



CSI | Achieve

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DIVISION 9 Finishes: SECTION 09 65 66 Resilient Athletic Flooring
PLAE Achieve – Recycled Rubber Flooring

PART 1.0 – GENERAL

1.1 SUMMARY

A. The work of this section includes:

1. PLAE Athletic Recycled Rubber Stacked Performance Collection Rolls and 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 D412: Test method used to evaluate the tensile (tension) properties of rubber.
2. ASTM F137: Standard Test Method for Flexibility of Resilient Flooring Materials with Cylindrical Mandrel Apparatus.
3. ASTM C518: Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
4. ASTM D2047: Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as measured by the James Machine.
5. ASTM D2859: Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials.
6. ASTM F1514: Standard Test Method for Measuring Heat Stability of Resilient Flooring by Color Change.
7. ASTM F1515: Standard Test Method for Measuring Light Stability of Resilient Flooring by Color Change
8. ASTM F925: Standard Test Method for Resistance to Chemicals of Resilient Flooring
9. ASTM E303: Standard Test Method for Skid Resistance
10. ASTM F2117: Standard Test Method for Vertical Rebound
11. ASTM F2157: Standard Test Method for Deformation
12. ASTM F2569: Standard Test Method for Force Reduction
13. ASTM D3776: Standard Test Method for Weight Per Unit Area

C. 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 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 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. Indicated pre-consumer and post-consumer content.

2. 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.

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.

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. Repetitive statements should be avoided.

B. 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.

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. Manufacturer's warranty is in addition to and not a limitation of, other rights owner may have under contract documents.

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

1. Warranty Period: (Specify term) years commencing on 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.

Specifier Note: Revise paragraph below specifying size and percentage as required for project.

1. Quantity: Furnish quantity of recycled rubber 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.

3. Cleaning: Furnish flooring manufacture's neutral cleaner for initial cleaning and maintenance of the finished floor surface.



PART 2.0 – PROPRIETARY PRODUCTS

2.1 MATERIALS AND ATTRIBUTES

Recycled SBR rubber and EPDM rubber granules bound by polyurethane. Factory-fused, dual-layer rolls and tiles provide resistance to sagging and indentation by direct, blunt impact. Entire system delivers maximum durability and simple maintenance. Platforms include three pieces of non-beveled Achieve tiles (one inlay and two bumper drop zones) and lie flush with surrounding Achieve.

2.2 Proprietary Products

1. PLAE Achieve 8mm rolls consisting of a 5mm PLAETech underlayment with a 3mm EPDM surface wear layer.
2. PLAE Achieve 13mm rolls consisting of a 10mm PLAETech underlayment with a 3mm EPDM surface wear layer.
3. PLAE Achieve 18mm rolls consisting of a 15mm PLAETech underlayment with a 3mm EPDM surface wear layer.
4. PLAE Anchor two part urethane adhesive.

2.2.1 Achieve 18mm Flooring

PERFORMANCE	STANDARDS	18mm
Tensile Strength	ASTM D412	188 lbs/sq inch
Flexibility	ASTM F137	Pass
Thermal Conductivity	ASTM C518	1.0850 Btu in./h ft ² F
Coefficient of Friction Neolite dry and wet	ASTM D2047	Dry = 0.78 / Wet = 0.77
Resistance to Light	ASTM F1515	Pass
Resistance to Chemicals (24 hrs and 5 min)	ASTM F925	Good
Taber Abrasion	ASTM F4060	Good
Resistance to Heat	ASTM F1514	Pass
Pill Flammability	ASTM D2859	Pass
Skid Resistance	ASTM E303	Dry = 99 / Wet = 99
Vertical Rebound	ASTM F2117	95%
Deformation	ASTM F2157	0.9mm
Force Reduction	ASTM F2569	33.1%

