

SECTION 09 65 16.23
RESILIENT TILE 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 resilient solid vinyl printed pattern tile flooring and accessories including, but not limited to:
 - 1. TOLI **Lightwood** Solid Vinyl Tile
 - 2. Adhesive
 - 3. Floor finish and maintenance system
 - 4. Accessories: Transition strips, divider strips, grout strips, tools, equipment, and all other items necessary for a complete installation.
- B. Related Documents and Sections: Examine Contract Documents for requirements that directly affect or are affected by Work of this Section including GENERAL AND SUPPLEMENTARY CONDITIONS, DIVISION 01 - GENERAL REQUIREMENTS sections, and affected technical sections.

NOTE: Underlined blue text in the WORD.doc file is [hyperlinked](#) to a resource webpage. Click to open.

1.2 SUBMITTALS

- A. Product Data in accordance with DIVISION 01: Submit manufacturer's printed descriptions of materials, components and systems, performance criteria, use limitations, recommendations, installation information, and the following:
- B. Shop Drawings in accordance with DIVISION 01: Submit keyed location plans, plans indicating tile type, layout, pattern direction, edge transitions, columns, doorways, enclosing partitions, built-in furniture, cabinets, cutouts, expansion and control joints, and attachment requirements.
- C. Samples in accordance with DIVISION 01: Submit printed color charts or material chain for Initial Selection; and three (3) full size tile samples for Final Selection.
- D. Quality Assurance Submittals in accordance with DIVISION 01: Test and Evaluation Reports, and Qualification Statements.

NOTE: Edit **LEED Requirements** below to suit project.

- E. Sustainable Design (USGBC **LEED**TM) Submittals: Submit the following in accordance with the LEED requirements in DIVISION 01:
 - 1. LEED Credit MR, Materials & Resources. Submit completed LEED 2009-NC v.3 Submittal Templates, and other required paperwork as follows:
 - a. MR Credit 2: Recycled Construction Waste Management
 - 1). 1 Point: 50% Recycled or salvaged construction waste diverted from landfill
 - 2). 2 Points: 75% Recycled or salvaged construction waste diverted from landfill.
 - 3). Submit construction waste management plan to achieve these goals.
 - b. MR Credit 4 - Recycled Content: Floor covering 100% postconsumer recycled content + 50% of preconsumer content, listed separately.
 - 1). 1 Point: 10%
 - 2). 2 Points: 20% or more
 - 3). Submit product data indicating percentage by weight of recycled content with a statement indicating costs for each.
 - 2. LEED Credit IEQ, Indoor Environmental Quality. Submit completed LEED 2009-NC v.3 Submittal Templates and required paperwork as follows:

- a. IEQ 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.
 - 2). Submit manufacturer's certification that products meet the requirements of SCAQMD Rule 1168 in areas where exposure to freeze/thaw conditions and direct exposure to moisture will not occur.
 - 3). Submit manufacturer's certification that products meet the requirements of BAAQMD Regulation 8, Rule 51 for containers larger than 16 oz and with CARB for containers 16 oz or less, for areas where freeze/thaw conditions do exist or direct exposure to moisture can occur.
 - b. IEQ 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 DIVISION 01: Operation & Maintenance Data, Executed Warranty Documentation, and Record Documents.

NOTE: Edit LEED Requirements below to suit project.

1. Sustainable Design Closeout Documentation: Submit completed USGBC LEED® Submittal [Worksheet Templates](#) for the following credits:
 - a. MR Credit 2, MR Credit 4
 - b. IEQ Credit 4.1, IEQ 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 cartons of each type and pattern of tile used.
- 1.3 QUALITY ASSURANCE
- A. Regulatory Requirements: Class I Critical Radiant Flux Classification per ASTM E648 or NFPA 253; and 450 or less Smoke Density per ASTM E662 or NFPA 258.
 - B. Qualifications: ISO Certified Manufacturer and an Installer with a minimum five (5) years of successful in-service performance and experience with installation of similar size and scope. Testing Agency meeting ISO/IEC Standard 17025 or ASTM E699 and ASTM E329.
 - C. Source Limitations: Obtain primary resilient tile flooring materials through one source from a single manufacturer, and secondary materials from source recommended by manufacturer of primary materials.

NOTE: Edit sustainability standards and certifications below to suit project.

