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**DIVISION 9 - SECTION 09 65 00**  
**ECOsurfaces ECOmax for Live & Play Surfaces Tiles**

**PART 1.0- GENERAL**

**1.1 SUMMARY**

- A. The work of this section includes:
  - 1. ECOmax For Live & Play Surfaces 2-1/2" Pigmented and Non-Pigmented Safety Tiles
  - 2. ECOmax For Live & Play Surfaces 2-1/2" EPDM surface layer Safety Tiles
  - 3. ECOmax For Live & Play Surfaces Quad Blok 8" x 8" x 17mm Tile Connection System
  - 4. ECOmax For Live & Play Surfaces 2-1/4" Polyfoam Cushion Underlayment
- 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. ASTM International:
  - 1. See Part 2.0 PROPRIETARY MANUFACTURER/PRODUCTS below

**1.3 SYSTEM DESCRIPTION**

- A. Performance Requirements: Provide ECOmax For Live & Play Surfaces, 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 the Contract and Division 1 Submittal Procedures Section.
- B. LEED: Provide documentation of how the requirements for credit will be met.
  - 1. List of proposed materials with recycled content. Indicate pre-consumer and post-consumer content.
  - 2. Product data and certification letter indicating percentage of recycled content for both pre-consumer and post-consumer content.
  - 3. Recycled content is defined in accordance with the International Organization for Standardization document, ISO 14021 Environmental labels and declarations.
    - a. Post-consumer material - waste materials diverted from the waste stream after consumer or commercial use.
    - b. Pre-consumer material - materials diverted from the waste stream during the manufacturing process. Excluded are regrind, rework, and scrap.
- 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.
- E. Samples: Submit selection and verification samples for finishes, colors, and textures.
- F. Quality Assurance Submittals: Submit the following:
  - 1. Provide Manufacturer's current installation guidelines as published by the Manufacturer.
  - 2. Certificates: If required, certification of performance characteristics specified in this document shall be provided by the Manufacturer.
  - 3. 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

- A. Design and Detailing
  - 1. Refer to manufacturer's technical and installation manual for approved substrates and installation techniques.
- B. Qualifications:
  - 1. Installer Qualifications: Installer experienced in performing work of this section who has specialized in installation of work similar to 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.
- C. Mock-Ups: Install at project site a job mock-up using acceptable products and Manufacturer-approved installation methods. Obtain Owner 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: As specified
  - 2. Maintenance: Maintain mock-up during construction for workmanship comparison; remove and legally dispose of mock-up when no longer required.
  - 3. Incorporation: Mock-up may be incorporated into final construction upon Owner's approval.
- D. Pre-installation Meetings: Conduct pre-installation meeting to verify project requirements, substrate conditions, Manufacturer's instructions and Manufacturer's warranty requirements. Comply with Division 1 Project Management and Coordination (Project Meetings) Section.
- E. Pre-installation Testing: Conduct pre-installation testing to comply with manufacturer's Technical Manual.

#### 1.6 DELIVERY, STORAGE & HANDLING

- A. General: Comply with Division 1 Product Requirements Sections.
- B. Ordering: Comply with Manufacturer's ordering instructions and lead time requirements to avoid construction delays.
- C. Delivery: Deliver materials in Manufacturer's original, unopened, undamaged containers with identification labels intact.
- D. Storage and Protection: Store materials at temperature and humidity conditions recommended by Manufacturer and protect from exposure to harmful weather conditions.

#### 1.7 PROJECT CONDITIONS

- A. Temperature Requirements: Adhesive application shall be at temperatures above 40° F and below 100° F.
- B. Field Measurements: Verify actual measurements/openings by field measurements before fabrication; show recorded measurements on shop drawings. Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.

## 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. Manufacturer's warranty is in addition to and not a limitation of other rights Owner may have under Contract Documents.
  - 1. Warranty Period: (Specify term) years per ECOsurfaces Warranty Guide.

## 1.9 MAINTENANCE

- A. Extra Materials: Deliver extra materials to Owner 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 with ECOmax For Live & Play Surfaces units equal to a minimum of 5% of amount installed.
  - 2. Delivery, Storage and Protection: Comply with Owner's requirements for delivery, storage, and protection of extra materials.

## PART 2.0 - PROPRIETARY MANUFACTURER / PRODUCTS

## 2.1 MANUFACTURER: ECOsurfaces

- A. Address: 715 Fountain Ave., Lancaster, PA 17601; Telephone: (800) 322-1923, (717) 295-3400; Fax: (717) 295-3414; Email: [info@ecosurfaces.com](mailto:info@ecosurfaces.com)

## 2.2 PROPRIETARY PRODUCT(S)

- 1. ECOmax For Live & Play Surfaces 2-½" Pigmented and Non-Pigmented Safety Tiles
- 2. ECOmax For Live & Play Surfaces 2-½" EPDM Surface Layer Safety Tiles
- 3. ECOmax For Live & Play Surfaces Quad Blok 7-7/8" x 7-7/8" x 17mm Tile Connection System
- 4. ECOmax For Live & Play Surfaces 2-1/4" Polyfoam Foam Cushion Underlayment

