

SECTION 09 65 16.23
RESILIENT TILE FLOORING

CSI 3-PART **SHORT-FORM** GUIDE SPECIFICATION
FOR USE AS OUTLINE / DD SPECIFICATION ISSUES
EDIT TO SUIT PROJECT

PART 1 - GENERAL

1.1 SUMMARY

Work of this Section consists of resilient solid luxury vinyl printed pattern tile flooring and accessories including, but not limited to:

Halo Floors **Woods** Luxury Vinyl Tile (LVT)

Halo Floors **Stones & More** Luxury Vinyl Tile (LVT)

Adhesive

Floor Maintenance Options

Accessories: Transition strips, divider strips, grout strips, tools, equipment, and all other items necessary for a complete installation.

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

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:

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.

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.

Quality Assurance Submittals in accordance with DIVISION 01: Test and Evaluation Reports, and Qualification Statements.

NOTE: Edit LEED Requirements below to suit project.

Sustainable Design (USGBC [LEED™](#)) Submittals: Submit the following in accordance with the LEED requirements in DIVISION 01:

LEED Credit MR, Materials & Resources. Submit completed LEED 2009-NC v.3 Submittal Templates, and other required paperwork as follows:

MR Credit 2: Recycled Construction Waste Management

1 Point: 50% Recycled or salvaged construction waste diverted from landfill

2 Points: 75% Recycled or salvaged construction waste diverted from landfill.

Submit construction waste management plan to achieve these goals.

MR Credit 4 - Recycled Content: Floor covering 100% postconsumer recycled content + 50% of preconsumer content, listed separately.

1 Point: 10% Recycled Content

2 Points: 20% or more Recycled Content

Submit product data indicating percentage by weight of recycled content with a

statement indicating costs for each.

LEED Credit IEQ, Indoor Environmental Quality. Submit completed LEED 2009-NC v.3 Submittal Templates and required paperwork as follows:

IEQ Credit 4 - Low-Emitting Materials: Adhesive, Flooring, and Floor Coating Finish

IEQ Credit 4.1 - Adhesives and Sealants: Adhesive to comply with California's *South Coast Air Quality Management District* (SCAQMD) [Rule 1168](#) (≤ 50 g/l); and aerosol adhesive to comply with Green Seal [GS-36](#) (web spray = $\leq 55\%$ VOCs by weight).

IEQ Credit 4.2 - Paints and Coatings: Floor coatings to comply with SCAQMD [Rule 1113](#) requirements.

IEQ Credit 4.3 - Resilient Flooring Systems: [FloorScore®](#) certified; OR test data indicating that flooring does NOT exceed chemical VOC and HAP chronic inhalation reference exposure levels (REL's) according to the *Standard Practice For The Testing Of Volatile Organic Emissions From Various Sources Using Small-Scale Environmental Chambers*, including 2004 addenda prepared by the California Dept. of Health Services Section 01350.

Closeout Submittals in accordance with DIVISION 01: Operation & Maintenance Data, Executed Warranty Documentation, and Record Documents.

NOTE: Edit LEED Requirements below to suit project.

Sustainable Design Closeout Documentation: Submit completed USGBC LEED™ Submittal [Worksheet Templates](#) for the following credits:

MR Credit 2, MR Credit 4

IEQ Credit 4.1, IEQ Credit 4.2, IEQ Credit 4.3

NOTE: Edit percentage below to suit scope of project.

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

Regulatory Requirements: Class I Critical Radiant Flux Classification in accordance with ASTM E648 or NFPA 253; and 450 or less Smoke Density in accordance with ASTM E662 or NFPA 258.

Qualifications:

ISO Certified Manufacturer

Installer with a minimum five (5) years of successful in-service performance and experience with installations of similar size and scope. Provide 3 recent project references.

Testing Agency meeting ISO/IEC Standard 17025, or ASTM E699 and ASTM E329.

Source Limitations: Obtain primary resilient flooring system 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

Sustainability Standards and Certifications:

Adhesive and Sealant VOC Limits: According to South Coast Air Quality Management District [Rule 1168](#) and [GS-36](#) for aerosols.

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).

Field Samples in accordance with DIVISION 01: Provide field samples, dry laid, to demonstrate aesthetic effects of materials in situ, assisting the Architect and Owner in making final selections.

Mock-Up in accordance with DIVISION 01: Construct flooring mock-up as indicated by the Drawings utilizing final specified and approved submittal materials demonstrating the anticipated range of materials, workmanship and finish expected.

