## **REVISED 8/2021**

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NOTE: Italicized items draw attention to areas/items where one must choose whether to retain the shaded information or portions thereof in the project specification (therefore, un-italicize it) or delete the italicized information or portions thereof from the specification. Such decisions are at the discretion of the architect, based upon job requirements, and/or dependent upon the product style being specified.

# SECTION 096816 - CARPETING

#### PART 1 – GENERAL

## 1.01 SUMMARY

A. Related Documents: Drawings and general provisions of the Contract, including <<< General and Supplementary Conditions>>> <<< Division 1 Specification Sections>>> <<< 09650 Resilient Flooring>>> <<<09690 Carpet Tile>>> <<<(other applicable sections)>>> apply to this Section.

#### 1.02 SUBMITTALS

- A. Shop Drawings showing the extent of product, seam direction and accessories shall be submitted to Architect for approval prior to installation. Check pattern match, if any, for matching during installation and possible waste factors in ordering required amounts. Should also indicate columns, doorways, enclosing walls or partitions, built-in cabinets, and locations where cutouts are required. Copy of approved shop drawings to be available on job site during installation.
- B. Floor schedule using same room designations indicated on drawings.
- C. Product Data: Provide data on specified products, describing physical and performance characteristics, sizes, patterns, colors available, and method of installation.
- D. Verification Samples: Submit samples illustrating color and pattern for each carpet material specified.
- E. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.
- F. Maintenance Data: Include maintenance procedures, recommendations for maintenance materials and equipment, and suggested schedule for cleaning.
- G. Manufacturer's Product Warranty.
- H. Verification of reclamation and recycling program.
- I. Certifications: Manufacturer to submit copies of the following independent laboratory reports showing compliance with requirements per these methods outlined in Part 2 of this document. Submitted results shall represent average results for production goods of the specified style.
  - 1. <<<ASTM E-648 Flooring Radiant Panel>>>

- 2. <<<ASTM E-662: Smoke Density>>>
- 3. <<<AATCC 134: Electrostatic Propensity>>>
- 4. <<<ASTM D-3936: Delamination>>>
- 5. <<<Other from methods specified in Part 2>>>

## 1.03 QUALITY ASSURANCE

## A. Manufacturer Qualifications

- 1. Company specializing in manufacturing specified carpet with minimum 15 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.
- Single Source Responsibility: Obtain each type of product from one source and by a single manufacturer.

## B. Installer Qualifications

- 1. Installation Qualification: Contractors for floor covering installation should be experienced in managing commercial flooring projects and provide professional installers, qualified to install the various flooring materials specified. An installer is "qualified" if trained, or certified by Tarkett or a certified INSTALL (International Standards & Training Alliance) carpet installer.
- 2. Mockups: carpet products with mockups specified in other Sections
- 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 Project Manager.
- 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.

#### 1.04 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. Stack carpet rolls horizontally on a flat surface, stacked no higher than two rolls.
- 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.

# 1.05 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. Powerbond Cushion installations utilizing #54 Seam Weld or C-XL Water Based Seam Sealer **do not** require moisture vapor emission rate (MVER) testing nor relative humidity (RH) testing **provided that** no

