

UNIVERSITY OF NEW HAMPSHIRE
CONSTRUCTION AND RENOVATION STANDARDS

SECTION 09680 – CARPET

PART 1 – GENERAL

- 1.01 All carpet except that installed in private offices shall be approved by Facilities Design and Construction **prior** to purchase. Carpeting will be ordered and installed under the supervision of Facilities Design and Construction or the Housing Office. Carpet to be installed will be appropriate to the traffic patterns, use of space and in keeping with the visual unity of the building.
- 1.02 Warranty: All carpet and backings to have at a minimum a 10-year wear warranty. Polyurethane backings will have a lifetime warranty on edge ravel and zippering, increased tuft bind and delaminating.
- 1.03 Recycling: Carpet recycling is in its infancy stage at this time, but continues to evolve. As programs develop these standards will be updated. At present, consider the following when specifying a carpet:
- a. Carpet & Rug Institute (CRI) green labeled carpet
 - b. CRI green labeled adhesive for installation
 - c. CRI green labeled cushion
 - d. Some recycled fiber content (unless natural fibers)
 - e. Repairable carpet
 - f. Recyclable carpet
 - g. Manufacturer who codes the materials used on the backing
 - h. Manufacturer who maintains a take-back program
- 1.04 Off-gassing: Low-emitting adhesives should always be specified. These adhesives will show the CRI IAQ Adhesive Testing label. Carpet cushions should also bear the CRI IAQ label.
- 1.05 Traffic Areas: Traffic area definitions referred to in this specification are as follows:
- a. Low traffic – executive offices, executive conference rooms
 - b. Medium traffic – interior corridors, private offices
 - c. High traffic – dining rooms, entrance lobbies, public spaces, public corridors

PART 2 – PRODUCTS

- 2.01 Pile Fiber: Shall be 100% branded nylon fiber, or 100% wool. Acceptable branded fiber includes DuPont Antron, BASF, Zeftron 2000, and Solutia Ultron (these can be type 6 or type 6,6 nylon). Other fiber may be considered by the Owner if demonstrated to be of equivalent quality.

UNIVERSITY OF NEW HAMPSHIRE
CONSTRUCTION AND RENOVATION STANDARDS

2.02 Dye Method: Solution dyed is preferred. A mixture of solution dyed and yarn dyed is acceptable as long as solution dyed fibers make up at least 75% or greater of the fibers.

2.03 Texture: Use the following guidelines:

- a. Low traffic: cut pile, level loop, cut and loop combination, multilevel loop.
- b. Medium traffic: level loop, multilevel loop.
- c. High traffic: level loop

2.04 Construction: Construction is how the carpet fibers are attached to the primary backing. All three methods listed are acceptable.

- a. **Tufting** (95% of all carpet construction). A continuous string of yarn is stitch (looped) through the primary backing. The yarn is held in place for loop-pile carpet or cut by blades for cut-pile carpet. A secondary backing is then laminated with latex to the primary backing.
- b. **Fusion bonded** (carpet tiles, peel and stick) is constructed by implanting yarns into a coated backing.
- c. **Woven carpets** created on looms that take face and backing yarns and simultaneously weave them into a complete product. A latex back coating is usually applied for stability and a separate carpet cushion is usually used.

2.05 Density:

- a. Density is the amount of pile yarn in unit volume of carpet and is influenced by gauge (stitches per inch across the width, yarn size (or thickness of the yarn) and pile height. A “fat” (thicker) yarn can be tufted at a wider gauge and receive the same density as a fine yarn at a small gauge. **Density of a carpet is the primary factor is determining how the carpet will perform.** The shorter and denser the yarn, the longer the carpet will wear. Use the following guidelines to determine the acceptable density:

1. Low traffic areas – a density rating of 5,000 or higher.
2. Medium traffic areas - a density rating of 6,000 or higher.
3. High traffic areas – a density rating of 7,000 or higher.

- b. If the architect folder does not list density it can be calculated by using the following formula:

$$\text{Pile Density} = \frac{36 \times \text{finished pile weight (oz/yd}^2\text{)}}{\text{finished pile height or thickness (inches)}}$$

UNIVERSITY OF NEW HAMPSHIRE
CONSTRUCTION AND RENOVATION STANDARDS

2.06 Pile height: Use the following:

- a. Low traffic: 0.26 inches or higher.
- b. Medium/High traffic: 0.26 inches or less.

2.07 Static Control:

- a. Static control to be 3.5 kilovolts or less.

2.08 Secondary Backings: The proper backing will extend the life of the carpet. It will also provide additional resilience, acoustical and thermal insulation properties, as well as walking and standing comfort. Backings should be selected according to the traffic patterns and the location of the carpet. “Action” backing (the standard on all tufted carpets) is not an acceptable secondary backing for glue down installations. “Action” backing is acceptable only in stretch-in installations.

Acceptable backings:

- a. **Unitary backing:** The minimum acceptable alternate for “Action” backing. To be used in low to medium traffic area; i.e. offices, conference rooms.
- b. **Polyurethane carpet backing:** Best for high traffic areas and damp/wet areas because of its moisture resistant qualities; i.e. basement areas, entrances, corridors, dining rooms.
- c. **Polyurethane with cushion backing:** For increased comfort and improved appearance retention over the life cycle of the carpet.
- d. **Peel and stick backing:** Comes in 6-foot widths and carpet tiles only and is excellent in high traffic areas. Eliminates liquid adhesives from the installation (no odors), can be installed over most subfloors and provides immediate occupancy.
- e. **Conductive backing:** When control of electrostatic discharge is priority. This backing will hold static generation at 2.0 KV or less.
- f. **Carpet pads:** For stretch-in installation, a synthetic hair and jute pad with a weight of at least 27 ounces and a Class One fire rating should be required.

PART 3 - EXECUTION

3.01 Installation Methods:

- a. **Glue-down:** The most common and appropriate method for commercial applications, especially in areas of rolling chairs and heavy traffic.

UNIVERSITY OF NEW HAMPSHIRE
CONSTRUCTION AND RENOVATION STANDARDS

- b. **Peel and Stick:** Is only available on carpet tiles and six-foot widths.
- c. **Stretch-In:** Usually reserved for an executive office where traffic is light and a plush look is sought, however this is not a recommended installation.
- d. **Alternate methods:** May include hook tape laid around the room's perimeter and at seams to which the carpet bonds. Like stretch-in, these methods are not recommended.

3.02 Carpet Specification:

- a. To facilitate competition and insure UNH receives the best value, contract documents should identify all required parameters such as weight, texture etc., and a minimum of three manufacturers' lines meeting the criteria.

END OF SECTION