



# Endurance Sport Sheet Flooring

## Wood Grain Patterns

**Technical Manual**  
Installation · Maintenance · Warranty



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A Fishman Brand Product

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MANUFACTURED FOR  
Fishman Flooring Solutions

Revised on 2/16/2021  
Supersedes all previous versions.  
Check website for updates and

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## Installation

### I. JOB SITE CONDITIONS

1. Installation should not begin until after all other trades are finished in the area. If the job requires other trades to work in the area after the installation of the floor, the floor should be protected with [Anchor Cover Board](#). Kraft paper or plastic works well.
2. Areas to receive flooring should be weather tight and maintained at a minimum uniform temperature of 65°F (18°C) for 48 hours before, during, and after the installation.

### II. SUBFLOORS

1. ENDURANCE SPORT may be installed over concrete, Portland- based patching and leveling materials, and underlayment grade wood subfloors.

**NOTE:** Gypsum-based patching and leveling compounds are not acceptable.

2. Wood Subfloors – Wood subfloors should be double constructed, rigid and free from movement with a minimum of 18 inches of well-ventilated air space below.
3. Underlayments – The preferred underlayment panel is Anchor 6mm Certified underlayment grade plywood with a fully sanded face.

**NOTE: Particleboard, chipboard, Masonite and lauan are not considered to be suitable underlayments.**

3. Concrete Floors – Concrete shall have a minimum compressive strength of 3000 psi. New concrete slabs should cure for a minimum of 28 days before installing ENDURANCE SPORT. Concrete must be fully cured and permanently dry.

### III. SUBFLOOR REQUIREMENTS AND PREPARATION

1. Subfloors shall be dry, clean, smooth, level, and structurally sound. They should be free of dust, solvent, paint, wax, oil, grease, asphalt, sealers, curing and hardening compounds, alkaline salts, old adhesive residue, and other extraneous materials, according to ASTM F710.
2. Subfloors should be smooth to prevent irregularities, roughness, or other defects from telegraphing through the new flooring. The surface should be flat to the equivalent of 3/16" (4.8 mm) in 10' (3.0 m).
3. Mechanically remove all traces of old adhesives, paint, or other debris by scraping, sanding, or scarifying the substrate. Do not use solvents. All high spots shall be ground level and low spots filled with an approved Portland-based patching compound.
4. All saw cuts (control joints), cracks, indentations, and other non-moving joints in the concrete must be filled with an approved Portland-based patching compound.
5. Expansion joints in the concrete are designed to allow for expansion and contraction of the concrete. If a floor covering is installed over an expansion joint, it will likely fail in that area. Use expansion joint covers designed for resilient flooring.
6. Always allow patching materials to dry thoroughly and install according to the manufacturer's instructions. Excessive moisture in patching material may cause bonding problems or a bubbling reaction with the recommended adhesive.

**HAZARDS:**

**SILICA WARNING** – Concrete, floor patching compounds, toppings, and leveling compounds can contain free crystalline silica. Cutting, sawing, grinding, or drilling can produce respirable crystalline silica (particles 1-10 micrometers). Classified by OSHA as an IA carcinogen, respirable silica is known to cause silicosis and other respiratory diseases. Avoid actions that may cause dust to become airborne. Use local or general ventilation or provide protective equipment to reduce exposure to below the applicable exposure limits.

**ASBESTOS WARNING** – Resilient flooring, backing, lining felt, paint, or asphaltic “cutback” adhesives can contain asbestos fibers. Avoid actions that cause dust to become airborne. Do not sand, dry sweep, dry scrape, drill, saw, bead blast, or mechanically chip or pulverize. Regulations may require that the material be tested to determine the asbestos content. Consult the document “Recommended Work Practices for Removal of Existing Resilient Floor Coverings” available from the Resilient Floor Covering Institute.

**LEAD WARNING** – Certain paints can contain lead. Exposure to excessive amounts of lead dust presents a health hazard. Refer to applicable federal, state, and local laws and the publication “Lead Based Paint: Guidelines for Hazard Identification and Abatement in Public and Indian Housing” available from the United States Department of Housing and Urban Development.

