

09624 SPORTS FLOORING

PART 1 - GENERAL

1.1 DESCRIPTION:

A. Scope

The complete installation of a prefabricated rubber sports surface including adhesive

B. Related work specified under other sections.

1. CONCRETE SUBFLOORS.....SECTION 03300

a. Concrete Finish: Shall be steel troweled, dense and finished smooth, not polished.

b. Slab Tolerance: A tolerance of 1/8" (3mm) in 10' (3m) radius shall be maintained throughout. Floor Flatness and Floor Levelness (FF and FL) numbers are not recognized.

c. No concrete curing, hardening or sealing agents shall be applied to the concrete subfloor.

1.3 SUBMITTALS:

A. Manufacturers Product Information

Submit (1) electronic copy of Sports Flooring System Specification Sheets or as requested.

B. Samples

Submit (1) set of samples showing colors and texture of the Sports Flooring surface or as requested.

C. Shop Drawings

Submit (1) set of shop drawings reflecting seam placement and layout.

D. Maintenance Literature

Submit (1) electronic copy of Sports Flooring maintenance instructions.

1.4 QUALITY ASSURANCE:

A. Manufacturer

1. Manufacturer shall be an established firm with a minimum of 10 years in business specializing in manufacturing prefabricated sheet rubber for athletic surfaces.

B. Flooring Contractor:

1. The complete installation of the flooring system shall be performed only by an experienced flooring contractor with a minimum three years of experience installing athletic surfaces and approved by the manufacturer.

2. All work will be performed in accordance with the most recent printed installation instructions of the manufacturer.

1.5 DELIVERY, STORAGE AND HANDLING:

Materials must be delivered in manufacturer's original, unopened and undamaged packaging with identification labels intact.

1. The general contractor shall provide a secure area where stored materials can be maintained at 65 to 80 degrees F (18.3 to 26.7 degrees C).
2. Store material in a secured area protected from exposure to harmful weather conditions on a clean, dry, flat surface protected from possible damage.

1.6 SITE CONDITIONS:

- A. The prefabricated rubber flooring specified herein shall not be installed until all trades including but not limited to, masonry, painting, plaster, tile, marble, terrazzo, carpentry, overhead mechanical trades', goals, scoreboard, electrical, and painters have finished in the installation area.
 1. The area will be closed and secured from all foot traffic and trades for duration of the installation and curing period.
 2. The building shall be enclosed, weather-tight, with permanent windows and lockable doors.
 3. Permanent heat, light and ventilation shall be installed and operating prior to, during and after installation.
 4. Subfloors shall be broom clean, dry and free from dirt, dust, oil, grease, paint, and alkali, concrete curing agents, hardening and parting compounds, old adhesive residue or other foreign materials.
 5. Moderate room temperature of 65 to 80 degrees F (18.3 to 26.7 degrees C) shall be maintained for a week prior to, during and for 72 hours after installation.
 6. Concrete tolerance of 1/8 inch (3mm) in ten foot (3m) shall be maintained throughout. High spots shall be ground level and low spots filled with a Portland base compound such as Ardex Feather Finish. No concrete curing, hardening or sealing agents shall be applied to concrete.
 7. Concrete must dry for a minimum of 30 days and "Determining Relative Humidity in Concrete with In-Situ Probes" not to exceed 85% respecting ASTM F2170. HVAC must be operational and with a constant temperature for 7 days prior to testing.
 8. The installation area shall be closed to all traffic and activity during installation and for seven days following to allow drying/curing.
 9. After completion, area to be kept locked by general contractor. No other trades or personnel to be allowed on floor until accepted by owner.

PART 2 – PRODUCTS

2.1 MANUFACTURER:

A. Basis for design is PowerDek Fleck as manufactured by Connor Sports Flooring.

2.2 MATERIALS:

A. Material shall be prefabricated rubber athletic flooring manufactured in two vulcanized layers with a base of natural and synthetic rubber, stabilizing agents and pigmentation.

1. Only vulcanized rubber will be accepted.
2. Flooring surface shall be manufactured to maintain performance criteria, as stated by manufacturer, without defects, damage, or failure.
3. Thickness shall be 12mm
4. Material shall be standard tiles
5. Color shall be selected from standard colors
6. Finish: Sanded Smooth Finish

B. Adhesive (when applicable)

Two-component polyurethane as supplied by manufacture.

2.3 PHYSICAL PROPERTIES:

Physical Properties	Standard	PowerDek Fleck
Thickness		12mm
Hardness Shore A	ASTM D 2240	82/75
Water Absorption	ASTM D 570 (%)	0.13
Tensile Strength (kgf/cm ²)	ASTM D 412 (psi)	650
Ultimate Elongation	ASTM D 412 (%)	200
Modulus 20%	ASTM D 412 (%)	175
Tear Abrasion	ASTM D 501 (index)	126 (H22 Wheels; 1 Kg Load)
Tear Resistance	ASTM D 624 (lb./in)	161
Dimensional Stability	ASTM D 1204	+0,02
Density of Smoke	ASTM D 662	411 (flaming)
Critical Radiant Flux	ASTM E 648 (w/cm ²) / (class NFPA 101)	0.49 / 1

Compression Set (70°C, 22h)(%)	ASTM D 395 (%)	84
Friction Test	ASTM D1894-01	.99 (Dry) & 1.1 (Wet)
Fire Resistance		Class 1, Inflammable
Static Load Limit (250 psi, 24h) (mm)	ASTM F970-07	0.16

PART 3 - EXECUTION

3.1 INSPECTION:

- A.** Inspect concrete slab for proper tolerance of 1/8 inch (3mm) in ten foot (3m). Report discrepancies to general contractor for correction.
 - 1. High spots shall be ground level and low spots filled with a Portland base compound such as Ardex Feather Finish.
- B.** Perform moisture testing of the slab. “Determining Relative Humidity in Concrete with In-Situ Probes” not to exceed 85% respecting ASTM F2170. Report results to the general contractor. See addendum in installation guides for details.
 - 1. HVAC must be operational and with a constant temperature for 7 days prior to testing.
 - 2. Allow further drying time if moisture tolerances are exceeded.
- C.** Ensure all requirements from section 1.6 SITE CONDITIONS are completed and satisfied.
- D.** All work required to put the concrete slab in an acceptable condition and provide correct working conditions for a successful installation is the responsibility of the General Contractor or Construction Manager.

3.2 INSTALLATION:

- A.** Tiles; Install athletic flooring in accordance with current manufacturer's installation instructions
 - 1. For a successful and aesthetically pleasing installation tiles must be laid in an ashlar or brick pattern.
 - 2. Square room and chalk line down center.
 - 3. Following chalk line, install first row keeping tiles straight.
 - 4. Set and hold joints with masking tape.
 - 5. Do not to shift or gap tiles after setting.
 - 6. Roll floor in multiple directions with a 100lb (45.4 kg) roller to eliminate any trapped air.

7. After rolling, and before adhesive dries, weight all seams and at perimeter wall.
8. Continue installing runs as described above to completion.

B. Cleanup

1. Collect and remove all bricks (weights)
2. Remove all excess and waste materials from the area of work. Leave area clear from installation debris and empty containers.

END OF SECTION 09624