

## SECTION 09

# RESILIENT WOOD FLOORING SYSTEM

## JUNCKERS UNOBAT 45 SYSTEM

*The Junckers UnoBat 45 System is a high performance and low profile gymnasium, group exercise and dance floor system. The following specifications call out the material and default installation requirements necessary for the floor as recommended by Junckers Hardwood Inc. It may be necessary to review and modify these specifications with Junckers Hardwood Inc. for local codes or specific project requirements. Contact Junckers Hardwood at 800-878-9663, [info@junckershardwood.com](mailto:info@junckershardwood.com) or [www.junckershardwood.com](http://www.junckershardwood.com)*

### PART 1 GENERAL

#### 1.01 DESCRIPTION

- A. Related work specified under other sections. (A cross-reference should be incorporated in these sections.)

**\*\*\* EDIT THE FOLLOWING SECTION TITLES AS APPROPRIATE TO PROJECT \*\*\***

- B. Related Sections:
1. Concrete and Concrete Finishing - Section 03300
    - a. Concrete Slab Depression: a total of 1 3/4" (45mm)
    - b. Surface Finish: Steel troweled and finished smooth 1630 - Product Options and Substitutions.
    - c. Concrete Tolerance: 3/16" (4mm) in a 10' (3m) radius.
    - d. Compressive Strength: Concrete shall be a minimum of 3,000 psi and a maximum of 4,000 psi compressive strength after 28 days.
    - e. Floor Flatness and Floor Levelness (FF and FL) numbers are not recognized.
  2. Membrane Waterproofing and Damp proofing – Section 07100
    - a. Concrete subfloors on or below grade shall be adequately waterproofed beneath the slab and the perimeter walls and on the below grade walls by general contractor using suitable type membrane.
  3. Thresholds and Finish Hardware – Section 08700
  4. Game Standard Inserts – Section 11500

#### 1.02 QUALITY ASSURANCE

- A. Floor System Manufacturer Qualifications:
1. Manufacturer shall be an established firm experienced in field and have been in business for a minimum of ten (10) years: Junckers Hardwood, or pre-approved equal.
  2. Floor Contractor / Installer Qualifications and Certifications.
    - a. Regularly engaged and specializing, for the preceding 5 years, in installations of resilient wood flooring systems of equivalent type, size, and complexity. Installers shall be specifically trained and certified or otherwise approved in writing by the manufacturer of the resilient wood flooring system.
  3. System Performance Requirements:
    - a. System shall have been successfully tested in accordance with the minimum requirements of EN 14904.
      - i. Shock absorption shall be 57 percent minimum.
      - ii. Ball return shall be at least 97 percent.
      - iii. Deflection: Point of Impact: 2.4 mm minimum.
      - iv. Friction: Range 0.5 to 0.7 in accordance with EN test method.

#### 1.03 SUBMITTALS

- A. Manufacturers Product Data:
1. Submit three (3) Junckers UnoBat 45 specification sheets.
  2. Suppliers shall submit certificates attesting that materials furnished will meet specifications for grade, quality, thickness and finish
  3. Concrete Guidelines: Submit three (3) copies of moisture testing results of concrete subfloor surfaces to receive wood flooring.
- B. Wood Floor System:
1. Submit one (1) 10" x 12" system mock up sample showing construction and finishes.
  2. Submit copy of warranty and maintenance instructions.

**1.04 DELIVERY, STORAGE, AND HANDLING**

- A. Do not deliver wood materials until after wet operations in building are completed, building is fully enclosed, weather tight, and permanent heating, ventilating, lighting systems, scoreboards and backstops are installed and operational.

**\*\*\* REMOVE FOLLOWING PARAGRAPH UNLESS LOCATION OF PROJECT HAS EXTREME CLIMATIC CONDITIONS \*\*\***

- B. Place wood flooring materials in the rooms or spaces to be floored at least 10 days in advance of the start of installation. Open packages of wood flooring that are sealed to permit natural adjustment of moisture content.

**1.05 PROJECT CONDITIONS**

- A. Environmental Requirements: During installation, maintain a temperature range of between 55 to 80 degrees F, and a relative humidity range of between 35 to 65 percent. Maintain temperature, relative humidity, and illumination levels equal to the environment that will prevail when the building is occupied prior, during, and after installation of work of this Section.
- B. Ensure that the concrete subfloor has been cured a minimum of 60 days.
- C. General Contractor is responsible to ensure slab is clean, broom sweep and free of all dirt and debris prior to the floor installation beginning.

