

PART 1 – GENERAL

1.1 SUMMARY

- A. Related Documents: Drawings and general provisions of the Contract, including Section 096513 Resilient Base & Accessories and apply to this Section.

1.2 SUBMITTALS

- A. If requested, Shop Drawing showing columns, doorways, enclosing walls or partitions, built-in cabinets, and locations where cutouts are required as well as direction of carpet pile and pattern, location of edge moldings and edge bindings shall be submitted to the Owner for approval prior to installation.
- B. Floor schedule using same room designations indicated on drawings.
- C. Maintenance Data: Include maintenance procedures, recommendations for maintenance materials and equipment, and suggested schedule for cleaning.

1.3 QUALITY ASSURANCE

A. Manufacturer Qualifications

- 1. Company specializing in manufacturing specified carpet with minimum 10 years documented experience.
- 2. Upon request, manufacturer to provide representative to assist in project start-up and to inspect installation while in process and upon completion. Representative will notify designated contact if any installation instructions are not followed.
- 3. Single Source Responsibility: Obtain each type of product from one source and by a single manufacturer.

B. Installer Qualifications

- 1. Flooring contractor must be certified by the manufacturer prior to bid.
- 2. Flooring contractor to be a specialty contractor normally engaged in this type of work and shall have prior experience in the installation of these types of materials.
- 3. Certify payment of Prevailing Wage Rates to the installers.
- 4. Flooring contractor possessing Contract for the product installation shall not sub-contract the labor without written approval of the Owner.
- 5. Flooring contractor will be responsible for proper product installation, including floor testing and preparation as specified by the manufacturer and JOB CONDITIONS herein.
- 6. Flooring contractor to provide Owner a written installation warranty that guarantees the completed installation to be free from defects in materials and workmanship for a period of one year after job completion.

1.4 DELIVERY, STORAGE, & HANDLING

- A. Deliver materials to the site in manufacturer's original packaging listing manufacturer's name, product name, identification number, and related information.
- B. Store in a dry location, between 65 degrees F and 90 degrees F and a relative humidity below 65%. Protect from damage and soiling. Store in pallet form as supplied by Manufacturer. Do not stack pallets.
- C. Make stored materials available for inspection by the Owner's representative.
- D. Store materials in area of installation for minimum period of 48 hours prior to installation.

1.5 PROJECT CONDITIONS

- A. Sub-floor preparation is to include all required work to prepare the existing floor for installation of the product as specified in this document and Manufacturer's installation instructions.
- B. Please see Flex-Aire Cushion Modular Installation & Floor Preparation Instructions for specific requirements for moisture vapor emission rate, ambient conditions, and other requirements.
- C. All material used in sub-floor preparation and repair shall be recommended by the carpet manufacturer and shall be chemically and physically compatible with the carpet system being bid.
- D. Maintain minimum 65 degrees F ambient temperature and 65% Relative Humidity for 72 hours prior to, during, and 48 hours after installation.
- E. Do not install carpet until space is enclosed and weatherproof, wet-work in space is completed and nominally dry, work above ceilings is complete, and ambient temperature and humidity conditions are and will be continuously maintained at values near those indicated for final occupancy.

1.6 EXTRA MATERIALS

- A. Provide one unopened carton of each product type and color for "attic stock."

PART 2 - PRODUCTS

2.1 PRODUCT WARRANTY

- A. Warranty to be sole source responsibility of the Manufacturer. Second source warranties and warranties that involve parties other than the carpet manufacturer are unacceptable.
- B. If the product fails to perform as warranted when properly installed and maintained, the affected area will be repaired or replaced at the discretion of the Manufacturer.
- C. Chair pads are not required, but are recommended for optimum textural performance. Absent the use of chair pads, more intensive maintenance will be required for areas in direct contact with chair caster traffic, and some degree of appearance change is to be expected.
- D. The non-prorated lifetime limited warranty shall specifically warrant against:
  - 1. Excessive Surface Wear: More than 10% loss of pile fiber weight
  - 2. Excessive Static Electricity: More than 3.0 kV per AATCC 134

3. Resiliency Loss of the Backing: More than 10% loss of backing resiliency
4. Delamination
5. Edge Ravel
6. Zippering

E., Tuft Bind warranty in lieu of edge ravel and zippering is not acceptable.

## 2.2 FIBER

- A. Nylon Fiber: Bulked Continuous Filament (BCF) Nylon in a loop pile construction.
- B. For yarn containing recycled content, report post consumer and post industrial recycled content of the pile face yarn based on total yarn weight i.e. [(Recycle Content in Pile Face Yarn) / (Total Weight of Pile Face Yarn) x 100]
- C. Fiber to contain carbon-core filament for permanent static control. Topical treatments are not allowed.
- D. Durable stain inhibitor should be applied to the fiber during product manufacturing to resist fiber staining and soiling.  
Application Rate: 2% of Face Weight.

