

# Sports Floor Specifications

**ActionCush II Plus™**  
Floating Resilient Floor System



4781 N. U.S. Hwy. 51 • Mercer, WI USA 54547-9708  
800.746.3512 • 715.476.3512 • Fax 715.476.3585  
[www.actionfloors.com](http://www.actionfloors.com) • [info@actionfloors.com](mailto:info@actionfloors.com)

**Action Cush II Plus  
Floating Resilient Floor System**

**Section 09 64 00  
Wood Athletic Flooring**

**SYSTEM SUMMARY**

This floating system combines sleepers and plywood to give you the best dimensional stability and strength with great ball response. The resilient sleeper panel system combines our AirTech natural rubber pads or PVC pads attached to our ActionCush sleepers along with plywood and maple flooring to create a high profile cushioned system. The ActionCush II Plus System is an excellent choice for elementary, middle, and high school gymnasiums.

Contact ACTION FLOORING SYSTEMS at [www.actionfloors.com](http://www.actionfloors.com) or (800)746-3512 for specific project conditions or modifications of this specification.

**PART 1 – GENERAL**

**1.01 DESCRIPTION**

A. Related Sections: Cast-in-Place Concrete.

1. The general contractor shall provide a level slab, steel troweled to a tolerance of 1/8" (3mm) in a 10'0" (3m) radius and subject to the approval of the wood floor contractor.
2. Moisture barriers must be adequate for conditions.
3. MFMA does not acknowledge the use of FF/FL numbers to measure levelness/flatness tolerances in gymnasium concrete slabs.
4. Concrete shall not use river gravel or pea gravel and have an average of 3500 psi. compressive strength. Concrete must be cured for 60 days before installation can begin.
5. The concrete slab shall be depressed 3-1/8" (79mm) for 25/32" (20mm) flooring.

**1.02 QUALITY ASSURANCE**

- A. All system component parts must be supplied by Action Floor Systems, LLC.
- B. Manufacturer shall be a MFMA Mill Member, an established firm experienced in the field and have been in business a minimum of ten (10) years; Action Floor Systems, LLC or an approved equal.
- C. Manufacturer shall be solvent with no bankruptcy proceedings the previous seven (7) years.
- D. The flooring contractor must be approved by Action Floor Systems, LLC.
- E. Carbon Evaluation must be inclusive and based on all corporate facilities, offices and mills.
- F. The manufacturer and flooring shall be independently verified by the guidelines of the ISO 14064-1:2006 World Resource Institutes Greenhouse Gas Protocol, Scope 1, 2 and 3.
- G. The manufacturer and flooring shall be independently verified by the guidelines of the ISO 14040:2006 and ISO 14044:2006 Life Cycle Assessment (LCA), confirming a negative carbon footprint.
- H. The manufacturer and flooring shall be registered in the Collaborative for High Performance Schools (CHPS) Product Database.
- I. Flooring system shall be independently verified to meet or exceed the SCORES criteria for environmental design and athletic performance: Sustainable Construction of Renewable Engineered Surfaces.

**1.03 SUBMITTALS**

- A. Manufacturer's product data: Submit the **Action Cush II Plus** specification sheets.
- B. Samples: Submit one (1) sample of the **Action Cush II Plus**, if requested by architect.
- C. Maintenance literature: Submit one (1) copy of manufacturer's maintenance instructions.

**1.04 WORKING CONDITIONS**

- A. Flooring materials must be allowed to acclimate to building conditions on the job site in a dry, well-ventilated area, not in contact with masonry, and shall be installed at a moisture content not to exceed 8% except in areas of constant high humidity where the moisture content of the flooring shall not exceed 10%.
- B. The wood flooring shall not be installed until all masonry, plastering, tile, marble and terrazzo work is completed, and overhead mechanical trades and painters have finished in wood floor area. The building must be reasonably dry; all openings must be closed in; permanent heating and air conditioning installed and operating.
- C. The concrete slab shall be dry, free of foreign materials, and turned over to the wood flooring contractor broom clean. Moderate room temperature of 65 degrees (18 C) or more shall be maintained a week preceding and throughout the duration of the work. Humidity conditions within the building shall approximate humidity conditions which will prevail when the building is occupied. Care should be taken to maintain humidity within the range of 35% to 50%.

**1.05 WARRANTY**

- A. Action Floor Systems, LLC warrants the material it ships to be free from defects in materials and workmanship for a period of one year and the flooring installer warrants the installation of the flooring to be free of defects in materials and workmanship for a period of one year. The exclusive remedy under this warranty shall be replacement of defective material supplied by Action Floor Systems, LLC or correction of defective installation by the flooring installer. All implied warranties of merchantability or fitness for intended use are limited to the period of this warranty. This warranty excludes consequential damages.
- B. This warranty does not cover damage caused by fire, winds, floods, chemicals, or other abuse, or by failure of other contractors to adhere to specifications, or neglect of reasonable precaution to provide adequate ventilation during hot and humid weather. This warranty also excludes damage due to excessive dryness or excessive moisture from humidity, spillage, migration through the slab or wall or any other source. This warranty also excludes damage to floors due to ordinary wear and tear, faulty construction of the building, (other than the flooring installation), separation of the concrete slab underlying the floor, settlement of the walls, or use of water on the floor.
- C. During the warranty period, the floor cannot be coated without the permission of the floor contractor.

