**SECTION 09642-Wood Gymnasium Flooring**

**PART 1 – GENERAL**

* 1. **Description**
1. RetroCoustic is a variable profile and versatile impact energy absorbing system consisting of wood cradles and wood sleepers overlaid with plywood in varying thicknesses.
2. **CONCRETE SUBFLOORS – SECTION 03\_\_\_**
3. Slab depression is:

3-5/8” for 25/32” flooring using our 7/16” EcoDIN pad and optional 15/32" APA plywood

3-7/8” for 33/32” flooring using our 7/16” EcoDIN pad and optional 15/32" APA plywood

1. **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. **THRESHOLDS – SECTION 08\_\_\_**
3. **SLEEVES AND STANDARD INSERTS – SECTION 11\_\_\_**

**1.02. REFERENCES**

1. **DIN –** Performance Standard 18032 Part 2
2. **EN –** Performance Standard 14904 World Standard
3. **FSC –** Forest Stewardship Council™
4. **LEED –** Leadership in Energy and Environmental Design
5. **MFMA –** Maple Flooring Manufacturers Association

**1.03. Quality Assurance**

1. **Manufacturer**
2. Manufacturer of resilient flooring shall be a firm specializing in manufacturing products specified in this section.
3. Basis of design shall be “Aacer RetroCoustic” sports floor system as provided by **Aacer Flooring.** **(877) 582-1181, www.Aacerflooring.com.**
4. Materials other than those listed must be approved 10 days prior by written addendum. Materials from non-approved manufacturers will not be accepted.
5. **Installer**
6. 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.
7. 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.
8. Installer must have Aacer installation accreditation.
	1. Optional: MFMA accreditation.(Specify or Delete)
9. **Performance Testing**
10. Flooring system shall have been independently tested to the International Standards: DIN 18032, Part 2 or EN 14904.
11. Independent DIN testing laboratory must be recognized by the MFMA and test to the required standards of the DIN testing methodologies.
12. Independent DIN testing laboratory shall have Scientific Body Membership in the International Association of Sports Surface Sciences (ISSS).
	1. **SUBMITTALS**
	2. **Specification -** Submit Aacer Flooring specification sheets and shop drawings as required.
	3. **Sample -** Submit required number of samples of the specified system as requested by the owner/architect.
	4. **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.
	5. **Working Conditions**
13. 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. Permanent heating and air conditioning shall be installed and working in accordance with building occupation requirements.
14. The concrete substrate shall be determined fully cured by industry standards. It shall be free of all foreign materials and broom cleaned when turned over to the floor installer. 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, building HVAC systems shall maintain a temperature and humidity range compatible with the expected high and low moisture content range of the flooring. The floor installer, based on the building’s HVAC control and geographical situation, shall determine this range.
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 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 merchant ability or fitness for a particular purpose.
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. 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 polyethylene
2. **Flooring**
	1. Flooring shall be 25/32” x 2-1/4” 2nd & Better MFMA northern hard maple, TGEM, as manufactured by Aacer Flooring.
	2. ***Options:***
	3. Grades available: 1st, 2nd & Better, 3rd.
	4. Sizes 25/32”x 1-1/2”, 33/32”x 2-1/4” or 1-1/2”
	5. Wood flooring shall be treated by Aacer with Woodlife F when specified.
3. **Sub floor**
	1. Aacer RetroCoustic cradles shall be 1” x 3” x 4” with side flanges as supplied by Aacer Flooring.
	2. Sleepers shall be 2”x3”x 8’ SPF, S4S, nominal.
	3. Optional plywood panels shall be 15/32” or 23/32” x 4’x 8’CDX (min. 4 ply).
	4. FSC® Certified (Specify or Delete) Subfloor must be certified by the Forest Stewardship Council™
4. **Fasteners**
	1. Sub floor fasteners shall be 1” nails or staples.
	2. Flooring fasteners shall be 2” barbed cleats.
5. **Finish Materials –** Any seal and finish approved by the MFMA.
6. **Game Lines –** Compatible with finish colors as specified by layout design.
7. **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 dryness and tolerances, reporting any discrepancies to the General Contractor and Architect in writing. Room shall be broom clean and free of any foreign material.
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 part of any warranty and may affect fulfillment of any warranty.

* 1. **INSTALLATION**
1. **SUBFLOOR**
2. Cover concrete slab with poly lapping edges 6” and seal with adhesive or 2” duct tape.
3. Determine the highest point on the slab. Lay sleepers 12” o.c. across the short dimension of the floor. Place cradles at 24” intervals along the sleepers.
4. Working from the high point of the floor place first cradle and work outward from there leveling the sleepers as you go.
5. **Option:** Plywood panels may be applied at 45-degree angles or parallel to the sleepers.
6. Lay in a brick pattern, ¼” space between panels, break all joints a minimum of 2’.
	1. Sleeper spacing for 15/32” plywood is 12” o.c. nominal.
	2. Sleeper spacing for 23/32” plywood is 16” o.c. nominal.
7. Machine nail strip flooring at right angles to sleepers. End joints must be properly driven up. Allow 2” expansion voids at perimeter and all vertical obstructions.
8. **MAPLE FLOORING**
9. Install Aacer maple flooring parallel with the long dimension of room. Flooring shall be power nailed every 10” to 12” O.C. with all end joints properly driven tight.
10. Expansion joints may be required between flooring strips intermittently throughout the floor. Requirements will be determined by site and geographical conditions.
11. Provide a minimum 1-1/2” expansion void at all walls and permanent obstructions.
	1. **FINISHING**
12. **FLOOR SANDING**
13. Machine sand entire floor with multiple grit papers to a smooth and uniform surface, free from edger marks and drum drops.
14. Remove all sanding dust and lint from entire surface by vacuum and/or tack.
15. **FINISHING AND GAME LINES**
16. Inspect entire floor to be sure surface is ready to accept seal and finish. Floor should be free from dust and debris.
17. Apply (2) coats of approved seal and (2) coats of approved finish per manufacturer’s label instructions.
18. Floor shall be buffed, cleaned, and tacked between coats.
19. Apply game lines and logos as indicated by drawings between seal and finish coats. Paint shall be compatible with finish.
20. **BASE INSTALLATION**
21. Install vent cove base with cove base adhesive and/or mechanical attachment to wall. Use pre-molded outside corners and mitered inside corners.

**3.4. CLEANUP**

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

General Contractor shall lock floor area after floor is finished to allow proper curing time. If general contractor or owner requires use of gym before proper curing time, they shall protect the floor by covering with non-marring Kraft paper.

**END OF SECTION 09642**

Aacer RetroCoustic Spec sheet

March 13th, 2012

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