 REFERENCE STANDARDS

- A. CRI Green Label Plus – Carpet and Rug Institute IAQ Standards
- B. LEED – Leadership in Energy and Environmental Design, Green Building Rating System: Carpet will not hinder project goals to meet LEED Gold minimum standards.
- C. NSF/ANSI 140 – 2007e Sustainable Carpet Assessment Standard – carpet must be minimum NSF Silver certified.
- D. AATCC – American Association of Textile Chemists and Colorists.

1.3 QUALITY ASSURANCE

- A. Factory Runs: Provide Carpet from one factory run and one dye lot with colors and shades guaranteed to be uniform throughout the entire area run for type of carpet specified.
- B. Provide carpet compatible with installation over concrete slab on grade floors
- C. All carpet supplied to each project under this Standard shall be clearly identified with the appropriate markings of the applicable testing and inspecting organization for each test required below.
- D. Fire Performance Characteristics: Provide carpet meeting or exceeding the fire performance requirements listed in the “Codes, Standards and Regulations” document within these Standards *[Note to AE: Insert appropriate code reference into Contract Documents]*.
- E. Appearance Retention Characteristics: Provide carpet meeting or exceeding the following:
 - 1. Appearance Retention Rating (ARR): Carpet and Rug Institute (CRI) test TMI101 graded in accordance with ASTM D-5252 (hexapod). Rating shall be a minimum of 3.0 after 12k revolutions.
 - 2. Colorfastness to Light: Test Method AATCC-16-E with a rating of 3 minimum, 4 for heavy light exposure locations, after 40 AATCC fading units using AATCC gray scale for color change.
 - 3. Soiling Resistance: AATCC 171 (HWE) for 2 washings to simulate removal of topical treatments by hot water extraction, followed by AATCC 175. Minimum rating of 7 using AATCC Red 40 Stain Scale.
- F. Durability Characteristics: Provide carpet meeting or exceeding the following:

1. Tuft Bind / Edge Ravel: ASTM D1335, minimum of 8 lbs-force or higher, wet.
 2. De-lamination Strength of Secondary Backing: ASTM D-3936 minimum 2.5 lbs per inch width.
- G. The carpet manufacturer and/or their authorized representative will be required to complete all certifications required to support the specified warranties with the Contractor and Owner's Representative prior to start of work.
- H. Static Control: By permanent means (i.e. antistatic filaments) and without chemical treatment, static generation below 3.5 kilovolts under standard conditions of 65 F and 20% relative humidity. Electrostatic Propensity (static delayed signal): AATCC134.

1.4 SUBMITTALS

- A. Shop Drawings:
1. Indicate pile or pattern direction and locations and types of edge strips.
 2. Indicate columns, doorways, enclosing walls or partitions, built in cabinets, and locations where cutouts are required in carpet.
 3. Show installation details at special conditions.
 4. Layout and seaming diagrams.
- B. Samples: Samples for verification purposes in manufacturer's standard size, showing full range of color, texture, and pattern variations expected. Prepare samples from same material to be used for the Work. Submit the following:
1. Minimum 8 inch square samples of each type of broadloom carpet required.
 2. Four (4) full-size samples of each carpet tile required.
 3. 6 inch long samples of each type exposed edge stripping and accessory item.

1.5 EXTRA MATERIALS

- A. Furnish extra materials matching products installed as described below, packaged with protective covering for storage and identified with labels describing contents. Deliver extra materials to site for storage.
1. Carpet Tile: Before installation begins, furnish quantity of full size tiles for each type of material equal to 5 percent of amount installed, or a minimum of one box.
 2. Broadloom carpet: Confirm storage space is available prior to order placement. Before installation begins, furnish quantity of full width for each type of material equal to 5 percent of amount installed.
 - a. Due to storage limitations, extra materials should only be supplied on projects with a total yardage of more than 500 yards of carpet materials for entire project.

1.6 WARRANTY

- A. Submit a written warranty executed by carpet manufacturer and Installer agreeing to repair or replace carpet that does not meet requirements or that fails in materials or workmanship within the specified warranty period. Failures include, but are not limited to:

1. Wear: Carpet materials shall evidence no more than 10 percent loss of face fiber.
 2. Edge Raveling: Carpet material shall exhibit no edge ravel, zippering, or runs under normal use.
 3. De-lamination: Carpet materials shall not delaminate from primary or secondary backing.
 4. Shrinkage: Carpet materials shall show no shrinkage.
 5. Carpet will maintain tuft bind wet or dry.
 6. The stain resistant properties of the fiber must be permanent and cannot be removed by commercial cleaning or abrasive wear.
 7. Carpet tile will remain dimensionally stable and not cup, dome or dish under normal use.
- B. Warranty Period: Ten (10) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 BROADLOOM CARPET