## 2.3 CUSHION CHARACTERISTICS

- A. Primary Backing: Synthetic Non-Woven.
- B. Secondary Backing: Closed-Cell Cushion
  1. Cushion Type: Closed Cell Cushion
  2. Cushion Weight (ASTM D-1667): 35.5 oz/sq yd
  3. Cushion Thickness (ASTM D-1667): 0.156"
  4. Cushion Density (ASTM D-1667): 18.5 lbs/cu ft +/- 5%
  5. Cushion Compression Set (ASTM D-1667): Max. 10%
  6. Cushion Compression Force Deflection (ASTM D-1667): Min. 5 psi @ 25%; Max. 25 psi @ 25%
  7. Fiberglass Reinforced.
  8. Impermeable to moisture.
  9. Face yarn fully fused to secondary backing system that will not delaminate
  10. Delamination: No delamination per ASTM D3936
  11. Product must not contain pesticides (US EPA Registered Antimicrobials). Installation adhesives are exempt from this section.
  12. Tile Size: 24" x 24"

## 2.4 PERFORMANCE CHARACTERISTICS

- A. Test reports for the following performance assurance testing to be submitted upon request. Submitted results shall represent average results for production goods of the referenced style.
- B. Requirements listed below must be met by all products.
  1. Flooring Radiant Panel  
ASTM E-648 / NFPA 253: Class 1 (CRF: 0.45 watts/sq cm or greater)
  2. Federal Flammability

CPSC FF 1-70: Passes

3. Smoke Density  
ASTM E-662 / NFPA 258:  $\leq 450$  Flaming Mode
4. Electrostatic Propensity  
AATCC 134 (Step & Scuff): 3.0 kV or less
5. Static Coefficient of Friction  
ASTM C-1028: Passes ADA Requirements for Accessible Routes (minimum 0.60)
6. Delamination of Secondary Backing of Pile Floor Coverings  
ASTM D-3936: No Delamination
7. Lightfastness  
AATCC 16E:4 @ 60 hours yarn dyed or @ 100 hours solution dyed.
8. TARR  
3.0 minimum
9. Dimensional Stability  
Aachen / ISO 2551: Maximum Change +/- 0.149%
11. Moisture Barrier  
Moisture Penetration by Impact @ 10 psi: No Penetration of backing after 10,000 impacts

## 2.5 PRODUCT SPECIFICATIONS

- A. Carpet Tile Basis of Design Product: Manufactured by Tandus Centiva
  1. Thoroughfare / Interchange Flex-Aire Cushion Modular (Type 1) (Color: TBD)
    - A. Construction: Stratatec® Patterned Loop
    - B. Gauge: 5/64
    - C. Stitch Rate: 11.0 / inch
    - D. Tuft Density: 140.8 tufts/sq inch
    - E. Pile Height Average: .187 inch
    - F. Pile Thickness: .053 inch
    - G. Density Factor (UM44D): 6,792 oz/cu yd
    - H. Fiber System: Dynex SD BCF Nylon with Static Control & Ensure
    - I. Dye Method: 100% Solution Dyed
    - J. R-Value: 0.90 Hr-ft<sup>2</sup>-°F/Btu
    - K. Static Coefficient of Friction: ASTM C-1028; Passes ADA requirements.
    - L. Static Propensity: AATCC 134: 2.0 kv or less
    - M. Flooring Radiant Panel: ASTM E-648 or NFPA 253: Class 1
    - N. Acoustic Requirements: Noise Reduction Coefficient (NRC): 0.22 Minimum
    - O. Cushion Compression Set: Maximum 10%
    - P. Cushion Compression Force Deflection: Minimum 5 lbs/sq. inch @ 25%; Maximum 25 lbs/sq. inch at 25%
    - Q. Cushion Density 18.5 lbs per cubic foot
    - S. Cushion Thickness: 0.156 inch
    - T. Total Weight: 109.1 oz/sq yd +/- 5%
    - U. Environmental Impact: No pesticides added to product (US EPA Registered Antimicrobials)

