

CARPET TILE SPECIFICATIONS

SECTION 09690

PART 1 - GENERAL

1.01 SUMMARY:

- A. Section Includes
 - 1. Preparation of surfaces to receive carpet.
 - 2. Carpet Tile
 - 3. Accessories.
- B. Related Sections
 - 1. Refer to General and Supplementary Conditions for additional information regarding entire carpet installation
- C. Substitutions
 - 1. Requests for product substitutions shall be submitted in prescribed form to the Owner's representative for consideration 15 days prior to bid date. **A 20 sq. yard mock up of each color shall be supplied and installed prior to bid date.** No substitutions will be considered after this date.
 - 2. Approved substitutions will be acknowledged in an addendum issued prior to bid date.
 - 3. Consideration will be given to only those submittals containing samples, product specifications in the format used herein, and certified test reports to compliance with this section.
 - 4. Samples shall be accompanied by the manufacturer's certification on company letterhead, certifying equal qualification with every requirement as specified herein and signed by an officer of the company.

1.02 REFERENCES

- A. Federal Specifications:
 - 1. FS DDD-C-0095 Carpet and Rugs, Wool, Nylon, Acrylic, Modacrylic, Polyester, Polypropylene.
 - 2. American Standards Testing Methods (ATSM).
 - 3. American Association of Textile Chemists and Colorists (AATCC).

1.03 SUBMITTALS

- A. Submittals shall be made in compliance with General and Supplementary Conditions.
- B. Manufacturer's Certification: Show compliance to required codes and traffic ratings for the intended applications.
- C. Shop Drawings:
 - 1. Show layout of seams, edges and other conditions where joined or butted to adjacent materials.
- D. Samples:
 - 1. Minimum, 18" x 18" samples of proposed carpet.
 - 2. Minimum 12" sample of each type of exposed edge strip or accessory items
 - 3. All samples shall be of finished material proposed for use.
- E. Maintenance Instructions:
 - 1. Include maintenance recommendation for extraction frequency and suggested schedule for spot cleaning.
 - 2. List materials, substances, and other items which will affect finishes and performance
- F. Test Reports
 - 1. Required
 - a. ASTM-E Radiant Panel

- b. NFPA-258 or ASTM-E-662 Smoke Density
 - c. CPSC-FF-1-70 or ASTM-D-2859 Flammability
 - d. AATCC-16-E Lightfastness
 - e. AATCC-165 Crocking
 - f. AATCC-134 Electrostatic Propensity
 - g. Aachen Test DIN STD 54318 Dimensional Stability
2. Other Tests Which May be Required
- a. Tuft Bind – ASTM-D-1335 for loop pile 10 pounds or more, not necessary for cut pile products.
 - b. Wetfastness – AATCC-107 for measuring shade change under specific conditions. Acceptable rating no worse than 3 on the grey scale.
 - c. Electrical Resistance – OHM Test – Acceptable range is a minimum of 15 megohms to a maximum of 20,000 megohms.
3. Random Testing
- The Owner's representative reserves the right to take random samples from production runs and/or from delivered carpeting for testing by an independent testing laboratory for abrasion resistance, soiling, crushing, breaking strength, distortion, elongation's loop strength, and color fastness, etc., in order to ascertain if manufactured and/or delivered materials conform to approved samples and specifications. The Contractor will provide 5 square yards of actual production pieces for each color if requested by the Owner's representative. Testing of production sample shall be at the expense of the Contractor. Carpeting which does not conform to approved samples and specifications will be rejected.
4. Antimicrobial Requirements
- Test requirements for antimicrobial carpet. Test results provided by the offerer must be from a laboratory accredited under the Commerce Department's National Voluntary Laboratory Accreditation Program (NVLAP) and must indicate compliance with requirements of the cited tests. Requirements: EPA Registration Number, Washing Requirement (AATCC Test Method 138), Antibacterial Activity Test AATCC 174, Part I (qualitative) or Part II (quantitative), and the Antifungal Activity Test (AATCC 174, Part III.)

1.04 QUALITY ASSURANCE

- A. Carpet manufacturer shall have been manufacturing commercial carpet tile continuously for a period of 10 years. Manufacturer shall produce a significant portfolio attesting to their expertise within the realm of owners facility description (i.e. corporate, institutional, airport, etc.). Secondary backing system must be applied by manufacturer and should be of a layered, composite construction. Manufacturer shall supply documented evidence that the backing system they offer has been in use by that manufacturer for a minimum of 5 years. Final determination and qualification of a manufacturer rests solely with the owner's representative.
- B. Carpet backings and components shall be assembled in-house by named manufacturer.
- C. Qualifications of Installers: All work shall be done by installation firms specializing in commercial carpet tile installation. The installation firm shall only use installers certified by specified manufacturer and shall provide a letter by the local manufacturer's representative indicating compliance to this section.
- D. Carpet manufacturer shall certify by dye lot and run number that carpet shipped for this project complies with all requirements of this Section subject to normal manufacturing tolerances.
- E. Product Performance Testing:
 - 1. Flame/Smoke Resistance. Class I
 - 2. Radiant Panel Test ASTM-E-648 for burning under varying radiant energy levels. Result greater than or equal to .45 watts/sq. cm. Class I.
 - 3. Smoke density tests NFPA 258 or ASTM-E-662 for measuring optical density of smoke generated in a radiant heat chamber, with and without flames. Result - Pass (less than 450).
- F. Dimensional Stability – Aachen Test DIN-STD-54318 for determining the amount of change (expansion or shrinkage) that modular carpet experience when exposed to both dry and wet conditions. Result less than or equal to .10%.

