**SECTION 09624-Synthetic Athletic Flooring**

**PART 1 – GENERAL**

* 1. **DESCRIPTION**
1. **Scope**
2. Furnish and install the MP Sport Resilient Athletic Floor System by Aacer Flooring.
3. **Related work specified under other sections.**
4. **CONCRETE SUBFLOORS – SECTION 03\_\_\_**
5. Slab shall be recessed to the depth of the thickness of the specified underlayment plus 2mm.
6. The general contractor shall furnish and install the concrete subfloor depressing the slab sufficiently to accommodate the floor system. The slab shall be steel troweled smooth to a tolerance of 1/8” in any 10’ radius by the general contractor. High spots shall be ground level, and low spots filled in with approved leveling compound by the general contractor to the full approval of the flooring contractor.
7. Floor Flatness and Floor Levelness (FF and FL) numbers are not recognized.
8. The concrete substrate shall be deemed fully cured by industry standards. Field test moisture content of concrete using Relative Humidity (RH) testing. Relative humidity levels for non-glue down systems need to be at 85% or lower and the relative humidity for glue down systems should be at 75% or lower. A RH reading above 85% means that not only can the floor ***not*** be installed but the materials i.e. plywood, sleepers, strip flooring cannot be brought to the job site. One of the three following tests can be used as **pre-tests only** and should not be used to determine if the concrete slab has reached acceptable levels for installation. Polyethylene Film Test, Phenolphthalein test or the Calcium Chloride test. These tests should be taken in several locations and an average taken to determine accuracy, in addition to clearly identifying any and all problem areas. A moisture content reading higher than 5% means the concrete is not ready for installation.
9. No curing compounds, agents or sealers shall be used.
10. **MEMBRANE WATERPROOFING-SECTION 07\_\_\_\_**
	1. Concrete subfloors on or below grade shall be adequately waterproofed beneath the slab and at the perimeter walls and on earth side of below grade walls by general contractor using suitable type membrane.
	2. Sand-Poly-Sand slab construction is not an acceptable construction.
11. **THRESHOLDS – SECTION 08\_\_\_**
12. **SLEEVES AND STANDARD INSERTS – SECTION 11\_\_\_**
	1. **REFERENCES**
13. **DIN –** Performance Standard 18032 Part 2
14. **EN –** Performance Standard 14904 World Standard
	1. **QUALITY ASSURANCE**
15. **Manufacturer**
16. Manufacturer of resilient flooring shall be a firm specializing in manufacturing products specified in this section.
17. Basis of design shall be “Aacer MP Sport™” sports floor system as provided by **Aacer Flooring.** **(877) 582-1181, www.Aacerflooring.com.**
18. Materials other than those listed must be approved 10 days prior by written addendum.

Materials from non-approved manufacturers will not be accepted.

1. **Installer**
2. The installation of the floor system described in these specifications shall be completed by a firm familiar with the requirements of the system specified and fully experienced in procedures required for installing athletic flooring manufactured by Aacer Flooring.
3. Installer shall be liable for all matters related to installation for a period of one year after the floor has been substantially installed and completed.
4. Installer must have Aacer installation accreditation.
5. **Performance Testing**
6. Flooring system shall have been independently tested to the International Standards: DIN 18032, Part 2, EN 14904 or MFMA PUR.
7. FIBA International Standards
8. Independent DIN testing laboratory must be recognized by the MFMA and test to all the required standards of the DIN testing methodologies.
9. Independent DIN testing laboratory shall have Scientific Body Membership in the International Association of Sports Surface Sciences (ISSS).
10. **System Technical Data**

**Test Method Result**

**Durometer ASTM 2240 80 (+/-3)**

**Tensile ASTM D-624 1075 psi**

**Elongation ASTM D-624 175 %**

**Tear DIN 18032 125 pli**

**Deformation Trough DIN 18032 0%**

**Standard Deformation DIN 18032 .07**

**Ball rebound DIN 18032 99%**

**Rolling load DIN 18032 1000 N**

**Impact resistance DIN 18032 5 NM**

**Remaining indentation DIN 18032 0.14 mm**

**Dry sliding coefficient DIN 18032 .54**

**Compression set Standard DIN type 1.0%**

**Shock Absorption DIN 18032 9+2 32%**

**Flammability ASTM D2859-02 Inflammable/ passed 8 of 8**

**Wear Resistance EN-ISO 5470 Passed / 298 mg**

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**Radiant Panel ASTM E-648**