2. City Walk / Street Life Flex-Aire Cushion Modular (Type 1) (Color: TBD)
  - A. Construction: Stratatec® Patterned Loop
  - B. Gauge: 5/64
  - C. Stitch Rate: 10.0/ inch
  - D. Tuft Density: 128 tufts/sq inch
  - E. Pile Height Average: .187 inch
  - F. Pile Thickness: .057 inch
  - G. Density Factor (UM44D): 7,579 oz/cu yd
  - H. Fiber System: Dynex SD BCF Nylon with Static Control & Ensure
  - I. Dye Method: 100% Solution Dyed
  - J. R-Value: 0.90 Hr-ft<sup>2</sup>-°F/Btu
  - K. Static Coefficient of Friction: ASTM C-1028; Passes ADA requirements.
  - L. Static Propensity: AATCC 134: 1.8 kv or less
  - M. Flooring Radiant Panel: ASTM E-648 or NFPA 253: Class 1
  - N. Acoustic Requirements: Noise Reduction Coefficient (NRC): 0.22 Minimum
  - O. Cushion Compression Set: Maximum 10%
  - P. Cushion Compression Force Deflection: Minimum 5 lbs/sq. inch @ 25%; Maximum 25 lbs/sq. inch at 25%
  - Q. Cushion Density 18.5 lbs per cubic foot
  - S. Cushion Thickness: 0.156 inch
  - T. Total Weight: 111.1 oz/sq yd +/- 5%
  - U. Environmental Impact: No pesticides added to product (US EPA Registered Antimicrobials)
  
3. Plexus Colour IV Flex-Aire Cushion Modular (Type 2) (Color: TBD)
  - A. Construction: Symtex®
  - B. Gauge: 1/13
  - C. Stitch Rate: 12.0/ inch
  - D. Tuft Density: 153.6 tufts/sq inch
  - E. Pile Height Average: .135 inch
  - F. Pile Thickness: .083 inch
  - G. Density Factor (UM44D): 10,410 oz/cu yd
  - H. Fiber System: Dynex SD/Dynex BCF Nylon with Static Control & Ensure
  - I. Dye Method: 50% Solution Dyed / 50% Yarn Dyed
  - J. R-Value: 0.90 Hr-ft<sup>2</sup>-°F/Btu
  - K. Static Coefficient of Friction: ASTM C-1028; Passes ADA requirements.
  - L. Static Propensity: AATCC 134: 2.5 kv or less
  - M. Flooring Radiant Panel: ASTM E-648 or NFPA 253: Class 1
  - N. Acoustic Requirements: Noise Reduction Coefficient (NRC): 0.22 Minimum
  - O. Cushion Compression Set: Maximum 10%
  - P. Cushion Compression Force Deflection: Minimum 5 lbs/sq. inch @ 25%; Maximum 25 lbs/sq. inch at 25%
  - Q. Cushion Density 18.5 lbs per cubic foot
  - S. Cushion Thickness: 0.156 inch
  - T. Total Weight: 123.1 oz/sq yd +/- 5%
  - U. Environmental Impact: No pesticides added to product (US EPA Registered Antimicrobials)
  
4. Inline Flex-Aire Cushion Modular (Type 1) (Color: TBD)
  - A. Construction: Stratatec® Patterned Loop
  - B. Gauge: 5/64
  - C. Stitch Rate: 10.0/ inch
  - D. Tuft Density: 128 tufts/sq inch

- E. Pile Height Average: .187 inch
- F. Pile Thickness: .078 inch
- G. Density Factor (UM44D): 4,615 oz/cu yd
- H. Fiber System: Dynex SD BCF Nylon with Static Control & Ensure
- I. Dye Method: 100% Solution Dyed
- J. R-Value: 0.90 Hr-ft<sup>2</sup>-°F/Btu
- K. Static Coefficient of Friction: ASTM C-1028; Passes ADA requirements.
- L. Static Propensity: AATCC 134: 3.0 kv or less
- M. Flooring Radiant Panel: ASTM E-648 or NFPA 253: Class 1
- N. Acoustic Requirements: Noise Reduction Coefficient (NRC): 0.22 Minimum
- O. Cushion Compression Set: Maximum 10%
- P. Cushion Compression Force Deflection: Minimum 5 lbs/sq. inch @ 25%; Maximum 25 lbs/sq. inch at 25%
- Q. Cushion Density 18.5 lbs per cubic foot
- S. Cushion Thickness: 0.156 inch
- T. Total Weight: 109.1 oz/sq yd +/- 5%
- U. Environmental Impact: No pesticides added to product (US EPA Registered Antimicrobials)

