ARCHITECT'S PLAYBOOK o ×



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What is the Architect's Playbook?

The Architect's Playbook is a comprehensive guide developed by Connor® Sports to assist architects, designers, and facility planners in specifying and implementing high-performance hardwood sports flooring systems. It is both a technical manual and a design resource, created to ensure every sports facility meets the highest standards of safety, durability, and aesthetic excellence.

distributors, and allied product manufacturers

Purpose and Use

- **Design Support:** This playbook can be used to answer several different questions during the design process for choosing the right flooring system; including MFMA maple grades, subfloor construction and specification, and environmental benefits.
- Technical Guidance: Architects can access critical engineering insights, such as Structural Testing and Engineering Measures (STEM), moisture testing standards, and rolling and floor load tolerances.
- **Maintenance Protocols:** Ensures longevity and optimal performance with in-depth care and load management recommendations.
- **Customization:** Offers insight into graphic applications, approved finishes, and accessories to bring a facility's visual identity to life.

Who is the MFMA and why are they important?

The **Maple Flooring Manufacturers Association (MFMA)** is the industry's benchmark for quality and performance in hardwood sports flooring. Founded in 1897, the MFMA:

- Sets strict grading rules and manufacturing standards for all member mills.
- Ensures material quality through third-party inspections.
- Promotes sustainability by sourcing maple from responsibly managed northern forests.
- Provides technical resources and position statements recognized by the entire sports flooring industry that can be used by contractors and architects to maintain high standards in athletic flooring installations.

MFMA certification ensures that every floor installed meets the highest levels of durability, safety, and performance demanded by athletes and facilities worldwide.



The MFMA: A Deeper Dive

Establishment and Authority

- Founded in 1897, MFMA is the authoritative source for technical and general information on maple flooring.
- It sets high-quality standards for manufacturing mills, contractors, distributors, and allied product manufacturers.

Inspections and Standards

- MFMA mills undergo periodic, unannounced third-party inspections to ensure compliance with species continuity, millage, and grading rules.
- They lead in establishing performance standards for sports flooring.

Market Leadership

 MFMA grading rules and quality standards are regularly reviewed to ensure consistency, top-notch performance, and durability for athletic flooring installations.

Source of Quality

 MFMA maple is sourced from northern forests above the 35th parallel, producing dense, richly colored, and consistently grained wood due to shorter growing seasons and longer winters.

Dedicated Membership

 MFMA member mills are committed to producing solid strip maple flooring of the highest quality, ensuring long term reliability and performance.

Quality Assurance

- MFMA maple strip should have a mill number stamped on it, ensuring adherence to strict grading and quality standards.
- The wood is kiln-dried to 6%-9% moisture content for dimensional stability and milled with precise tolerances.

On-Site Support

 Qualified MFMA staff are available to perform inspections and evaluations, if needed, by appointment. scheduled through the MFMA.



Structural Testing and Engineering Measures (STEM) Testing

STEM Tests evaluate the performance and durability of hardwood sports surfaces and subfloors, ensuring they meet safety and quality standards.

Key aspects of STEM testing include:

Resilient Pad Testing:

- Resilient Life:
 - Assesses how the pad performs after repeated deflections, simulating the impact of continuous athletic activities.
 - Life cycle testing determines the pad's longevity and ability to maintain performance over time.

• Resilient Load:

- Evaluates pad performance under extended loading, such as the weight of bleachers or equipment.
- Simulates real-world scenarios to ensure the pad can withstand prolonged pressure without compromising functionality.

Environmental Stability:

- Tests how the flooring system responds to changes in humidity and environmental conditions.
- Involves installing a test floor with steel restraints to limit expansion, then monitoring floor system response while inspecting for movement or buckling as moisture content increases.

STEM testing is crucial for:

Ensuring Athlete Safety:

• Verifies that the flooring provides adequate shock absorption and performance, reducing vibration to decrease athletic fatigue.

Maintaining Structural Integrity:

• Confirms that the floor can withstand heavy loads and maintains performance benefits through environmental changes.

Prolonging Floor Lifespan:

• Identifies potential issues before installation, ensuring the flooring system remains functional over time.

Connor Sports incorporates STEM testing on site at our manufacturing mill to ensure complete system integrity. Connor Sports flooring systems are then verified by third parties to ensure data is accurate.



Sustainability Efforts

America's Forests Are Renewable:

- Six trees are planted for every one harvested in the U.S.
- Harvesting mature trees allows sunlight to stimulate forest floor growth.
- Hardwood trees regenerate naturally.
- Forest product companies and timberland owners plant 4.8 million trees daily (1.7 billion annually).

America's Forests Are Abundant:

- 70% of the forestland from 1600 still exists (745 million acres).
- Forestland levels today are similar to those in 1920, despite a 165% population increase.
- Annual forest growth exceeds harvest by 47%.
- 36.7% of forestlands are reserved from commercial timber harvest.
- Hardwood volume increases annually by 5.27 billion cubic feet.

