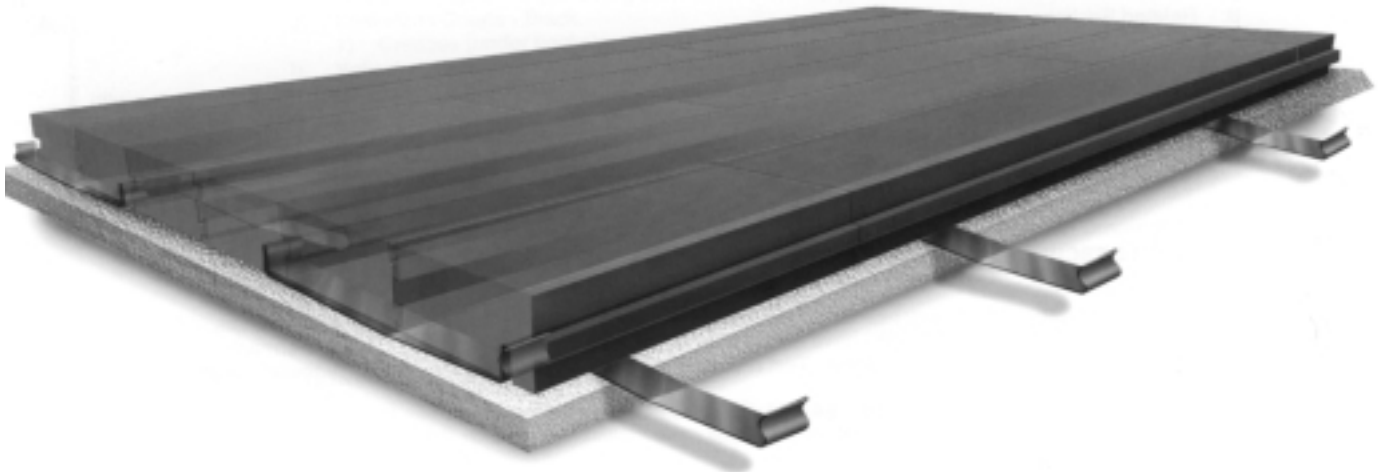
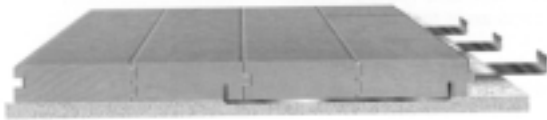




## CLIP DIN SYSTEM



The Exerflex Clip DIN System is a high performance and low profile gymnasium and aerobic flooring system. The total finished floor thickness including the foam subfloor is only 1 inch to 1/2 inches in increased height depending on foam thickness. Exerflex sports floors constructed with 3/8 inch foam and steel clips exceeds all world recognized DIN standards, providing excellent resilience, high shock absorbance, and safe playing conditions. This system is ideal for upgrading synthetic floors since it can be installed directly over existing floor surfaces.

## RESILIENT WOOD FLOORING SYSTEM - CLIP DIN SYSTEM

*The Exerflex Clip DIN System is a high performance and low profile gymnasium and aerobic flooring system. The total finished floor thickness including the foam subfloor is only 1 inch to 1-1/2 inches in increased height depending on foam thickness. Exerflex sports floors constructed with 3/8-inch foam and steel clips exceeds all world recognized DIN standards, providing excellent resilience, high shock absorption, and safe playing conditions. This system is ideal for upgrading synthetic floors since it can be installed directly over existing floor surfaces.*

### PART 1 - GENERAL

#### 1.01 SUMMARY

- A. Section Includes: A high performance floating gymnasium flooring system utilizing a foam underlayment and steel fastening clips.

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

- B. Related Sections:
1. Section 01300 - Submittals.
  2. Section 01630 - Product Options and Substitutions.
  3. Section 03300 - Cast-in-Place Concrete: Floor slab placement, tolerancing, and finishing. Coordination with built-in sleeves.
  4. Section 06100 - Rough Carpentry.
  5. Section 08710 - Finish Hardware: Thresholds.
  6. Section 11490 - Gymnasium Equipment.
  7. Division 16 - Electrical: Coordination with recessed electrical and communications services.

#### 1.02 SYSTEM DESCRIPTION

- A. Performance Standards:
1. Floor system shall have been successfully tested in accordance with the minimum requirements of DIN 18032, Part 2. Testing shall have been performed by the Otto Graf Institut, Stuttgart, Germany, or any agency certified by the Otto Graf Institut. Test results from any other non-certified agency or testing institution does not constitute DIN certification.
    - a. Shock absorption shall be 54.2 percent minimum.
    - b. Ball return shall be at least 95.9 percent.
    - c. Deflection:
      - 1) Point of Impact: 2.52mm minimum.
      - 2) 500mm (twenty inches) from point of Impact: 13 percent of point of impact maximum.
    - d. Friction: Range 0.5 to 0.7 in accordance with DIN test method.
    - e. Rolling Load: Sustain weight capacity of 3337.6 pounds without damage.

#### 1.03 SUBMITTALS

- A. Product Data: Submit complete manufacturer's descriptive literature and specifications in accordance with the provisions of Section 01300.
1. Materials List: Submit complete lists of materials and finishes proposed for use, giving the manufacturer's name, catalog number, and catalog cut for each item where applicable.
- B. Shop Drawings: In accordance with the provisions of Section 01300, submit Shop Drawings which compre-

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hensively describe the layout and installation of resilient wood floors.

1. Dimensioned plans, including locations of all inserts, patterns, and game lines.
2. Provisions for the recessed support sleeves, fittings, electrical boxes, and communications services.
3. Details and locations of termination conditions at floors and walls.

- C. **Samples:** In accordance with the requirements of Section 01300, submit samples of finish materials for review by Architect of color, texture, and pattern.
1. Submit one full-size sample of assembled floor section 18 inches square (450mm x 450mm) showing construction and finishes.
  2. Submit 12-inch (300mm) lengths of accessories, including base, threshold, and striping paint colors.
- D. **Quality Control Submittals:** Submittals shall be made in accordance with the provisions of Section 01300.
1. **Certificates:**
    - a. Provide each bundle of flooring identified with appropriate grade marks.
    - b. Submit certification from the Otto Graf Institut, Stuttgart, Germany, or an agency certified by the Otto Graf Institut to do DIN testing, that the floor system has been tested and meets or exceeds all minimum standards as established by DIN 18032 Part 2.
  2. **Manufacturer's Instructions:** Submit manufacturer's current recommended installation instructions, including relevant limitations, safety, and environmental cautions, and application rates of finish materials.
  3. **Manufacturer's Field Reports:** Submit concrete inspection reports, delivery storage records for wood flooring materials, and daily installation reports.
- E. **Contract Closeout Submittals:**
1. **Operation and Maintenance Data:** For information only, submit manufacturer's standard recommendations for the cleaning, maintenance, and preservation of the flooring.

#### **1.04 QUALITY ASSURANCE**

- A. **Installer's Qualifications:** 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.
- B. **Regulatory Requirements:** Comply with applicable codes and regulations of governmental agencies having jurisdiction over airborne emissions.
- C. Coordinate sequence of work with gymnasium equipment specified in Division 11.

#### **1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Do not deliver wood materials until after wet operations in building are completed, building is fully enclosed and weathertight, and permanent heating, ventilating, and lighting systems are installed and operational.
- B. Maintain temperature, relative humidity, and illumination levels as specified by manufacturer prior, during, and after installation of work of this Section.

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

- C. Place wood flooring materials in the rooms or spaces to be floored at least 7 days in advance of the start of installation. Open packages of wood flooring that are sealed to permit natural adjustment of moisture content.

#### **1.06 PROJECT CONDITIONS**

- A. **Environmental Requirements:** During installation, maintain a temperature range of between 55 to 78 degrees F, and a relative humidity range of between 35 to 50 percent.
- B. **Field Measurements:** Prepare Shop Drawings based on field measurements taken at site specifically for work of this Section.

