

SECTION 09 65 16
RESILIENT SHEET FLOORING

CSI 3-PART **SHORT-FORM** GUIDE SPECIFICATION USE FOR OUTLINE OR DD SPECIFICATION
ISSUES.

EDIT TO SUIT PROJECT

PART 1 - GENERAL

1.1 SUMMARY

- A. Work of this Section consists of an inlaid wear surface embossed resilient sheet vinyl flooring and accessories including, but not limited to:
 - 1. C.I. TAKIRON (Takiron) **Pathways** Commercial Sheet Vinyl Flooring
 - 2. C.I. TAKIRON (Takiron) **Nattice** Commercial Sheet Vinyl Flooring
 - 3. Accessories
 - a. Adhesives
 - b. Cleaning solutions
 - c. Finish top coatings

RED NOTE: Specifier to closely coordinate applicable sections between concrete and other subfloor substrate finishes with floor covering.

1.2 SUBMITTALS

- A. Product Data per SECTION 013000 or 013300 and as follows: Submit manufacturer's printed descriptions of materials, components and systems, performance criteria, use limitations, recommendations, and installation information.
- B. Shop Drawings per SECTION 013000 or 013300 and as follows: Submit keyed location plans, plans indicating resilient sheet flooring type, layout, pattern direction, edge transitions, columns, doorways, enclosing partitions, built-in furniture, cabinets, cutouts, expansion and control joints, and attachment requirements.
- C. Samples per SECTION 013000 or 013300.
 - 1. Initial for Selection: Submit printed color charts, sample chains or Architectural Binder indicating manufacturer's complete range to determine color, texture, shape, and/or composition for each type of material finish.
 - 2. Final Selection: Submit two (2) 9-inch x 12-inch samples of each different type, color and pattern selected for acceptance.
- D. Quality Assurance Submittals per SECTION 014000: Test and Evaluation Reports, and Qualification Statements.

NOTE: Edit LEED Requirements below to suit project.

- E. Sustainable Design (USGBC LEED®) Submittals: Submit the following in accordance with the requirements of SECTION 018113, LEED REQUIREMENTS:
 - 1. LEED Credit MR, Materials & Resources. Submit completed LEED 2009-NC v.3 Submittal Templates, and other required paperwork as follows:
 - a. MR 4.1: Recycled Content: 10 Percent (post-consumer + 1/2 pre-consumer)
 - 1). Submit product data indicating percentage by weight of recycled content.
 - 2. LEED Credit EQ, Indoor Environmental Quality. Submit completed LEED-NC 2.2 Submittal Templates and required paperwork as follows:
 - a. EQ 4.1: Low Emitting Materials, Adhesives & Sealants, VOC Data
 - 1). Submit manufacturers' product data for construction adhesives and sealants, including printed statement of VOC content and MSDS Sheets.

- b. EQ 4.3: Low Emitting Materials, Carpet and Resilient Flooring Systems
 - 1). Submit manufacturer's product data for systems that includes printed statement of VOC content.
- F. Closeout Submittals per SECTION 017000 or 017800: Operation & Maintenance Data, Warranty Documentation, and Record Documents.
 - 1. Sustainable Design Closeout Documentation: Submit completed USGBC LEED® Submittal Worksheet Templates for the following credits:
 - a. MR 4.1
 - b. EQ 4.1, EQ Credit 4.3

NOTE: Edit percentage below to suit scope of project.

- G. Maintenance Material Submittals - Extra Materials: Submit no less than five (5) percent additional full and unopened rolls of each type and pattern of sheet good used.
- 1.3 QUALITY ASSURANCE
- A. Regulatory Requirements
 - 1. Fire-Test-Response Characteristics: As determined by testing identical products as follows by a qualified testing agency.
 - a. ASTM E648: Critical Radiant Flux Classification: Class I
 - b. ASTM E662: Smoke Density: 450 or less
 - B. Qualifications:
 - 1. Manufacturer: A company with a minimum ten (10) years' experience in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance. A single source manufacturer supplying both product and adhesive.
 - a. Company shall be ISO 9001 Certified.
 - b. Company shall be ISO 14001 Certified.
 - 2. Installer / Applicator: Perform installation with skilled, experienced, and trained workmen with demonstrated ability to install Takiron products supervised by trained personnel who shall have a minimum three (3) years successful experience in installations of similar size and scope.
 - 3. Testing Agency: An independent testing agency with the experience and capability to conduct the testing indicated, meeting requirements of ISO/IEC Standard 17025 or ASTM E699 and ASTM E329.
 - C. Source Limitations: Obtain primary resilient sheet flooring materials and adhesive through one source from a single manufacturer
 - 1. Provide secondary materials, including patching and fill material, joint sealant, and repair materials, of type and from source recommended by manufacturer of primary materials.
- 1.4 DELIVERY, STORAGE, AND HANDLING
- A. Delivery, Storage and Handling per industry guidelines, product manufacturer guidelines, and SECTION 016000 requirements.
- 1.5 WARRANTY
- A. Manufacturer Warranty. Provide manufacturer's five (5) year limited warranty to be free from defects in material and workmanship, under normal use and service, to repair or replace all defective sheet flooring.