America's Forests Are Sustainable:

- Managed for multiple benefits: clean air, water, recreation, wildlife, and timber.
- Professional loggers follow Best Management Practices to minimize environmental impact.
- North America's forests have been sustainably managed for the last 50 years.
- Foresters ensure healthy, productive forests through responsible harvesting practices.

Forest Stewardship Council (FSC):

- FSC promotes responsible forest management and sets high environmental, social, and economic standards.
- Certification verifies adherence to FSC standards for forest management.
- Connor Sports is proud to be certified and one of the first mills to recognize the impact of the FSC.

FSC-C007438 PBN-COC-000015



Choosing the Flooring System Questions to Determine Appropriate Flooring

- Will the floor host multiple sports and games?
- Will the facility be used year-round?
- Will the facility be used for special events, a cafeteria, or community gatherings?
- Are there specific expectations for the floor's finished appearance?

Answers to these questions will help guide the selection of the appropriate flooring system for your project.



Choosing the Flooring System: Maple Board Type and Grading

Once the sub-flooring system is selected, the grade of **MFMA maple** must also be determined. Grades of MFMA maple flooring primarily affect aesthetics, not performance. These photos are not intended to represent all variations of the grades.

Please refer to the **MFMA Grading Rules** for detailed descriptions or contact your Connor Sports **Regional Sales Manager** for more information.



The highest standard MFMA grade is hand selected to minimize the natural character variations of the species.



The predominant grade specified, this grade exhibits more natural variations than first grade.



This grade has the same structural integrity as all other grades and exhibits a contrasting natural appearance.

Concrete Requirements

Concrete Slab Flatness for MFMA Flooring

1. Flatness Requirement:

- The concrete slab must be troweled smooth and flat to a tolerance of 1/8" in a 10' radius.
- Approval of slab flatness is the responsibility of the MFMA Sport Floor Contractor.

2. General Contractor Responsibilities:

- Correcting high spots (grinding) and low spots (filling with appropriate leveling compounds).
- Ensuring no pea gravel, river gravel, or slag aggregate is used in the gymnasium slab.
- Maintaining concrete strength between 3,000 PSI and 3,500 PSI at the time of wood flooring installation.





Concrete Requirements

Concrete Slab Moisture Testing for MFMA Flooring Installation:

1. Preconditions for Installation:

- Installation of MFMA flooring must not begin until the subfloor is deemed dry using industry-standard testing.
- MFMA discourages testing for moisture within 60 days of pouring the slab, as the vapor barrier or under-slab membrane may prolong drying.

2. Factors Affecting Slab Drying:

- Slab thickness.
- Surface-applied treatments.
- Type of construction and concrete formulation.
- Building location and climatic conditions.
- Power troweling.

3. General Contractor Responsibilities:

- Deliver a dry concrete slab compliant with MFMA moisture and flatness standards.
- Ensure any necessary corrections or delays before flooring installation.

4. Testing Requirements:

- Relative Humidity (RH) Test: The only MFMA-recognized method, performed using an in-situ probe test compliant with ASTM F2170.
 - RH levels must be:
 - 85% or lower for non-glue-down systems.
 - 75% or lower for glue-down systems.



Humidity, Ventilation, and Maintenance for Hardwood Sports Flooring

Humidity and Ventilation:

1. Optimal Humidity Range:

- Hardwood flooring is manufactured to perform best with 35%-50% relative humidity.
- Maintaining a 15% fluctuation or less in relative humidity minimizes shrinkage and growth.

2. Seasonal Changes:

- Winter: Low humidity can cause separation between boards.
- Summer: Higher humidity leads to board tightening.
- Use HVAC systems consistently to prevent extreme shrinkage or expansion.

3. Water and Grit Prevention:

- Place **heavy-duty floor mats** at entrances and exits.
- Address leaks, dampness, and clogged drains immediately.
- Insulate ductwork and maintain facility drainage systems.

Daily Care:

1. Sweeping and Cleaning:

- Dry mop up to three times daily for heavy-use floors.
- Use **approved diluted floor cleaners** applied to a dust mop (not directly to the floor).
- Avoid cleaning residue buildup by replacing soiled mop covers regularly.

2. Spillage and Stains:

- Wipe spills immediately with a wrung-out cloth or mop using approved cleaner.
- Remove chewing gum with ice, followed by cleaning with a damp cloth.
- Clean scuffs or markings with a soft cloth and cleaner to prevent scratches.

Prohibitions:

- Do not shut down the **ventilation system** for prolonged periods.
- Avoid using household cleaning products or pressurized water scrubbers.
- Never modify or repair the flooring without consulting a Connor Sportsapproved contractor.
- Do not block or obstruct expansion spaces around the perimeter or fixtures.

