

SPECIFICATION:
PROGRAMME III STAGE

*Fixed Resilient Performance Floor*

**SECTION 09642-Wood Gymnasium Programme III Stage Floor System**

**PART 1 – GENERAL**

* 1. **DESCRIPTION**
1. **Related work specified under other sections.**
2. **CONCRETE SUBFLOORS – SECTION 03\_\_\_**
3. Slab depression (Specify or Delete) - Profile height of completed stage floor including Programme resilient padded engineered subfloor shall be:

1-3/4” (44mm) for Option F1 with 25/32” (20mm) flooring.

1-3/4” (44mm) for Option F2 with 3/4” (19mm) engineered hardboard faced panels.

1-3/4” (44mm) for Option F3 with 1/4" (6mm) hardboard & 1/2” (12mm) top subfloor. 2” (51mm) for Option F3 with 1/4" (6mm) hardboard & 3/4" (19mm) top subfloor

1. 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” (3mm) in any 10’ (3m) 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.
2. Floor Flatness and Floor Levelness (FF and FL) numbers are not recognized.
3. Compressive Strength: Concrete shall be a minimum of 3,000 psi (21 MPa) and a maximum of 4000 psi (28MPa) compressive strength after 28 days. Concrete shall be free of washed river gravel, pea gravel, flint, or hardener additives. No lightweight concrete.
4. The concrete substrate shall be deemed fully cured by industry standards through field testing moisture content of concrete using embedded Relative Humidity testing probes. Concrete RH of 85% or less shall be achieved prior to installing subfloor components when including a standard 6-mil (0.15mm) vapor barrier.
5. The standard concrete surface vapor barrier, or heavier-duty surface vapor barrier only serves to address remaining vapor in a substantially cured slab. Concrete surface vapor barriers are not included to address free moisture, such as high-water tables, poor drainage, ground water, leaking pipes, etc. Aacer Sports Flooring and the flooring contractor accept no responsibility related to such free moisture.
6. **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.
7. **THRESHOLDS – SECTION 08\_\_\_**
	1. **REFERENCES**
8. **MFMA** – Maple Flooring Manufacturers Association
9. **FSC –** Forest Stewardship Council™
10. **ANSI** –American National Standards Institute
	1. **QUALITY ASSURANCE**
11. **Manufacturer**
12. Manufacturer of resilient flooring shall be a firm specializing in manufacturing products specified in this section.
13. Basis of design shall be “Programme III Stage” floor system as provided by **Aacer Sports Flooring.** **(877) 582-1181, www.Aacerflooring.com.**
14. Materials other than those listed must be approved 10 days prior by written addendum. Materials from non-approved manufacturers will not be accepted.
15. **Installer**
16. 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 Wood Floors.
17. Flooring Contractor shall be liable for all matters related to installation for a period of one year after the floor has been substantially installed and completed.
18. Installer must have Aacer installation accreditation.
	1. Optional: MFMA accreditation. (Specify or Delete)