PART 2 – PRODUCTS

2.1 MANUFACTURER

- A. Manufacturer List: Subject to compliance with requirements, provide products by the following:

1. C.I. TAKIRON, a flooring manufacturer represented by CBC AMERICA LLC, 2000 Regency Parkway, Cary, NC 27518; Telephone: 919.230.8700; E-mail: technical@cbcflooring.com; website: www.cbcflooring.com
2. Substitution Limitations: No substitutions permitted because of the specific attributes listed in sections 2.2, 2.3 and 2.4.

B. Product Options

1. Flooring Type:

- a. TAKIRON **PATHWAYS** Sheet: Class I per ASTM E648

- 1). Size: 6' x 66' x 0.100" (1.82m x 20m x 2.5mm)
- 2). Color and Pattern: [The Collection](#)

- b. TAKIRON **Nattice**: Class I per ASTM E648

- 1). Size: 6' x 66' x 0.10" (1.82m x 20m x 2.5mm)
- 2). Color and Pattern: [The Collection](#)

2. Accessories

- a. Underlayment leveling compound per SECTION 035416
- b. Expansion joints per SECTIONS 079200 and 079513
- c. Indoor and Non-Wet Area Acrylic Adhesive
 - 1). CBC 5001 High Performance Resilient Flooring Adhesive
- d. Wet Area and Exterior Adhesive
 - 1). CBC 951 2-Part Epoxy Floor Covering Adhesive for Indoor (wet area) and Outdoor Installations
- e. Wet Area and Exterior Accessory
 - 1). Henkel Teroson MS 939NA or equivalent edge sealant for Indoor (wet area) and Outdoor Installations
- f. [Cleaning products](#)
- g. Takiron Welding Rod to match

2.2 DESCRIPTION

- A. Pathways and Nattice per ASTM 1303 are Type II, Grade 1, Class B, inlaid embossed commercial slip-retardant sheet flooring.
- B. [Sustainability Characteristics](#)

1. [USGBC LEED Rating](#): Comply with project requirements intended to achieve the following Rating, as measured and documented according to the USGBC LEED® Green Building Rating System, Version indicated:

NOTE: Each LEED Version requires a different credit total to achieve the desired LEED Rating.

NOTE: Select one of the following Ratings:

- a. Rating: Certified
 - b. Rating: Silver
 - c. Rating: Gold
 - d. Rating: Platinum
2. [Applicable LEED® Credits](#): Performance requirements of the following LEED® Categories and Credits apply to this Section and are met as follows:
 - a. [Materials & Resources \(MR\)](#):
 - 1). [MR 4.1 Recycled Content](#): 10 Percent (post-consumer + ½ pre-consumer)

- a). Takiron **Pathways** and **Nattice** contain 8% post-consumer and 12% pre-consumer, or 14% calculated recycled content.
- b). CBC 5001 adhesive comes packaged in a recyclable PET Pail.
- b. Indoor Environmental Quality (EQ):
 - 1). EQ Credit 4.1, Low-Emitting Materials: Adhesives and Sealants: as applied to CBC 5001 acrylic and CBC 951 epoxy adhesives.
 - a). Acrylic Adhesive - CBC 5001 VOC: 0 g/L
 - b). Epoxy Adhesive – CBC 951 VOC: 0g/L
 - 2). EQ Credit 4.3, Low-Emitting Materials: Carpet and Resilient Flooring Systems
 - a). Pathways FloorScore Certified Low Emitting. Floor Score Certificate.

2.3 MATERIALS

- A. TAKIRON Pathways and Nattice Sheet per ASTM F1303: Type II, Grade 1, inlaid wear layer sheet vinyl.
 - 1. Composition: Sheet vinyl formed under heat and pressure from a PVC layer formulated from polyvinyl esters and inorganic fillers materials, with a backing material of recycled PVC and virgin PVC from polyvinyl esters and inorganic filler materials.
 - 2. Thickness: 0.100" (2.5mm)
 - 3. Roll Size: 6' x 66' (1.82m x 20m)
 - 4. Color: As selected by Architect from Manufacturer's standard Collection.

2.4 ACCESSORIES

- A. Leveling and Patching Compound: Trowelable, latex-modified Portland cement-based formulation provided or approved by manufacturer for applications indicated.
- B. Self-Leveling Underlayment: Pourable latex-modified Portland cement-based formulation provided or approved by manufacturer for applications indicated.
- C. Expansion Joints: Refer to SECTION 079200 and SECTION 079500 or 079513.

NOTE: Select one of the following adhesive types, deleting that not chosen.