free liquids are present and that no moisture stained concrete is evident. pH testing is required for all Powerbond Cushion installations as detailed below. In the event that free liquids and/or moisture stained concrete are observed, a full assessment of the concrete substrate is required. This assessment includes MVER testing per ASTM F-1869-04 (Standard Test Method for Measuring Moisture Emission Rate of Concrete) and In-Situ RH testing per ASTM F-2170-02 (Standard Test Method for Measuring Relative Humidity in Concrete). For assistance with installations that require MVER and RH testing, please contact Tarkett's Installation Services at 800-241-4902, ext. 2625, 2623, 2129, 2023 or 2670. In cases where such testing is mandated, Tarkett requires that at least 1 MVER and 2 RH tests be performed on the initial 1000 sq ft. of each project. In addition, a minimum of one test, alternating between MVER and RH, per 1000 sq ft. is required for the balance of the project. The required pH range is 9.0 or less as tested according to ASTM F-710-05. Preparing the surface of a concrete slab for pH testing requires the following attention to detail. Make sure the concrete surface is adequately cleaned of any adhesives, primers, curing compounds, surface contaminants, etc. Exercise care not to over clean the surface of the concrete removing the thin layer of carbonation. This can result in higher, non-responsive pH readings. Slightly wet the concrete sub floor surface with a small amount of distilled water and allow the water to stand for one minute. Apply pH test paper to the wet concrete surface and allow the pH test paper to remain in contact with the wet area for one minute. The pH test paper will change color depending on the pH of the wetted surface and a color scale is provided with the pH test papers for comparison. Note: pH test paper commonly supplied in MVER test kits only measures up to a pH of 12 accurately. Please see Powerbond Cushion 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 flooring 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.

# 1.06 EXTRA MATERIALS

A. Provide additional 5% for "attic stock."

## PART 2 – PRODUCTS

# 2.01 RECYCLED CONTENT

- A. Product must contain a minimum of 7% recycled content by weight. This percentage is calculated by dividing the weight of recycled content in one square yard of finished carpet by the total weight of one square yard of finished product and multiplying by 100. [(Recycle Content Weight) / (Total Product Weight) x 100].
- B. Product must contain 7% post-consumer recycled content by weight from recycled post consumer carpet. This ensures that carpet is diverted from landfills for the production of the product and that virgin resource use in the product is reduced.
- C. Recycled content must be certified by a neutral, independent, third party organization such as Scientific Certification Systems. Product must carry product label certifying overall recycled content (including postindustrial and post-consumer content). Report percentage of post-industrial and post-consumer recycled content as a percentage of total product weight.

## 2.02 PRODUCT RECYCLABILITY

- A. Manufacturer must fully comply with the US Federal Trade Commissions' "Guides for the Use of Environmental Marketing Claims" (CFR Title 16 part 260) with respect to advertising, labeling, product inserts, catalogs and sales presentations of all its flooring products submitted and sold.
- B. Product must meet FTC Guides for recyclability and must be one hundred percent (100%) closed-loop recyclable back into flooring. A manufacturer cannot claim that a product or any portion of a product is recyclable if it is incinerated, even if incineration is used to produce heat and power (i.e. waste-to-energy) per FTC guides 16 CFR section 260.7 (d) example 3.
- C. Recyclability of product installed must be the same as that claimed by manufacturer and required by Project requirements.

## 2.03 RECYCLING PROGRAM

- A. Manufacturer must have a collection and recovery system for product and a fully established, currently operational recycling program at time of bid per FTC Guides Section 260.7 (d).
- B. Manufacturer's Recycling Facility must be certified by a neutral, independent, third party organization such as Scientific Certification Systems. Provide documentation showing certification of Recycling Facility.
  - 1. Manufacturer must be able to reclaim and recycle 100% of installed carpet. Like materials as installed must be 100% recycled.
  - 2. Manufacturer's Recycling Facility must be certified by a neutral, independent, third party organization such as Scientific Certification Systems. Provide documentation showing certification of Recycling Facility.
  - 3. Manufacturer must have written guarantee that 100% of the recovered vinyl backed carpet will be recycled and that no portion of the product will be landfilled or incinerated (including waste-to-energy).

#### 2.04 NSF 140 CERTIFICATION

A. roduct must be certified at the Gold level to ANSI standard **NSF 140**, the Sustainable Carpet Assessment Standard (SCAS). Product certification must be conducted by an independent, third party organization such as Scientific Certification Systems. Provide documentation.

## 2.05 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. Warranty shall not exclude carpet product installed on stairs provided it is properly installed and maintained.
- E. The non-prorated Lifetime Limited warranty shall specifically warrant against:
  - 1. Excessive Surface Wear: More than 15% 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
  - F. Tuft Bind warranty in lieu of edge ravel and zippering is not acceptable.