Recommendations:

- For prolonged or heavy loads, use additional wheels or protective sheathing.
- Regularly inspect and maintain facility conditions to prevent damage and ensure safety.



Rolling Loads

Precautions for Rolling Loads on MFMA Flooring Systems

Maximum Load Recommendations

- **1. Point Loads:** concentrated force applied to one area, often from heavy equipment or furniture.
- Should not exceed **400 PSI** on any wood floor system.
- Small ridges or tapered wheels increase point loads and may cause indentations.
- Use dual-wheel casters instead of narrow single wheels to reduce excessive point loads.
- **2.Area Loads:** forces applied across larger sections of the floor; such as multiple athletes, equipment platforms, or bleacher systems
- 500 lbs per wheel area for specific floor systems:
 - Alliance, PermaFlex I, PermaFlex II, RezillChannel-01, Anchored RS, DIN, PermaLock, Rezill Lock, Duracushion I, PowerStrip, Rezill Panel, Duracushion III, RetroFlex, S-Channel, Focus, RetroFlex SB (3/4" Ply), VIP, IsoComfort VIII, RezillBase, VIP II, NeoShok 70D, RezillChannel
- Should not exceed 300 lbs per wheel area for:
 - A+ SHOK, Anchored Rezill Sleeper DIN, Duracushion II, Rezillsleeper, Sportbond Plus

Heavy Vehicle Loads:

- Specific systems (Alliance, Focus, IsoComfort VIII, RetorFlex SB, RezillBase, VIP II) can support up to 10,000 lbs if:
- Weight is evenly distributed.
- Floor protection measures are followed.

Protection for Loads Exceeding Limits:

- 1. For loads up to 5,000 lbs:
- Cover the floor with protective materials (red rosin paper, gym covers, or kraft paper) to prevent marring.
- Ensure covers are wrinkle-free, and the floor is free of debris to avoid indentations.

2. Use Double Layered Plywood:

- Minimum **5/8"** thick plywood in two layers, staggered and offset to prevent aligned joints.
- Avoid wheel travel within 12" of plywood edges.
- Provide double plywood layers where outriggers are located.

Key Considerations:

- Follow all protective measures for loads exceeding the recommended thresholds.
- Exceeding 5,000 lbs may cause damage, and risks increase significantly with heavier loads.



Panelization

Panelization, or sidebonding, is a condition often caused by water-based finishes, where some flooring boards remain tightly bonded while others develop excessive cracks due to restricted natural movement.

Causes:

- Increased attention due to new EPA VOC regulations reducing availability of traditional oil-based floor finishes.
- Most associated with **water-based sealers and finishes** applied to raw (untreated) maple strip flooring.
- Common in regions with significant seasonal moisture variations.

Risks of Water-Based Finishes:

• Water-based finishes can create a **sidebonding effect**, causing localized irregular separations between flooring strips.

Recommendations:

- Consult flooring installers and finish manufacturers for approved sealing and finishing procedures when using water-based products.
- Involve project architects and specifiers to ensure compatibility and prevent sidebonding issues.

General Guidance:

• The problem is not limited to a specific brand or subfloor design but is influenced by factors such as regional climate, indoor temperature and humidity controls, and type of finish used.







Graphics and Decals

Painted Lines, Logos, and Borders:

1. Paint and Finish Selection:

- Many paint brands are successfully used for game lines, logos, and borders.
- Flooring contractors choose paints based on their experience and product preference.
- Only use **gymnasium floor finishes approved by MFMA** for compatibility with MFMA floors.

2. Adhesion and Application:

- Compatibility, cure time, and proper surface abrasion are crucial for sound adhesion between paint and finish layers.
- Always follow the paint and finish manufacturers' latest recommendations for proper application.

3. Curing Times:

- Most paints cure in **24 hours** under moderate temperature and humidity conditions.
- Custom colors with highly pigmented formulas may require **longer curing times** to ensure proper bonding.

4. General Guidelines:

• Follow the manufacturer's specific instructions for paint and finish application to ensure durability and performance.

5. Decals:

• Decals may be used for specific events that take place over a limited time. We recommend consulting a professional decal supplier for best practices and usage.



Game Line Options for Multi-Sport Gymnasiums



Volleyball and Basketball game lines painted in White to show continuity in game line color.



Game lines for basketball and volleyball are painted on the main gym floor in Red and Blue with basketball and volleyball game lines painted on two opposite direction courts in solid black.

