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SportLastic Track®
Pre-Fabricated Vulcanized Rubber Athletic Surface Guide Specifications
Division 9 – Indoor Resilient Athletic Surfacing

PART 1: GENERAL

1.0 SUMMARY

1.0.1 Work Included

- A. Prefabricated Rubber Sports Flooring
- B. Adhesive and accessories required for installation and maintenance

1.0.2 Related Sections

- A. Section 02050: Basic Site Materials and Methods
- B. Section 02065: Cement and Concrete (includes bituminous material and bituminous concrete)

1.1 REFERENCES

1.1.1 American Society for Testing & Materials (ASTM)

- A. ASTM D 2047: Standard Test Method for Static Coefficient of Friction of Floor Surfaces
- B. ASTM D 2240: Standard Test Method for Rubber Property—Durometer Hardness
- C. ASTM D 5116: Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Materials/Products
- D. ASTM E 648: Standard Test Method for Critical Radial Flux of Floor-Covering Systems Using a Radiant Heat Energy Source
- E. ASTM E 662: Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials
- F. ASTM F 970: Standard Test Method for Static Load Limit
- G. ASTM F 1869: Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Sub-floor Using Anhydrous Calcium Chloride

1.1.2 World Athletics (formerly known as International Association of Athletics Federation or IAAF)

- A. Performance Specifications for Synthetic Surfaced Athletic Tracks

1.2 SYSTEM DESCRIPTION

- A. Provide prefabricated athletic rubber flooring, dual durometer, vulcanized and calendared with a special texture. Material to be World Athletics certified.
- B. Two layers are to be factory vulcanized, each layer having independent physical properties and biomechanical attributes. Poured-in-place systems will not be accepted.
- C. Provide an athletic rubber sheet, which has been manufactured to maintain performance criteria stated by supplier without defects, damage or failure.

1.3 SUBMITTALS

- A. Product data information for specified products
- B. Adhesive and line paint product data.
- C. Samples for colors and textures
- D. Shop drawing showing seam layout, profiles and product components
- E. Installation and maintenance instructions.
- F. Statement of World Athletics certification

1.4 QUALITY ASSURANCE

- A. The pre-fabricated vulcanized rubber athletic surface shall be an established firm experienced in the field and appointed as a distributor by the manufacturer of the indoor resilient multipurpose athletic surfacing.
- B. Manufacture must have ISO 9001 & ISO 14001 certification.
- C. Installer must have performed installations of the same scale in the last three years.
- D. Installer to be recognized and approved by the athletic rubber flooring supplier.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Materials must be delivered in manufacturer's original, unopened and undamaged containers with identification labels intact.
- B. Store material up-right, protected from exposure to harmful weather conditions, on a clean, dry, flat surface protected from all possible damage.
- C. Recommended environmental condition for storage is a minimum of 55° F (13° C).
- D. Material need not suffer excessive damage during handling (i.e., edge chipping, excessive warping, etc).

1.6 SITE CONDITIONS

- A. Maintain a stable room and sub floor temperature for a period of 48 hours prior, during and 48 hours after installation. Recommended range: 65°F to 80°F (18°C to 27°C).

- B. Installation to be performed no sooner than the specified curing time of concrete sub floor (normal density concrete during time is approximately 28 days for development of design strength).
- C. Substrate Flatness (concrete or asphalt) must not vary more than 1/8" in 10' radius.
- D. Moisture vapor emission content of the concrete slab must not exceed 5lbs/1000ft² per 24 hrs when using the Calcium Chloride test as per ASTM F 1869.
- E. Installation of athletic flooring will not commence unless all other finishes in the building have been completed.

1.7 WARRANTY

- A. Provide supplier's standard warranty
- B. The athletic rubber flooring is warranted to be free from manufacturing defects for a period of five (5) years from the date of shipment from the manufacturer.

1.8 MAINTENANCE AND REPAIR

- A. Provide "attic stock" of each type and color.
- B. Repair material must be from the same dye lot as material supplied for initial installation.
- C. Maintain surface as per supplier's instructions.

PART 2: PRODUCT

2.1 SUPPLIER

- A. The basis of the design for the pre-fabricated vulcanized rubber athletic surface is Moose Sports Surfaces Ltd., SPORTLASTIC TRACK® ELITE. All other installation accessories and related components must be either made or approved by the pre-fabricated vulcanized rubber athletic surface supplier. Other products may be approved as equal if deemed qualified and submitted in accordance with the General Conditions.

2.2.1 DESCRIPTION

- A. Prefabricated athletic rubber flooring, calandered and vulcanized in two independent layers, highly resistant to UV rays and atmospheric agents, with differentiated elasticity between top and bottom layers.
- B. **Specifier Note-Confirm thickness on plans** Thickness: 8, 10, 12, 13, and 13.5mm
- C. Color: provided in standard colors, also provided in custom colors
- D. Finish: Track Embossing.
- E. Manufactured in two layers which are vulcanized together. The shore hardness of the top layer will be greater than that of the bottom layer.
- F. Top color layer of material must be free of recycled rubber granules or different color fillers.