# 2.06 - FIBER

- A. Nylon Fiber: Bulked Continuous Filament (BCF) Nylon in a loop pile construction <<< Dynex>>> << Dynex SD>>> <<< TDX Nylon>>> <<< Antron Lumena>>> << Antron Legacy>>> <<< XTI Nylon>>> <<< Solution Dyed>>> <<< Multi-Colored / Solid / Patterned>>>.
- B. For yarn containing recycled content, report post consumer and post industrial recycled content of the pile face yarn per 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 acceptable.
- D. Durable soil protection should be applied to the fiber during product manufacturing to resist fiber soiling. Application Rate: 2% of Face Weight.

## 2.07 CUSHION CHARACTERISTICS

- A. Primary Backing: Synthetic Non-Woven.
- B. Secondary Backing: Powerbond Closed Cell Cushion
  - 1. Product Size: 6-Foot Width Roll Goods
  - 2. Cushion Type: Closed Cell Cushion
  - 3. Cushion Thickness: .156 inch thick
  - 4. Cushion Density (ASTM D-1667): Min. 18.5 lbs/cu ft
  - 5. Compression Set (ASTM D-1667): Maximum 10%
  - 6. Compression Force Deflection (ASTM D-1667): Minimum 7 lbs/sq. inch @ 25%; Maximum 25 lbs/sq. inch at 25%
  - 7. Moisture Barrier: Impermeable to moisture and airflow. Moisture Penetration by Impact @ 10 psi: No penetration of backing after 10,000 impacts. Provide independent test results. The British Spill Test is NOT an acceptable measurement for moisture barrier.
  - 8. Seam Method: Chemical weld; molecularly bound seams to be impermeable to moisture and airflow
  - 9. Seam Integrity: Moisture Penetration by Impact at SEAMS @ 10 psi; No penetration after 10,000 impacts. Provide independent test results. The British Spill Test is NOT an acceptable measurement for moisture barrier.
  - 10. Seam Integrity: Phillips Chairs Test: No seam separation after 50,000 cycles; Provide independent test
  - 11. Face varn fully fused to secondary backing system that will not delaminate
  - 12. Delamination: No delamination per ASTM D3936
  - 13. Product must not contain pesticides (US EPA Registered Antimicrobials). Installation adhesives are exempt from this section.
- C. Product to provide asbestos enclosure properties. Enclosure means an airtight, impermeable, permanent barrier around ACBM (Asbestos Containing Building Material) to prevent the release of asbestos fibers into the air.
  - D. Product provides radon reduction barrier.

# 2.08 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. 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: ≤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:  $<<< \ge 4$  @ 60 hours yarn dyed>>>  $<<< \ge 4$  @ 100 hours solution dyed>>>

8. TARR

<><Severe Traffic: 3.5 minimum>>> <<<All other applications: 3.0 minimum>>>

9. Moisture Barrier

Moisture Penetration by Impact @ 10 psi: No penetration of backing and seam after 10,000 impacts

10. Air Flow Barrier

Air Permeability of Textile Fabrics: No Air Flow (0.0 cu. ft/min) through backing and seam