1.4 DELIVERY, STORAGE, AND HANDLING

Delivery, Storage and Handling in accordance with recommended industry guidelines, product manufacturer guidelines, and DIVISION 01 requirements.

1.5 FIELD CONDITIONS

Conditions and Measurements: Visit jobsite to verify installation conditions and measurements. Environmental Conditions shall be in accordance with manufacturer's recommendations for each system component, and DIVISION 01 requirements.

1.6 WARRANTY

Floor Covering Material Warranty: Provide manufacturer's non-prorated **fifteen (15)** 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, beginning on the date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURER

Floor Covering Manufacturer List: Subject to compliance with requirements, provide products by the following:

Halo Floors, 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 following paragraph to suit project.

Substitution Limitations: Manufacturers of equivalent products beyond those listed above shall be considered when submitted in accordance with DIVISION 01, using CSI Substitution Request Form 1.5C (During the Bidding Phase) or Form 13.1 (After the Bidding Phase.) [link](#)

Product Options

Flooring Type:

Halo **Woods** Plank Tile: Interior Floor Finish Class I per NFPA 101

Halo **Stones & More** Tile: Interior Floor Finish Class I per NFPA 101

Adhesive: CBC 5001 High Performance Resilient Flooring Adhesive

Adhesive: CBC EcoSpray U Universal Spray Adhesive

Adhesive: CBC 951 Epoxy Adhesive

Floor Finish and Maintenance System:

No finish applied

Cleaner / Maintainer maintenance system

Conventional acrylic finish maintenance system

Accessories

TOLI Transition Strip

Halo Divider Strips or Grout

Underlayment leveling compound per SECTION 035416

Expansion joints per SECTIONS 079200 and 079513

Cleaning products

2.2 DESCRIPTION

Halo **Woods** and **Stones & More** are a Class III, solid luxury vinyl tile (LVT) made from polyvinyl esters and inorganic fillers materials formed under heat and pressure, printed with a pattern, and cut to create resilient plank or tile flooring in a variety of colors and patterns.

Sustainability Characteristics

NOTE: Coordinate and edit below to the correct LEED™ Version and **Rating selected.**

USGBC LEED™ Rating: Comply with project requirements intended to achieve a LEED 2009-NC v.3 Rating, as measured and documented according to the USGBC LEED™ Green Building Rating System.

Applicable LEED Credits: Performance requirements of the following LEED Categories and Credits apply to this Section and are met as follows:

Materials & Resources (MR):

MR Credit 2: Recycled Construction Waste Management

CBC 5001 adhesive

comes packaged in a recyclable PET pail.

EcoSpray adhesives

come packaged in a recyclable cardboard carton and in recyclable aluminum cans.

MR Credit 4: Recycled Content

HALO **Woods** LVT

Flooring contains 0% post-consumer + 1/2 13% pre-consumer, for a **6.5%** calculated recycled content.

HALO **Stones & More**

LVT Flooring contains 0% post-consumer + 1/2 13% pre-consumer, for a **6.5%** calculated recycled content.

Indoor Environmental Quality (EQ):

IEQ Credit 4.1, Low-Emitting Materials: Adhesives and Sealants

Acrylic Trowel Adhesive

- **CBC 5001** VOC: **0 g/L**

Acrylic Spray Adhesive

- **CBC EcoSpray U** VOC: **0 g/L**

Epoxy Adhesive- **CBC**

951 VOC: **0 g/L**

IEQ Credit 4.3, Low-Emitting Materials: Resilient Flooring Systems

Halo **Woods** LVT

Flooring: FloorScore certified under certificate SCS-FS-01648.

Halo **Stones & More**

LVT Flooring: FloorScore certified under certificate SCS-FS-01648.

2.3 MATERIALS

Halo Woods LVT Plank Tile in accordance with ASTM F1700: Class: III, printed film vinyl tile
Composition: Vinyl tile formulated from solid PVC with printed film pattern construction

NOTE: Select surface required for project and delete item not chosen.

Surface: Type B, Embossed

Thickness: 0.120 inch (3.0mm)

Edge: Wood Plank and Fine Woods – Beveled, Hewn Woods – Unbeveled

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

Size: 4 x 36 x 0.120 inches (102mm x 914mm x 3.0mm)

HALO FLOORS – WOODS/STONES & MORE
GUIDE SPECIFICATION – SHORT-FORM

Size: 6 x 48 x 0.120 inches (152mm x 1220mm x 3.0mm)

Color and Pattern: As selected by Architect from [Manufacturer's standard collection](#).