- D. Sustainability Standards and Certifications:
1. Adhesive and Sealant VOC Limits: According to South Coast Air Quality Management District [Rule 1168](#) and [GS-36](#) for aerosols.
 2. VOC Limits: As tested using U.S. EPA Reference Test Method 24 and in accordance with (per) SCAQMD [Rule 1113](#), SCAQMD [Rule 1168](#), BAAQMD [Regulation 8, Rule 51](#), and California Air Resources Board (CARB).
- E. Field Samples per DIVISION 01: Provide field samples, dry laid, to demonstrate aesthetic effects of materials in situ, assisting the Architect and Owner in making final selections.
- 1.4 DELIVERY, STORAGE, AND HANDLING
- A. Delivery, Storage and Handling per industry and manufacturer guidelines, and DIVISION 01 requirements.
- 1.5 WARRANTY
- A. Manufacturer Warranty. Provide manufacturer's non-prorated **ten (10)** year limited warranty to be free from defects in material and workmanship, under normal use and service, to repair or replace all defective tile flooring including reasonable labor.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Manufacturers List: Subject to compliance with requirements, provide products by one of the following:
1. TOLI International, a Division of CBC AMERICA LLC, 2000 Regency Parkway, Cary, NC 27518; Telephone: 919.230.8700; E-mail: technical@cbcflooring.com; website: www.cbcflooring.com

NOTE: Equals or equivalents may not be required and desired, edit paragraph to suit project.

2. Substitution Limitations: Manufacturers of equivalent products beyond those listed above shall be considered when submitted per DIVISION 01, using CSI Substitution Request Form 1.5C (During the Bidding Phase) or Form 13.1 (After the Bidding Phase.) [link](#)
- B. Product Options
1. Flooring Type:
 - a. TOLI **Lightwood** Plank Tile: Interior Floor Finish Class I per NFPA 101

NOTE: Custom colors, custom marbling and solid color tile available by Special Order.

2. Adhesive: CBC 5001 High Performance Flooring Adhesive
3. Adhesive: CBC EcoSpray U Universal Spray Adhesive
4. Adhesive: CBC 951 Epoxy Adhesive
5. Floor Maintenance system
6. Accessories
 - a. TOLI Transition Strip
 - b. TOLI Divider Strip
 - c. Underlayment leveling compound per SECTION 035416
 - d. Expansion joints per SECTIONS 079200 and 079513
 - e. Cleaning products

2.2 DESCRIPTION

- A. TOLI **Lightwood** is a Class III, solid vinyl tile (SVT) made from polyvinyl esters and inorganic fillers materials formed under heat and pressure, printed with a pattern, and cut to create resilient plank tile flooring in a variety of colors and patterns.
- B. Sustainability Characteristics

NOTE: Coordinate and edit below to the correct [LEED](#) Version and [Rating](#) selected.

1. [USGBC](#) LEED Rating: Comply with project requirements intended to achieve a [LEED 2009-NC v.3 Platinum](#) Rating, as measured and documented according to the USGBC LEED® Green Building [Rating System](#).
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 Credit 2: Recycled Construction Waste Management
 - a). **CBC 5001** adhesive comes packaged in a recyclable PET pail.
 - b). **EcoSpray** adhesives come packaged in a recyclable cardboard carton and in recyclable aluminum cans.
 - b. Materials & Resources (MR):
 - 1). MR Credit 4: Recycled Content
 - a). TOLI **Lightwood** SVT contains 2% post-consumer + 1/2 35% pre-consumer, for a **19.5%** calculated recycled content.

- b). **CBC 5001** adhesive comes packaged in a recyclable cardboard carton.
- c. Indoor Environmental Quality (EQ):
 - 1). IEQ Credit 4.1, Low-Emitting Materials: Adhesives and Sealants
 - a). Acrylic Trowel Adhesive - **CBC 5001** VOC: **0 g/L**
 - b). Acrylic Spray Adhesive - **CBC EcoSpray U** VOC: **0 g/L**
 - c). Epoxy Adhesive- **CBC 951** VOC: **0 g/L**
 - 2). IEQ Credit 4.3, Low-Emitting Materials: Carpet and Resilient Flooring Systems
 - a). TOLI **Lightwood** Sample PTER 1021: MAS Laboratory Certified Green® in accordance with California DHS Section 01350. Passes. Formaldehyde, acetaldehyde, and acrolein below 1/2 CREL value.
 - b). TOLI **Lightwood** Sample PT 2063: MAS Laboratory Certified Green® in accordance with California DHS Section 01350. Passes. Formaldehyde, acetaldehyde, and acrolein below 1/2 CREL value.