5. Rousette Flex-Aire Cushion Modular (Type 1) (Color: TBD)

- A. Construction: Stratatec® Patterned Loop
- B. Gauge: 5/64
- C. Stitch Rate: 11.0/ inch
- D. Tuft Density: 140.8 tufts/sq inch
- E. Pile Height Average: .187 inch
- F. Pile Thickness: .082 inch
- G. Density Factor (UM44D): 4,829 oz/cu yd
- H. Fiber System: Dynex SD BCF Nylon with Static Control & Ensure
- I. Dye Method: 100% Solution Dyed
- J. R-Value: 0.90 Hr-ft<sup>2</sup>-°F/Btu
- K. Static Coefficient of Friction: ASTM C-1028; Passes ADA requirements.
- L. Static Propensity: AATCC 134: 2.6 kv or less
- M. Flooring Radiant Panel: ASTM E-648 or NFPA 253: Class 1
- N. Acoustic Requirements: Noise Reduction Coefficient (NRC): 0.22 Minimum
- O. Cushion Compression Set: Maximum 10%
- P. Cushion Compression Force Deflection: Minimum 5 lbs/sq. inch @ 25%; Maximum 25 lbs/sq. inch at 25%
- Q. Cushion Density 18.5 lbs per cubic foot
- S. Cushion Thickness: 0.156 inch
- T. Total Weight: 110.1 oz/sq yd +/- 5%
- U. Environmental Impact: No pesticides added to product (US EPA Registered Antimicrobials)

6. Rivet / Construct / Link Flex-Aire Cushion Modular (Type 1) (Color: TBD)

- A. Construction: Accuweave® Patterned Loop
- B. Gauge: 1/12
- C. Stitch Rate: 10.0/ inch
- D. Tuft Density: 120.0 tufts/sq inch
- E. Pile Height Average: .187 inch
- F. Pile Thickness: .099 inch
- G. Density Factor (UM44D): 4,364 oz/cu yd
- H. Fiber System: Dynex SD BCF Nylon with Static Control & Ensure
- I. Dye Method: 100% Solution Dyed

- J. R-Value: 0.90 Hr-ft<sup>2</sup>-°F/Btu
- K. Static Coefficient of Friction: ASTM C-1028; Passes ADA requirements.
- L. Static Propensity: AATCC 134: 1.5 kv or less
- M. Flooring Radiant Panel: ASTM E-648 or NFPA 253: Class 1
- N. Acoustic Requirements: Noise Reduction Coefficient (NRC): 0.22 Minimum
- O. Cushion Compression Set: Maximum 10%
- P. Cushion Compression Force Deflection: Minimum 5 lbs/sq. inch @ 25%; Maximum 25 lbs/sq. inch at 25%
- Q. Cushion Density 18.5 lbs per cubic foot
- S. Cushion Thickness: 0.156 inch
- T. Total Weight: 111.1 oz/sq yd +/- 5%
- U. Environmental Impact: No pesticides added to product (US EPA Registered Antimicrobials)

7. Rock Solid II Flex-Aire Cushion Modular (Type 1) (Color: TBD)

- A. Construction: Level Loop
- B. Gauge: 1/13
- C. Stitch Rate: 9.8/ inch
- D. Tuft Density: 125.44 tufts/sq inch
- E. Pile Height Average: .117 inch
- F. Pile Thickness: .059 inch
- G. Density Factor (UM44D): 8,542 oz/cu yd
- H. Fiber System: Dynex SD/Dynex BCF Nylon with Static Control & Ensure
- I. Dye Method: 65% Solution Dyed / 35% Yarn Dyed
- J. R-Value: 0.90 Hr-ft<sup>2</sup>-°F/Btu
- K. Static Coefficient of Friction: ASTM C-1028; Passes ADA requirements.
- L. Static Propensity: AATCC 134: 1.5 kv or less
- M. Flooring Radiant Panel: ASTM E-648 or NFPA 253: Class 1
- N. Acoustic Requirements: Noise Reduction Coefficient (NRC): 0.22 Minimum
- O. Cushion Compression Set: Maximum 10%
- P. Cushion Compression Force Deflection: Minimum 5 lbs/sq. inch @ 25%; Maximum 25 lbs/sq. inch at 25%
- Q. Cushion Density 18.5 lbs per cubic foot
- R. Cushion Thickness: 0.156 inch
- S. Total Weight: 113.1 oz/sq yd +/- 5%
- T. Environmental Impact: No pesticides added to product (US EPA Registered Antimicrobials)

B. Walkoff Mat Carpet Tile (Type 1): Basis of Design: Waterhog Classic Tile (Color TBD)

- A. Pattern: Geometric #220
- B. Color: Charcoal.
- C. Install Pattern: Quarter Turn.
- D. Fiber Content: 100 percent polypropylene
- E. Backing System: SBR Rubber.
- F. Size: 18 by 18 inches.