**Critical Heat Flow Density 5.3 kW/m2**

**Burning Distance 390/390/390mm 10/20/30 min**

**Flameout 1640 sec**

**Smoke density/integrated 630% min**

**Smoke Density / max 75%**

* 1. **SUBMITTALS**
1. **Specification -** Submit Aacer Flooring specification sheets and shop drawings as required.
2. **Sample -** Submit required number of samples and color charts for system and game lines of the specified system as requested by the owner/architect.
	1. **WORKING CONDITIONS**
3. The flooring and its components specified herein shall not be delivered or installed until all wet trades and overhead work is completed. This includes all masonry, painting, plaster, tile, marble, and terrazzo, as well as all overhead mechanical trades. The building shall be fully enclosed and weather tight and all permanent windows and doorways shall be installed. Permanent heating and air conditioning shall be installed and working in accordance with building occupation requirements.
4. During and after installation, the H.V.A.C. system should be complete, operational, and conditioning air to be within specifications **(55/75 degrees Fahrenheit (13-27 degrees Celsius) with relative humidity between 35/50 percent)** or to conditions expected following installation and during occupancy.
5. Environmental Limitations:
6. Adhere to all MSDS requirements for materials employed in the work. Protect all persons from exposure to hazardous materials at all times.
	1. **WARRANTY AND DISCLAIMER**
7. Aacer Flooring of Peshtigo, WI hereby warrants the materials it has supplied to be free from manufacturing defects for a period of one year. This warranty is in lieu of and excludes all other warranties expressed or implied including any implied warranties of merchantability or fitness for a particular purpose.
8. The jobsite documentation forms by the flooring contractor shall become a part of the warranty and both the owner and flooring contractor shall retain record of said forms as a permanent reference for any abrogation.
9. Flooring contractor warrants the install of the floor systems to be free from defects in materials and workmanship for a period of one year.
10. Notification of claim shall be made within 30 days of discovery.
11. It is the policy of Aacer Flooring to continuously improve its line of products. Therefore, Aacer Flooring reserves the right to change, modify, or discontinue systems, specifications and accessories of all products at any time without notice or obligation to purchaser.

**PART 2 PRODUCTS**

**2.1. MATERIALS**

1. **MP Sport Adhesive**
2. Two component, polyurethane adhesive specially formulated for adhering recycled rubber sheet goods.
3. **MP Sport Underlayment**
4. Prefabricated rubber sheet material consisting of recycled rubber granules bound together with urethane binder as supplied by Aacer Flooring.
5. Available thickness:
	1. (Specify of Delete) 4mm, 5mm, 6mm, 7mm, 8mm, 9mm, 10mm, and 14mm(DIN Compliant)
6. **MP Sport Seal Coat**
7. Two component, thixotropic polyurethane materials specially formulated for use as a pore sealer over recycled rubber underlayments.
8. This material shall contain no mercury, lead, nor any heavy metals, PCB, or formaldehyde and be non solvent based.
9. **MP Sport Body Coat**
10. Two component self leveling polyurethane material specially formulated for use in sports floors.
11. This material will contain no mercury, lead or any heavy metals, PCB, or formaldehyde.
12. **MP Sport Top Coat**
13. Elastic, two component polyurethane based coating specially formulated for use in athletic flooring systems.
14. Specify system color(s)- there are 10 colors in the standard color line (Refer to Aacer color chart)
15. **MP Sport Game Line Paint**
16. Elastic, two component polyurethane coating specially formulated and pigmented for use as line paint in the above described systems. Specify Aacer adathane game line paint.
17. Standard Colors- Black, White, Red, Green, Blue, Orange, and Yellow. Refer to Aacer Color Chart.

**PART 3 - EXECUTION**

**3.1. PRE-INSTALLATION INSPECTION**

1. Floor installer shall verify slab tolerance and moisture content of concrete. Slab should be at 4 pounds vapor emission or less per 1,000 square feet using calcium chloride testing, and in-slab relative humidity testing shall be at 75% or less.
2. Room shall be broom cleaned and free of any foreign debris. Floor must be free of paint, grease, oil and all contaminants that will adversely affect proper adhesion to the substrate.
3. Floor installer shall document site and working conditions prior to and during installation. This documentation shall become a part of any warranty and may or may not affect fulfillment of any warranty.
4. Report all discrepancies to the general contractor, construction manager or owner.

**3.2. INSTALLATION**

1. **UNDERLAYMENT-**
2. Thoroughly mix the MP Sport Underlayment Adhesive and apply to the concrete with a notched trowel or adhesive spatula.
3. Roll the MP Sport Underlayment into the adhesive. Leave a 3/8” gap at all walls and transitions. Do not allow the sides of the underlayment to be in compression. Allow a loose fit at the sides, even to 1/8” gap between rolls.
4. Roll the entire surface of the underlayment with a 75 or 100 pound floor roller several times during the first 4 hours after installation.
5. Check the mat for defects and perform repairs as necessary to achieve a smooth surface.
6. **SEAL COAT-**
7. Properly mix the MP Sport Seal Coat and apply to the underlayment with a smooth steel trowel.
8. Fill all surface pores in the underlayment and all voids at the walls, doors, and penetrations.
9. Allow seal coat to cure 12 hours before proceeding to the next step
10. **BODY COAT-**
11. Properly mix the MP Sport Body Coat and apply to the sealed underlayment in 2 applications with a Swedish Knife supplied by Aacer to a total thickness of 2mm.
12. The application rate is 0.50 lbs/SF to achieve 2mm.
13. Apply the material “wet-to-wet” to allow the material to flow and eliminate ridges.
14. Allow the body coat to cure 12 hours before proceeding to the next step.
15. **Top Coat**
16. Properly mix the MP Sport Top Coat and apply to the Body Coat with an 18” to 24” low lint paint roller at a rate of 0.04 lbs./SF (550 SF/unit). May be sprayed but requires 30% more material.
17. **Game Lines-**
18. Lay out game lines with a high quality 1” masking tape. No blue tape.
19. Apply the MP Sport Game Line Paint with a paint roller.
20. Pull the tape while the game line coating is still wet/tacky.
21. After the game lines are completed (including graphics and borders), the area must be kept free of foot traffic for a minimum of 7 days.

**3.3 FINISHING**

1. Remove excess debris and waste material from the work area.
2. General Contractor shall lock floor area after floor is finished to allow proper curing time.

**END OF SECTION 09642**

Aacer MP Sport Spec sheet

November, 2014

Revision level A

**Construction options are available to modify this system to the project design and budget.**

**Contact your Regional Sales Manager (1-877-582-1181) or the local Aacer Flooring Authorized Dealer for more information.**