#### **1.07 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 Exerflex of Indianapolis, IN (800) 428-5306.

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## 2.02 MATERIALS

### A. Finish Flooring Materials:

1. **Hardwood:** Comply with grading rules for the following:
  - a. **Species:** Beech (*fagus grandifolia*).

**\*\*\* 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 lacquer.
  - b. **Underside:** Marked and stamped with a factory laminated layer of polyethylene sheeting acting as an additional vapor barrier.
  - c. **Edges:** Wax sealed by manufacturer to prevent panelization from occurring.

### B. Sub-floor Materials:

- a. **Moisture Barrier:** Polyethylene film, clear, 6-mil (0.135mm) thickness.
- b. **Foam Pad:** Two-pound per cubic foot density cross-linked polyethylene foam in roll 60 inches wide and [1/4-inch] 3/8-inch [1/2-inch] thick.

### C. Accessory Materials:

1. **Vented Base:** Heavy-duty, molded, vented, rubber cove base with premolded 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. **Clips:** Manufacturer's standard tempered steel **Clip**, specifically designed for use with Exerflex 5-inch by 12-inch prefinished planks.

4. **Tape:** Manufacturer's standard ducttape.
5. **Adhesive:** Manufacturer's standard header joint adhesive.

### D. Striping Paint: As recommended by flooring manufacturer.

### E. Floor Sealer: As recommended by manufacturer.

## 2.03 SOURCE QUALITY CONTROL

- ### A. Verification of Performance:
- The Owner may, at its discretion and expense, have the finished flooring tested by an independent certified DIN testing agency. Should the finished flooring fail to pass these stringent standards, the Owner may require the flooring to be removed and replaced with a floor that will pass the specified standards. Removal and replacement shall be at no expense to the Owner.

## PART 3 - EXECUTION

### 3.01 EXAMINATION

#### 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 1/8-inch in 10 feet (3mm 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 [1-1/8 inches] 1-1/4 inches [1-3/8 inches] below adjacent finished floor elevation.

### 3.02 PREPARATION

- #### A. Surface Preparation:
- Thoroughly clean area to receive wood flooring.

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- B. *Install floor sleeves and accessories supplied under the gymnasium equipment section as required. Cooperate with other trades to ensure proper location and anchorage is achieved.*
- C. *Moisture Protection: Place moisture 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, as published in Technical Bulletin TI-3.*
  - 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 0.024-inch per foot (2mm space per meter) width of room.*
    - b. *At ends, leave 0.012-inch per foot (1mm space per meter) length of room.*
- B. *Subfloor: Unroll pad parallel to the width of the room butting edges and taping all joints.*

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

- 1. *Coordinate with bleacher manufacturer and provide extra support at wheels or bearing points.*
- C. *Wood Flooring:*
  - 1. *Glue all head joints with specified adhesive.*
    - a. *Stagger end joints at least 32 inches (800mm).*
  - 2. *Wood flooring shall have a maximum of 8 percent moisture content during installation.*
  - 3. *Ensure that joint lines are straight and parallel to major walls.*
- D. *Finish:*
  - 1. *Preparation: Abrade entire floor surface with 100 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. The following color code shall apply unless otherwise scheduled:*
    - a. *Basketball Courts - Black.*
      - 1) *Creases (under backstops) - Blue.*
    - b. *Volleyball Courts - Green.*
    - c. *Badminton Courts - Yellow.*
    - d. *Other markings - as shown in accordance with the finish coating manufacturer's latest printed application instructions.*
  - 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 vented base trim, thresholds, and other cover trim as indicated on Contract Drawings for expansion spaces at edges, vertical obstructions, and interruptions of flooring.*
  - 2. *Provide expansion filler at each floor socket, as required to prevent buckling of the flooring. Use cork filler or an approved alternative material.*
  - 3. *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**

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