SPEC PU Premium

Seamless Resilient Flooring System
System Specification
SECTION 096566 Resilient Athletic Flooring

PART 1 – GENERAL

1.1 SCOPE

SPEC PU is a resilient, dual-durometer, cast-in-place flooring system consisting of a prefabricated recycled rubber basemat, fluid applied seal coats, self-leveling polyurethane resin and top coats. The finished product is a resilient, low-maintenance sports, recreational, and multi-purpose floor. SPEC PU Premium utilizes a self-leveling Wear Layer that is of higher tensile and tear strength to withstand heavy loads and impact than the standard resin.

1.2 RELATED SECTIONS

A. Substrate and Site Conditions
   a. SPEC PU may be installed over concrete, asphalt, rubber, or wood substrates.
   b. A concrete slab must have a proper vapor barrier to prohibit vapor transmission.
   c. The general contractor shall furnish a substrate that is clean, dry and level as described below.
   d. Concrete must be broom cleaned and free of all adhesives, paint, drywall, dust, grease and oil, sealers, release agents, curing compounds, and any material that will inhibit the bonding of the system to the substrate.
   e. Concrete shall have been cured for a minimum of 30 days, free of obvious surface water, and shall have a vapor transmission of 3lbs/1000sf/24hrs or less (calcium chloride test) or a relative humidity of 70% or less.
   f. Concrete must be level to within a tolerance of 1/8" in any 10' radius. High spots must be ground down and low spots filled with only polymer modified, cementitious patching compounds. Fill all control joints with Feather Finish.
   g. All overhead work must be complete before installation will begin. Permanent lights and HVAC shall have been installed and maintain operational during installation. Ambient temperature must remain between 65-75^0 F throughout the installation process and curing time.
   h. Area to be installed shall be closed to other trades and site personnel throughout the installation process and curing time.
B. Transitions
   a. Exterior doors shall have metal thresholds or reducers.
   b. Interior openings shall have transitions proper to meet dissimilar surfaces.

1.3 FLOORING CONTRACTOR

A. The flooring contractor shall have completed and minimum of 5 projects of similar size and scope and be approved by the supplier.
B. Current installation methods and application rates must be used.

1.4 SUBMITTALS

A. SPEC PU System Specification
B. Products data sheet
C. System sample
D. Top Coat and Gameline Color Chart
E. Care and Maintenance Instructions

1.5 DELIVERY AND STORAGE

A. All system components shall be delivered in original, unopened containers and be maintained in a controlled environment at a temperature above 55^0 F

PART 2 PRODUCT

2.1 All components of the SPEC PU system shall be supplied and approved by SPEC Athletic, Inc – 23824 W Andrew Road, Suite 101. Plainfield, IL 60585 – (815) 254-4414.

2.2 MATERIALS

A. Basemat
    a. Prefabricated SBR rubber granules bound with an MDI binder. Basemat shall be 45lbs/cu.ft. Sheets are 59" wide and available in a thickness of 4mm to 12 mm.
B. Basemat Adhesive
    a. Two-component adhesive specifically formulated for use with rubber sheets and appropriate for the substrate applied at the rate of 0.12 lbs/sf.
C. Basemat Sealer
    a. Two-component thixotropic polyurethane compound applied at the rate of 0.12 lbs/sf.
D. Optional reinforcing fabric
    a. Reinforcing fabric installed in the seal coats to disperse the point loads and strengthen the system when using DIN mat and for under heavy point loads is available.
E. Wear Coat
    a. Two-component self-leveling polyurethane compound applied at the rate of 0.50 lbs/sf for 2mm thickness. Standard Wear Coat is Neutral Gray, but may be pigmented to match Top Coat colors upon request.
F. Top Coat (Matte Finish)
    a. Three-component pigmented, water-base polyurethane finish coat applied at the rate of 250 sf/gallon. Colors shall be chosen from supplier's standard Top Coat color palette.
G. Line Paint
    a. Three-component, water-based line paint. Select colors from Line Paint color palette.

2.2 TECHNICAL DATA

A. Basemat

Density	ASTM D-3676	45pcf
Tensile	ASTM D-412	88psi
% Elongation		62%

Compressibility	ASTM F-36 A	%	Recovery
	50 psi	20	87
	100 psi	32	91
	200 psi	42	91
Die Tear PPI	ASTM D-624	30	
Flexibility	ASTM F-147	0 – 1	
Compression Set B	ASTM D-395	26 @ 25% deflection (158^0 F/22hrs)	

B. Wear Coat
Material shall be completely free of all mercury, lead and all heavy metals)

Shore Hardness (Shore A)		A80
Tensile Strength	ASTM D412	2457 psi
Elongation	ASTM D412	150%
Tear Strength	ASTM D624	203 pli.

C. Top Coat (Water Based Polyurethane)

Tensile Strength	ASTM D412	4157 psi
Elongation	ASTM D412	50 psi
Tear Strength	ASTM D624	386 pli
Taber Abrasion	ASTM C-501	
1000 Cycles, wt loss (mg/cycle)		0.06 mg
2000 Cycles, wt loss (mg.cycle)		0.06 mg
Static Coefficient of Friction	ASTM D1894	1.15 +/-0.2
Kinetic Coefficient of Friction	ASTM D1894	1.45 +/- 0.2

PART 3 INSTALLATION

3.1 All two-component polyurethane compounds must be thoroughly mixed with a power mixer until full blended before application.
3.2 Thoroughly mix Adhesive and apply directly to the concrete with a notched steel trowel at the specified rate. Re-notch trowels or supply new trowels to maintain application rate. Roll the basemat into wet adhesive. Do not allow any compression at the butt joints and sides of mat. Roll the basemat with a 100lb roller to insure proper adhesion and to remove any trapped air. Repair any delaminated areas or bubbles in basemat before applying Seal Coats.
3.3 Thoroughly mix Seal Coat and apply with a flat steel trowel in two applications to the specified rate. Allow Seal Coat to cure for 8 – 12 hrs between coats. Grind all imperfections between applications of Seal Coat and before application of Wear Coat.
3.4 Thoroughly mix Wear Coat and apply in one coat with a notched trowel or squeegee to the specified thickness. Mark the walls or floor to gauge the application during installation. Stage the job so that a wet-to-wet application is maintained throughout the application. Allow the Wear Coat to cure 8-12 hours before application of the Top Coat. Sand imperfections with 150 grit paper before application of the Top Coat. Sweep, vacuum, and/or tack the floor before application of the Top Coat to insure a dust-free surface.
3.5 Thoroughly mix all components of the Top Coat and apply with a high quality, low lint roller or airless sprayer to the specified application rate. Allow the surface to dry before application of Game Lines.
3.7 Lay out court markings with a high quality masking tape and apply Game Line paint at the specified rate.

PART 4 CARE and MAINTENANCE

4.1 Wet mop regularly to keep grit and abrasive dirt off the surface. Use only low-Ph neutral detergents. Use no bleach or heavy chemicals. Use a red nylon pad or floor brush on a floor

scrubber for heavy cleaning. Shoe marks may be removed using denatured alcohol or acetone on a dampened rag.

PART 5 WARRANTY

5.1 SPEC Athletic, Inc. (SPEC) offers a warranty that the SPEC PU flooring system will be free of defects in material and workmanship for a period of three years. SPEC warrants that its system components will not chip, crack, tear or show excessive deterioration under normal use and under proper, regular maintenance. All other warranties, expressed or implied, of fitness for a particular use or purpose, are expressly excluded. The sole remedy against SPEC shall be limited to the replacement or repair of defective components, or a credit being issued to the owner not to exceed the price of the defective materials.