Halo [Stones & More](#) LVT Tile in accordance with ASTM F1700: Class: III, printed film vinyl tile

Composition: Vinyl tile formulated from solid PVC with printed film pattern construction

NOTE: Select surface required for project and delete item not chosen.

Surface: Type A, Smooth or Type B, Embossed

Thickness: 0.120 inch (3.0mm)

Unbeveled Edge:

Rustic Stone (grout)

Concrete

Slates

Granite

Diamante Palacio

Tread Plate

Beaten

Piazza

Seashore

Strings

Opalescent

Santa Fe

Cafe

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

Size: 12 x 24 x 0.120 inches (305mm x 610mm x 3.0mm)

Size: 24 x 24 x 0.120 inches (610mm x 610mm x 3.0mm)

Size: 18 x 18 x 0.120 inches (457mm x 457mm x 3.0mm)

Color and Pattern: As selected by Architect from [Manufacturer's standard collection](#).

2.4 ACCESSORIES

Leveling and Patching Compound: Trowelable or pourable (self leveling) latex-modified, Portland cement based formulation approved by floor covering / adhesive manufacturer for applications indicated. Provided under DIVISION 03.

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

Expansion Joints: As indicated by the Drawings, and provided by DIVISION 07

Stripping: Halo Stripping or Grout Strip with color as selected by Architect

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

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.

Adhesive - Acrylic: CBC EcoSpray U, solvent-free, low odor, zero-VOC acrylic emulsion spray adhesive with immediate shear after rolling, recommended by floor covering manufacturer for bonding flooring installations over porous and non-porous substrates under heavy static loads (hospital beds).

Alternate Adhesive – Epoxy: CBC 951 2-part reactive solvent-free, low odor, flooring heavy-duty epoxy/urethane adhesive as recommended for flooring installations under heavy static loads (hospital beds), areas that are subject to top down water, freezer cases, and areas exposed to extremes of temperature.

NOTE: Use of Non-CBC adhesives with Halo vinyl tile products will void Halo Floors Warranty adhesion claims, unless otherwise acceptable to CBC Flooring.

Equipment: Apply CBC 5001 High Performance adhesive using appropriate notched trowel for substrate conditions.

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.

Floor Roller: 3-section 100 lb (45 kg)

NOTE: Select appropriate Floor Finish System below to suit project and delete item not chosen.

2.5 MAINTENANCE OPTIONS

Commercial No Finish: Provide efficient cleaning and buffing schedule as recommended by flooring manufacturer's [Maintenance Guide](#). Wait specified time before wet cleaning.

Floor Cleaner/Maintainer: Provide protective coating system as recommended by flooring manufacturer's [Maintenance Guide](#). Wait specified time before wet cleaning.

WARNING: Use of portable heaters may cause failure

Floor Finish System - Acrylic: Provide protective liquid floor finish product system as recommended by flooring manufacturer's [Maintenance Product Guide](#). Wait specified time before wet cleaning.

PART 3 - EXECUTION

3.1 FIELD CONDITIONS

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

3.2 EXAMINATION, PREPARATION AND INSTALLATION

Proceed with installation only after unsatisfactory conditions have been corrected. Verify conditions and test substrates as recommended to meet requirements.

Prepare substrates to ensure proper adhesion of resilient sheet flooring system in accordance with flooring and adhesive manufacturer's written instructions.

Install resilient flooring system in accordance with manufacturer's current [Installation Guide](#).

Expansion Joints: Locate movement joints where indicated prior to installation of adhesive and resilient sheet flooring and cover using an appropriate expansion joint cover.

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.

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, Epoxy or Urethane adhesives.

Wait a minimum of 48 hours until adhesive has cured before wet cleaning.

3.3 FIELD QUALITY CONTROL

Site Tests and Inspections in accordance with DIVISION 01: 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

Provide Progress Cleaning, Final Cleaning and Initial Maintenance in accordance with manufacturer's [Maintenance Guide](#), DIVISION 01 requirements, and the following:

Protect newly installed flooring from traffic for specified time on adhesive label.

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.

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.

Provide waste management and disposal in accordance with DIVISION 01 requirements.

Collect and recycle all flooring and adhesive cardboard cartons and each **CBC EcoSpray** spray adhesive 100% recyclable aluminum canister.

Permit only light damp mopping with well wrung mop during the first 2-4 days after installation.

3.5 CLOSEOUT ACTIVITIES

Substantial Completion Requirements in accordance with DIVISION 01 requirements: Closeout procedures, demonstration and training, and sustainable design closeout documentation.

END OF SECTION

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 and modifying text as needed 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 Halo Floors Guide Specification.

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