



SPECIFICATION:

AACERCUSH I, *Floating System*

PART 1 – GENERAL

1.1. DESCRIPTION

A. Related work specified under other sections.

1. CONCRETE SUBFLOORS – SECTION 03 ____

- a. Slab depression is:
 - 2-5/8" (67mm) for 25/32" (20mm) flooring with 3/8"(10mm) AacerCush pads
 - Adjust profile when applying alternate resilient pad thickness.
- b. 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.
- c. Floor Flatness and Floor Levelness (FF and FL) numbers are not recognized.
- d. 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.
- e. 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 retarder.
- f. The standard concrete surface vapor retarder, or heavier-duty surface vapor retarder only serves to address remaining vapor in a substantially cured slab. Concrete surface vapor retarders 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.

2. MEMBRANE WATERPROOFING-SECTION 07 ____

- a. 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.
- b. Sand-Poly-Sand slab construction is not an acceptable construction.

3. THRESHOLDS – SECTION 08 ____

4. SLEEVES AND STANDARD INSERTS – SECTION 11 ____

1.2. REFERENCES

- A. **DIN** – Performance Standard 18032 Part 2
- B. **EN** – Performance Standard 14904
- C. **FSC** – Forest Stewardship Council™
- D. **MFMA** – Maple Flooring Manufacturers Association

1.3. QUALITY ASSURANCE

A. Manufacturer

- 1. Manufacturer of resilient flooring shall be a firm specializing in manufacturing products specified in this section.

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2. Basis of design shall be “AacerCush I” sports floor system as provided by **Aacer Wood Floors (877) 582-1181, www.Aacerflooring.com**.
3. Materials other than those listed must be approved 10 days prior by written addendum. Materials from non-approved manufacturers will not be accepted.

B. Installer

1. 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.
2. 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.
3. Installer must have Aacer installation accreditation.
 - a. Optional: MFMA accreditation. (Specify or Delete)

C. Performance Testing

1. Flooring system shall have been independently tested to the International Standards: DIN 18032, Part 2, and/or EN 14904.
2. Independent testing laboratory shall have Scientific Body Membership in the International Association of Sports Surface Sciences (ISSS).

1.4. SUBMITTALS

- A. Specification** - Submit Aacer Flooring specification sheets and shop drawings as required.
- B. Sample** - Submit required number of samples of the specified system as requested by the owner/architect.
- C. 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.

1.5. WORKING CONDITIONS

- A.** 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.
- B.** The 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.
- C.** Permanent HVAC units for the building shall have been operating a minimum of one week prior to the floor installation start up.
- D.** 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.

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- E. 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.

1.6. WARRANTY AND DISCLAIMER

- A. Acer 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.
- B. During the warranty period, the floor shall not be recoated without the approval of the flooring contractor.
- C. 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.
- D. Flooring contractor warrants the install of the floor systems to be free from defects in materials and workmanship for a period of one year.
- E. Notification of claim shall be made within 30 days of discovery.
- F. In the event of breach of any warranty, the liability of Acer Wood Floors shall be limited to repairing or replacing **AcerCush I** material and system components supplied by Acer Flooring and proven to be defective in manufacture, and shall not include any other damages, either direct or consequential.
- G. It is the policy of Acer Flooring to continuously improve its line of products. Therefore, Acer 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

- A. **Vapor Barrier** – 6 mil (0.15mm) polyethylene
- B. **Resilient Pads-**
 - 1. 3/8" (10mm) AcerCush extruded pad
 - 2. Optional Pads (Specify or Delete)
 - a. Acer 3/4" (19mm) TriPower® EPDM pad options (Specify or Delete)
 - i. Blue 50 durometer
 - ii. Black 60 durometer
 - iii. Red 70 durometer
 - b. Acer 7/16" (11mm) ECO recycled rubber pad
 - c. Acer 1/2" (12mm) TriPower® pad
- C. **Subfloor** –
 - 1. Nominal 2"x 3"x 4' (51mm x 76mm x 1219mm) S4S, Spruce, Pine, of Fir with pads attached 12" (305mm) on center.
 - 2. FSC® Certified (Specify or Delete) Subfloor must be certified by the Forest Stewardship Council™

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D. Automatic Mechanical Ventilation- (Optional)(Specify or Delete)

1. Aacer "PowerVent Advanced" Air Flow System
 - a. 3" x 12" air duct, attached blowers capable of at least 300 C.F.M. and a control box with smart humidistats.
2. Aacer Original PowerVent Air Flow System
 - a. 3" X 12" air duct, attached blowers capable of at least 300 C. F. M. and an in - floor humidistat.

E. Flooring –

1. 25/32" x 2-1/4" (20mm x 57mm) 2nd and Better grade northern Hard Maple flooring, TGEM, MFMA grade marked and stamped as manufactured by Aacer Wood Floors.
2. Optional Sizes and Grades (Specify or Delete)
 - a. 25/32" x 1-1/2" (20mm x 38mm)
 - b. 1st grade, 3rd grade, 3rd and better grade
3. FSC® Certified (Specify or Delete) Maple must be certified by the Forest Stewardship Council™
4. Expansion Bead (Specify or Delete) Flooring shall include 1/64" (0.4mm) expansion bead.

F. Fasteners –

1. Flooring - 2" (51mm) barbed cleats.

G. Finish Materials – MFMA approved seal and finish.

H. Game Lines – Compatible with finish and as specified by layout design

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

PART 3 - EXECUTION

3.1. PRE-INSTALLATION INSPECTION

- A.** Floor installer shall verify slab tolerance of concrete and report any corrections to general contractor.
- B.** Room shall be broom cleaned and free of any foreign debris.
- C.** 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.

3.2. INSTALLATION

A. SUBFLOOR –

1. Cover entire slab with vapor retarder, sealing and lapping joints a minimum of 6" (152mm).
2. Install sleepers, with factory pads attached, at right angle to long dimension of room a maximum 9" (229mm) on center for 25/32" (20mm) flooring. Note: 8" (203mm) on center for 3rd grade.
3. Install solid blocking at doorways, under bleachers in the stacked position, and below portable goals.
4. Provide 1-1/2" (38mm) expansion voids at perimeter and all vertical obstructions.

B. MAPLE FLOORING

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1. Install Aacer Wood Floors maple flooring parallel with the long dimension of room. Flooring shall be power nailed every 10" to 12" (254mm to 305mm) on center with all end joints properly driven tight.
2. Expansion joints may be required between flooring strips intermittently throughout the floor. Requirements will be determined by site and geographical conditions.
3. Provide a minimum 2" (51mm) expansion void at all walls and permanent obstructions.

3.3.FINISHING

A. FLOOR SANDING

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.

B. FINISHING AND GAME LINES

1. Inspect entire floor to be sure surface is ready to accept seal and finish. Floor should be free from dust and debris.
2. Apply (2) coats of approved seal and (2) coats of approved finish per manufacturer's label instructions.
3. Floor shall be buffed, cleaned, and tacked between coats.
4. Apply game lines and logos as indicated by drawings between seal and finish coats. Paint shall be compatible with finish.

C. 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.

3.4.CLEANUP

A. CLEANUP

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. 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

AacerCush I Specification
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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 your local Aacer Sports Flooring Authorized Dealer for more information.