

HILLYARD

FIRST IN GYM FINISHES®



FIRST IN WOOD GYM FLOOR CARE

Hillyard Originated

Since the 1920's, the Hillyard name has become synonymous with beautiful wood sports floors. When the company's founder, Newton S. Hillyard, first developed a finish to take the place of early oil dressings, the whole complexion of indoor sports changed for the better. Since that day, Hillyard has expanded its extensive research and development capabilities to maintain its leadership in wood gym floor care. Today, Hillyard continues to establish the standards of excellence for wood floor finishes and maintenance products in the United States and throughout the world.

Leading Solvent-Based Seals And Finishes

Hillyard Trophy® and Trophy Plus Seal and Finish have earned a reputation for gloss, wear resistance, and clarity. Hillyard 350 Gym Finish, 450 Gym Finish, and Fast Dry 450 Gym Finish II are high-solids, solvent-based finishes designed to meet strict VOC regulations. Gold Medalist® Seal and Finish have become one of the most popular coating systems for ease of application, gloss, and superb wear properties.

Hillyard Pioneered Water-Based Finishes

Leading the Hillyard lineup of water-based systems is Contender® Finish. Contender is the only water-based gym finish on the market with an epoxy resin emulsion, which allows for higher gloss and unsurpassed durability.

Hillyard Tip-Off® is a unique, waterborne, one-part, urethane/acrylic blend that meets all VOC limitations. It is easy to apply and is the perfect product for hectic coating schedules. Tip-Off's quick-drying formula allows multiple coats to be applied in a single day, minimizing downtime. It is an uncomplicated coating system for floors that cannot be out of commission for more than a few days.

Choosing The Best System For Your Floor

Hillyard wood sports floor coating systems meet the most demanding needs. Hillyard solvent-based coatings are renowned for their durability and have become the choice for major tournament floors.



Wood Gym Floor Care



Surveying Your Needs

- Your Hillyard sales consultant will do an assessment of your wood floor maintenance needs.
- Complete recommendations on procedures, cleaning frequencies, and products will be proposed.
- Training sessions will be arranged with the custodial personnel to cover procedures, equipment, and proper product usage.



Proactive In The Development Of Innovative VOC Compliant Coatings

- Contender® is the only water-based epoxy formula on the market.
- Tip-Off® gave the market a one-part, water-based, urethane/acrylic gym finish.
- Court Guard® is a water-based seal for newly sanded floors as well as provides a bridge for converting water-based floors to solvent based finishes.
- 350 Gym Finish, 450 Gym Finish, and Fast Dry 450 Gym Finish II provide the first application-friendly finishes on the market that are VOC compliant and solvent-based.



HILLYARD – The Official Cleaning and Maintenance Products Company of the Basketball Hall of Fame, Springfield, Massachusetts.

Applying Solvent-Based Seals And Finishes To New Or Sanded Floors

Use the following directions to apply 350 Gym Finish, 450 Gym Finish, Fast Dry 450 Gym Finish II, 550 Seal II, Gold Medalist® Seal and Finish, Trophy® Seal and Finish, and Trophy Plus Seal and Finish.

- Sand according to MFMA accepted methods (1), making your final cut with 80-100 grit paper. