



Moose Sports Surfaces, Ltd.
2257 North Wayne Avenue, Suite 2C
Chicago, Illinois 60614
773.477.4664
773.477.8248 fax
www.mooseports.com

SportLastic®
Pre-Fabricated Vulcanized Rubber Athletic Surface Guide Specifications
Division 9 – Indoor Resilient Athletic Surfacing
Revised 01-02-10

PART 1 – GENERAL

- 1.1 *SECTION INCLUDES*
- A. Supply and installation of the SPORTLASTIC® pre-fabricated vulcanized rubber athletic surface.
 - B. Application of the game lines.
- 1.2 *SUBMITTALS*
- A. Product Data:
 - 1. Submit one (1) set of SPORTLASTIC® “Pre-Fabricated Vulcanized Rubber Athletic Surface Guide Specifications”.
 - 2. Submit one (1) chart of surface color options and game line paint color options.
 - 3. Submit adhesive and line paint product data.
 - 4. Submit one (1) shop drawing showing seam layout, profiles, and product components.
 - B. Samples:
 - 1. Submit one (1) sample of specified system.
 - C. Closeout Submittals:
 - 1. Submit one (1) copy of the SPORTLASTIC® maintenance instructions.
 - 2. Submit one (1) copy of the SPORTLASTIC® material and installation warranties as specified.
 - 3. Provide “attic stock” of each type and color.
- 1.3 *QUALITY ASSURANCE*
- A. Qualifications:
 - 1. The manufacturer must have a minimum of five (5) years experience in the manufacturing of pre-fabricated vulcanized rubber athletic surface.
 - 2. The Installer must have performed installations of the same scale in the last three years.
 - 3. Installer to be recognized and approved by the pre-fabricated vulcanized rubber athletic surface manufacturer.
 - B. Certifications:
 - 1. Installer to submit certification attesting that they are an approved installer of the SPORTLASTIC® pre-fabricated vulcanized rubber athletic surface.
- 1.4 *DELIVERY, STORAGE AND HANDLING*
- A. Delivery:
 - 1. SPORTLASTIC® shall not be delivered until all related work is in place and finished and/or proper storage facilities and conditions can be provided and guaranteed stable according to Moose Sport’s Surfaces, Ltd. recommendations.
 - 2. Materials must be delivered in manufacturer’s original, unopened and undamaged containers with identification labels intact.
 - B. Storage:

1. Store the material in a secure, clean and dry location maintaining a minimum of 55°F and under 50% relative humidity. Ideal installation and storage conditions are the same as those which prevail when building is occupied.
2. Store material upright, protected from exposure to harmful weather conditions, on a clean, dry, flat surface protected from all possible damage.
3. Material should not suffer excessive damage during handling (i.e. edge chipping, excessive warping, etc.)

1.5 PROJECT / SITE CONDITIONS

- A. It is the responsibility of the general contractor/construction manager to maintain clean, secure, weather tight project site conditions acceptable for the installation of the SPORTLASTIC®.
- B. Concrete sub floors on or below grade shall be adequately waterproofed beneath and at the perimeter walls and on earth side of below grade walls. It is the responsibility of the architect/engineer to determine the extent of this need.
- C. The general contractor shall furnish and install the concrete sub floors, depressing the slab sufficiently to accommodate the floor system. Slab depression shall be thickness of the SPORTLASTIC®.
- D. No concrete curing or hardening agents shall be applied to concrete sub floor.
- E. The slab shall be steel troweled and finished smooth to a tolerance of 1/8" in any 10' radius. This tolerance should be measured in accordance with ASTM E1155. Floor Flatness and Floor Levelness numbers are not recognized. The general contractor/construction manager should provide a certificate of compliance with the above recommendations. High spots shall be ground level, and low spots filled in with an approved leveling compound.
- F. Cracks, grooves, voids, cuts and joints may be filled with Ardex Portland-based patching/leveling compounds (or equal). Follow the manufacturer's limitations/recommendations. Moveable joints may have to be treated utilizing specific transitioning joint devices upon the architect's recommendations.
- G. Permanent heat, light and ventilation shall be installed and operating during and after installation.
- H. Do not install athletic flooring over new concrete until concrete has been cured and is dry. A minimum of 90 days is required. But, MOST often a new concrete slab will not meet the vapor emissions requirements listed below unless the slab has been installed and the area is sealed off to outside air for approximately 6 months or more.
- I. SPORTLASTIC® 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 SPORTLASTIC® floor areas. All sub-contract work which would cause damage, dirt, dust or interruption of normal installation pace will be completed. Suspension of other trades' work may be authorized providing their work will not interfere with the installation or damage the newly installed flooring.
- J. Installation will commence ONLY when the following criteria are met;
 1. The building shall be enclosed and weather tight.
 2. The temperature must be between 65-80°F., maximum humidity at 70% (50% is preferable), and HVAC must be installed and working two weeks prior to installation, during the installation and after installation.
 3. The installation area shall be closed to all traffic and activity for a period to be set by the flooring contractor.
 4. Sub floors shall be clean, dry, and free from dirt, dust, oil, grease, paint, alkali, concrete curing agents, hardening and parting compounds, old adhesive residue or other foreign materials.
 5. Vapor emission testing must be performed before the SPORTLASTIC® material installation begins. The vapor emission levels/moisture content of the concrete slab should not be greater than 3 lbs. of vapor per 1000 square feet per 24 hours per ASTM F1869.
 6. Concrete subfloor surface pH level must be within the 7 to 8.5 range.
 7. The tolerance of the concrete slab is no more than 1/8" in any 10' radius. High spots shall be ground level, and low spots filled in with an approved leveling compound.

