



Action ReFlex Spin[™] Resilient Floor System

SPORTS FLOOR SPECIFICATIONS

SYSTEM SUMMARY

This resilient floor system is an excellent choice for spinning classes, weight rooms, multipurpose areas, indoor running, dance floors and aerobic projects. It has a monolithic surface for easy cleaning and can be personalized with unlimited paint chip color options or logos. The composite rubber underlayment is an advanced sound control material utilizing a combination of natural and engineered products to achieve superior IIC (Impact Insulation Class) and STC (Sound Transmission Class) sound reduction ratings.

Contact ACTION FLOORING SYSTEMS at www.actionfloors.com or (800)746-3512 for specific project conditions or modifications of this specification.

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The composite sound control membrane combines renewable cork and recycled rubber to create the ultimate sound control underlayment. Blending these two resilient materials into a single product delivers the improved low frequency acoustical performance of rubber, while the cork granules provide improved adhesion and working characteristics. All of these benefits are combined with a non-solvent monolithic urethane surface that is easy to clean, maintain and will be a highly durable surface for heavy use areas.

1.02 QUALITY ASSURANCE

- A. All system component parts must be supplied by Action Floor Systems, LLC of Mercer WI.
- B. The flooring contractor must be approved by Action Floor Systems, LLC of Mercer WI.
- C. Flooring system shall be independently verified to meet or exceed the SCORES criteria for environmental design and athletic performance. Sustainable Construction of Renewable Engineered Surfaces.
- D. LEED - Leadership in Energy and Environmental Design, Comply with MR 4.1, MR 5, MR 6, EQ 4.1 and EQ 4.2 principals. Utilizing high post-industrial recycled content resilient base mat.
- E. Accredited "ecospecifier" product for achievement of Green Building Rating Tool Credits.

1.03 SUBMITTALS

- A. Manufacturers product data: Submit **Action's ReFlex Spin** specification sheets.
- B. Samples: Submit one (1) sample of the **Action's ReFlex Spin**, if requested by architect.
- C. Maintenance literature: Submit one (1) copy of manufactures maintenance instructions.

1.04 WORKING CONDITIONS

- A. Synthetic materials specified herein shall not be installed until all masonry, painting, plaster, tile, marble and terrazzo work is completed, and overhead mechanical trades, and painters have finished in the synthetic floor area. The building must be reasonably dry; all openings must be closed in; permanent heating and air conditioning installed and working before, during, and after installation.
- B. The general contractor / owner shall provide an area where the stored materials can be maintained at a minimum of 65 degrees and under 80% relative humidity. Ideal installation and storage conditions are the same as those that will prevail when the building is occupied.

- C. Others will provide a concrete sub floor to the flooring contractor finished, steel troweled, and level to 1/8" in any ten-foot radius. High spots shall be ground level and low spots filled with an approved leveling compound. No concrete curing or hardening agents shall be applied to the concrete sub floor. The concrete shall be clean, flat, dry, and free from dirt, dust, oil, grease, paint, alkali, and concrete curing agents, hardening and parting compounds, old adhesive residue, or other foreign materials.
- D. Flooring installation shall not begin until all sub-contract work that would cause damage, dirt, dust, or interruption of normal installation. The installation area shall be closed to all traffic and activity for a period to be set by the flooring contractor.
- E. Environmental limitations: Comply with requirements of athletic flooring material suppliers.
- F. Protect the work during and after the installation process, until acceptance by the owner or agents.
- G. Adhere to all MSDS requirements for materials. Protect all persons from exposure to hazardous materials.

