

DIVISION 9 - FINISHES

Section 09680 – Carpet and Carpet Tile

Introduction

In general, broadloom carpet shall be direct glue down installation.

In certain limited and special cases (for example offices of senior academic or administrative officials requiring an "executive" environment), and only with specific permission from the Project Manager, a carpet or carpet tile with enhanced cushion backing may be used. Carpet stretched over carpet padding systems should *not* be specified.

Classrooms – Where carpeting is recommended by the design professional for classroom installations, only carpet tile shall be specified. In deciding to use carpet tile in classrooms, acoustical, comfort and appearance issues should be weighed against FM maintenance issues (UA PM to coordinate). In large classrooms i.e. auditorium or tiered classrooms, the use of carpet tile is restricted to aisles and entry levels. Do not specify carpet tiles under fixed seating.

Selection of carpet materials (and enhanced cushion backing systems) must adhere to all pertinent ADA requirements.

Selection of carpet materials (and enhanced cushion backing systems) should address the traffic characteristics, likelihood and types of potential staining agents, and required longevity of the installation.

Carpet selections should take advantage of sustainable carpet options as much as possible. Manufacturer must provide Environmentally Preferred Product Declaration document listing ingredients of yarn and backing components.

When selecting carpet materials, consider that the carpet will be cleaned only annually. Specify materials choices which provide substantial wear and soil hiding characteristics. Also consider that regular vacuuming will be accomplished with heavy duty equipment. Delicate carpet requiring special attention will not prove durable.

Limit color choices to those which will provide substantial wear and soil hiding characteristics. Restrict solid color carpet to accent areas. Do not use light colors.

Where carpet is being installed directly over asbestos-containing resilient flooring ("encapsulation"), specify a releasable installation, using "peel-and-stick" materials or special adhesives. Encapsulation is decided by the University on a case by case basis.

Do not specify carpeted floor finishes in wet locations such as toilet rooms, locker rooms, wet laboratories, and other similar spaces. This includes small areas within larger spaces such as around coffee bars, drinking fountains, entry vestibules, etc.

Include carpet type, color and pattern selections, and any special layout provisions (borders, etc.) in the construction documents.

Coordinate requirements for resilient base and accessories with Section 09650.

Part 1 - General

- Require that manufacturer(s) and installer(s) demonstrate at least 5 years successful performance with similar installations.
- Require submission of manufacturer's technical literature, test reports, VOC content, and flame spread characteristics.

- Require submission of a seaming diagram, drawn to scale, clearly indicating all special features of each space required to receive a carpeted finish, and the planned seaming pattern.
- Require submission of an "as-built" color and material schedule for each carpet installed, with the closeout documents, including:
 - Descriptive location
 - Manufacturer
 - Carpet type (name and number)
 - Color, style and pattern (name and number)
 - Manufacturer's recommended cleaning procedures
 - Warranty provisions
- Require delivery to the Owner of maintenance stock, a minimum of 9 square yards or 3% of the total whichever is larger, with no individual piece smaller than 3'-0" and 9 square yards, for each type and color of carpet in the project. For small projects a minimum of 5% stock should be considered. Include the following wording with the maintenance stock specification - "It is unacceptable to consider this maintenance stock for standard installation overages. This is "attic stock" to arrive on site cleanly wrapped and labeled as "attic stock" for the client to use in future repair and maintenance. It is not considered as waste stock or overages that the contractor bids for installation purposes."
- Specify special warranty provisions as follows:
 - Two Year Installation Warranty: signed by the contractor and installer, agreeing to repair or replace defective materials and workmanship over a TWO year period.
 - 10 year, non-prorated manufacturer's warranty.
 - Delamination warranty: The backing will not delaminate for the life of the carpet.
 - Edge Ravel Warranty: The Manufacturer warrants that the carpet will not have continuous ends coming out at lengthwise seams for the life of the carpet.
 - Tuft Bind: The manufacturer warrants that the carpet has an average face yarn tuft bind of 10 pounds. This warranty is for the life of the carpet and applies only to loop pile carpet.
 - No more than 10% loss of pile by weight over the life of the carpet.
 - No zippering over the life of the carpet
 - Warranties must be from the carpet manufacturer, and must be offered as the manufacturer's warranty.
- Contact carpet consultant, Nathalie Leroux, for questions on appropriate products to meet guidelines at (nathalei.leroux@antron.net) or (619)261-1962.