**1.4 FLOOR SYSTEM DESIGN**

1. **Floor System Design**
2. System construction shall include resilient components aligned in a designated angular position to purposely react quickly to light impacts and gradually increase resilient pad support when responding to more aggressive performance loads.
3. System shall include manufactured panels designed to limit pressure applied to resilient pads if exceeding active impacts.
4. Subfloor shall fully rest on concrete substrate to eliminate fulcrum points when pressured with substantial non-performance loads.
5. Resilient pads shall be aligned in rows at nominal 8” (203mm) on center spacing and allow for air flow ventilation in all directions.
6. Subfloor shall be manufactured from nominal 7/8” (22mm) 7-ply plywood.
7. Subfloor shall be assembled from premanufactured shiplap panels to provide overlapping edges on all side and end joints.
8. Subfloor anchors shall include anti-squeak rubber collars.
	1. **SUBMITTALS**
9. **Specification -** Submit Aacer Flooring specification sheets and shop drawings as required.
10. **Sample -** Submit required number of samples of the specified system as requested by the owner/architect.
11. **Maintenance Guidelines -** Upon completion of floor, send the Aacer Floor Maintenance Guide to the owner. This guide will explain the proper HVAC and building maintenance requirements as well as floor cleaning and servicing guidelines to assure proper floor performance and longevity.
	1. **WORKING CONDITIONS**
12. The wood 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.
13. Concrete substrate shall be determined fully cured by industry standards and materials shall not be stored at the installation location unless the in-slab relative humidity level for the concrete slab is 85% or lower before installation. The concrete slab shall be free of all foreign materials and broom cleaned by the General Contractor when turned over to the floor installer.
14. Permanent HVAC units for the building shall have been operating a minimum of one week prior to the floor installation start up.
15. During and after installation, the H.V.A.C. system should be complete, operational, and conditioning air to be within **55/75 degrees Fahrenheit (13-27 degrees Celsius) with relative humidity between 35/50 percent** or to conditions expected following installation and during occupancy.
16. Flooring must be stored on site in a dry, well-ventilated area while acclimating to site conditions. Moisture content of wood shall be consistent with the ambient conditions of the building as it will be maintained when occupied.
	1. **WARRANTY AND DISCLAIMER**
17. Aacer Wood Floors of Crandon, 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 merchant ability or fitness for a particular purpose. Guarantee shall not cover damage caused in whole or in part by casualty, ordinary wear and tear, abuse, use for which material is not designed, faulty construction of the building, settlement of the building walls, failure of the other contractors to adhere to specifications, separation of the concrete slab and excessive dryness or excessive moisture from humidity, spillage, migration through the slab or wall, or any other source.
18. During the warranty period, the floor shall not be recoated without the approval of the flooring contractor.
19. 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.
20. Flooring contractor warrants the install of the floor systems to be free from defects in materials and workmanship for a period of one year.
21. Notification of claim shall be made within 30 days of discovery.
22. In the event of breach of any warranty, the liability of Aacer Flooring shall be limited to repairing or replacing **Programme III Stage** material and system components supplied by Aacer Flooring and proven to be defective in manufacture, and shall not include any other damages, either direct or consequential.
23. 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**

* 1. **MATERIALS**
1. **Vapor Barrier –** 6 mil (0.15mm) polyethylene
2. **Subfloor –**
3. Pre-engineered panels as manufactured by Aacer Flooring, consisting of two layers of APA rated plywood underlayment with machined anchor pockets and resilient pads pre-attached.
4. FSC® Certified (Specify or Delete) - Subfloor shall be certified by the Forest Stewardship Council™
5. **Automatic Mechanical Ventilation- (Optional - Specify or Delete)**
6. Aacer Original PowerVent Air Flow System
7. 3” X 12” air duct, attached blowers capable of at least 300 C. F. M. and an in - floor humidistat.
8. **Floor Surface –**

**F1 Hardwood Flooring** (Specify or Delete)

1. Floor surface shall be 25/32” (20mm) x 2-1/4” (57mm) 2nd and Better grade northern Hard Maple flooring, TGEM, MFMA grade marked and stamped as manufactured by Aacer Wood Floors.
2. Optional Hard Maple Sizes and Grades (Specify or Delete)
	1. 25/32” (20mm) x 1-1/2” (38mm)
	2. 1st grade, 3rd grade, 3rd and better grade
3. Optional Wood Specie (Specify or Delete)
	1. 25/32” (20mm) x 2-1/4” (57mm) Select & Better Red Oak
4. FSC® Certified (Specify or Delete) - Flooring shall be certified by the Forest Stewardship Council™
5. Expansion Bead (Specify or Delete) – Maple flooring shall include 1/64” Expansion Bead.

**F2 Hardboard Faced Laminate Panel** (Specify or Delete)

1. 3/4" x 48” x 96” (19mm x 1219mm x 2438mm) hardboard faced plywood panels meeting APA PS 1-09 requirements.

**F3 Hardboard Surface Layer** (Specify or Delete)

1. 1/4" x 48” x 96” (6mm x 1219mm x 2438mm) tempered hardboard meeting Class 1 requirements per ANSI specifications.

2. F3 floor surface option requires added subfloor layer – (Specify or Delete)

 a. 15/32” (12mm) APA rated plywood, Exposure 1.

 b. 23/32” (19mm) APA rated plywood, Exposure 1.

1. **Fasteners –**
2. Floor Surface

F1 Hardwood Flooring – 1-1/2” (38mm) barbed cleats or staples

F2 Hardboard Faced Laminate - Zinc plated 1-1/2” (38mm) flat head steel screws

F3 Hardboard Surface Layer - Zinc plated 1-1/4” (32mm) flat head steel screws

1. Subfloor – 3/4” (19mm) coated staples.

And 1” (25mm) coated staples when installing added 15/32” (12mm) subfloor layer for F3 floor surface option, or 1-1/2” (38mm) coated staples when installing added 23/32” (19mm) subfloor layer for F3 floor surface option.