1.6 WARRANTY

- A. Moose Sports Surfaces, Ltd. (Moose) hereby warrants its SPORTLASTIC® materials to be made to manufacturer's specifications and to be free from defects for a period of one year commencing on the date of substantial completion. This warranty shall be given in lieu of all other warranties or guarantees, expressed or implied, including, but not limited to any warranty of merchantability or fitness for a particular purpose, and/or any other obligation on the part of Moose. The liability of Moose shall be limited to repair or replacement of materials supplied by Moose and proven to be defective in manufacture. It shall not include any other damages either direct or consequential.

- B. Warranty excludes damage caused in whole or in part by normal wear and tear, abuse, faulty construction of the building including settlement, lack of a moisture barrier for on grade or below grade construction, the failure of associated trades to adhere to specifications, separation of the concrete slab, construction joints, saw joints, expansion joints, excessive dryness or moisture from humidity, spillage, migrations through the slab or wall, or any other source. Additionally, the warranty shall not cover accidental damage.

1.7 **ADDITIONAL MATERIALS**

- A. Furnish to the owner additional materials of each different color and design of the SPORTLASTIC®.
- B. Repair material must be from the same dye lot as material supplied for initial installation.

1.8 **LEED™ CERTIFICATION**

- A. SPORTLASTIC® should be able to help this facility achieve up to seven (7) points towards LEED™ certification.

LEED™ categories positively affected by the pre-fabricated vulcanized rubber athletic surface

-Materials & Resources	credit reference MR 2.1 & 2.2	Points Attainable 1-2
-Materials & Resources	credit reference MR 4.1 & 4.2	Points Attainable 1-2
-Materials & Resources	credit reference MR 5.1 & 5.2	Points Attainable 1-2
-Indoor Environmental Quality	credit reference EQ 4.1 & 4.2	Points Attainable 1

PART 2 – PRODUCTS

2.1 **MANUFACTURERS**

- A. The basis of the design for the pre-fabricated vulcanized rubber athletic surface is Moose Sports Surfaces Ltd., SPORTLASTIC®. 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 **MATERIALS**

- A. All components for SPORTLASTIC® shall be supplied by Moose Sports Surfaces, Ltd.
- B. Prefabricated vulcanized rubber athletic surface, calendared and vulcanized with a particular closed cell structure, based on special isoprenic rubbers, mineral fillers, vulcanizing and stabilizing agents and color pigments, highly resistant to UV rays and atmospheric agents, with system of differentiated elasticity between top surface and base.
- C. Manufactured in two layers, which are vulcanized together. The shore hardness of the top layer will be greater than that of the bottom layer, shore hardness of layers to be recommended by the manufacturer and the limits specified.
- D. Finish: Embossed. Lightly textured.
- E. Color: Colors as chosen from manufacturer's seven (7) standard selection: Dark Grey, Oxide Red, Royal Blue, Dark Blue, Medium Green, Dark Green, and Yellow.
- F. Thickness: 3/8" (10 mm). Also available in 6mm, 8mm, 12mm, 13mm, and 14mm thicknesses.
- G. Provide athletic rubber surface SPORTLASTIC® in rolls. Standard roll width: 1.22 meters (4'). Maximum roll width: 1.27 meters (4.16'). Minimum roll width: .762 meters (2.5'). Roll length: 9 meters – 15 meters (approximately 29'6" – 49'3').
- H. Provide adhesive certified by the manufacturer or distributor.
- I. Patching compound and line marking paint, to be supplied or approved/recommended by rubber sport flooring manufacturer or distributor.
- J. Physical properties of the prefabricated vulcanized athletic rubber surface to conform to the following requirements: (Test reports supplied upon request):