**1.06 WARRANTY**

- A. Furnish a 3-year guaranty for the finished wood flooring and associated work, agreeing to repair or replace flooring which shrinks, warps, cracks, or otherwise deteriorates excessively, or which buckles, delaminates, or fails otherwise to perform as required or as represented by the manufacturer, due to failures of materials and workmanship.

**PART 2 - PRODUCTS****2.01 MANUFACTURERS**

- A. Design is based on the use of products manufactured by Junckers Hardwood Inc. (212)334-8060, (800)878-9663.

**2.02 MATERIALS**

- A. Subfloor Materials:
1. Vapor Barrier: Polyethylene film, clear, 6-mil (0.135mm) thickness.
  2. UnoBat 45 Sleepers: Sleepers shall be 7/8" (22 mm) x 2" (50 mm) x 12' (3600 mm), 7-ply construction with two pre-attached rubber strips on the underside.
- B. Finish Flooring:
1. Hardwood:
    - a. Species: Beech.
    - \*\*\* SELECT APPROPRIATE GRADE BELOW \*\*\***
    - b. Grade: [Classic] Harmony[Variation] grade.
    - c. Cut: Square edged, tongue and groove sides.
  2. Size:
    - a. Thickness: 7/8-inch (22mm).
    - b. Face Width: 5-1/16-inch (129mm).
    - c. Lengths: 12 feet (3600mm).
  3. Seasoning: Press-dried before milling, approximately 8 percent moisture content.
  4. Finish:
    - a. Exposed Surface: Factory sealed with two coats of two-component polyurethane.
    - b. Underside: Marked, stamped and sealed with a factory applied urethane coating, acting as an additional vapor barrier and wood floor stabilizer.
    - c. Edges: Wax sealed by manufacturer to prevent panelization from occurring.
- C. Accessory Materials:
1. Vented Base: Heavy-duty, molded, vented, rubber cove base with pre-molded outside corners. Size shall be 4 inches (100mm) high with 3-inch (75mm) horizontal leg in longest lengths practicable. Color shall be as selected by Architect from manufacturer's standard colors.
  2. Thresholds: 5-inch (125mm) wide aluminum, [stainless steel] flat stock, not less than 1/4-inch (6mm) thick. Provide stainless steel fasteners to match threshold finish.
  3. Tape: Standard duct tape.
  4. Fasteners: Shall be 2" (50 mm) barbed cleats or 15-gauge coated staples.
- D. Stripping Paint: Junckers HP Game Line Paint.
- E. Floor Sealer: Junckers HP Sports Urethane.

**3.01 INSPECTION**

- A. Verification of Conditions:
  - 1. Confirm that below grade moisture barriers have been properly installed.
  - 2. Verify that floor is level to a tolerance of 3/16" in 10 feet (4mm in 3m) with no more than 1/2-inch (13mm) deviation over entire floor slab area.
    - a. Ensure that high areas are ground and low areas filled with approved flooring compound until acceptable to flooring manufacturer.
  - 3. Verify that concrete floor slab is relatively smooth with no sharp ridges and is depressed 1-3/4 inches (45 mm) below adjacent finished floor elevation.

**3.02 PREPARATION**

- A. Surface Preparation: Thoroughly clean area to receive wood flooring.
- B. Install floor sleeves and accessories supplied under the gymnasium equipment section as required. Coordinate with other trades to ensure proper location and anchorage is achieved.
- C. Moisture Protection: Place vapor barrier over entire slab area to receive wood flooring, overlapping joints 6 inches (150mm) and extending up walls 2 inches (50mm). Seal edges using a compatible sealant, as recommended by manufacturer.

**3.03 INSTALLATION**

- A. General: Install work in accordance with the manufacturer's recommendations outlined in Technical Information sheet D 11.2.1.
  - 1. Pattern Direction: Lay flooring lengthwise with space to be floored.
  - 2. Expansion Spaces: Provide expansion space at walls and other obstructions, interruptions, and terminations of flooring.
    - a. At sides, leave 1/4-inch per 10 feet (2mm space per meter) width of room.
    - b. At ends, leave 1/8-inch per 10 feet (1mm space per meter) length of room.
- B. Subfloor: Install UnoBat 45 sleeper parallel to the width of the room at either 16 3/16" (411 mm) or 13 1/4" (366 mm) on centers. Install additional sleepers adjacent to all floor penetrations to support ends of wood flooring.
  - 1. Install solid blocking at doorways, under bleachers in stacked position, and below portable goals.