C. Walkoff Mat Carpet Tile (Type 2): Basis of Design: Abrasive Action II ethos modular with Omniccoat Technology (Color: TBD)

- A. Construction: Accuweave® Patterned Loop
- B. Gauge: 1/12
- C. Stitch Rate: 8.0 pile units / inch
- D. Tuft Density: 96.0 tufts/sq inch

- E. Pile Height Average: .187 inch
- F. Pile Thickness: .115 inch
- G. Density Factor (UM44D): 7,513
- H. Fiber System: TDX BCF Nylon with Static Control & Ensure
- I. Dye Method: 100% Solution Dyed
- J. R-Value: 0.51 Minimum Hr-ft<sup>2</sup>-°F/Btu
- K. Static Coefficient of Friction: ASTM C-1028; Passes ADA requirements.
- L. Static Propensity: AATCC 134: 3.5 kv or less
- M. Flooring Radiant Panel: ASTM E-648 or NFPA 253: Class 1
- N. Acoustic Requirements: Noise Reduction Coefficient (NRC): 0.15 Minimum
- O. Secondary Backing Density: 65 Min. lbs/cu ft +/- 5%
- P. Secondary Backing Recycled Content: 50%
- Q. Total Weight: 101.9 oz/sq yd +/- 5%
- R. Third Party Certification: NSF 140 Platinum rating / Cradle to Cradle Certified™ v3.1: Silver
- S. Total Product Recycled Content (based on Total Weight): 54.7%
- T. Total Product Post Consumer Content (based on Total Weight): Minimum 32.4
- U. Environmental Impact: No pesticides added to product (US EPA Registered Antimicrobials)

D. Substitutes/Alternates

Subject to compliance with all requirements, “or equal” must match the selected colors, have similar aesthetic appearance and tuft density, equivalent NSF 140 certification, recycled content certification labels and recyclability. Substitution sample and submittals must be submitted for written approval of quality and color at least ten days prior to bid to be considered. Sample of proposed substitute must be inclusive of both the face and proposed backing (color-only sample not acceptable).

2.6 ACCESSORIES

- A. Materials recommended by Manufacturer for patching, leveling, priming, etc.
- B. Base, Carpet Edge, and Transition Strips: As specified in Section 096513 Resilient Base & Accessories.

PART 3 EXECUTION

3.1 EXAMINATION / PREPARATION

- A. Prepare sub-floor to comply with criteria established in Manufacturer’s installation instructions. Use only preparation materials that are acceptable to the Manufacturer.
  - 1. Remove all deleterious substances from substrate(s) that would interfere with or be harmful to the installation.
  - 2. Remove sub-floor ridges and bumps. Fill cracks, joints, holes, and other defects.
- B. Verify that sub-floor is smooth and flat within specified tolerances and ready to receive carpet.
- C. Verify that substrate surface is dust-free and free of substances that would impair bonding of product to the floor.
- D. Verify that concrete surfaces are ready for installation by conducting moisture and pH testing. Results must be within limits recommended by Manufacturer.



- E. There will be no exceptions to the provisions stated in the Manufacturer's installation instructions.

### 3.2 INSTALLATION - GENERAL

- A. Install product in accordance with Manufacturer's installation instructions.
- B. No US EPA registered pesticides (antimicrobials) are to be added to the product. Antimicrobial treatments are registered with the EPA as preservatives of the products only, and no health benefit should be claimed or expected. If antimicrobials are added then third party documentation with a seal is required stating that the pesticides used will cause NO HARM to the occupants. Installation adhesives are exempt from this section.
- C. Product as installed to be securely attached to the floor in compliance with Americans with Disabilities Act (ADA), Section 4.5.3.
- D. Where demountable partitions or other items are indicated for installation on top of finished carpet tile floor, install carpet tile before installation of these items.
- E. Cut and fit carpet tile to butt tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings.
- F. Extend carpet tile into toe spaces, door reveals, closets, open-bottomed obstructions, removable flanges, alcoves, and similar openings.
- G. Install borders parallel to walls.
- H. Roll with appropriate roller for complete contact of product with adhesive to sub-floor.
- I. Trim carpet neatly at walls and around interruptions.
- J. Completed product is to be smooth and free of bubbles, puckers, and other defects.

### 3.3 PROTECTION & CLEANING

- A. Remove excess adhesive and/or other from floor and wall surfaces without damage.
- B. All rubbish, wrappings, debris, trimmings, etc. to be removed from site and disposed of properly.
- C. Clean and vacuum surfaces using a beater brush/bar commercial vacuum.
- D. After each area is installed, protect from soiling and damage by other trades according to CRI's "Carpet Installation Standard," Section 20, "Protecting Indoor Installations."

END OF SECTION