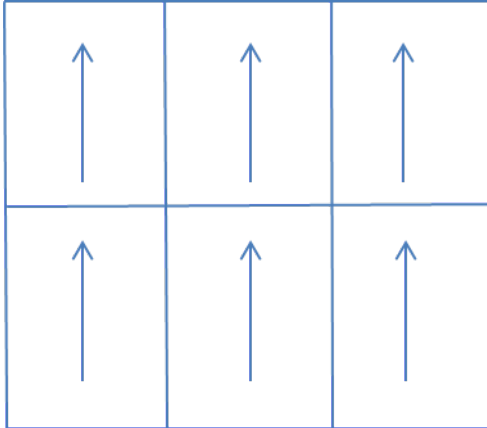
7. Moisture must be measured using the RH Relative Humidity test method per ASTM F2170 standard. Moisture content should not exceed 85% RH. If the levels exceed the limitations, the installation should not proceed until the situation has been corrected.
8. In the event that a moisture mitigation system is required, consult your Landmark Interiors representative for the proper recommendation.
9. It is essential that pH tests be taken on all concrete floors. If the pH is greater than 9, it must be neutralized prior to beginning the installation.
10. Adhesive bond tests should be conducted in several locations throughout the area. Glue down 3' x 3' test pieces of the flooring with the recommended adhesive and trowel. Allow to set for 72 hours before attempting to remove. A sufficient amount of force should be required to remove the flooring and, when removed, there should be adhesive residue on the subfloor and on the back of the test pieces.

**IV. MATERIAL STORAGE AND HANDLING**

1. Material should be delivered to the job site in its original, unopened packaging with all labels intact.
2. Material must be stored in a climate controlled environment not to exceed 85°F (30°C)
3. Note: Shipping pallets, cradles, banding, etc. are not intended for storage. Roll material should always be stored on end. Storing ENDURANCE SPORT lying down may cause wetting, which causes permanent memory of the material. Rolls should only be stored on a clean, dry, smooth surface.
4. **Inspect all materials for visual defects before beginning the installation. No labor claim will be honored on material installed with visual defects. Verify the material delivered is the correct style, color, and amount. Any discrepancies must be reported immediately before beginning installation.**
5. The material and adhesive must be acclimated at room temperature for a minimum of 48 hours before starting installation.

6. PLEASE NOTE: All ENDURANCE SPORT WOOD BOARD PATTERN rolls should be unrolled and installed in the same direction to avoid pattern variations between the rolls.

Wood Board Pattern rolls go in same direction



7. PLEASE NOTE: Wood board pattern rolls have partial board widths on each side of the roll from the factory; factory edges are suitable for installation. If removal of these partial board widths is specified, material yield will be reduced on the job and should be taken into account when estimating.
8. Unroll all rolls and allow to relax overnight.

**NOTE:** When handling or installing Endurance Sport, special care should be taken not to sharply fold or crease the material. This can result in permanent visual damage to the PUR wear layer which is not covered under Fishman's product warranty.

## V. INSTALLATION – ENDURANCE SPORT ROLL MATERIAL

1. Make the assumption that the walls you are butting against are not straight or square. Using a chalk line, make a starting point for an edge of the flooring to follow. The chalk line should be set where the first seam will be located.
2. Lay the vinyl on the floor in a way that will use your cuts efficiently. Cut all rolls at the required length, including enough to run up the wall a couple inches.
3. If end seams are necessary, they should be staggered on the floor and overlapped approximately 2". End seams will be trimmed **after acclimation period** using a square to ensure they fit tightly without gaps.
4. After allowing proper acclimation and rough cuts are made, you may begin the installation.
5. Align the first edge to the chalk line.  
**Note: it is very important that the first seam is perfectly straight.**
6. Position the second roll with appropriate overlap required to maintain board pattern consistency. After seams are trimmed, the edges should fit snug with no visual gaps. Care should be taken to not over compress the seam. Over compressed seams will cause peaking.
7. Repeat for each consecutive sheet necessary to complete the area or those rolls that will be installed that day.

### INSTALLATION – Adhesive Application

1. After performing the above procedures, begin the application of the adhesive. We recommend [Anchor E-1000](#), [Mapei ECO 570](#), [Mapei Ultrabond ECO 985](#), or [WAKOL MS 552](#). Follow adhesive recommendations for the trowel notch and contact your sales representative for more details.
2. Fold over the first drop along the wall (half the width of the roll). Rolls are 6 feet wide, so when roll is folded over this will leave an exposed area of substrate that is 3 feet wide.
3. Spread the adhesive, taking care not to spread more E-Grip III than can be covered with flooring within 30 minutes. The open time of the adhesive is 30–40 minutes at 70°F and 50% relative humidity.

**NOTE:** Temperature and humidity affect the open time of the adhesive. Temperatures above 70°F and/or relative humidity above 50% will cause the adhesive to set up more quickly. Temperatures below 70°F and/or relative humidity below 50% will cause the adhesive to set up more slowly. The installer should monitor the on-site conditions and adjust the open time accordingly.