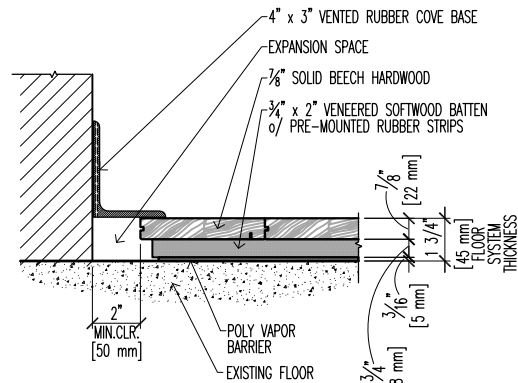
**\*\*\* DELETE NEXT PARAGRAPH IF NO BLEACHERS \*\*\***

- 2. Coordinate with bleacher manufacturer and provide extra support at wheels or bearing points.
- C. Wood Flooring:
  - 1. Install planks using machine nailing system. Blind nail each plank where it intersects with each sleeper.
  - 2. Ensure all plank head joints are staggered according to the recommended laying pattern for the sleeper on center spacing. Ensure all head joints fall directly above a sleeper.
  - 3. Ensure that joint lines are straight and parallel to major walls.
- D. Finish:
  - 1. Preparation: Abrade entire floor surface with 120 grit sanding pads or screens. Remove dust and contaminants from floor surfaces and from room by sweeping, mopping, and vacuuming. Take precautions to prevent dust infiltration during finishing operations.
  - 2. Apply games lines, graphics, and other floor markings as indicated on Contract Documents. Mask flooring to provide sharp edges.
  - 3. Sealer: Apply two coats of floor sealer and buff between each coat. Prevent heavy traffic on finished floor for a minimum of 10 days.
- E. Accessories:
  - 1. Install wall base, thresholds, and other cover trim as indicated on Contract Drawings for expansion spaces at edges, vertical obstructions, and interruptions of flooring.
  - 2. Apply wood molding where changes of floor finishes occur, matching color and finish of wood flooring.

**3.04 PROTECTION AND CLEANING**

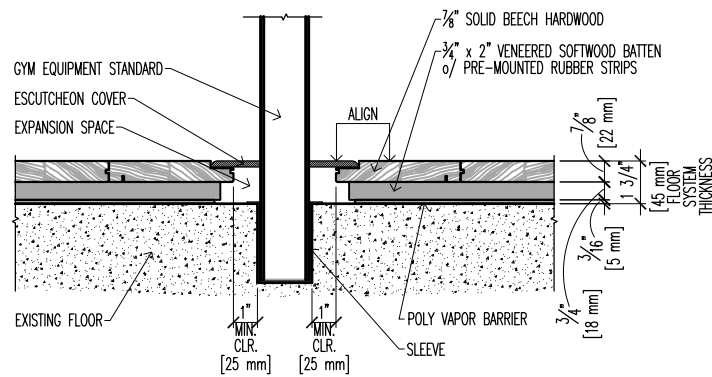
- A. Immediately after sealer coat is dry, cover flooring with protective covering.
- B. Prior to final inspection, remove protective covering, repair any damage to the flooring, clean, and machine buff the entire floor area.

**END OF SECTION**



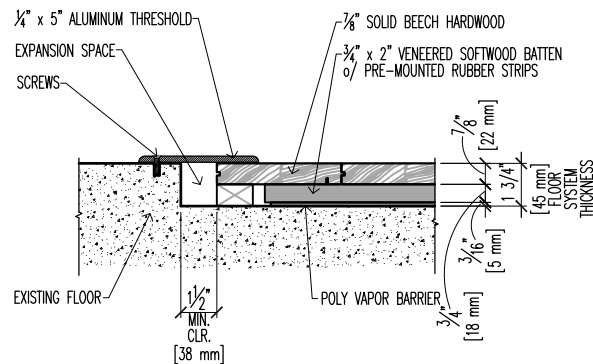
**UnoBAT 45 System - Wall Detail**

scale: 1 1/2" = 1'-0"



**UnoBAT 45 System - Standard Equipment Detail**

scale: 1 1/2" = 1'-0"



**UnoBAT 45 System - Threshold Detail**

scale: 1 1/2" = 1'-0"