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

PART 1 – GENERAL

- 1.1 *SECTION INCLUDES*
 - A. Supply and installation of the MOMENTUMXT® indoor resilient athletic surfacing.

- 1.2 *SUBMITTALS*
 - A. Product Data:
 - 1. Submit one (1) set of MOMENTUMXT® “Prefabricated 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 MOMENTUMXT® maintenance instructions.
 - 2. Submit one (1) copy of the MOMENTUMXT® material and installation warranties as specified.
 - 3. Provide “attic stock” of each type and color.

- 1.3 *QUALITY ASSURANCE*
 - A. Qualifications:
 - 1. The indoor resilient athletic surfacing shall be manufactured in an ISO 9001 certified plant.
 - 2. The indoor resilient athletic surfacing shall be manufactured in an ISO 14001 certified plant.
 - 3. The indoor resilient athletic surfacing supplier shall be an established firm experienced in the field and appointed as a distributor by the manufacturer of the indoor resilient athletic surfacing.
 - 4. The complete installation of the flooring system shall be carried out by an experienced & certified flooring contractor approved by the supplier and the work shall be performed in accordance with the supplier’s installation instructions.
 - B. Certifications:
 - 1. Installer to submit certification attesting that they are an approved installer of the MOMENTUMXT® indoor resilient athletic surfacing.
 - 2. MOMENTUMXT® manufacturer to submit official ISO 9001 certification for the facility in which the indoor resilient surfacing is manufactured.

3. MOMENTUMXT® manufacturer to submit official ISO 14001 certification for the facility in which the indoor resilient surfacing is manufactured.

1.4 *DELIVERY, STORAGE AND HANDLING*

- A. Delivery:
 1. MOMENTUMXT® 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. Store buckets upright and rolls standing up.

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 MOMENTUMXT®.
- 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 the depth of MOMENTUMXT® total thickness.
- 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. Typically, 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. 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. Vapor emission testing must be performed before the MOMENTUMXT® material installation begins. Use either ASTM F1869 - 11 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride – maximum vapor emission of the concrete slab should not be greater than 5 lbs. of vapor per 1000 square feet per 24 hours or ASTM F2170: - 11 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes – maximum vapor emission of the concrete slab should not be greater than 80%. If both test methods are performed, the higher result must be respected.
- J. Concrete subfloor surface pH level must be within the 7 to 8.5 range.
- K. 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.
- L. MOMENTUMXT® 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

MOMENTUMXT® 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.

1.6 *WARRANTY*

- A. Moose Sports Surfaces, Ltd. (Moose) hereby warrants its MOMENTUMXT® materials to be made to manufacturer's specifications and to be free from defects for a period of three years commencing on the date of substantial completion and warranted against excessive wear under normal usage for a period of ten years. 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 MOMENTUMXT®.
- B. Repair material must be from the same dye lot as material supplied for initial installation.

1.8 *LEED™ CERTIFICATION*

- A. MOMENTUMXT® should be able to help this facility achieve up to eight (8) points towards LEED™ certification.

LEED™ categories positively affected by the indoor resilient athletic surfacing

-Materials & Resources	credit reference MR 2	Points Attainable 1-2
-Materials & Resources	credit reference MR 4	Points Attainable 1-2
-Materials & Resources	credit reference MR 5	Points Attainable 1-2
-Indoor Environmental Quality	credit reference EQ 4.1 & 4.2	Points Attainable 1-2

PART 2 – PRODUCTS

2.1 *MANUFACTURERS*

- A. The basis of the design MOMENTUMXT® supplied by Moose Sports Surfaces Ltd., Chicago, IL 773-477-4664, www.moosesports.com. All other installation accessories and related components must be either made or approved by Moose Sports Surfaces Ltd.
- B. Other products may be approved as equal if deemed qualified and submitted in accordance with the General Conditions.

2.2 *MATERIALS*

- A. MomentumXT® is a prefabricated rubber sport surface, calendared and vulcanized with a base of natural and synthetic rubber, stabilizing agents and pigmentation. Shore hardness of the respective layers to be as recommended by the manufacturer and within the limits hereinafter specified.
- B. All components for MOMENTUMXT® shall be supplied by Moose Sports Surfaces, Ltd.
- C. Finish: Smooth Matte or textured woodgrain.

- D. Color: Colors as chosen from manufacturer's nine (9) standard selection. Custom colors are also available.
- E. Thickness: 3/8" (10 mm). Also available in 6mm, 8mm, 10mm, 12mm, & 13mm.
- F. Roll Width: 4'-6".
- G. Dual or triple durometer construction.
- 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):

Shock Absorption (DIN 18032-2)	
6mm	25%
10mm	30%
Hardness Shore A (ASTM D 2240) +/- 5	68 top layer 55 bottom layer
Critical Radiant Flux (ASTM E 648) (Class NFPA 101)	1.03 W/cm ² , Class 1
Optical Smoke Density (ASTM E 662)	<450, Class 1
Static Load Limit (ASTM F 960)	0.28mm
Fungal Resistance Test (ASTM G 21-90)	No growth
Coefficient of Friction (ASTM D 1984)	0.99 Dry, 1.11 Wet
Tabor Abrasion (ASTM D12894-01) H-18, 1000g, 1000 cycle	0.029
Elongation (ASTM D-412)	>= 240
Tensile Strength (ASTM D-412)	>=2.6
Ball Rebound (BS EN-12235)	>95
V.O.C. Compliance (ASTM D 5116)	Yes
Color Stability	Good
Light Reflection	Average
Chemical Resistance	Good

- K. Optional Base (specify or delete) – Vinyl wall base; 4” high; select from standard colors.
- L. Adhesive – standard two-part polyurethane adhesive or low VOC two-part polyurethane adhesive in accordance with LEED™ EQ 4.1.

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 MOMENTUMXT® per Part 1 - Section 1.5.
- B. Report any above discrepancies to general contractor/construction manager prior to commencement of installation.

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 and tack the entire surface of the concrete slab.
- C. Comply with floor preparation 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. 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 MOMENTUMXT® is installed, area to be kept locked by general contractor, no other trades or personnel are allowed on floor until accepted by owner. Install prefabricated vulcanized rubber athletic surface in accordance with manufacturer's installation instructions.