2.2.2 PHYSICAL PROPERTIES

- A. Physical properties of the athletic rubber floor, to conform to the following requirements:

Physical Properties	Standard	Specification
World Athletics Performance Specification	World Athletics	Certified (provide independent test results)
Hardness Shore A	ASTM D 2240	45 (±5)
Hardness Shore A	ASTM D 2240	30 (±5)
Modified Vertical Deformation (World Athletics: 0.6-2.5mm)	World Athletics (0.6-2.5)	2.0mm (+/- .3)
Force Reduction (0°C-50°C)	World Athletics (35%-50%)	40%
Heavy Metals	EN-71 PATR 3	Non-Detected
Resilience by Vertical Rebound	ASTM D2632	68
Tensile Properties Strength	ASTM D 412-98	≥ 1.31 Mpa
Elongation at Break	ASTM D 412-98	≥ 210%
Coefficient of Friction (standard ≥ 0.50 wet)	ASTM D 1894	≥0.6 wet
Resistance to Fungi	ASTM G 21	Non-growth
Spike resistance	EN 14810	≤20 ΔTr%
Critical Radiant Flux	ASTM E 648	0.59 W/cm ² (Class I)
Optical Density of Smoke	ASTM E 662	<450, Class I
Color Stability	ASTM F1515	≤8.0ΔE
Chemical Resistance	ASTM F925	No Change
UV Resistance		Good
Static Load Limit (250 lbs.)	ASTM F970-06	≤ 0.010 in.
Abrasion Resistance Taber (H18 Wheel, 1000 cycles, 1000g load)	ASTM D3389-05	≤ 1.2g (weight loss)

2.3 MATERIAL

- A. Provide athletic rubber surface SPORTLASTIC TRACK® in rolls.
 B. Provide T-111 two-part polyurethane adhesive certified by Moose Sports Surfaces, Ltd.
 C. Patching compound and line marking paint, to be supplied or approved by Moose Sports Surfaces, Ltd.

PART 3: EXECUTION

3.1 EXAMINATION AND PREPARATION

The following must be ensured prior to installation of the primary product:

- A. Concrete or Asphalt sub floors to be placed a minimum of thirty (30) days prior to the installation of athletic rubber floor.
- B. No concrete or asphalt sealers or curing compounds are applied or mixed with the sub floors (refer to Section 03050 of Division 3 and/or Section 02065 of Division 2).
- C. The underlayment is adequate (if installing over wood sub floors). APA Exterior Underlayment Grade Plywood is recommended.
- D. Water vapor membrane complies with specification in ASTM E 1745.
- E. Alkalinity test and moisture test must be performed. PH level should be in the range of 7 to 8.5. Moisture content must not exceed 85% relative humidity.
- F. Smooth, dense finish, highly compacted with a tolerance of 1/8" in the 10ft radius (3mm in 3.05 m radius). Floor flatness and floor levelness (FF and FL) numbers are not recognized.
- G. Concrete or asphalt sub floors on/or below-grade are installed over a suitable moisture retardant membrane as per ASTM E 1643 and E 1745.
- H. Sub floors must be clean, free of paint, dust, sealer, hardeners, grease, oil, solvents, or adhesive and any other foreign substances that may act as a bond barrier.
- I. Sealing of cracks, holes and, smoothing and leveling of rough, uneven surfaces, must be carried out using a good quality Portland cement based leveling compound (feathering compound), approved by the supplier.
- J. Installation will not be carried out unless above conditions are satisfied.
- K. Report any discrepancies to the General Contractor or Owner for correction.

3.2 INSTALLATION

- A. The surrounding area of the mixing of the adhesive should be covered with plastic, Kraft paper, or other material to protect the area.
- B. Mix and apply adhesive according to supplier's recommendations.
- C. When beginning the first row the adhesive should be applied evenly up to 2" (5cm) from both edges of the long seams and up to 12" (30cm) from the end seam.
- D. Complete an entire row before attempting to start the next row
- E. To start the second row, apply the adhesive underneath the long seam the same as above for the previous row as well as for the next row. (2" (5cm))
- F. Be certain that there is a good transfer of the adhesive when unrolling the material in the wet adhesive.
- G. Remove all excess adhesive that may ooze through the seams or any drops that may have dripped onto the surface. This can be done by rubbing with denatured rubbing alcohol. Do this before it dries.
- H. Use 2" (5cm) masking tape to help to close gaps in the seams and keep them in place while the adhesive sets. **Do not use** duct tape **EVER**, it will chemically react with the flooring surface.

- I. Cover every seam with weight such as bricks. These seams need to be covered for at least 12 hours and will prevent them from peaking. Double stack the bricks if necessary, depending on the tension and thickness of the material.
- J. To eliminate any trapped air, use a lightweight roller 120 lb (55kg) and always roll this at a 45° angle.
- K. Be cautious when adjusting the end seams to not apply too much pressure while ensuring them to be perfectly sealed. If a seam becomes pressured, this too will cause peaking.

3.3 CLEANING

- A. Remove all excess and waste materials from the area of work. Dispose of empty containers in accordance with federal and local statutes.
 - a. Refer to SPORTLASTIC TRACK® Care & Maintenance Guide for complete cleaning information.

3.4 PROTECTION

- A. Cure Time -- no traffic or trades shall be allowed on the surface for a period of three (3) days following completion to allow for complete and proper cure of the adhesive.
- B. Cleaning – allow 72 hours before initial cleaning of the surface.
- C. Other Trades -- it is the responsibility of the general contractor to protect the surface from damage by other trades before acceptance by the owner or the owner's authorized agent.
- D. After SPORTLASTIC TRACK® is installed and the game lines painted, area to be kept locked by general contractor to allow curing time for system. No other trades or personnel are allowed on floor until accepted by owner.
- E. When subjecting the SPORTLASTIC TRACK® floor to significant rolling loads or heavy equipment such as scissor lifts, scaffolding, four-wheel carts, etc., we recommend the following;
 - a. Provide a protective cover to prevent marring of the flooring. This may be accomplished with 6 mill poly, kraft paper, red rosin paper or standard protective gym covers.
 - b. Provide a double layer of 5/8" (minimum) thick plywood or Masonite where equipment will travel across the floor system. Plywood may be "walked" across floor as equipment is moved to minimize number of sheets required. The upper and lower layers of the plywood must be staggered to eliminate end joints from aligning thereby reducing point loads to the system.