Part 2 - Products

- Specify carpet, enhanced cushion backing (where required), adhesive, and seaming materials, which meet the University of Washington protocol for volatile organic compounds (voc), with the minimum possible content of voc, and in no case with a total voc content in excess of 0.50 mg per cubic meter.
- Specify carpet complying with these general criteria:
 - Flame spread - class I (ASTM E648)
 - Smoke density - less than 450 (ASTM E662)
 - Static resistance - minimum of 3.5kv (AATCC TM 134)
 - Tuft bind – minimum 10 lbs.
- High Traffic Areas (libraries, conference rooms, classrooms, corridors, etc.)

- Carpet fiber- 100% type, 6,6 BCF nylon. Hollow filament fiber shape for optimal soil hiding capability. A modification ratio of less than 1.5 Polymer identification to AATCC TM 20.
 - Dyed Method- 100% solution dyed or solution dyed yarn dye combination with a minimum of 75% solution dyed. (As long as all performance criteria are met.)
 - Construction- Tufted texture- level loop or textured loop with maximum pile height variation of 1/32 inch.
 - Stain Resistance: AATCC TM 171 (HWE) for 2 cleanings to simulate removal of topical treatments by hot water extraction, followed by AATCC TM 175 Stain Resistance test; minimum rating of 8 using AATCC Red 40 Stain Scale.
 - Soil Resistance: Soil resistance treatment to be heat cured by mill during carpet manufacturing process.
 - Texture Retention Rating: Vettermann Drum test method ASTM D5417, for 22,000 cycles with a minimum rating of a 3.0 or Hexapod Test Method, ASTM D5252, for 12,000 cycles (8.4 lb. tumbler) with a minimum rating of a 3.5. Rating using the appropriate Commercial reference Scale for the construction per ASTM D7330 test method. Testing without underpad or brushing.
 - Colorfastness to Light: AATCC TM 16.3 to 200 AFU; minimum rating of 3-4 using AATCC Gray Scale for Color Change.
 - Colorfastness to atmospheric contaminants: AATCC TM 164 (resistance to fade from oxides of nitrogen) and AATCC TM 129 (resistance to fade from ozone) for 2 cycles; minimum rating of 3-4 using AATCC Gray Scale for Color Change.
 - Colorfastness to crocking: AATCC TM 165, minimum rating of 4 using the AATCC Chromatic Transference Scale.
 - Face weight- 17 ounces per square yard minimum.
 - Primary backing- to meet warranty provisions above.
 - Secondary backing- to meet warranty provisions above.
 - Backing type- Moisture impermeable sheet backing system with welded seams or moisture impermeable carpet tile 18" to 36".
 - Dimensional stability; Aachen method/ ISO 2551. Maximum change +/-0.20%.
- General Use Areas (offices, etc.):
 - 100% type, 6,6 BCF nylon. Hollow filament fiber shape for optimal soil hiding capability. A modification ratio of less than 1.5 Polymer identification to AATCC TM 20.
 - Dyed Method- Solution dyed fiber or yarn dyed or combination of both (As long as all performance criteria are met.)
 - Construction – tufted
 - Texture- level loop or multi-level loop with maximum pile height variation of 1/16 inch.
 - Colorfastness to Light: AATCC TM 16.3 to 200 AFU; minimum rating of 3-4 using AATCC Gray Scale for Color Change.
 - Colorfastness to atmospheric contaminants: AATCC TM 164 (resistance to fade from oxides of nitrogen) and AATCC TM 129 (resistance to fade from ozone) for 2 cycles; minimum rating of 3-4 using AATCC Gray Scale for Color Change.
 - Colorfastness to crocking; AATCC TM 165, minimum rating of 4 using the AATCC Chromatic Transference Scale.
 - Stain Resistance: AATCC TM 171 (HWE) for 2 cleanings to simulate removal of topical treatments by hot water extraction, followed by AATCC TM 175 Stain Resistance test; minimum rating of 8 using AATCC Red 40 Stain Scale.
 - Soil Resistance: Soil resistance treatment to be heat cured by mill during carpet manufacturing process.
 - Texture Retention Rating: Vettermann Drum test method ASTM D5417, for 22,000 cycles (8.4 lb. tumbler) with a minimum rating of a 3.0 Rating using the appropriate Commercial Reference Scale for the construction per ASTM D7330 test method. Testing without underpad or brushing.
 - Face weight- minimum 17 ounces per square yard for broadloom and 14 ounces per square yard for carpet tile.
 - Backing- unitary or ABAC® for 12' broadloom or carpet tile 18" to 36" width.
 - Dimensional stability for tile: Aachen method/ ISO 2551. Maximum change +/-0.20%