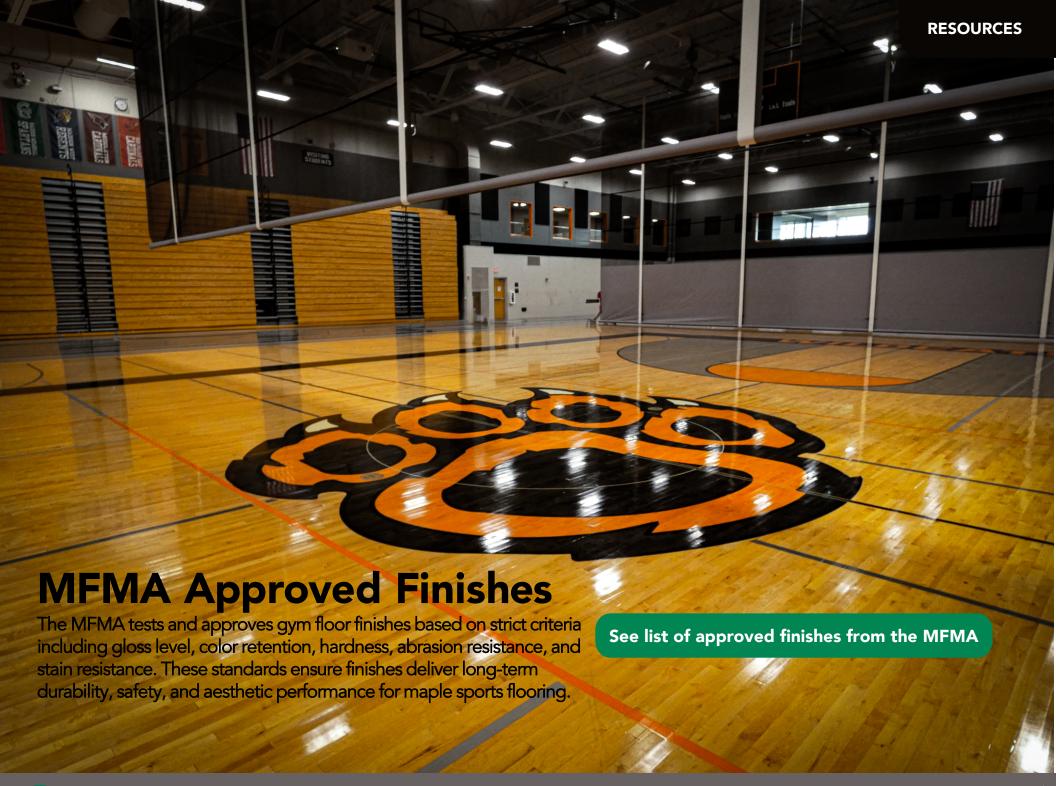


Different color finishes are applied to accentuate the basketball floor, with game lines painted in black and white. The opposing direction's court layouts have painted game lines in black and un-finished game lines through the main gym floor.



The main gym floor has game lines painted in white and black, with a logo exploding across the central area. The opposing direction's court layouts have game lines painted in a light gray color to better blend in with the main gym floor finish.





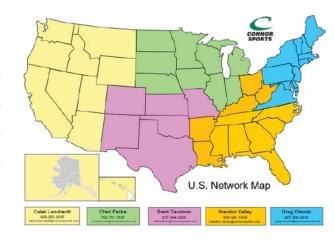
Connor Sports

Founded in 1872, Connor® Sports is the market leader in portable and permanent hardwood sports flooring systems, athletic flooring systems for aerobic and fitness facilities, and dance flooring systems for studios, stages, and institutions.

In 1914, we installed our very first basketball court. Today, we continue to lead the industry in new product development, setting the benchmark for innovative solutions in hardwood sports flooring, athletic flooring, and dance flooring with a clear vision of what will come.

Connor Sports Regional Sales Managers

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Technical Expertise

Connor Sports offers technical support for all our products and installations. Construction is never easy, and having someone to talk through the details can make projects that much easier. Our Technical and R+D team is located at our Lab of Champions at our manufacturing mill in Amasa, MI; diligently working on our newest Connor Sports hardwood system designs but also ready to answer any questions that may come up during the installation process.

We'll provide instructions with every subfloor system and hardwood surface, dance studio subfloor systems and Marley Vinyl, poured urethane and recycled rubber products; for all of the Connor Sports product ranges. Something the team at Connor Sports is proud to share is several instructional videos walking through the finer points of install segments to better help our teams in the field.





VIPTM

PERFORMANCE HARDWOOD SYSTEM

Our most comfort-focused premium flooring system featuring a proven combination of design and materials for superior vibration control and ball bounce, plus DIN & PUR compliance.



Vibration Isolation Panels (VIP)



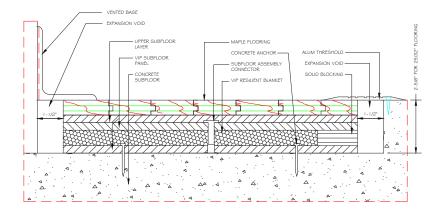
Uniformity in performance across floor surface



Vibration Control – vibration is known to cause fatigue in athletes

1

Profile Height = 2 5/8"



Total SF installed since 2015 - 515,129 sq ft nationally



VIP II™

PERFORMANCE HARDWOOD SYSTEM

Our most advanced premium performance flooring system featuring our patented Dual Dampening Vibration Control™ and Athletic Response Ridge™ for the ultimate combination of multi-athlete resilience, comfort and uniformity.