**NOTE:** Do not allow the adhesive to cure on your hands or the flooring. Immediately wipe off excess adhesivewith a rag dampened with mineral spirits!

4. Lay the flooring into the wet adhesive. Do not allow the material to “flop” into place; this may cause air entrapment and bubbles beneath the flooring.
5. Immediately roll the floor with a 75–100 lb. roller to ensure proper adhesive transfer. Overlap each pass of the roller by 50% of the previous pass to ensure the floor is properly rolled. Roll the width first and then the length. Roll again within the first 60 minutes.
6. Fold over the second half of the first roll and half the width of the second roll. Taking roll widths into account, this will provide an exposed area of substrate that is 6 feet wide. Spread the adhesive, roll the flooring, and repeat for each consecutive drop.

7. Continue the process for each consecutive drop. Work at a pace so that you are always folding material back into wet adhesive bed.

**NOTE:** Never leave adhesive ridges or puddles. They will telegraph through the material.

8. Hand roll all seams after the entire floor has been rolled.
9. Keep traffic off the floor for a minimum of 24 hours. Floor should be free from light rolling loads for a minimum of 72 hours.

#### **INSTALLATION – Welding ENDURANCE SPORT Rolls**

1. Groove seams in sheet flooring as required, and heat weld with manufacturer’s welding rod. All seams must be heat welded.
2. Complete first pass skive. Mozart skiving knife is recommended.
3. Let weld cool for 10 - 20 minutes and then do final skive.

## **Maintenance**

### **It is the Specifier’s responsibility to:**

Mandate covering and protection of floor from damage and construction debris until construction is complete.

Assign to the appropriate party responsibility for the initial cleaning of floor following Endurance Sport published procedures.

### **It is the General Contractor’s responsibility to provide:**

A building or installation area that is fully enclosed from the elements, including finished roof, windows, doors, etc.

Temperature that is climate controlled with a minimum uniform temperature of 65° F for 48 hours prior to, during, and after the flooring installation, for acclimation of flooring materials.

Protection for those areas of the flooring that are subject to direct sunlight through doors or windows by having the doors or windows covered for such time until the installation of the material is complete.

Protection for flooring from damage and construction debris by using [Anchor Cover Board](#) until such time that the recommended initial cleaning may be performed.

## Maintenance

The Endurance Sport product incorporates a polyurethane reinforcement, which protects the floor covering by resisting soiling and scuffing. Combined with the superior closed surface finish, this enhanced protection allows the use of a polish-free maintenance regime. This protection ensures that the intensity of the maintenance and overall cleaning costs are significantly reduced.

**NOTE: Rubber feet or rubber mats may cause permanent staining to vinyl surfaces. Landmark Interiors does not recommend the use of equipment containing rubber feet or rubber-backed mats**

### INITIAL CONSTRUCTION CLEANING

1. Wait a minimum of 24-48 hours before conducting the initial cleaning.
2. Remove all loose debris, dust and grit by sweeping or vacuuming.
3. Ensure that all traces of adhesive are removed from the surface of floor using a clean white cloth dampened with mineral spirits.
4. Damp mop with a neutral cleaner.
5. If required, dry buff with a 1000 rpm plus rotary machine fitted with a white pad

### ROUTINE MAINTENANCE

1. Mop, sweep or vacuum to remove dust and loose dirt.
2. If required, spot mop to remove stubborn marks with a neutral cleanser.

**NOTE:** Using entryway systems/walk off mats (non-staining types) at entrances to buildings prevent dirt, sand, grit and other from being tracked onto the floor and can reduce subsequent maintenance requirements.

3. Damp mop or utilize an auto scrubber with a properly diluted neutral cleaner on a regular basis in order to maintain an attractive floor appearance.
4. As necessary, wet scrub with a red scrubbing pad or soft nylon brush to prevent accumulation of soil build up.

**ALTERNATIVE FINISH AND MAINTENANCE OPTIONS** – Alternative maintenance options may include the use of polish, sealer, wax or spray buffing. Polish is optional and not required for ENDURANCE SPORT.

1. When applying finish to the floor it is required to thoroughly clean the floor with a neutral cleaner using a buffer or auto scrubber equipped with a red pad or soft nylon brush.
2. Rinse, and allow to dry thoroughly before applying finish.
3. Apply two coats of E-Finish making sure there is adequate dry time between coats.
4. Cleaning and maintenance frequency varies based on specific traffic volume and areas of use. The use of walk off mats combined with daily sweeping and reasonable wet cleaning frequency will help minimize more extensive maintenance steps.