- A. Carpet Materials
1. Construction: tufted or woven, level or multi-level loop pile with maximum height variation of 1/32 inch.
 2. Gauge: 10 minimum and no less than 10 stitches per inch.
 3. Fiber Type: Nylon Type 6,6 or premium Type 6.
 4. Modification Ratio to be equal to or less than 2.5.
 5. Dye Method: 100% solution dyed or a combination of solution dyed (not less than 75%) and yarn dyed(not more than 25%).
 6. Pile Weight: 26 to 32 oz/ yard.
 7. Primary Backing: woven polypropylene or approved equal.
 8. Secondary Backing: woven polypropylene or approved equal.
- B. Carpet Adhesive: Provide highest quality adhesive recommended by the carpet manufacturer for intended use condition.

2.2 HARD BACKED CARPET AND MODULAR CARPET

- A. Carpet Materials – Modular is the University's preferred format for campus installations.
1. Construction: tufted or woven, level or multi-level loop pile with maximum height variation of 1/32 inch.
 2. Gauge: 10 minimum and no less than 10 stitches per inch.
 3. Fiber Type: Nylon Type 6,6 or premium Type 6
 4. Modification Ratio to be equal to or less than 2.5.
 5. Dye Method: 100% solution dyed or a combination of solution dyed (not less than 75%) and yarn dyed(not more than 25%).

6. Pile Weight: 18 oz/ square yard or higher.
 7. Primary Backing: Reinforced synthetic.
 8. Secondary Backing: vinyl or urethane backing system. Not to have less than 10% total post consumer and/or post-industrial materials content.
- B. Carpet Adhesive: Provide highest quality adhesive recommended by the carpet manufacturer for intended use condition. All adhesive used for modular carpet tile shall be a releasable adhesive.

2.3 CUSHION BACKED CARPET

- A. Carpet Materials - Cushion back on tile format only. Use limited to areas where acoustical dampening is desired. Pre-approval of use required by Owner. *[Note to AE: Pre-approval required by F&S Director of Planning].*
1. Construction: Tufted or woven, level or multi-level loop pile with maximum height variation of 1/32 inch.
 2. Gauge: 10 minimum and no less than 10 stitches per inch.
 3. Fiber Type: Nylon Type 6,6 or premium Type 6.
 4. Modification Ratio to be equal to or less than 2.5.
 5. Dye Method: 100% solution dyed or a combination of solution dyed (not less than 75%) and yarn dyed (not more than 25%).
 6. Pile Weight: 18 oz/ square yard or higher
 7. Primary Backing: Reinforced synthetic.
 8. Secondary backing: PVC Free polyurethane cushion
- B. Carpet Adhesive: Provide highest quality adhesive recommended by the carpet manufacturer for intended use condition. All adhesive used for modular carpet tile shall be a releasable adhesive.

2.4 SOLUTION DYED CARPET

- A. Carpet Materials – recommended use in areas with high sunlight exposure and/or potential exposure to bleaching agents in use or in cleaning adjacent areas.
1. Dye Method: 100% solution dyed nylon
 2. Meet all other requirements of 2.1 or 2.2 above.
- B. Carpet Adhesive: Provide highest quality adhesive recommended by the carpet manufacturer for intended use condition. All adhesive used for modular carpet tile shall be a releasable adhesive.

2.5 RECYCLING

- A. Recycling of new and/or used carpet to be determined per project.

- B. New materials: All carpet must be eligible for recycling by the supplying mill or fiber producer to an existing operational third party certified recycling center; submit program parameters. Landfills are not an option.
- C. Used Carpet: Remove carpet and recycle regardless of manufacturer, fiber type or construction. Reclamation Agency and Carpet Remover shall verify in writing that Used Carpet was removed and recycled. Landfills are not an option.

PART 3 - INSTALLATION

- A. Direct Glue-Down Installation: Comply with CRI 104, Section 8: "Direct Glue-Down".
- B. At doorways, center seams under door in closed position; do not place seams perpendicular to door frame, in direction of traffic through doorway. Do not bridge building expansion joints with continuous carpet.
- C. Extend carpet under removable flanges and furnishings and into alcoves and closets of each space.
- D. In corridor areas, use full tiles down the center and cut perimeter tile borders.

PART 4 - SUBMITTALS

4.1 SCHEDULES

- A. *[Note to AE: Ensure schedules are submitted which will enable the replication or reorder of any manufactured product per Section 01 01 78 23 – Operation and Maintenance Data]*

END OF SECTION **09** 68 00

This section of the *U of I Facilities Standards* establishes minimum requirements only.

It should not be used as a complete specification.