

SECTION 09 65 66 RESILIENT ATHLETIC FLOORING

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CSI | 1" 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. Tiles recycled rubber molded tiles.
 - 2. Adhesives
- B. Related Sections: The work specified in this Section consists of the installation of Zogics Tiles 1" tiles in accordance with these specifications, and in conformity with the dimensions and notes shown in the plans.

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 D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers – Tension.
 - 3. ASTM F137 Test Method for Flexibility of Resilient Flooring Materials.
 - 4. ASTM F710 Practice for Preparing Concrete Floors and Other Monolithic Floors to Receive Resilient Flooring.
 - 5. ASTM F925 Test Method for Resistance to Chemicals of Resilient Flooring.
 - 6. ASTM F970 Standard Test Method for Static Load Limit
 - 7. ASTM D2047 Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces.
 - 8. ASTM C423 Standard Test Method for Sound Absorption and Sound Absorption Coefficients.
 - 9. ASTM C518 Standard Test Method for Steady-State Thermal Transmission Properties
 - 10. ASTM E492 Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies
 - 11. ASTM E413 Classification for Rating Sound Insulation
 - 12. ASTM E2129 Standard Practice for Data Collection for Sustainability Assessment of Building Products
 - 13. ASTM D5116 Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Materials/Products
 - 14. ASTM F150 Standard Test Method for Electrical Resistance of Conductive and Static Dissipative Resilient Flooring.
 - 15. ASTM D297 Standard Practice for Rubber Products – Chemical Analysis
 - 16. ASTM D395 Standard Test Methods for Rubber Property – Compression Set
 - 17. ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride

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
 - 1. Indicate pre-consumer, post-consumer and recycled content
 - 2. Recycled content is defined by ISO 14021
- C. Product Data: Submit product data, including manufacturer's guide specifications product sheet, for specified products.
- D. 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
- E. Samples: Submit selection and verification samples for finishes, colors, and textures.
- F. 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.
- G. 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 Zogics 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 Grid 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 Manufacturer

- A. Zogics. Lenox, MA 01240 | Phone 888.623.0088 | Email: hello@zogics.com

2.2 Proprietary Product(s)

- A. 1" Tiles and Adhesives manufactured for indoor commercial applications.
1. 1" Tiles Recycled Rubber Molded Tiles
 2. PU350 one-component polyurethane adhesive

2.2.1 1" Tiles: Recycled Rubber Molded Tiles

- A. Product Name: The factory molded modular surfacing system furnished under this specification shall be Tiles 1"x24"x24" Recycled Rubber Molded Tiles.
- B. Physical: Tiles configurations consist of high density, wear surface, cylindrical support feet that allow the underside cable routing, resiliency, and water drainage, as well as twelve molded perimeter dowel holes that accept specially designed barbed dowel pins to promote ease of installation.
- C. Material: Made from 100% recycled SBR (styrene-butadiene rubber) tire rubber and polyurethane binders.
- D. Component: Tiles is a factory-molded surface composed of high-quality rubber granules bound with a wear and weather resistant polyurethane.
- E. Tile Dimension: Tiles tile products shall be 24"x24" and an overall thickness of 1". F. Tile Weight: 4.0 lb/ft² (19.5 kg/m²)
- F. Tile Standard Tolerances: Width: ±2 mm; Thickness: ± 3mm
- G. Colors: Specify from manufacturer's standard colors, custom colors, or special logo/graphic inlays.
- H. Wear Surface Density: 65.0 lbs/cu. ft. min.
- I. Water Permeation Rate: 0.045 cm./sec.
- J. Tear Resistance: 70 pli min, (ASTM D624, Die C)
- K. Tensile Strength: (ASTM D412) >200 lb/in² min.
- L. Static Load Limit: (ASTM F970) 400 lb/in²<0.005 in.
- M. Coefficient of Friction: >0.9 (ASTM D2047)
- N. Chemical Resistance:
1. 5% Acetic Acid: no change
 2. (ASTM F925) 70% Isopropyl alcohol: no change
 3. 5% Sodium Hydroxide: no change
 4. 5% Ammonia: no change
 5. Bleach: no change
 6. 5% Phenol: no change
 7. Sulfuric Acid: no change
- O. Impact Insulation Class: (ASTM E492) >50

2.3.2 PU350 One-Component PU Adhesive

- A. Product Name: The one-part urethane adhesive under this specification shall be PU350 one component polyurethane adhesive.
- B. Material: PU350 is one-component polyurethane moisture cured, non-sag, permanently elastic adhesive that has excellent adhesion to elastomers, concrete, and wood, and is engineered for indoor and outdoor applications.
- C. Adhesive Type: one-component polyurethane.
- D. Adhesive Cure System: moisture cured
- E. Weight: 5 gal pail – 56 lbs, 2.5 gal pail – 28 lbs
- F. Color: Light Tan
- G. VOC Content: <60g/ltr.
- H. Freeze/Thaw : stable
- I. Application Temperature : 40° F – 100°F
- J. Calcium Chloride Test: Maximum 5.5 lbs per 1,000ft² in 24 hrs. (ASTM F1869)
- K. Flashpoint: >500° F
- L. Shelf Life: 12 months
- M. Working Time: 30-40 minutes
- N. Trowel: 1/16" square notched trowl (1)
- O. Coverage Rate: 95 ft² per gallon (1/16" square notched trowel)

2.4 Product Substitutions

- A. Substitutions: No substitutions permitted.

2.5 Related Materials

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

2.6 Source Quality

- A. Source Quality: Obtain recycled rubber resilient flooring materials from a single manufacturer.

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 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