

*(Attention Specifiers, all areas in **red** require you to make selection based on requirements of the project before issuing specification. Please refer to the appropriate product data page when making your selection. All data pages are available at <https://acousticalsolutions.com/>)*

SECTION 09 65 66 – Iso-Step® Rubber Gym Flooring

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Resilient Flooring, including recycled rubber flooring
 - 1. Iso-Step® Rubber Gym Flooring
 - 2. Adhesives

1.2 RELATED SECTIONS

- A. Concrete Subfloor: 03 00 00 Concrete
 - 1. Plywood Subfloor: 06 00 00 Wood, Plastics, and Composites

1.3 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. American Society for Testing and Materials (ASTM):
 - 1. ASTM F137 Standard Test Method for Flexibility of Resilient Flooring Materials with Cylindrical Mandrel Apparatus
 - 2. ASTM F970 Standard Test Method for Static Load Limit
 - 3. ASTM D2047 Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as measured by the James Machine
 - 4. ASTM F925 Standard Test Method for Resistance to Chemicals of Resilient Flooring
 - 5. ASTM C518 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus

6. ASTM E90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
7. ASTM E492 Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine
8. ASTM E2179 Standard Test Method for Laboratory Measurement of the Effectiveness of Floor Coverings in Reducing Impact Sound Transmission Through Concrete Floors
9. ASTM E2129 Standard Practice for Data Collection for Sustainability Assessment of Building Products
10. ASTM D5116 Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions From Indoor Materials/Products
11. ASTM F150 Standard Test Method for Electrical Resistance of Conductive and Static Dissipative Resilient Flooring
12. ASTM D297 Standard Practice for Rubber Products – Chemical Analysis
13. ASTM D3676 Standard Specification for Rubber Cellular Cushion used for Carpet or Rug Underlay
14. ASTM D395 Standard Test Methods for Rubber Property – Compression Set
15. ASTM F710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring
16. ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride

1.4 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.

1.5 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 postconsumer 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.
- C. Post-consumer material – waste materials diverted from the waste stream after consumer or commercial use.
- D. Pre-consumer material – materials diverted from the waste stream during the manufacturing process. Excluded are regrind, rework, and scrap.
- E. Product Data: Submit product data, including manufacturer's guide specifications product sheet, for specified products.
- F. Shop Drawings: Submit shop drawings showing layout, profiles and product components, including anchorage, accessories, finish colors, patterns, and textures.
- G. Samples: Submit selection and verification samples for finishes, colors, and textures.
- H. 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, criteria, and physical requirements.
 3. 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.
 4. Manufacturer's Field Reports: Manufacturer's field reports specified herein.
- I. 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.

1.6 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.
- B. Certificate: When requested, submit certificate, indicating qualification.
 - 1. Manufacturer's Qualifications: Manufacturer capable of providing field service representation during construction and approving application method.
- C. Regulatory Requirements: (Specify applicable requirements of regulatory agencies)
- D. 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, 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.
- E. 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.
- F. Pre-installation Testing: Conduct pre-installation testing as follows:

1.7 DELIVERY, STORAGE, AND 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.

1.8 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.

1.9 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: Five (5) years commencing in Date of Substantial Completion.

1.10 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 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 PRODUCTS

2.1 SUPPLIER

- A. Acoustical Solutions, LLC
 - 1. Address: Grenoble Rd, Richmond, VA 23294
 - 2. Phone: (800) 782-5742
 - 3. Website: <https://acousticalsolutions.com/>

2.2 PROPRIETARY PRODUCTS

- A. Iso-Step® Rubber Gym Flooring and Accessories supplied by Acoustical Solutions, LLC.
 - 1. Iso-Step® Rubber Gym Flooring
 - 2. Iso-Step® Polyethylene Foam Perimeter Isolation Strip
 - 3. Iso-Step® Soundproofing Underlayment Adhesive
 - 4. Iso-Step® Quick Cure Soundproofing Underlayment Adhesive

2.3 ISO-STEP® Rubber Gym Flooring

- A. Product name: The acoustical fitness flooring system furnished under this specification shall be Acoustical Solutions Iso-Step® Rubber Gym Flooring.
- B. Material: Made from 100% recycled SBR (Styrene-Butadiene Rubber) tire rubber and polyurethane binders.
- C. Dimensions:
 - 1. Iso-Step® Rubber Gym Flooring Rolls 4' x 15' min 100' max x 1/4", 8mm, 3/8", 1/2", & 3/4" (custom lengths possible)
 - 2. Iso-Step® Rubber Gym Flooring Tiles 23.5" x 23.5" x 1/4", 8mm, 3/8", 1/2", & 3/4"
- D. Wear Surface Density: 65 – 80 lbs./cuft min.
- E. Abrasion Resistance: < 1.7g, 1000 cycles
- F. Slip Resistance: Pass
- G. Tensile Strength: >220 PSI
- H. Elongation at Break: >155%
- I. Tear Strength: 80 pli min
- J. Burning Pill test: Pass
- K. Coefficient of Friction: > 0.9 (ASTM D2047)
- L. Resistance to Chemicals: No Change
- M. Sound Transmission Class (ASTM E90): STC 59
- N. Impact Insulation Class (ASTM E492): IIC 69
- O. Delta Impact Insulation Class (ASTM E2179): ΔIIC 34

2.4 ISO-STEP® One-Part Pressure Sensitive Hybrid Acrylic Adhesive

- A. Product name: The One-Part Pressure Sensitive Hybrid Acrylic Adhesive furnished under this specification shall be Acoustical Solutions Iso-Step® Quick Cure Soundproofing Underlayment Adhesive.
- B. Material: the adhesive comes in a One-Part Pressure Sensitive Hybrid Acrylic Adhesive moisture cured, non-sag, permanently elastic adhesive that has excellent adhesion to elastomers, concrete, wood, and is engineered for indoor and outdoor applications.
- C. Adhesive Type: one & two component polyurethane
- D. Adhesive Cure System: moisture cured
- E. Weight: 1 Gal Pail RLX-100, 2 Gal pail RLX-110, 4 Gal Pail RLX100
- F. Color: Light Tan
- G. VOC Content: RLX-100 21 g/ltr. -Rlx-110 0.1
- H. Freeze / Thaw: stable
- I. Application Temperature: 60°F - 95°F
- J. Flashpoint: N/A
- K. Shelf Life: 12 months
- L. Working Time: 30 – 40 minutes
- M. Trowel: 1/16" square notched trowel
- N. Coverage Rate: 60-90 sq. ft. per gallon (1/16" square notched trowel)

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 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.)

3.4 ERECTION / INSTALLATION / APPLICATION / CONSTRUCTION

- A. Recycled Rubber Flooring Installation: Comply with Acoustic Solutions' Installation Instructions for procedures and techniques for Iso-Step® 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

- 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 finish surfaces from damage during construction.

END OF SECTION