2.2.2 Achieve 13mm Flooring

PERFORMANCE	STANDARDS	13mm
Tensile Strength	ASTM D412	158.5 lbs/sq inch
Flexibility	ASTM F137	Pass
Thermal Conductivity	ASTM C518	0.9809 Btu in./h ft ² F
Coefficient of Friction Neolite dry and wet	ASTM D2047	Dry = 0.78 / Wet = 0.77
Resistance to Light	ASTM F1515	Pass
Resistance to Chemicals (24 hrs and 5 min)	ASTM F925	Good
Taber Abrasion	ASTM F4060	Good
Resistance to Heat	ASTM F1514	Pass
Pill Flammability	ASTM D2859	Pass
Skid Resistance	ASTM E303	Dry = 99 / Wet = 99
Vertical Rebound	ASTM F2117	99%
Deformation	ASTM F2157	1.0mm
Force Reduction	ASTM F2569	30.7%
Weight Per Unit Area	ASTM D3776	337.0 oz/sq yard



2.2.3 Achieve 8mm Flooring

PERFORMANCE	STANDARDS	8mm
Tensile Strength	ASTM D412	135 lbs/sq inch
Flexibility	ASTM F137	Pass
Thermal Conductivity	ASTM C518	0.4 Btu in./h ft ² F
Coefficient of Friction Neolite dry and wet	ASTM D2047	Dry = 0.9 / Wet = 0.9
Resistance to Light	ASTM F1515	Pass
Resistance to Chemicals (24 hrs and 5 min)	ASTM F925	Good
Taber Abrasion	ASTM F4060	Good
Resistance to Heat	ASTM F1514	Pass
Pill Flammability	ASTM D2859	Pass
Skid Resistance	ASTM E303	Dry = 99 / Wet = 99
Vertical Rebound	ASTM F2117	99.7%
Deformation	ASTM F2157	2.0mm
Force Reduction	ASTM F2569	12.6%

2.2.4 PLAE Anchor Two Part Urethane Adhesive:

A. Product Name:	PLAE Anchor - Part A	PLAE Anchor - Part B
B. Material:	Anchor is a two-component urethane moisture cured, non-sag permanently elastic adhesive that has excellent adhesion to elastomers, concrete, and wood and is engineered for indoor and outdoor applications.	Anchor is a two-component urethane 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:	Two component urethane	Two component urethane
D. Adhesive Cure System:	Moisture cured	Moisture cured
E. Weight:	28 lbs	4.9 lbs
F. Color:	Green	Dark Brown
G. VOC Content:	0 lb/gal calculated	0 lb/gal calculated
H. Freeze/Thaw:	Stable	Stable
I. Application Temperature:	32°F - 100°F	32°F - 100°F
J. Calcium Chloride Test:	Maximum 25 lbs per 1000 sf in 24 hours	Maximum 25 lbs per 1000 sf in 24 hours
K. Relative Humidity (RH) Test	100%	100%
L. Flashpoint:	127°C / 261°F	201°C / 394°F
M. Shelf Life:	24 Months	24 Months
N. Working Time:	Approx. 30 minutes	Approx. 30 minutes
O. Trowel:	Sports Flooring #15 $\frac{3}{32}$ " x $\frac{3}{32}$ " x $\frac{3}{32}$ "	Sports Flooring #15 $\frac{3}{32}$ " x $\frac{3}{32}$ " x $\frac{3}{32}$ "
P. Coverage Rate:	up to 130 sf/gal	up to 130 sf/gal



2.3 PRODUCT SUBSTITUTIONS

A. Substitutions: No substitutions permitted.

2.4 RELATED MATERIALS

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

2.5 SOURCE QUALITY

A. Source Quality: Obtain recycled rubber resilient 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. Recycled Rubber Flooring Installation: Comply with PLAE Installation Manual for installation procedures and techniques for Performance Collection Rolls and Interlocking Tiles - recycled rubber resilient 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 visits 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.

3.8 SCHEDULES

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

END OF SECTION