Shore A Hardness: Top/Bottom (ASTM D 2240)	60/45 Shore A
Tensile Strength (ASTM D-412-98a)	550
Elongation (%) (ASTM D412-98a)	252%

Vertical Deformation (DIN 18032-2)	0.6mm (Pass)
Rolling Load (DIN 18032-2)	1000N (Pass)
Impact Resistance (DIN 18032-2)	13Nm (Pass)
Residual Impression (DIN 18032-2)	0.05mm (Pass)
Ball Rebound (DIN 18032-2)	99% (Pass)
Critical Radiant Flux @ 8mm thick (ASTM E 648, NFPA 101)	0.59 W/cm ²
Optical Smoke Density (ASTM E 662)	< 450, Class I
Fungal Resistance Test (ASTM G 21-90)	No growth
Coefficient of Friction (ASTM D 1894-2001)	1.63
V.O.C. Compliance (ASTM D 5116)	Yes
Color Stability	Good
Chemical Resistance	Good
Light reflection	Average
UV resistance	Good
K. Game Line Primer – As approved by the SPORTLASTIC® pre-fabricated vulcanized rubber athletic surface supplier.	
L. Game Line Paint – Select from standard colors as approved by the SPORTLASTIC® pre-fabricated vulcanized rubber athletic surface supplier.	
M. Optional Base (specify or delete) – Vinyl wall base; 4” high; select from standard colors.	

PART 3 - EXECUTION

3.1 *EXAMINATION*

- A. It is the responsibility of the general contractor/construction manager to ensure the project/site conditions are acceptable for the installation of SPORTLASTIC®.
- B. Verify the area in which the SPORTLASTIC® will be installed is dry and weather tight. Verify that permanent heat, light and ventilation is installed and operable.
- C. Verify all other work that could cause damage, dirt, and dust or interrupt the normal pace of SPORTLASTIC® installation is completed or suspended.
- D. Verify there is a stable room temperature of at least 65° F.
- E. Verify there is no foreign material or objects on the subfloor and that the subfloor is clean and ready for installation.
- F. Review and document the results of the moisture test to verify the vapor emission levels/moisture content of the concrete slab is not greater than 3 lbs. of vapor per 1000 square feet per 24 hours per ASTM F1869.
- G. Verify the concrete subfloor surface PH level is within the 7 - 8.5 range.
- H. Verify that the tolerance of the concrete slab is no more than 1/8” in any 10’ radius. High spots shall be ground level, and low spots filled in with an approved leveling compound.

- I. The Underlayment is adequate (if installing over wood subfloors). APA Exterior Underlayment Grade Plywood is recommended.
- J. Report any above discrepancies to general contractor/construction manager prior to commencement of installation. Installation will not be carried out unless above conditions are satisfied.

3.2 *PREPARATION*

- A. Thoroughly sweep the concrete slab so as to remove all dirt and dust. If a sweeping compound is used, it must be a sweeping compound that does not contain oil or other items that may inhibit the adhesive bond.
- B. If necessary or specified, sand the entire surface of the concrete slab.
- C. Lightly tack the floor to remove all dirt and dust.
- D. Adhere to all MSDS requirements for materials employed in the work. Protect all persons from exposure to hazardous materials.
- E. Comply with requirements of athletic flooring material supplier's requirements.

3.3 *INSTALLATION*

- A. Install prefabricated vulcanized rubber athletic surface in accordance with manufacturer's installation instructions
- B. Unroll sheet and allow relaxation.
- C. Inspect sheet for any damages or defects.
- D. Always install the flooring in the same direction.
- E. All edges must be straight-edged before adjusting the seams.
- F. Cut and adjust flooring prior to installation with adhesive.
- G. Mix and apply adhesive according to manufacturer's recommendations.
- H. 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.
- I. Complete an entire row before attempting to start the next row.
- J. 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).
- K. Make sure that there is a good transfer of the adhesive when unrolling the material in the wet adhesive.
- L. 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.
- M. Roll flooring in all directions with a 100-120 lb. sectional floor roller to eliminate any trapped air and to ensure full adhesive transfer.
- N. Check for air bubbles and continue rolling if needed.
- O. Roll the seams with a hand roller and make sure to remove any excess adhesive that may have come through the seam.
- P. 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.
- Q. 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.
- R. 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.
- S. Repeat the above procedure until installation of athletic flooring material is complete.
- T. Lines to be painted as per manufacturer's instructions.

3.4 *CLEANING*

- A. Remove all excess and waste materials from the area of work. Dispose of empty containers in accordance with federal and local statutes.

3.5 *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. Cure Time -- 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® is installed and the game lines painted, area to be kept locked by general contractor, no other trades or personnel are allowed on floor until accepted by owner.