Two patents making this system proprietary and one of a kind



Pad placement creates floor performance characteristics unique to only this subfloor



Athletic Response Ridge (ARR) – uses a denser pad offset by a smaller contact area creating a high shock absorption specific to single athletes. When multiple athletes are introduced, the system provides greater area deformation and response time allowing for an incredible feel for every player on the floor.



Can be installed with **Secure Grip Technologies** (SGT) to avoid installation delays from concrete moisture levels or admixtures. Works best with installations above functional spaces, can be installed over post-tension concrete or radiant slabs, improved acoustical measures with IIC and STC ratings

Profile Height = 2 1/8"

Total SF installed since 2015 - 1,097,093 sq ft nationally



IsoComfort VIII™

PERFORMANCE HARDWOOD SYSTEM

ISO-COMFORT VIII™ uses octagonal shaped patented polypropylene panels providing individualized isolated comfort and superior multi-athlete resilience.



100% recycled subfloor panels made using materials provided by sister company Sport Court



Sustainable option offering unique floor response using patented isolation panels offering superior multi athlete response



Athletic Response Ridge (ARR) – uses a denser pad offset by a smaller contact area creating a high shock absorption specific to single athletes. When multiple athletes are introduced, the system provides greater area deformation and response time allowing for an incredible feel for every player on the floor.

Profile Height = 1 3/4"



Total SF Installed since 2015 - 370,502 sq ft nationally



Focus

PERFORMANCE HARDWOOD SYSTEM

This popular premium performance flooring system featuring our proprietary Athletic Response Ridge™ technology to provide ultra-consistent multi-athlete resilience and comfort.



Athletic Response Ridge (ARR) – uses a denser pad offset by a smaller contact area creating a high shock absorption specific to single athletes. When multiple athletes are introduced, the system provides greater area deformation and response time allowing for an incredible feel for every player on the floor.



Can be installed with Secure Grip Technologies (SGT) to avoid installation delays from concrete moisture levels or admixtures. Works best with installations above functional spaces, can be installed over post-tension concrete or radiant slabs, improved acoustical measures with IIC and STC ratings



Profile Height = 1 3/4"



Total SF installed since 2015 - 3,143,595 sq ft nationally

RezillBase[™]

ADVANCED HARDWOOD SYSTEM

When competitive bid is the number one priority, this highly configurable system allows you to get exactly what you need out of your floor without paying for unwanted features or sacrificing performance.



For competitive Bid – Anchors, subfloor design, pad configuration



System types - RP 111, RP 221, RP 222, SP 111, SP 11



Standard Profile height equal to 2 inches Reduced Profile height equal to 1 5% inches



Options are designed to meet your subfloor system needs



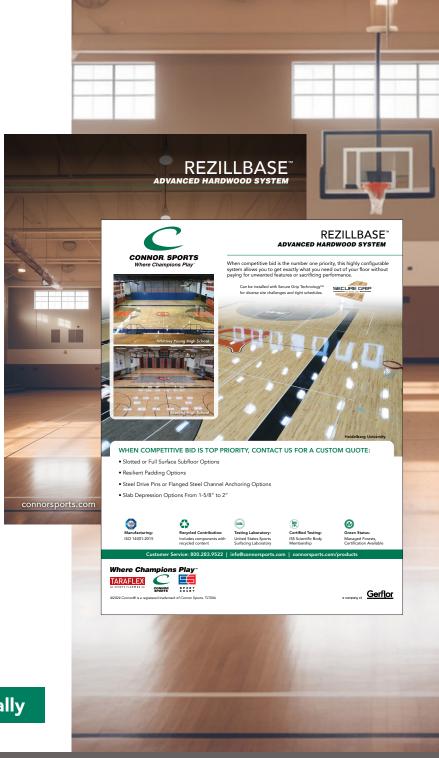
Benefits offer a slotted or full subfloor surface, individual or linear pad resilient pads, anchoring options for either sectional channel anchors or drive pins



RP 111 can be installed with Secure Grip Technologies (SGT) to avoid installation delays from concrete moisture levels or admixtures. Works best with installations above functional spaces, can be installed over post-tension concrete or radiant slabs, improved acoustical measures with IIC and STC ratings

Varied profile heights based on design needs

Total sq ft installed since 2015 - 2,097,222 sq ft nationally



Alliance™

HIGH VALUE HARDWOOD SYSTEM

Our most economical performance flooring system features great resilient performance and optional solid blocking design to offer professional level athletic comfort to facilities of all sizes and budgets.