- G. Static Resistance – AATCC-134 for measuring the electrostatic propensity for the build up of static charge in the carpet and then discharged in accordance with the test procedures. Result: Less than or equal to 3.0 KV.
 - H. Lightfastness – AATCC-16E- for measuring colorfastness of the product under exposure to radiant light.
 - I. Crocking – AATCC-165 for measuring the permanency of color under both wet and dry conditions. Result 4.0 wet or dry.
- 1.05 COLORS AND INSERTS:
- A. Project may require custom colors to be selected by Architect or Architect’s representative.
 - B. Diagrams/Layouts will be included on plans indicating locations of design of inserts.
- 1.06 DELIVERY
- A. Carpeting shall be delivered to the job site in original boxes with each box having its register number properly attached, clearly marked as to size, dye lot, quantity, and material.
 - B. Material shall be stored in an enclosed and dry area protected from damage and soiling.
- 1.07 PROJECT CONDITIONS:
- A. Floorcovering installation contractor shall visit the site and be responsible for all measurements and job conditions.
 - B. Before submitting bid, subcontractor and material suppliers examine drawings, these specifications, existing building and conditions. If existing vinyl tile, wood, terrazzo, carpet, or other existing floor finishes or materials are not specified to be removed, but the opinion of the subcontractor and material suppliers is that removal is necessary, the subcontractor shall notify Architect of these conditions in writing 15 days prior to bid date and request further instructions. If, in the opinion of the subcontractor and material suppliers it is necessary to apply floor primers or sealers to new or existing substrates where a primer or sealer has not been specified, the subcontractor shall notify Architect of these conditions in writing 15 days prior to bid date and request further instructions. No additional charges will be approved for these or similar items after bid date.
- 1.08 WARRANTY
- A. Manufacturer’s Warranty: Face fiber will not wear more than 15 percent within 15 years, and carpet shall carry a 3 year manufacturer’s warranty.
 - B. Floor Covering Installation Contractor’s Warranty: Submit a certificate guaranteeing the installation to be free of defects in workmanship for a period of two years. The certificate shall include the following statement: Installer shall at his own expense and upon written notice from the Owner or his representative, promptly correct/replace any and all improper work and material that may become apparent within two years after the date of Substantial Completion. This warranty shall be in addition to and not a limitation of other rights the owner may have against the contractor under the contract documents.
 - C. Submit certificates in accordance with General and Supplementary Conditions.
 - D. *Antimicrobial shall be warranted to be minimum 95.5% effective for the lifetime of carpet.*
 - E. **Carpet shall have 15 year non-prorated warranty against growing, shrinking, delaminating, buckling, wrinkling, fuzzing, or zippering.**
- 1.09 OVERAGE MATERIAL
- A. Provide overage of 5% or five square yards (whichever is greater) of each carpet used by product, color, etc. Installation costs will be based on installed carpet and will not include the overage carpet. Provide owners representative with floor layout plan, coded by area, designating the location of each dye lot/run number/style and or tope, bottoms left or right sides of carpet tile. The required overage should be provided for each of the aforementioned possible variations that apply and should be delivered in identified manufacturer’s packaging with area codes corresponding to those indicated on floor layout plan.

PART 2 – PRODUCTS

2.01 MANUFACTURERS

Pre-approved manufacturers are _____ . Colors and patterns shall match samples of those specified. Owner's representative will review responsible products exceeding the technical, color and pattern specifications listed herein no later than 15 days before bid opening. Unless otherwise amended, no "value engineering" suggestions will be entertained on this item and bidders are expected to comply with these specifications. Any additional approvals will be issued by an addendum prior to bid date.

