Action Herculan SR 10+4™

Synthetic Floor System

SPORTS FLOOR SPECIFICATIONS

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HERCULAN SR 10 + 4

PART 1 - GENERAL

1.01 DESCRIPTION

A. A multipurpose floor system comprised of a rubber base mat laid in adhesive and a two-component polyurethane surface that is field applied in a seamless monolithic application.

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.

1.03 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 toweled, 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. The slab shall be cured for a minimum of 60 days, moisture vapor emissions must not exceed 3 lbs per 1,000 sq ft - 24 hrs using calcium chloride test.
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. ENVIROMENTAL LIMITATIONS
    1. Comply with requirements of athletic flooring material suppliers.
    2. Adhere to all MSDS requirements for materials. Protect all persons from exposure to hazardous materials.
    3. LEED - Leadership in Energy and Environmental Design, Comply with EQ 4.1 and EQ 4.2 principals. Utilize high postindustrial recycled content resilient base mat.

4. Accredited “ecospecifier” product for achievement of Green Building Rating Tool Credits.

F. Protect the work during and after the installation process, until acceptance by the owner or agents.

1.04 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 then 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. HERCULAN BASE MAT ADHESIVE (UN 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. HERCULAN BASE MAT

1. Base mat shall be prefabricated rubber mat made of all recycled rubber granules 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 10mm.

D. HERCULAN SCRATCH COAT (EG 120), two-component, thixotropic polyurethane compound applied at a rate of 0.18 lbs. / cubic foot.

E. (OPTIONAL) Fiberglass load mat.

F. HERCULAN TROWEL COAT (SR 320) two-component, pigmented, self-leveling polyurethane compound applied monolithically over the base mat to a 4mm thickness. Apply in multiple pours as required to achieve 4mm thickness. Color to be manufacturer’s standard color.

G. HERCULAN WEAR COAT (PU 150 W) two-component polyurethane applied at a rate of 0.03lbs. / square foot. Colors to be selected from manufacturer’s standard color chart.

H. Game line paint shall be HERCULAN two-component polyurethane.

I. Optional base (specify or delete). Vinyl wall base; 4" high, select from standard colors.
J. Tested per DIN 18032, single point, high-test results are not acceptable.
K. Technical Information Technical Information

Force Reduction (CEN/TC 217 N375, DIN 18032)	36%
Energy Restitution (EN/TC 217)	54%
Ball Rebound (EN 12235, DIN 18032)	99%
Surface Hardness (DIN 53505, ASTM D-2240)	Shore A=76 +/-
Impact Resistance (EN 1517-1999, DIN 18032)	12Nm
Resistance - Static Load (24 Hrs)	50 Kg/cm sq
Tensile Strength (EN ISO 527-1, DIN 53455)	23 N/mm sq
Elongation at Break (EN ISO 527-1, DIN 54455)	340%
Tear Strength (DIN 53515)	50 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		

PART 3 - EXECUTION

3.01 INSPECTION

A. Inspect concrete slab of proper tolerance and dryness, reporting in writing any discrepancies to the general contractor.
B. All work required to put the concrete slab in acceptable condition shall be the responsibility of the general contractor.
C. 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. Mix the two-component polyurethane adhesive and apply directly to the concrete sub floor at the specified rate with the specified notched trowel.
C. Immediately unroll pre-relaxed mat into freshly applied adhesive.
D. Roll base mat with heavy flat roller.
E. Thoroughly mix two-component scratch coat. Apply seal coat of EG 120 to rubber base mat with a flat steel trowel. Allow coat to cure before proceeding to the next application. Apply urethane (EX800 or SR320) scratch coat, allow to cure, inspect base mat for ridges and voids. Sand sown ridges, and fill voids as needed.

F. (Optional: Install fiberglass load mat.)
G. Thoroughly mix two-component trowel coat. Apply mixed material using recommended notched trowel, or notched squeegee to total thickness of 4mm (SR 320). 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.
H. 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.
I. 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.
J. If wall base is specified, install vinyl base to walls by using the proper cement.

3.03 CLEAN UP

A. Clean up all unused materials and debris and remove.

3.04 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.

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