1.05 WARRANTY

- A. Action Floor Systems, LLC warrants the material it ships to be free from defects in materials and workmanship for a period of one (1) year, and the flooring contractor warrants the installation of the flooring to be free from defects in materials and workmanship for a period of one (1) year. The exclusive remedy under this warranty shall be replacement of defective material by Action Floor Systems, LLC or correction of defective installation by the flooring contractor. All implied warranties of merchantability or fitness for intended use are limited to the period of warranty. This warranty excludes consequential damages.
- B. This warranty does not cover damage caused by fire, winds, floods, chemicals, or other abuse, or by failure of other contractors to adhere to specifications, or neglect of reasonable precautions to provide adequate ventilation during hot, humid weather. This warranty also excludes damage to floors due to ordinary wear and tear, faulty construction of the building (other than the flooring contractor), separation of the concrete slab underlying the floor, settlement of the walls, or use of unapproved cleaners or sealers on the floor.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. All polyurethane components shall be supplied by Action Floor Systems, LLC.
- B. BASE MAT ADHESIVE(700), two-component polyurethane, shall bond rubber base mat to concrete, asphalt, or wood. It shall be applied at a rate of approximately .2/lbs / cubic foot minimum.
- C. BASE MAT
 - 1. Base mat shall be prefabricated mat made of all recycled rubber granules and naturally renewable granulated cork particles bound with MDI polyurethane and a constant thickness. The base mat shall have a density of 45-lbs. / cubic foot minimum.
 - 2. Standard base mat thickness shall be 6mm
 - 3. Sound Reduction Performance Data:
 - 1) (STC) Sound Transmission Class (ASTM E 90 / ASTM E 413): 53.
 - 2) (IIC) Impact Insulation Class (ASTM E 492 / ASTM E 989): 50.
 - 3) (Delta IIC) Increase in Impact Insulation Class (ASTM E 2179): 21.
- D. SCRATCH COAT (120), two-component, thixotropic polyurethane compound applied at a rate of 0.18 lbs. / cubic foot.
- E. TROWEL COAT (800), two-component, pigmented, self-leveling polyurethane compound applied monolithically over the base mat to a 1mm thickness. Color to be manufacturer's standard color.

- F. WEAR COAT (150), two-component polyurethane applied at a rate of 0.03lbs. / square foot.
Colors to be selected from manufacturer's standard color chart.
- G. Game line paint shall be two-component polyurethane.
- H. Optional base (specify or delete). Vinyl wall base; 4" high, select from standard colors.
- I. Tested per DIN 18032, single point, high-test results are not acceptable.
- J. Technical Information Technical Information

Force Reduction (CEN/TC 217 N375, DIN 18032)	26%
Energy Restitution (EN/TC 217)	48%
Ball Rebound (EN 12235, DIN 18032)	99%
Surface Hardness (DIN 53505, ASTM D-2240)	Shore A=76 +/-
Impact Resistance (EN 1517-1999, DIN 18032)	11Nm
Resistance - Static Load (24 Hrs)	25 Kg/cm sq
Tensile Strength (EN ISO 527-1, DIN 53455)	10 N/mm sq
Elongation at Break (EN ISO 527-1, DIN 54455)	190%
Tear Strength (DIN 53515)	25 N/mm
Friction (DIN 18032)	0.46
Friction (Le Roux)	Dry .7 at 20 d/C Wet .3 at 20 d/C
Sliding Qualities	Dry .4 at 20 d/C Wet .2 at 20 d/C
Abrasion Resistance (EN 660-2, DIN 540074, ASTM C-501)	
Taber H18 - 1 Kg/1000 Cycles	0.08mm
Flammability (DIN 51960)	Class 1 (not flammable)

- K. VOC Emission Requirements, grams per liter
 - 1. Adhesive 0 Grams per Liter
 - 2. Sealer 10 Grams per Liter
 - 3. Polyurethane 60 Grams per Liter
 - 4. Color Coating Urethane Paint 75 Grams per Liter
 - 5. Line Paint 75 Grams per Liter

A. Performance Data

<u>Test</u>	<u>Test Method</u>	<u>Result Value</u>
Durometer, Shore A	ASTM D2240-97	60
Density, Lbs/ft sq.	ASTM D297-93 P-A, 16.3	64
Compressibility @ 100 psi %	ASTM F36-95	12

PART 3 - EXECUTION

3.01 INSPECTION

- A. Suitable substrates include but are not limited to permanently dried concrete and wood.
- B. To eliminate the telegraphing effect of defects in the substrate through the flooring, the substrate must be smooth.
- C. Remove all dust, dirt, grease, and foreign materials from the substrate.
- D. Moisture in the substrate negatively affects any adhesive product and should be eliminated prior to installation. Recommend calcium chloride test method with a vapor transmission rate of 3.0 lbs or less per 1,000 sq ft.
- E. Inspect concrete slab of proper tolerance and dryness, reporting in writing any discrepancies to the general contractor.
- F. All work required to put the concrete slab in acceptable condition shall be the responsibility of the general contractor.