2.02 CONSTRUCTION

Specification sheets shall be supplied by the carpet manufacturing and contain a minimum of the following details and meet the minimum specified requirements. Color and Pattern to Match

PRODUCT CONSTRUCTION

YARN SYSTEM:

DYE METHOD:

SOIL/STAIN PROTECTION:

ANTIMICROBIAL:

PRODUCT SPECIFICATIONS

YARN WEIGHT:

MACHINE GAUGE:

PILE THICKNESS:

STITCHES:

PILE DENSITY:

WEIGHT DENSITY:

TOTAL WEIGHT:

TOTAL THICKNESS:

SIZE:

PERFORMANCE SPECIFICATIONS

Radiant Panel: (ASTM E - 648) Class 1

Smoke Density: (ASTM E - 662) \leq 450

Lightfastness: (AATCC 16 - E) \geq 4.0 @ 60 AFU's

Static: (AATCC - 134) $<$ 3.0 KV

Dimensional Stability: AACHEN Din 54318 $<$ 0.10%

BACKING OPTIONS:

INSTALLATION METHOD:

2.03 CARPET FIBER

All carpets shall be constructed of 100% premium brand nylon. The acceptable nylon types are; _____ and shall include all specific warranties which are provided by the manufacturer of the carpet fiber. Carpets shall be solution dyed, yarn dyed, or space dyed as identified in section 2.2 No other secondary brand nylons will be considered.

2.04 ACCESSORIES

- A. Subfloor sealers, fillers, primers, and adhesives shall be those which are approved by the manufacturer of the carpet.
- B. Vinyl Moldings: Where carpeting terminates at other types of floor finishes provide carpet transition reducer of thickness to match carpet and adjacent material. Color as selected by owner's representative. Possible manufacturer's are: Mercer, Nora and Roppe.
- C. Resilient Base: See Section 09650, Resilient Flooring.
- D. Miscellaneous Materials – As recommended by manufacturer of modular carpet and selected by Installer to meet project circumstances and requirements. All strippers are required for the effective removal of old adhesives from subfloor or other surfaces must be environmentally friendly, product no V.O.C." exceeding by federal test standards and should be of the organic type. (i.e. de-solv-it by orange sol)

2.05 SPECIAL NOTE:

- A. Prior to ordering products, verify that curing compounds, etc. used on concrete substrate by

others are compatible with primers and carpet adhesive specified in this section.

PART 3-EXECUTION

3.01 EXECUTION

- A. Inspect new and existing substrates. Verify suitability of substrates to accept carpet installation. Beginning installation in any given area means acceptance of all surfaces and conditions affecting the work of this area by the floor covering installation contractor.
- B. Where primers/sealers are used, their compatibility with adhesive shall be verified prior to starting working.

3.02 PREPARATION

- A. Perform all substrate preparation procedures in strict accordance with carpet and adhesive Manufacturer's recommendations.
- B. Surfaces to receive carpet must be free of dirt, solvents, oil, grease, paint, plaster, moisture and other substances detrimental to proper performance of adhesive and carpet.
- C. Concrete Surfaces:
 - 1. Verify that moisture and alkalinity conditions of the concrete slabs are acceptable before beginning installation.
 - 2. Check to ensure there is no dusting.
 - 3. Grind down ridges or high spots. Fill low spots.
- D. Existing vinyl composition tile, ceramic tile, wood and terrazzo floor covering substrates must be clean and free of all adhesives, waxes, finishes, sealers or other contaminants.
 - 1. Existing substrates to receive carpet: Check for any loose boards, tile, etc., and secure as required. Grind or sand down high spots. Fill all cracks, faults, grooves, holes and low spots. Fill as required. Feather out elevation differences of adjoining floor surfaces. Correct any other miscellaneous conditions detrimental to the proper completion of the work.

3.03 INSTALLATION

- A. At the beginning of installation and a minimum of once during the installation and once upon completion of the installation, an inspection shall be made by a representative of the carpet manufacturer to ascertain that the work is being installed according to the manufacturer's published recommendations. Inspector shall be an employee of the manufacturer and not of the contractor, distributor, or manufacturer's agent.
- B. Prepare all new and existing substrates and install all carpet and accessories as per manufacturer's directions.
- C. Carpet shall be installed in strict accordance with manufacturer's written instructions.
- D. Carpet Tile shall be installed wall to wall except where indicated on the plans.
- E. Carpet Tile edges shall be installed tightly together to form seams without gaps, fit neatly to walls, columns, register, adjacent flooring, abutting surfaces, etc. Installation shall be made to job site conditions and dimensions. Remove adhesive promptly from the face of the carpet.
- F. Where carpet meets dissimilar floor surface, proper edge molding shall be used.
- G. Install carpet edge moldings where edge of carpet is exposed and at transitions to other floor covering. Edge moldings shall be securely anchored to substrate.

3.04 CLEANING

- A. Upon completion of the installation, remove all waste materials, tools and equipment.
- B. Prior to final acceptance, thoroughly vacuum the entire floor surface using commercial vacuums.
- C. Remove spots or replace carpet where spots cannot be removed.
- D. Provide protection methods and materials needed to ensure that carpeting will be without deterioration or damage at time of substantial completion.

3.05 MAINTENANCE INSTRUCTIONS

- A. Furnish Owner with carpet manufacturer's recommended carpet extraction and spot cleaning procedures. Provide instruction to Owner's maintenance personnel on carpet care and cleaning.