## 2.3.1 ECOmax For Live &amp; Play Surfaces 2-½" Pigmented and Non-Pigmented Safety Tiles

<b>ECOmax For Live &amp; Play Surfaces 2-½" Pigmented and Non-Pigmented Safety Tiles</b>		
Made from Vulcanized Composition Rubber		
Tile Dimensions	Manufacturer	Nominal overall thickness: 2-1/2", Width: 24" Length: 24"
Dimensional Tolerances	Manufacturer	Length/Width: +/- 1/8" (3.2mm); Thickness: +/- 1/8" (3.2mm)
Coefficient of Friction	ASTM D2047	0.8 Min
Critical Fall Height	ASTM F1292	2-½" thick (5 ft.); 2-½" thick with Polyfoam (10 ft.)
Abrasive Testing	ASTM D3389	Less than 0.200g lost
Flammability	ASTM D2859 (Pill)	Passed
Elongation at Break	ASTM D412, DIE C	50% (min.)
Tensile Strength	ASTM D412, DIE C	150 lbs /in <sup>2</sup> min.
Tile Density	Manufacturer	50 lbs /cu ft (min.)
Void Volume (calculated)	Manufacturer	40%
Wheelchair Accessibility	ASTM F1951	Pass

## 2.3.2 ECOmax For Live &amp; Play Surfaces 2 1/2" EPDM Surface Layer Safety Tiles

<b>ECOmax For Live &amp; Play Surfaces 2-1/2" EPDM Surface Layer Safety Tiles</b>		
Made from Vulcanized Composition Rubber with an EPDM surface layer		
Tile Dimensions	Manufacturer	Nominal thickness: 2-1/2" Width: 24" Length: 24"
Dimensional Tolerances	Manufacturer	Length/Width/Thickness: +/- 1/8" (3.2mm)
Coefficient of Friction	ASTM D2047	0.8 Min
Critical Fall Height	ASTM F1292	2-1/2" thick (5 ft.); 2-1/2" thick with Polyfoam (10 ft.)
Abrasive Testing	ASTM D3389	Less than 0.200g lost
Flammability	ASTM D2859 (Pill)	Passed
Elongation at Break	ASTM D412, DIE C	70% (min.)
Tensile Strength	ASTM D412, DIE C	250 lbs /in <sup>2</sup> min.
Surface Layer Density	Manufacturer	70 lbs /cu ft (min.)
Void Volume (calculated)	Manufacturer	40%
Wheelchair Accessibility	ASTM F1951	Pass

## 2.3.3 Quad Blok 8" x 8" x 17mm Tile Connection System

<b>ECOmax For Live &amp; Play Surfaces Quad Blok 8" x 8" x 17mm Connection System</b>		
Quad Blok is 100% post-consumer Vulcanized Composition Rubber granules encapsulated in a wear and water-resistant elastomeric network		
Quad Blok Dimension	Manufacturer	7-7/8" x 7-7/8" x 11/16" (19.7cm x 19.7cm x 17mm)
Density	ASTM D297	46 lbs. / cu ft. minimum

## 2.3.4 ECOmax For Live &amp; Play Surfaces Polyfoam Cushion Underlayment

<b>ECOmax For Live &amp; Play Surfaces 2-1/4" Polyfoam Cushion Underlayment</b>		
99% Polyethylene closed cell foam with geotextile fabric surface		
Dimensions	Manufacturer	Nominal overall Thickness: 2 1/4"; Width: 39-1/16" (3.25 ft); Length: 90-9/16" (7.55 ft)
Dimensional Tolerances	Manufacturer	Thickness: +/- 1/8" (3.2 mm)
Critical Fall Height	ASTM F1292	10 feet with 2-1/2" ECOmax For Live & Play Surfaces Tile

## 2.4 PRODUCT SUBSTITUTIONS

- A. Substitutions: No substitutions permitted.

## 2.5 RELATED MATERIALS

- A. Related Materials: Refer to other sections listed in Related Sections paragraph.

## 2.6 SOURCE QUALITY

- A. Source Quality: Obtain Vulcanized Composition Rubber resilient flooring materials from single mfr.

## PART 3.0- 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: Comply with the manufacturer's Technical Manual

### 3.4 ERECTION/INSTALLATION/APPLICATION/CONSTRUCTION

- A. Installation: Comply with manufacturer's Technical Manual for installation procedures.
- 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.

### 3.5 FIELD QUALITY REQUIREMENTS

- A. Manufacturer's Field Services: Upon Owner's request, provide Manufacturer's field service consisting of product use recommendations.
  - 1. Site Visits: As required pending Owner's product selection

### 3.6 CLEANING

- A. Cleaning: 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 finish surfaces from damage during construction and prior to Owner's acceptance.

### 3.8 SCHEDULES

- A. Schedules: As specified per project requirements.

**End of Section**