G. The slab shall be broom cleaned by the general contractor.

3.02 INSTALLATION

- A. Concrete shall be clean and free of sealers, dirt, oil, paint, and any material that, in the opinion of the flooring installer, will adversely affect the HERCULAN material bonding to the concrete or the overall installation (refer to 1.03 Working Conditions).
- B. Unroll the rubber underlayment and allow to relax with the installation environment for a period of 12 hours or more prior to final installation. This will allow the underlayment time to relax as it is stretched somewhat during manufacturing.
- C. Thoroughly mix 2-part polyurethane adhesives. Apply adhesive directly to the sub-straight with a notched trowel per manufacturer's instructions. Only apply as much adhesive as can be covered per environmental conditions and pot time per manufacturer's instructions. Immediately unroll pre-relaxed mat into freshly applied adhesive.
- D. Roll completed areas of the floor immediately with 100 lb roller to maximize contact of adhesive with the floor, working from the middle of the area out.
- E. Thoroughly mix two-component scratch coat. Apply two coats of scratch coat to rubber base mat with a flat steel trowel. Allow each coat to cure before proceeding to the next application. After second coat has cured, inspect base mat for ridges and voids. Sand sown ridges, and fill voids as needed.
- E. Thoroughly mix two-component trowel coat. Apply mixed material using recommended notched trowel, or notched squeegee to a thickness of 1mm. Materials must be applied continuously to create a seamless surface. Allow topcoat to cure before proceeding to next step. Repair any imperfections in the finished surface. Clean floor with a vacuum, broom, or dry dust mop. Tack clean prior to proceeding.
- F. Thoroughly mix two-component polyurethane wear coat. Apply wear coat material with a high solvent resistant paint roller at the specified rate, or by airless spray application. Allow wear coat to cure before applying game lines.
- G. Using the highest quality masking tape, tape the floor. Thoroughly mix the two-component game line paint, and paint between the tape. Remove all tape prior to the paint curing.

3.03 BASE INSTALLATION

- A. Affix rubber base to wall with recommended adhesive or screws. Miter all corners carefully. Use premolded outside corners. Install aluminum thresholds as required, anchoring firmly in concrete floor beyond limits of wood flooring.

3.04 CLEAN UP

- A. Remove all debris from the work area and dispose of empty cartons and containers in accordance to all local, state, and federal requirements.

3.05 MAINTENANCE

- A. New floor initial maintenance.
 - 1. **IMPORTANT** Allow new floor or newly recoated floor to cure at least 96 hours.
 - 2. Sweep floor thoroughly. Do not use sweeping compounds.
 - 3. Mix Action Floor Systems, LLC approved cleaner with clean water to achieve desired water-to-cleaner ratio.

4. Using a new mop, damp mop the entire floor with cleaner/water mix.
 5. Allow solution to dry on floor prior to use.
- B. Upon completion of floor installation, the owners, attendants or individuals in charge and responsible for the upkeep of the building are to see that all care maintenance are followed in accordance with Action Floor Systems, LLC guidelines. Failure to follow care and maintenance guidelines may void warranty.

IT IS THE POLICY OF ACTION FLOOR SYSTEMS, LLC. TO CONTINUALLY UPDATE AND IMPROVE OUR PRODUCT LINES. THEREFORE, WE RESERVE THE RIGHT TO CHANGE, MODIFY OR DISCONTINUE SYSTEMS, SPECIFICATIONS AND ACCESSORIES OF ALL PRODUCTS AT ANY TIME WITHOUT ANY NOTICE OR OBLIGATION TO ANY PURCHASERS.