

## SECTION 09 65 66 RESILIENT ATHLETIC FLOORING

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# CSI | Puzzle Tile Rubber Flooring

### PART 1 – GENERAL

#### 1.1 SCOPE INCLUDES

- A. Section Includes: Resilient Flooring, including recycled rubber flooring.
  - 1. Types: Types of recycled rubber resilient flooring include:
    - a. Recycled rubber resilient roll/sheet flooring/interlocking tiles.
  - 2. Adhesives
- B. Related Sections: Section(s) related to this section include:
  - 1. Concrete Substrate: Division 3 Concrete Section(s).
  - 2. Plywood Substrate: Division 6.

#### 1.2 REFERENCES

- A. Standards listed by reference, including revisions by issuing authority, form a part of this specification section to extent indicated. Standards listed are identified by issuing authority, authority abbreviation, designation number, title or other designation established by issuing authority. Standards subsequently referenced herein are referred to by issuing authority abbreviation and standard designation.
- B. American Society for Testing and Materials (ASTM):
  - 1. ASTM D3676 Standard Specification for Rubber Cellular Cushion Used for Carpet or Rug Underlay
  - 2. ASTM D2240 Standard Test Method for Rubber Property-Durometer Hardness
  - 3. ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers – Tension.
  - 4. ASTM D624 Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers
  - 5. ASTM F137 Test Method for Flexibility of Resilient Flooring Materials.
  - 6. ASTM F710 Practice for Preparing Concrete Floors and Other Monolithic Floors to Receive Resilient Flooring.
  - 7. ASTM F925 Test Method for Resistance to Chemicals of Resilient Flooring.
  - 8. ASTM F2569 Test Method for Force Reduction
  - 9. ASTM D3776 Test Method for weight per unit area

#### 1.3 SYSTEM DESCRIPTION

- A. Performance Requirements: Provide recycled rubber resilient flooring, which has been manufactured and installed to maintain performance criteria stated by manufacturer without defects, damage, or failure.

#### 1.4 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of Contract and Division 1 Submittal Procedures Section.
- B. LEED: Provide documentation of how the requirements are met for the applicable credits
  - a. Indicate pre-consumer, post-consumer and recycled content
  - b. Recycled content is defined by ISO 14021
- B. Product Data: Submit product data, including manufacturer's guide specifications product sheet, for specified products.
- C. Shop Drawings: Submit shop drawings showing layout, profiles, and product components, including anchorage, accessories, finish colors, patterns, and textures.
  - 1. Including a color key code showing roll direction and locations of each type of material
- D. Samples: Submit selection and verification samples for finishes, colors, and textures.
- E. Quality Assurance Submittals: Submit the following:
  - 1. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.
  - 2. Certificates: Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
  - 3. Manufacturer's Instructions: Manufacturer's installation instructions.
  - 4. Manufacturer's Field Reports: Manufacturer's field reports specified herein.
- F. Closeout Submittals: Submit the following:
  - 1. Operation and Maintenance Data: Operation and maintenance data for Installed products in accordance with Division 1 Closeout Submittals (Maintenance Data and Operational Data) Section. Include methods for maintaining installed products and precautions against cleaning materials and methods detrimental to finishes and performance.
  - 2. Warranty: Warranty documents specified herein.

## 1.5 QUALITY ASSURANCE & WARRANTY

**Specifier Note:** Coordinate paragraph below with listed obligations for code compliance particular to this sections and project requirements. General statements to comply with code are typically addressed in Division 1.

### A. Qualifications:

1. Installer Qualifications: Installer experienced in performing work of this section who has specialized in installation of work like that required for this project.

a. Certificate: When requested, submit certificate indicating qualification.

2. Manufacturer's Qualifications: Manufacturer capable of providing field service representation during construction and approving application method.

B. Mock-Ups: Install at project site a job mock-up using acceptable products and manufacturer-approved installation methods. Obtain Owner's and Architect's acceptance of finish color, texture and pattern, and workmanship standard. Comply with Division 1 Quality Control (Mock-Up Requirements) Section.