2.3 MATERIALS

NOTE: Select item A and or B below, deleting item not chosen.

- A. SVT **Lightwood** Plank Tile per ASTM F1700: Class: III, printed film vinyl tile
 - 1. Composition: Vinyl tile formulated from solid PVC with printed film pattern construction
 - 2. Surface: Type B, Embossed
 - 3. Thickness: 0.120 inch (3.0mm)
 - 4. Edge: Square

NOTE: Select size required for project and delete those not chosen.

- 5. Size: 4 x 35.4 x 0.120 inches (100mm x 900mm x 3.0mm)
- 6. Size: 6 x 35.4 x 0.120 inches (150mm x 900mm x 3.0mm)
- 7. Color and Pattern: 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.
- D. Divider Strips: TOLI Type F or Type D, as selected by Architect.
- E. Transition Strips: TOLI Strips 0.080 to 0.120 inch (2.03mm to 3.01mm) high x 0.200 inch (5.1mm) wide by 36 inches (914mm) long

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

- F. Adhesive - Acrylic: CBC 5001, high performance, solvent-free, low odor, acrylic based, high tack type adhesive acceptable to resilient sheet flooring manufacturer to suit flooring product and substrate conditions indicated.
- G. Adhesive - Acrylic: CBC EcoSpray U universal, solvent-free, low odor, zero-VOC acrylic emulsion spray adhesive as recommended for bonding flooring installations over porous and non-porous substrates under heavy static loads (hospital beds).
- H. Adhesive- Epoxy CBC 951 solvent free 2-part epoxy adhesive as recommended for bonding flooring installations over porous and non-porous substrates under heavy static loads (hospital beds) and / or subject to large amounts of topical moisture or temperature swings (retail freezer / produce areas)

RED NOTE: Use of Non-CBC adhesives with TOLI sheet vinyl products will void TOLI Warranty adhesion claims.

- I. Adhesive Equipment: Apply CBC 5001 Premium adhesive using appropriate notched trowel for substrate conditions.
 - 1. Porous and non-porous Substrates: Use Gundlach FFA U-notch 1/32 x 1/16 x 1/32 inch (0.79mm x 1.59mm x 0.79mm) or equivalent.
- J. Floor Maintenance System: Provide maintenance which may include liquid floor finish product systems as recommended by flooring manufacturer's [Maintenance Product Guide](#). Wait specified time before wet cleaning.

PART 3 - EXECUTION

3.1 FIELD CONDITIONS

- A. Conditions and Measurements: Visit jobsite to verify installation conditions and floor measurements.
 - 1. Environmental Conditions per manufacturer's recommendations and DIVISION 01.

RED NOTE: Use of portable heaters may cause failure.

3.2 EXAMINATION, PREPARATION AND INSTALLATION

- 1. Proceed with installation only after unsatisfactory conditions have been corrected.
 - a. Verify conditions and test substrates as recommended to meet requirements.
- 2. Prepare substrates to ensure proper adhesion of resilient flooring system per adhesive manufacturer's written instructions.
- 3. Install resilient flooring per manufacturer's current written [instructions](#).
- 4. Expansion Joints: Locate movement joints where indicated prior to installation of adhesive and resilient flooring and use an appropriate expansion joint cover.
- 5. 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.
- 6. 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 adhesives.
- 7. Wait 48 hours before wet cleaning.

3.3 CLEANING, MAINTENANCE AND PROTECTION

- A. Provide Progress Cleaning and Provide Final Cleaning per DIVISION 01 requirements.
 - 1. Waste Management per DIVISION 01 requirements.
 - 2. Provide Initial Maintenance for installed product per manufacturer's [written instructions](#).

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

- 3. Provide protection for installed product.

3.4 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 TOLI floor tile Guide Specification.

TOLI INTERNATIONAL AND CBC AMERICA LLC SHALL NOT BE LIABLE FOR DAMAGES ARISING OUT OF THE USE OF THIS GUIDE SPECIFICATION.