

Regupol® AkustiPro ML70

3-Part Specification



SECTION 09 65 66 – Resilient Athletic Flooring

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Resilient Flooring, including recycled rubber flooring.
 - 1. Regupol AkustiPro ML70
 - 2. Adhesives

1.2 RELATED SECTIONS

- A. Concrete Subfloor: 03 00 00 Concrete
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 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 Standard Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers – Tension
 - 2. ASTM F137 Standard Test Method for Flexibility of Resilient Flooring Materials with Cylindrical Mandrel Apparatus
 - 3. ASTM F970 Standard Test Method for Static Load Limit
 - 4. ASTM D2047 Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as measured by the James Machine
 - 5. ASTM F925 Standard Test Method for Resistance to Chemicals of Resilient Flooring
 - 6. ASTM C518 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
 - 7. ASTM E90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
 - 8. ASTM E492 Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine

9. ASTM E2179 Standard Test Method for Laboratory Measurement of the Effectiveness of Floor Coverings in Reducing Impact Sound Transmission Through Concrete Floors
10. ASTM E2129 Standard Practice for Data Collection for Sustainability Assessment of Building Products
11. ASTM D5116 Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions From Indoor Materials/Products
12. ASTM F150 Standard Test Method for Electrical Resistance of Conductive and Static Dissipative Resilient Flooring
13. ASTM D297 Standard Practice for Rubber Products – Chemical Analysis
14. ASTM D3676 Standard Specification for Rubber Cellular Cushion used for Carpet or Rug Underlay
15. ASTM D395 Standard Test Methods for Rubber Property – Compression Set
16. ASTM F710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring
17. 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 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. 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.
- 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.

1.6 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.
Specifier Note: Retain paragraph below to suit project requirements; otherwise delete paragraph below.
 - 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. Repetitive Statements should be avoided.

- B. Regulatory Requirements: **(Specify applicable requirements of regulatory agencies)**
- 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, 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.
- 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 as follows: **(Specify substrate testing; consult with flooring manufacturer)**

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.

Specifier Note: Coordinate article below with Conditions of the Contract and with Division 1 Closeout Submittals (Warranty) Section.

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.

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

- 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.

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.

PART 2 PRODUCTS

Specifier Note: Retain article below for proprietary method specification. Add protect 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

- A. Regupol America
 - 1. Address: 11 Ritter Way, Lebanon, PA 17042
 - 2. Phone: (800) 537-8737, (717) 675-2198
 - 3. Fax: (717) 675-2918
 - 4. Email: sales@regupol.com

2.2 PROPRIETARY PRODUCTS

Regupol® AkustiPro ML70

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- A. Regupol AkustiPro ML70 and Adhesives manufactured by Regupol America for indoor commercial applications.
 - 1. Regupol AkustiPro ML70
 - 2. Regupol PU350 one-component polyurethane adhesive & Regupol S111 two-component polyurethane adhesive

2.3.1 REGUPOL AKUSTIPRO ML70

- A. Product Name: The acoustical fitness flooring system furnished under this specification shall be Regupol America's AkustiPro ML70.
- B. Physical: Regupol AkustiPro ML70 system consists of multiple layers including Regupol Aktiv, Regupol Vibration 8020, Regupol Vibration 4830 or 2 layers of Regupol Vibration 4815, and Regupol Vibration 3017.
- C. Material: Made from 100% recycled SBR (Styrene-Butadiene Rubber) tire rubber and polyurethane binders.
- D. Dimensions:
 - 1. Regupol Aktiv: 4' x 50' x 4mm (custom lengths possible)
 - 2. Regupol Vibration 8020: 4' x 30' x 20mm
 - 3. Regupol Vibration 4830: 4' x 30' x 30mm OR 2x Regupol 4815: 4' x 30' x 15mm
 - 4. Regupol Vibration 3017: 4' x 30' x 17mm
- E. Weight: 9.1 lbs./sqft. (44.4 kg/sqm)
- F. Standard Tolerances:
 - 1. Roll Width +1/2"-0"
 - 2. Roll Length +1%-0"
 - 3. Thickness +.3mm-.3mm
- G. Colors: Specify color from manufacturer's standard colors, custom colors, or special log / graphic inlays.
- H. Wear Surface Density: 65 - 80 lbs./cuft. min.
- I. Abrasion Resistance: <1.7g, 1000 cycles
- J. Slip Resistance: Pass
- K. Tensile Strength: >220 PSI

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- L. Elongation at Break: >145%
- M. Tear Strength: 80 pli min
- N. Burning Pill Test: Pass
- O. Coefficient of Friction: > 0.9 (ASTM D2047)
- P. Resistance to Chemicals: No Change
- Q. Sound Transmission Class (ASTM E90): STC 59
- R. Impact Insulation Class (ASTM E492): IIC 69
- S. Delta Impact Insulation Class (ASTM E2179): ΔIIC 34

2.3.2 REGUPOL PU350 ONE-COMPONENT PU ADHESIVE

- A. Product Name: The one-part & two-part adhesive under this specification shall be REGUPOL AMERICA's proprietary one & two component polyurethane adhesive.
- B. Material: Regupol's proprietary adhesive comes in a one & two component polyurethane 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: 5 gal pail – 56 lbs, 2.5 gal pail – 28 lbs
- F. Color: Light Tan
- G. VOC Content: <60 g/ltr.
- H. Freeze / Thaw: stable
- I. Application Temperature: 40°F - 100°F
- J. Calcium Chloride Test: Maximum 5.5 lbs per 1000 sqft. in 24 hours (ASTM F1869)
- K. Flashpoint: > 500°F
- L. Shelf Life: 12 months
- M. Working Time: 30 – 40 minutes
- N. Trowel: 1/16" square notched trowel
- O. Coverage Rate: 60-90 sqft. 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 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

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 AkustiPro ML70 Installation Instructions for procedures and techniques for AkustiPro ML70 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

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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 finish 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