NOTE: Select CBC 951 Epoxy adhesive for all exterior installations or when expecting floors to be frequently washed or wet, or floors installed in extremely hot, cold or wet spaces, such as near outside entrances or freezer cases, or floors subject to heavy loads, including hospital beds, heavy carts, rolling chairs, etc.

CBC 5001 adhesive is suitable for indoor dry area applications.

- D. Adhesive - Acrylic: Solvent-free, low odor, acrylic based, high tack type adhesive acceptable to resilient sheet flooring manufacturer to suit flooring product and substrate conditions indicated. (indoor non-wet applications only)
 - 1. Manufacturer / Product: CBC 5001 High Performance Resilient Floor Adhesive
- E. Adhesive – Heavy Duty Epoxy: 2-part solvent-free, low odor, flooring epoxy adhesive recommended for all exterior and flooring installations over porous and non-porous substrates under heavy static loads, areas that are subject to top-down water, freezer cases, and areas exposed to extremes of temperature.
 - 1. Manufacturer / Product: CBC 951 2-Part Epoxy Floor Covering Adhesive for Indoor and Outdoor Installations

RED NOTE: CBC/TAKIRON does not warrant the compatibility and performance of TAKIRON Products with non-CBC adhesives

- F. Edge Sealing – Required for all exterior and wet areas

1. Manufacturer / Product: Henkel Teroson MS 939NA or equivalent edge sealant for indoor wet areas and all Outdoor Installations.
- G. Adhesive Equipment: “V” notched professional adhesive application trowel for interior applications.
 1. V-notch 1/16 x 1/16 x 1/16 inch for porous substrates.
 2. U-notch 1/32 x 1/16 x 1/32 inch for non-porous substrates or use with CBC 951 2-Part Epoxy
- H. Seam Sealing:
 1. Heat Weld Rod:
 - a. Welding Thread, 3.5 mm diameter Takiron weld rod as recommended for the product(s) specified.
 - b. Color as selected by Architect from manufacturer’s full range.
- I. Floor Cleaning Systems: Clean as recommended by flooring manufacturer’s [Maintenance Product Guide](#)

PART 3 – EXECUTION

3.1 FIELD CONDITIONS

- A. Conditions and Measurements: Visit jobsite to verify installation conditions and floor measurements.
 1. Ambient and Environmental Conditions per manufacturer’s most recent published written recommendations, SECTION 017000 or 017100 or 017116.

WARNING: Use of portable heaters may cause failure.

3.2 EXAMINATION, PREPARATION AND INSTALLATION

- A. Proceed with installation only after unsatisfactory conditions have been corrected.
 1. Verify conditions and test substrates as recommended to meet requirements.
- B. Properly prepare manufacturer acceptable substrates to accept flooring.
- C. Install resilient flooring per manufacturer’s current [Installation Guide](#).
- D. Expansion Joints: Locate movement joints where indicated prior to installation of adhesive and resilient flooring and use appropriate expansion joint cover.
- E. Protect flooring from foot traffic for time specified for adhesive before and after installation per adhesive manufacturer’s instructions to allow proper set up time.
- F. Protect flooring from heavy traffic, point or rolling loads for a minimum of 48 hours or longer depending on conditions, after installation, when installed using CBC 5001 or CBC 951 Epoxy adhesive.
- G. Wait 48 hours before wet cleaning.

3.3 FIELD QUALITY CONTROL

- A. Site Tests and Inspections (Per SECTION 014000 or 014500 or 014523 and as follows):
 1. Inspect floor installation for non- conforming work including lack of adequate adhesion, adhesive overspray, and indications of improper substrate preparation.

3.4 CLEANING, MAINTENANCE AND PROTECTION

- A. Provide Progress Cleaning per SECTION 017000 or 017400 or 017413, [Takiron Maintenance Guide](#).
 1. Protect newly installed flooring from traffic for specified time on adhesive label.
 2. Protect new installed flooring from rolling traffic and point loads for a minimum of 48 hours or longer based on ambient conditions and adhesive cure time.
 3. Provide surface protection for installed product and use plywood or rigid panels to roll or move all heavy objects across the flooring before and after owner’s acceptance.
 4. Permit only light damp mopping with well wrung mop during the first 3-4 days after installation.

RED NOTE: Do NOT wet mop until adhesive has set.

3.5 CLOSEOUT ACTIVITIES

- A. Substantial Completion Requirements per DIVISION 01 requirements: Closeout procedures, demonstration and training, and sustainable design closeout documentation.

END OF
SECTION

RED NOTE: Be sure to obtain the latest version of this Guide Specification.

This Guide Specification is not a completed document ready for use. It must be edited, deleting, adding, or modifying text, as required to suit project requirements.

The professional stamping and the contracting parties of the Contract Documents are responsible for the accuracy of issued project specifications, including any use of this Takiron Sheet Flooring Guide Specification.

C.I. TAKIRON AND CBC AMERICA LLC SHALL NOT BE LIABLE FOR DAMAGES ARISING OUT OF THE USE OF THIS GUIDE SPECIFICATION.