Anchored-resilient performance



Competitive bid and budget driven system



Optional profile height to increase system to a max of $4\frac{1}{4}$ "



Fully integrated interlocking 'X' panel design

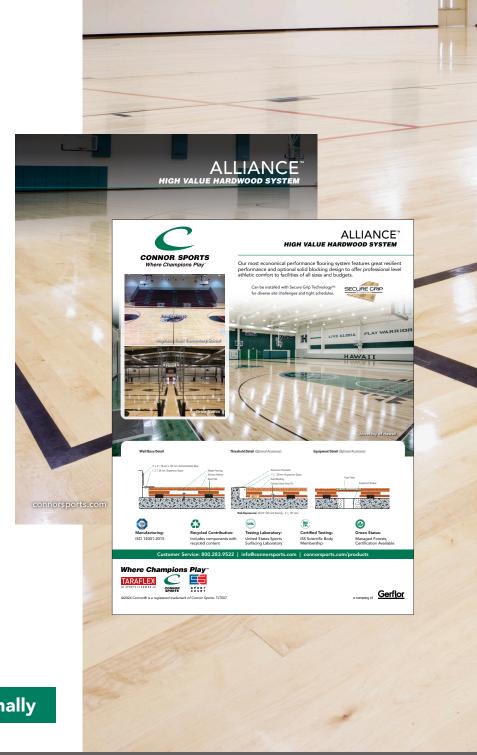


Can be installed with Secure Grip Technologies (SGT) to avoid installation delays from concrete moisture levels or admixtures. Works best with installations above functional spaces, can be installed over post-tension concrete or radiant slabs, improved acoustical measures with IIC and STCratings



Profile Height = 2 1/4"

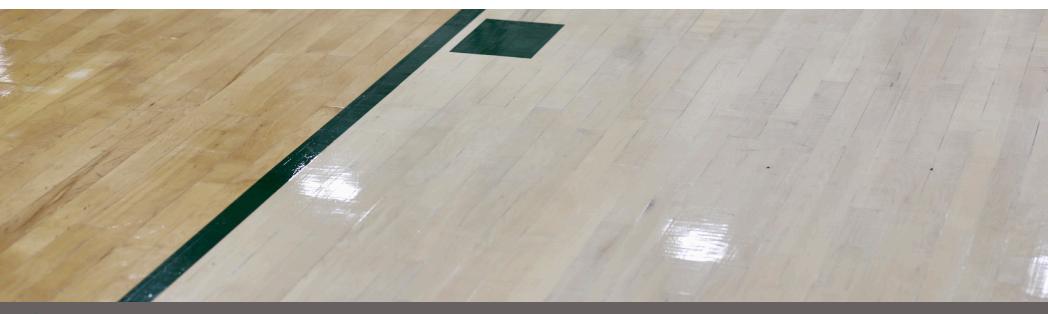
Total sq ft installed since 2015 – 4,388,745 sq ft nationally



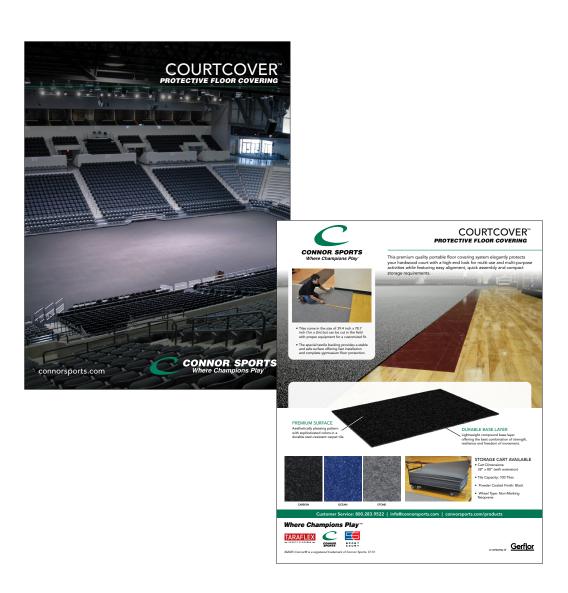
Price Index

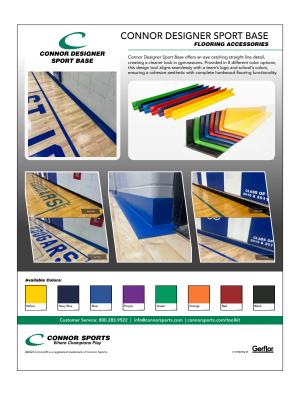
Subfloor	Maple	Avg Installed Price Non Union	Avg Installed Price Union*
VIP II	2 ¼ in 2nd and Better Grade	Baseline Price + 23.7%	Baseline Price + 16%
VIP	2 ¼ in 2nd and Better Grade	Baseline Price + 27.7%	Baseline Price + 24%
Focus	2 ¼ in 2nd and Better Grade	Baseline Price + 19.9%	Baseline Price + 14.4%
IsoComfort VIII	2 ¼ in 2nd and Better Grade	Baseline Price + 15.4%	Baseline Price + 12.8%
RezillBase	2 ¼ in 2nd and Better Grade	Baseline Price + 10.8%	Baseline Price + 9.6%
Alliance	2 ¼ in 2nd and Better Grade	Baseline Price equal to 1	Baseline Price equal to 1

^{*}Union pricing varies upon location and region



Accessories





Maintenance Guidelines

INITIAL CLEANING REGIME!