1. Mock-Up Size: 4"x4" sample specific to project requirements

C. Pre-installation Meetings: Conduct pre-installation meeting (in-person or virtual) to verify project requirements, substrate conditions, manufacturer's instructions, and manufacturer's warranty requirements.

## 1.6 DELIVERY, STORAGE & HANDLING

A. General: Comply with Division 1 Product Requirements Sections.

B. Ordering: Comply with ordering instructions and lead time requirements to avoid construction delays.

C. Delivery: Deliver materials in original, unopened, undamaged containers with identification labels intact.

D. Storage and Protection: Store materials at temperatures between 50 – 85 degrees, "conditioned" humidity levels and protect from exposure to harmful weather conditions as recommended by the manufacturer.

## 1.7 PROJECT CONDITIONS

A. Temperature Requirements: Maintain air temperature in spaces where products will be installed for 72-hour period before, full duration during and 72-hours after installation as recommended by Zogics.

B. Field Measurements: Verify actual measurements/openings by field measurements before fabrication; show recorded measurements on shop drawings.

## 1.8 WARRANTY

A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.

B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Zogics warranty is in addition to and not a limitation of other rights the Owner may have under Contract Documents.

1. Material Limited Warranty Period: 6 years after substantial completion is reached

2. Installation Limited Warranty Period: 1 year after substantial completion is reached

**Specifier Note:** Coordinate paragraph above with manufacturer's warranty details

## 1.9 MAINTENANCE

A. Extra Materials: Deliver to Owner extra materials from same production run as products installed. Package products with protective covering and identify with descriptive labels. Comply with Division 1 Closeout Submittals (Maintenance Materials) Section.

1. Quantity: Furnish quantity of recycled rubber flooring equal to % required by project documents

2. Delivery, Storage and Protection: Comply with Owner's requirements for delivery, storage, and protection of extra materials.

**Specifier Note:** Coordinate paragraph above with specifying percentage, if any required as attic stock

## PART 2 – PRODUCTS

### 2.1 MATERIALS & ATTRIBUTES

A. Recycled rubber and EPDM rubber flecks fused by a polyurethane binder. Extruded, cured peeled into a single, non-laminated, solid layer sheet that provides a superior anti-fatigue surface, resistance to indentation from heavy weight impact and a safe non-slip playing surface. Zogics Flooring specific for fitness applications providing maximum durability and low maintenance. Combine Puzzle Tile Flooring with inlaid lifting platforms and Training Turf.

B. Surface: Smooth & seamless with nano-venting throughout surface

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1. Color Series: Core, Flex & Fit
  - a. **Core:** Minimalistic color, low fleck ratio to black, recycled content
  - b. **Flex:** Medium color fleck ratio to black, recycled content
  - c. **Fit:** Intense color fleck ratio to black, recycled content
- a. Contact Zogics for custom colors and minimum yields
2. Recycled Thickness (Single Ply):
  - a. 5/16" (only available as center pieces in Core "Iron" color)
  - b. 3/8"

**Specifier Note:** Below Puzzle Tile Rubber is for sports surfacing combine quality recycled SBR rubber and recycled EPDM flecks. It is available in 22 colors, two thicknesses, is a single-ply non-laminated surface with high slip resistance, durability, cushioned resilience, stain resistance and consistent color (no wear layer).

PERFORMANCE	STANDARD	THICKNESS: 5/16"	THICKNESS: 3/8"
Construction		Non-Laminated, Single Ply	Non-Laminated, Single Ply
Width		24"	24"
Length		24"	24"
Weight		1.75 lb per ft2	2.05 lb per ft2
Tolerances		Thickness: +.5mm -.5mm	Thickness: +.5mm -.5mm
Tensile Strength	ASTM D412	>220 PSI	>220 PSI
Tear Strength	ASTM D624	70 pli min - 80 pli min	70 pli min - 80 pli min
Flexibility	ASTM F137	Pass	Pass
Hardness (Shore A)	ASTM D2240	60 +/- 5	60 +/- 5
Coefficient of Friction	ASTM D2047	Dry = 1.10/Wet = 0.95	Dry = 1.10/Wet = 0.95
Pill Flammability	ASTM F1514	Pass	Pass
Resistance to Light	ASTM F1515	Pass	Pass
Resistance to Chemicals	ASTM F925	No Change	No Change
Resistance to Heat	ASTM F4060	Pass	Pass
Vertical Rebound	ASTM F2117	99.75%	99.50%