11. Seam Integrity

Seam to remain intact after 50,000 cycles per Phillips Chair Test

12. Other

As specified in 2.03, 2.04 and 2.05 of this document

## 2.09 PRODUCT SPECIFICATIONS

- A. Manufactured by Tarkett
  - 1. <<<*STYLE NAME>>>* Powerbond® Cushion (Color: TBD)
    - A. Construction:
    - B. Gauge:
    - C. Stitch Rate: <<<>>> / inch
    - D. Tuft Density: <<<>>> tufts/sq inch
    - E. Pile Height Average:
    - F. Pile Thickness:
    - G. Density Factor (UM44D):
    - H. Fiber System: <<< >>> BCF Nylon with Static Control & Eco- Ensure
    - I. Dye Method:
    - J. R-Value: 0.84 Hr-ft2-°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): 0.22 Minimum
    - O. Seam Integrity: No seam separation after 50,000 cycles per Phillips Chair Test
    - P. Cushion Compression Set: Maximum 10%
    - Q. Cushion Compression Force Deflection: Minimum 7 lbs/sq. inch @ 25%; Maximum 25 lbs/sq. inch at 25%
    - R. Cushion Density 18.5 lbs per cubic foot
    - S. Cushion Thickness: 0.156 inch
    - T. Total Weight: <<>> (RS) << >> (Non-RS) oz/sq yd +/- 5%
    - U Environmental Impact: No pesticides added to product (US EPA Registered Antimicrobials)

# (NOTE TO ARCHITECT: ADD/SUBTRACT UNDER 2.07 AS REQUIRED.)

B. Substitutes/Alternates

Subject to compliance with all requirements, "or equal" must match the selected colors, have similar aesthetic appearance and tuft density, factory-applied "dry" adhesive, asbestos enclosure properties and recycability. 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 cushion (color-only sample not acceptable).

## 2.08 ACCESSORIES

- A. Materials recommended by Manufacturer for patching, priming, seam welding, etc.
- B. Base, Carpet Edge, and Transition Strips: As specified in applicable sections.

## **PART 3 EXECUTION**

## 3.01 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 (i.e. floor wax).
  - 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.

# 3.02 INSTALLATION – GENERAL

- A. Install product in accordance with Manufacturer's installation instructions. <<< Product must have low VOC, factory applied, "dry" adhesive. >>> <<< A peel & stick method applied to the back at the time of manufacture is preferred. >>> Product must meet the requirements of CRI's Green Label Plus (GLP) program for carpet. Provide documentation.
- B. Adhesive must meet the requirements of CRI's Green Label Plus program for adhesive. Provide documentation.
- C. Adhesives must be below the VOC content limits specified by the South Coast Air Quality Management District Rule #1168. Provide documentation.
- D. 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.
- E. Product as installed to be securely attached to the floor in compliance with Americans with Disabilities Act (ADA), Section 4.5.3.

- F. Verify product match before cutting to ensure minimal variation between dye lots.
- G. Layout product and locate seams in accordance with shop drawings.
  - 1. Locate seams in area of least traffic, out of areas of pivoting traffic, *and parallel to main traffic.*Minimize cross seams.
  - 2. Do not locate seams perpendicular through door openings.
  - 3. Align run of pile in same direction as anticipated traffic and in same direction on adjacent pieces.
  - 4. Locate change of color or pattern between rooms under door centerline.
  - 5. Provide monolithic color, pattern, and texture match within any one area.
- H. Install product tight and flat on sub-floor, well-fastened at edges, with a uniform appearance.
- I. Double-cut product seams with accurate pattern match. Make cuts <<<straight>>> <<<serpentine>>>, true, and unfrayed.
- J. Seal seams with manufacturer's recommended seam sealer as stated in installation instructions. Make sure the seam is fully sealed.
- K. Roll with appropriate roller for complete contact of product with adhesive to sub-floor.
- L.Trim carpet neatly at walls and around interruptions.
- M. Completed product is to be smooth and free of bubbles, puckers, and other defects.
- N. To ensure asbestos enclosure, the carpet material should be sealed around the perimeter of the installation using a one-inch strip of contact adhesive spread directly underneath the outer edge of the product.

## 3.03 PROTECTION & CLEANING

- A. Remove excess adhesive and/or seam sealer from floor and wall surfaces without damage.
- B. All rubbish, wrappings, debris, trimmings, etc. to be removed from site and recycled or disposed of properly.
- C. Clean and vacuum surfaces using a beater brush/bar commercial vacuum.
- D. After each area of is installed, protect from soiling and damage by other trades.

## END OF SECTION

NOTE: Italicized items are at the discretion of the architect, dependent upon job requirements, and/or dependent upon the product style being specified.