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DIVISION 9 - SECTION 09 65 00 and

DIVISION 9 - SECTION 09 65 66

Desert and River Vulcanized Composition Rubber Back Woven Vinyl Sheet

PART 1.0- GENERAL

1.1 SUMMARY

A. The work of this section includes:

1. Desert and River Vulcanized Composition Rubber Back Woven Vinyl Sheet

B. Related Sections: Section(s) related to this section include:

Specifier Note: the following CSI sections of the project manual are a guide to what is the essential information needed to determine the acceptability of the site conditions and details of the installation of the Desert and River products by ECOsurfaces. The Specifier may choose to include other sections deemed necessary.

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 the 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.
- C. Collaborative of High Performance Schools (CHPS) Section 01350**
1. Low-emitting materials criteria for use in a typical classroom
- D. Leadership in Energy and Environmental Design – LEED™**
1. International Organization for Standardization™ document, ISO 14021 - Provides guidance on the terminology, symbols, testing, and verification methodologies that an organization should use for self-declaration of the environmental aspects of its products and services.

1.3 SYSTEM DESCRIPTION

- A. Performance Requirements:** Provide resilient flooring with a woven vinyl surface layer fusion bonded to a Vulcanized Composition Rubber base layer, which has been manufactured and installed to maintain performance criteria stated by manufacturer without defects, damage, or failure.

1.4 SUBMITTALS

Specifier Note: The following are typical submittals. The Specifier may choose to include other submittals deemed necessary.

- 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. Certificates: If required, certification of performance characteristics specified in this document shall be provided by the manufacturer.
 - 2. Manufacturer's Instructions: Manufacturer's installation instructions.

Specifier Note: Coordinate paragraph below with Part 3.5 Field Quality Requirements Article herein. Retain or delete as applicable.

- 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. 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.

Specifier Note: Paragraph below should list obligations for compliance with specific code requirements particular to this section. General statements to comply with a particular code are typically addressed in Conditions of Contract and Division 1 Regulatory Requirements Section. Regulatory Requirements: [specify applicable requirements of regulatory agencies].

- B. 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: [specify mock-up size].

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.
- C. 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.
- D. Pre-installation Testing: Conduct pre-installation testing as follows: [specify substrate testing; consult with flooring manufacturer].

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: Maintain air temperature in spaces where products will be installed for time period before, during and after installation as recommended by manufacturer.
- 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.

Specifier Note: Coordinate paragraph below with manufacturer's warranty requirements.

1. Warranty Period: [Specify term] years commencing in Date of Substantial Completion.

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 flooring units equal to [specify %] 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

Specifier Note: Retain article below for proprietary method specification. Add product attributes, performance characteristics, material standards, and descriptions as applicable. Use of such phrases as "or equal" or "or approved equal" or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal and regulatory) and assignment of responsibility for determining "or equal" 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

2.2 PROPRIETARY PRODUCT(S)

- A. Flooring manufactured by ECOsurfaces.
 1. ECOsurfaces Desert Vulcanized Composition Rubber Back Woven Vinyl Sheet flooring
 2. ECOsurfaces River Vulcanized Composition Rubber Back Sheet Woven Vinyl flooring.

2.3.1 ECOsurfaces Desert and River Composition Rubber Back Sheet Woven Vinyl flooring

**ECOsurfaces Desert and River
Composition Rubber Back Sheet Woven Vinyl flooring
3mm Base Layer / 1mm Surface Layer**

Made from a formulation of high-quality post-consumer Vulcanized Composition Rubber granules encapsulated in a wear and water-resistant elastomeric network and fusion bonded to a woven vinyl surface layer

Performance Criteria	Test Method	Typical Results
Recycled Content (post-consumer)	Manufacturer	74%
Recovery After Static Load	ASTM F970 @ 250 PSI	0.005"
Coefficient of Friction	ASTM D2047	≥ 0.8
Tensile Strength	ASTM D412, die C	1000 psi
Tear	ASTM D624, die C	142 ppi
Chemical Resistance	ASTM F925	No change
Abrasion Resistance	EN 649 / ASTM D3389	Pass
Antimicrobial	Manufacturer	Yes
Impact / Energy Abatement (5 kg mass)	Deltec Field Tester	6.82%
Energy Restitution	Deltec Field Tester	71.82%
Compression @ 100 psi	ASTM F36	26.6%
Flammability - Critical Radiant Flux	ASTM E648	Class I
Flammability - "Pill Test"	ASTM D2859	Pass
Resistance to Light	ASTM F1515/ ISO 105-B02	Pass
Resistance to Heat	ASTM F1514	Pass
Dynamic Rolling Load	ASTM F2753	No change, No damage (@ 10,000 cycles)
Chair Casters	ASTN D6962BS / EN 985	No change, No damage (@ 10,000 cycles)
IIC – Impact Insulation Class	ASTM E492	52
STC – Airborne Sound Transmission	ASTM E90	55
Delta IIC – (floor coverings)	ASTM E2179	22
VOCs / CA 01350	ASTM D5116	Pass
Sheet width	Manufacturer	6ft Width (nominal)
Standard Tolerance Width	Manufacturer	Width: +3/4" -0"
Standard Tolerance Length	Manufacturer	Length: +1% - 0%
Standard Tolerance Thickness	Manufacturer	Thickness: ±.4 mm

2.4 Stain Resistance Testing per the American Association of Textile Chemists and Colorists (AATCC)

2.4.1 Test Procedure: Colorfast

Table 1 – Test Procedure	Colorfast Test Result Class ¹
AATCC 162: Colorfastness to Chlorinated Pool Water	5.0
AATCC 61-5A: Colorfastness to Laundering – Shade change	5.0

¹ Class 5	Negligible or no change
Class 4	Slightly changed
Class 3	Noticeably changed
Class 2	Considerable changed
Class 1	Much changed

2.4.2 Test Procedure: Soil Stain Release

Table 2 – Test Procedure: AATCC 130: Soil Stain Release		
Sample	Stain	Soil Stain Release Test Result Class ² (after 24 hrs)
1	Mustard	4.5
2	Mayonnaise	4.8
3	Ketchup	5.0
4	Corn Oil	5.0
5	Mineral Oil	5.0
6	Coffee	5.0
7	Orange Juice	5.0
8	Butter	5.0
9	Ink - Ball Point Pen	1.8
10	Potting Soil	5.0
Sample sponged off with a solution of one cup mild detergent and one cup household bleach in three gallons of water, followed by water rinse and air dry.		

² Class 5	Excellent
Class 4	Good
Class 3	Fair
Class 2	Poor
Class 1	Very Poor

2.5 PRODUCT SUBSTITUTIONS

- A. Substitutions: No substitutions permitted.

2.6 RELATED MATERIALS

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

2.7 SOURCE QUALITY

- A. Source Quality: Obtain Composition Rubber Back Sheet Woven Vinyl flooring materials from a single manufacturer.

PART 3.0 - EXECUTION

Specifier Note: Revise article below to suit project requirements and specifier's practice.

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 ERECTION/INSTALLATION/APPLICATION/CONSTRUCTION

- A. Composition Rubber Back Sheet Woven Vinyl flooring Installation: Comply with manufacturer's Technical Manual for installation procedures and techniques flooring installation.
- 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 finish surfaces from damage during construction.

3.8 SCHEDULES

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

END OF SECTION