## **PART 2 - PRODUCTS**

### **2.01 MATERIALS**

#### **A. Flooring**

1. Flooring shall be Northern Hard Maple standard strip flooring, 25/32" x 2-1/4" (20mm x 57mm) or 1-1/2" (38mm), TGEM, MFMA grade marked & stamped as manufactured by Action Floor Systems, LLC.
2. Grades available are MFMA 1st, 2nd&Btr. 3rd&Btr. and 3rd grade.
3. Long Length Strip Flooring by Action Floor Systems, LLC (optional).
4. FSC Certified lumber (optional).
5. Expansion Ridge Technology (ERT) 1/64" milled expansion spacer (optional).

#### **B. Subfloor**

1. Vapor barrier shall be 6-mil polyethylene.
2. ActionCush sleepers shall be spruce, pine or fir, nominal size 2" x 3" x 4' (50mm x 76mm x 1.2m), surfaced to uniform thickness, kiln dried to 12% moisture content or less, each with five Action Cush or AirTech natural rubber pads attached as supplied by Action Floor Systems, LLC.
3. Panels shall be 15/32" x 4' x 8' (12mm x 1.2m x 2.4m) 4ply CD face exposure 1, rated plywood.

#### **C. Fasteners**

1. Subfloor fasteners shall be 1" (25mm) coated staples.
2. Flooring fasteners shall be 2" (50mm) cleats, or 15-gauge coated staples.

#### **D. Wall Base**

1. Wall base shall be 3" x 4" (76mm x 102mm) vented cove base with pre-molded corners (specify black or brown), as supplied by Action Floor Systems, LLC.

#### **E. Protective Floor Cover (optional)**

1. Action AirRide cover system with patented air blower system. System includes Phthalate-free, seamless 10'-0" wide, 20.5 ounce vinyl covers and A-frame rack.

## **PART 3 - EXECUTION**

### **3.01 INSPECTION**

- A. Inspect concrete slab for proper tolerance and dryness reporting any discrepancies in writing to the general contractor.
- B. All work to put the concrete slab in acceptable condition shall be the responsibility of the general contractor.
- C. Slab shall be broom cleaned by the general contractor.

### **3.02 INSTALLATION**

- A. Cover concrete slab with polyethylene lapping edges 6" (150mm) and seal with adhesive or 2" (50mm) duct tape.
- B. Place the ActionCush sleepers end-to-end in a brick pattern at right angles to the intended direction of the finished flooring with end joints staggered 24"(600mm). The sleepers shall be spaced 12"(300mm) on centers. Allow 2" (50mm) voids at perimeter and vertical obstructions.

- C. Place the plywood in a brick pattern over sleepers at a 45 or 90-degree angle to the direction of finish flooring, 1/4"(6mm) spacing on all edges and breaking joints 4'(1.2m). Attach with 1"(25mm) fasteners 12"(300mm) on centers on each sleeper. Allow 2"(50mm) expansion void at perimeter and vertical obstructions.
- D. Machine nail strip flooring into the plywood subfloor, parallel to the long dimension of the area nail approximately 12" (300mm) on-center. Provide adequate expansion at regular intervals across the floor during installation as dictated by the average humidity conditions of the area according to the recommendations of the local Action Floor Systems, LLC flooring contractor. Provide 2" (50mm) expansion voids at perimeters and all vertical obstructions. Install vent cove base over perimeter voids and metal thresholds at doorways.

### **3.03 FLOOR SANDING**

- A. Use coarse, medium and fine grade sandpaper.
- B. After sanding, buff entire floor using 100-grit screen or equal grit sandpaper, with a heavy-duty buffing machine.
- C. Vacuum or tack floor before first coat of finish.
- D. Floor shall present a smooth surface without drum stop marks, gouges, streaks or shiners.

### **3.04 FINISHING**

- A. Inspect entire area of floor to ensure that the surface is acceptable for finishing, completely free of sanding dust and perfectly clean.
- B. Apply seal and finish per manufacturer's instructions.
- C. Buff and vacuum or tack between each coat after it dries.
- D. Apply game lines accurately after the seal coat, after buffing and vacuuming. Lay out in accordance with drawings. For game lines, use current rules of association having jurisdiction. Lines shall be straight with sharp edges in colors selected by the architect. Game line paint shall be compatible with finish.

### **3.05 BASE INSTALLATION**

- A. Affix rubber base to wall with recommended adhesive or screws. Miter all corners carefully. Use premolded outside corners. Install aluminum thresholds as required, anchoring firmly in concrete floor beyond limits of wood flooring.

### **3.06 CLEAN UP**

- A. Clean up all unused materials and debris and remove from premises, properly dispose of all waste materials.

**3.07 MAINTENANCE**

- A. Upon completion of floor installation, the owners, attendants or individuals in charge and responsible for the upkeep of the building are to see that the care and maintenance instructions of the MFMA are followed. Failure to do so may void warranty.

NOTICE:

IT IS THE POLICY OF ACTION FLOOR SYSTEMS, LLC. TO CONTINUOUSLY UPDATE AND IMPROVE OUR PRODUCT LINES. THEREFORE, WE RESERVE THE RIGHT TO CHANGE, MODIFY OR DISCONTINUE SYSTEMS, SPECIFICATIONS AND ACCESSORIES OF ALL PRODUCTS AT ANY TIME WITHOUT ANY NOTICE OR OBLIGATION TO ANY PURCHASERS.

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