**REMOVAL OF FLOOR FINISH** – When the floor gloss level appears worn or uneven due to traffic, the floor finish can be removed and reapplied to restore the floors appearance.

1. Thoroughly sweep or vacuum the floor to remove all loose dirt and grit.
2. Apply E-Strip with a microfiber mop or sprayer and allow to remain on the floor for 10-15 minutes but do not allow stripper to dry on surface.
3. Scrub floor with buffer or auto scrubber equipped with a red pad. Speed of 175-350 rpm recommended.
4. Vacuum remaining solution, rinse and mop the floor with clear cool water and allow to dry thoroughly.
5. Apply new finish to the floor.



**PERIODICALLY**

1. Assess the appearance of the floor. If the floor has dirt build-up, use a low speed scrubber (175-300) fitted with a red cleaning pad, using a neutral or alkaline detergent, as appropriate.
2. Rinse thoroughly and allow to dry.
3. Dry buff to restore finish.
4. The maintenance regime requires the installation of an effective barrier matting system.
5. Cleaners and detergents should be diluted as per the manufacturers' instructions. For recommended products, see the Approved Maintenance Products sheet.
6. Always follow the Health and Safety guidance provided, and dilute cleaners and detergents in accordance with the manufacturer's instructions.
7. Fit protective feet to table and chair legs to prevent scratching.
8. These maintenance instructions are intended for the PUR Endurance Sport floor covering products, which have a polyurethane reinforcement.

**REGULAR CLEANING IS MORE BENEFICIAL AND COST-EFFECTIVE THAN OCCASIONAL HEAVY CLEANING.**

<b>ENDURANCE SPORT Approved Maintenance Products</b>				
<b>Manufacturer</b>	<b>Initial Cleaning</b>	<b>pH Neutral Cleaner</b>	<b>Floor Finish</b>	<b>Stripper</b>
Fishman Flooring Solutions <a href="http://www.lfishman.com">www.lfishman.com</a>	E-Cleaner 4-6 oz per/gal of cool water	E-Cleaner	E-Finish	E-Strip 1 part stripper 4 parts cool water (32 oz/per gal)

**Floor Maintenance Products Definitions:**

**pH Neutral Cleaner:** Specifically designed for the ongoing maintenance of resilient flooring is an integral part of comprehensive floor care to emulsify dirt quickly and safely.

**Floor Finish:** Matte or gloss acrylic floor finishes suspend dirt and soil on the surface for easier removal, provide an increased gloss and add protection to the floor.

**Stripper:** More aggressive than cleaners. Required to remove floor finishes. Not for regular cleaning.

## Warranty

Landmark Interiors guarantees our ENDURANCE SPORT product to be free from defects in workmanship and materials affecting wearing properties, and to meet all published Endurance Sport specifications at time of manufacturing, for a period of 10 years from the date of installation, provided that the product has been installed in accordance with the installation instructions issued by us.

Any defect must be notified to us in writing, and we reserve the right to inspect and investigate any alleged defect. If after this investigation we consider the material to be defective, we will authorize repair or replacement product for the affected area without charge. If product is no longer available, Landmark Interiors reserves the right to substitute similar product of equal value and/or quality.

This warranty does not cover defects arising from any of the following:

1. Excessive Moisture
2. Chemical Reaction
3. Corrosion
4. Extremes in temperature
5. Abnormal usage above which the product is specified
6. Wear from chairs or other furniture without proper floor protectors
7. Indentations, scratches or surface damage caused by improper maintenance, misuse, negligence, spike heeled shoes, pebbles, sand, or other abrasive materials
8. Sub-floor irregularities causing premature wear
9. Dissatisfaction due to improper installation and/or maintenance
10. Labor on material installed with obvious defects
11. Labor costs on repair or replacement material
12. Any discoloration or bond failure as a result of unapproved adhesives or improper substrate preparation
13. Staining or discoloration caused by rubber feet, rubber castors, rubber-backed mats, etc.
14. Damage resulting from unapproved floor care products
15. Purchase of "seconds", "remnants", or other (non-first quality) flooring materials are not covered under this warranty.

These warranties are in lieu of any other warranty expressed or implied. Landmark Interiors shall not be liable for any incidental or consequential damages which may result from a defect. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. These warranties give you specific rights, and you may also have rights which may vary from state to state. To know what your legal rights are in your state, consult your local or state Consumer Affairs Office or your State Attorney General.



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