**D. Zogics PU Adhesive.**

1. 5 gallon, single-component, moisture cured adhesive. Applied with a 1/16" trowel

PRODUCT	PU Adhesive
Description	PU Adhesive is specifically designed for the installation of Recycled sport flooring both indoors and outdoors. This single-component adhesive is moisture cured and results in a superior adhesion to concrete, elastomers and wood substrates.
Adhesive Type	One-Part urethane adhesive
Size	5-Gallon Pail
Method of Applying	Trowel - 1/16" Square Notch
Working Time	45 - 60 Minutes
Coverage Rate	Up to 100 ft2/gal
Cure Method	Moisture Cured
Reaction to Moisture	Waterproof
Weight	60 Lb per Pail
VOC Content	.35lb p/gal
Freeze/Thaw	Stable
Flashpoint	>200 degees F
Application Temperature	40-100 degrees F
Calcium Chloride Test	Maximum 3.0lb p/ 1,000 ft2 in 24 hours
Relative Humidity (rH) Test	99%
Shelf Life	18 months

## 2.2 PRODUCT SUBSTITUTIONS

A. Substitutions: No substitutions permitted.

## 2.3 RELATED MATERIALS

A. Related Materials: Refer to other sections listed in Related Sections paragraph herein for related materials.

## 2.4 SOURCE QUALITY

A. Source Quality: Obtain recycled rubber resilient flooring materials from a single manufacturer based in the United States.

## PART 3 – EXECUTION

### 3.1 MANUFACTURER'S INSTRUCTIONS

A. Compliance: Comply with manufacturer's product data, including product technical bulletins, product catalog installation instructions and product carton instructions for installation.

### 3.2 EXAMINATION

A. Site Verification of Conditions: Verify substrate conditions, which have been previously installed under other sections, are acceptable for product installation in accordance with manufacturer's instructions.

### 3.3 PREPARATION

A. Surface Preparation: [Specify applicable product preparation requirements.].

**Specifier Note:** Coordinate article below with manufacturer's recommended installation details and requirements.

### 3.4 INSTALLATION/APPLICATION/CONSTRUCTION

A. Sport Flooring Installation: Comply with Zogics Installation Manual for procedures and techniques.

B. Finish Color/Textures/Patterns: [Specify installation finishes coordinated with finishes specified in Part 2 Products.].

C. Related Products Installation: Refer to other sections listed in Related Sections paragraph herein for related products installation.

### 3.5 FIELD QUALITY REQUIREMENTS

**Specifier Note:** Edit paragraph below. Establish number and duration of periodic site visits with Owner and manufacturer and specify below. Consult with manufacturer for services required. Coordinate paragraph below with Division 1 Quality Assurance Section and Part 1 Quality Assurance Submittals herein. Delete if manufacturer's field service not required.

A. Manufacturer's Field Services: Upon Owner's request, provide manufacturer's field service consisting of product use recommendations and periodic site visit for inspection of product installation in accordance with manufacturer's instructions.

1. Site Visits: [Specify number and duration of periodic site visits.].

### 3.6 CLEANING

A. Cleaning: Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products. Clean installed products in accordance with manufacturer's instructions prior to Owner's acceptance. Remove construction debris from project site and legally dispose of debris.

### 3.7 PROTECTION

A. Protection: Protect installed product and finished surfaces from damage during construction.

**Specifier Note:** Retain article below to suit project requirements. Article may be used to describe specific criteria requirements of similar products or equipment.

### 3.8 SCHEDULES

**Specifier Note:** Retain paragraph below to suit project requirements. Reference a schedule or include a schedule as an attachment, which indicates where to locate products and equipment.

A. Schedules: [Specify reference to applicable schedules.].

## END OF SECTION