- Hospital / Medical Facilities:
 - 100% type 6,6 BCF nylon. Hollow filament fiber shape for optimal soil hiding capability. A modification ratio of less than 1.5. Polymer identification to AATCC TM 20.
 - Dyed Method- 100% solution dyed.
 - Construction- tufted
 - Texture- level loop
 - Stain Resistance: AATCC TM 171 (HWE) for 2 cleanings to simulate removal of topical treatments by hot water extraction, followed by AATCC TM 175 Stain Resistance test; minimum rating of 8 using AATCC Red 40 Stain Scale.
 - Soil Resistance: Soil resistance treatment to be heat cured by mill during carpet manufacturing process.
 - Texture Retention Rating: Vettermann Drum test method ASTM D5417, for 22,000 cycles (8.4 lb. tumbler) with a minimum rating of a 3.5 Rating using the appropriate Commercial Reference Scale for the construction per ASTM D7330 test method. Testing without underpad or brushing.
 - Colorfastness to Light: AATCC TM 16.3 to 200 AFU; minimum rating of 3-4 using AATCC Gray Scale for Color Change.
 - Colorfastness to atmospheric contaminants: AATCC TM 164 (resistance to fade from oxides of nitrogen) and AATCC TM 129 (resistance to fade from ozone) for 2 cycles; minimum rating of 3-4 using AATCC Gray Scale for Color Change.
 - Colorfastness for crocking: AATCC TM 165, minimum rating of 4 using the AATCC Chromatic Transference Scale.
 - Face weight- 17 ounces per square yard minimum.
 - Moisture impermeable sheet backing system with welded seams or moisture impermeable carpet tile 18" to 36".
 - Dimensional stability: Aachen method/ ISO 2551. Maximum change +/-0.20%.
- Residential Living Areas (Other common areas to follow guidelines above for High Traffic Areas)
 - Because of the variety of facilities (new, renovated, need for allergy free, long term and short term) that Residence Life deals with; the Consultant shall discuss with the User the appropriate type of material to be specified for the specific project.
- Carpet with Enhanced Cushion Backing:
 - Carpet fiber- 100% type 6,6 BCF nylon. Hollow filament fiber shape for optimal soil hiding capability. A modification ratio of less than 1.5. Polymer identification to AATCC TM 20.
 - Dyed Method- solution dyed, yarn dyed, or combination of both, piece dyed or printed carpet, (As long as all performance criteria are met.)
 - Construction- tufted or woven.
 - Texture- loop pile, cut loop pile, tip-sheared loop pile, or cut pile
 - Soil Resistance: Soil resistance treatment to be heat cured by mill during carpet manufacturing process.
 - Texture Retention Rating: Vettermann Drum test method ASTM D5417, for 5,000 cycles with a minimum rating of a 3.0 or Hexapod Text Method, ASTM D5252, for 8,000 cycles (8.4 tumbler) with a minimum rating of a 3. Rating using the appropriate Commercial Reference Scale for the construction per ASTM D7330 test method. Testing without underpad or brushing.
 - Face weight- 25 ounces per square yard minimum for cut pile and 17 ounces per square yard minimum for loop pile.
 - Width- 6 foot or 12 ft. for broadloom, 18" to 36" width for carpet tile.
 - Dimensional stability: Aachen method/ ISO 2551. Maximum change +/-0.20%.
- Specify that adhesives and seam sealers must be furnished by or approved by the carpet manufacturer.

Part 3 - Execution

- Require floor leveling, for both new and renovation projects, in this Section.
- Require that installation be accomplished in accordance with manufacturer's recommendations, including seam gluing.
- Include requirements for pattern matching, color matching, and running the pile in the direction of anticipated traffic.
- Describe requirements protecting installed carpet until Substantial Completion in this Section.

End of Section 09680