- Remove any debris, dirt, sand and grit by sweeping, dry mopping, or vacuuming. Upon completion, use a wet
 mop or an approved auto scrubber to deep clean the floor.
- Scrub floor with a neutral pH low sudsing cleaner using a buffer or auto scrubber with a soft nylon brush or an approved pad. Avoid flooding the floor.
- Remove the used cleaning solution with a wet vacuum when possible. Rinse the area with clean water to remove any racidity to left helping.
- Remove any standing water with a wet vacuum and all the area to dry thoroughly, air drying preferred, for no less than 4.9 hours.

WEEKLY MAINTENANCE

- Remove any debris, dirt, sand and grit by sweeping, dry mopping, or vacuuming. Upon completion, use a wet
 mop or an approved auto scrubber to deep clean the floor.
- For normal cleaning, dilute 2-3 ox's of a neutral pH cleaner per gallon of water. For heavily soiled surfaces, dilute 5-10 ox's of a neutral pH cleaner per gallon of water. Always follow the dilution instruction provided by cleaner manufacturer.
- When cleaning the surface, use a dampened microfiber mop or an auto-scrubber with an approved pad.
- In large facilities, clean the area section by section to allow for efficient drying.
- Once the floor is fully cleaned and properly rinsed, allow the floor to completely dry before returning to use.

NOTE: IF AFTER DRYING A WHITE FILM OR STREAKS APPEAR, THE SURFACE WAS INSUFFICIENTLY RINSED. RINSE THE SURFACE USING CLEAN WATER AGAIN AND ALLOW TO DRY.





Connor Sports Recycled Rubber and Polyurethane Surfaces

GENERAL

- Maintain a consistent cleaning schedule; DO NOT allow dirt and grime to build up on your Elastiroll™, Elastimat™, or Elastilock™ surface. Postponing or ignoring regular maintenance will not only make cleaning much more difficult, but it may also affect the lifespan of your floor and void your warranty.
- much more difficult, but it may also affect the lifespan of your floor and void your warranty.

 2. Whenever possible, limit the use of street shoes as they can and will track in dirt, scuff the floor, and increase the
- Place walk-off mats at door entrances to reduce dirt and grit from foot traffic. To be effective, mats must be vacuumed often and cleaned regularly.
- 4. NOTE: Mats with black rubber backing may discolor and permanently damage the floor.
- 5. Do not use highly basic or highly acid cleaners, such as those that are designed for toilets and hard tile.
- When using a battery powered automatic scrubber; maintain, and periodically check the battery pack for any damage. Acid of any kind will permanently stain a polyurethane floor.
 If bleachers are being used near the rubber or polyurethane surface, periodically check bleacher operation when
- If bleachers are being used near the rubber or polyurethane surface, periodically check bleacher operation when extending and retracting to avoid damage from malfunctions such as incorrect tracking or missing wheels.
- Check the legs of all tables and chairs before use to ensure the protective end caps are not missing or damaged.
- 9. If carts or vehicles with pneumatic tires (especially new tires) are to be stored on the rubber surface for an extended period, we recommend placing protective pads under wheels to avoid damage of any type.
 10. Do not drag any equipment that may have sharp edges, such as
- Do not drag any equipment that may have sharp edges, such as volleyball poles, loaded tables or folding chairs across the surface.
- 11. Limit or restrict food and beverages as they will drastically increase maintenance needs. Some types of drinks, if allowed to stand, may
- 12. Do not allow water to stand around exercise equipment as rust will
- 13. DO NOT SCRUB FLOOR FOR 72 HOURS AFTER INSTALLATION

Recommended Equipment and Supplies

- Automatic scrubber, maximum 300 RPM equipped only with soft nylon bristle brushes.
- High quality wet dry vacuum
- Neutral pH cleaner that does not cause high volume sudsing

Rubber Facts

- Elastiroll™, Elastimat™, and Elastilock™ are composed of rubber which is a renewable natural product made with recorded materials.
- Rubber matures with age, similar to any naturally occurring product, meaning during the first 6 months to 1 year, your floor will be maturing as it is used, maintained, and exposed to the elements. Climate and region also play a roll in how the maturing process takes place.
- period for the surface to appear to attract dirt more frequently, making regular maintenance slightly more
- After the maturation period ends, the surface will be noticeably easier to clean.