1. Panel Anchor – 2” (51mm) Concrete Anchor
2. **Surface Finish –**

1. F1 Hardwood Flooring - MFMA approved seal and finish

2. F2 Hardboard Faced Laminate - Sealer and compatible flat black high-quality acrylic paint presented for stage floor applications.

3. F3 Hardboard Surface Layer - Sealer and compatible flat black high-quality acrylic paint presented for stage floor applications.

1. **Wall Base -** Heavy duty, molded, vented cove base with pre-molded outside corners.

**PART 3 - EXECUTION**

**3.1. PRE-INSTALLATION INSPECTION**

1. Floor installer shall verify slab tolerance of concrete and report any needed corrections to general contractor.
2. Room shall be broom cleaned and free of any foreign debris.
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.
	1. **INSTALLATION**
4. **SUBFLOOR –**
5. Cover entire slab with vapor retarder, sealing and lapping joints a minimum of 6” (152mm).
6. Install Programme III Stage panels perpendicular to front of stage with side and end edges overlapped. Align in a staggered brick pattern with ends offset by 48” (1219mm) in adjacent rows. Applied subfloor staples nominally 6” (152mm) on center along all overlapping side and end joints. Provide 1/4” (6mm) spacing between all plywood edges.
7. Secure panels to concrete substrate with anchor pin assembly at each subfloor pocket location.
8. Provide 1-1/2” (40mm) to 2” (51mm) expansion voids at perimeter and all vertical obstructions. Install solid blocking at doorways.
9. For F3 Hardboard Surface Option install added 15/32” (12mm) or 23/32” (19mm) upper plywood subfloor panels diagonally to lower subfloor. Lay in brick pattern with edges spaced 1/4" (6mm) and offset end joints 48” (1219mm) in adjacent rows. Attach to Programme III subfloor layer with fasteners spaced 12” (305mm) on center along all panel edges and throughout each panel.
10. **FLOOR SURFACE**

F1 Hardwood Flooring –

1. Install flooring with power nails or staples approximately 12” (305mm) on center with all end joints properly driven tight.
2. Expansion joints may be required between flooring strips intermittently throughout the floor as determined by site and geographical conditions.
3. Provide 1-1/2” (40mm) to 2” (51mm) expansion void at all walls and permanent obstructions.

F2 Hardboard Faced Laminate –

Install laminated hardboard panels perpendicular to subfloor direction with panel ends offset by 48” (1210mm) in adjacent rows. Provide 3/32” (2.5mm) spacing between all edges or adjust in relation to facilities anticipated environmental conditions. Attach panels with screws heads driven flush with panel surface and spaced 6” (305mm) on center within 1-1/2” (38mm) of all panel edges and 12” (305mm) on center throughout each panel.

F3 Hardboard Surface Layer –

 Install hardboard panels perpendicular to Programme III subfloor panels with ends offset by 48” (1210mm) in adjacent rows. Provide 3/32” (2.5mm) spacing between all edges or adjust in relation to facilities anticipated environmental conditions. Attach panels with screws heads driven flush with panel surface and spaced 6” (152mm) on center within 1-1/2” (38mm) of all panel edges and 12” (305mm) on center throughout each panel.

* 1. **FINISHING**

F1 Hardwood Flooring -

1. Machine sand entire floor with multiple grit papers to a smooth and uniform surface, free from edger marks and drum drops.
2. Remove all sanding dust and lint from entire surface by vacuum and/or tack.
3. Inspect entire floor to be sure surface is ready to accept seal and finish. Floor should be free from dust and debris.
4. Apply (2) coats of approved seal and (2) coats of approved finish per manufacturer’s label instructions.
5. Floor shall be buffed, cleaned, and tacked between coats.

F2 Hardboard Faced Laminate and F3 Hardboard Surface Layer –

1. Vacuum and tack all dust and dirt from floor surface before applying first seal coat.

2. Abrade and remove dust between additional coats per coating manufacturer’s instructions.

**3.4 BASE INSTALLATION**

1. Install vent cove base with cove base adhesive and/or mechanical attachment to wall. Use pre-molded outside corners and mitered inside corners.

**3.5.** **CLEANUP**

1. Remove excess debris and waste material from the work area.

**END OF SECTION 09642**

Programme III Stage Specification

Revision Level A 2024

*Note:*

*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.*