ULIVERIAL CARL

ince all wood flooring will expand and contract as relative humidity varies, it is important to minimize extremes between low and high. Hardwood poring is manufactured at moisture content most compatible with a 35%-50% relative humidity range.

Geographical regions and available mechanicals determine the typical range of temperature and humidity for each facility. Maintaining a 15% fluctubetween highest and lowest average indoor relative humidity provides limited shrinkage and growth.

Excessive Separation and Tightening

reparation between tooring boards commonly severaby during low numidity writer months. The flooring boards typically align and tighten during peak ummer months with higher hundidly. While moderate shrinkage and expansion is normal, we recommend to consistently use HVAC systems to prevent excessive tightening and/or expansion of your flooring.

Keep Water and Grit off the Floor Surface

Prevent tracking in unwanted moisture, dirt, and debris from the outside by placing havey duty floor mats at any doorway netrance and exist. If leaks are found in the facility, correct immediately by protect your floor from excessive ponding and unwanted water damage. We recommend to have any ductivon' insultand, interior drains properly sealed, and any downsports to be free of any clogs and debris. All of these elements should be routinely respected, with maintenance provided to insure your facility is openiting and full capacity. Any damages in your building should be brought to the

IMPORTANT

NEVER shut down the ventilation system in your facility for a prolonged period of time, unless instructed by a

NEVER use household cleaning products or methods of cleaning. Some products can be harmful to the finish of the floor and to the woo isself. If the correct cleaners are

athletes. NEVER clean your floor using a pressuriz-

worst enemy. NEVER attempt to modify or renair

attempt to modify or repair your hardwood flooring with consulting a Connor Sports approved contractor.

NEVER block or obstruct exp

block or obstruct expansions spaces around the perimeter of the space, or adjacent columns. Be sure to provide adequate expansion spacing in the flooring and sub-floor before securing flutures, equipment,

eeping the Floor

Floors with heavy use should be dry mopped u

For more thorough cleaning, an untreasted dy dust mop may be parayed with an approved clust mop may be parayed with an approved clusted floor cleaner that is compatible with the hardwood flooring flinish. Apply the cleaning solution to the dust mop and sweep the surface, then replace the sofied mop cover as needed. Do not apply cleaning solutions directly to the floor, do not allow cleaning residue to build up on the floor surface from excess treatment or not the floor surface from excess treatment or

Spillage/Spots/Stair

Wipe liquid spills and water from the floor immediately with a thoroughly wrung soft cloth or thoroughly wrung mop dampened with approved floor cleaner.

in a plastic bag until the gum becomes brittle enough to crumble off the floor surface. Clean remaining residue with cloth dampened with floor cleaner.

Remove floor markings and scuffs from shoes, chairs, or equipment by using a cloth dampener with cleaner. We recommend applying the cleaner to a soft cloth to avoid any unwanted

* Approved floor cleaner, such as "Polopiaz Hardwood Floor Cleaner", may be sourced through Polopiaz (800-421-7319)

FLOOR LOADS

icant point and/or area loads can affect the ity of the wood floor surface and athletic subfloor onents

components.

Point load refers to the concentration of weight over a specific are of the hardwood floor surface. Examples of high point loads include wheels that are crowned or tapered rather than those making full and flat contact, and wheels that include center ridges remaining from the modifien process. Other examples of identification

with small contact points.

Area Loads

Area load refers to the broad area of weight over a larger section of the hardwood flooring more likely to

use of stagnant mainte articulating lifts.

Appropriate Protection
Any was sit has my equality prolonged periods of point
or area specific weight increases should be done with
the appropriate floor protection. Periods brakethall
goals and standhorns or equipment specific storage
cart may require additional wheels to displace the
weight evenly. Maintenance equipment, such as hoists,
lifts, or cutrigers should be used after protective
materials are piaced on the floor. This may include
additional layers of shareting additional flowers for floor finish

Please post in office of superintendent, maintenance engineer, or custodian. The Connor Sports warranty is solely based on strict compliance with the care and maintenance outlined in this card and general specifications provided at connorsports com. Should

Next Steps

Your journey to designing a high-performance sports facility doesn't end here. With the foundational knowledge from this playbook, you're now equipped to move forward confidently and collaboratively.

Whether you're preparing specs, evaluating flooring systems, or seeking long-term maintenance strategies, Connor® Sports is here to support every step of your project. We encourage you to continue exploring our resources and connect with our team of experts to ensure your next sports floor exceeds expectations.



Explore More at connorsports.com

Dive deeper into system specifications, completed projects, technical data, and our legacy of excellence in sports flooring.



Use the Connor® Design Toolkit

Access drawings, specification templates, subfloor specific system tools, and color coordination options that simplify the design process and ensure accuracy. connorsports.com/toolkit



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From planning to installation, our nationwide team of Sales Managers are ready to help bring your vision to life. connorsports.com/experts



Trusted by architects, athletic directors, and champions

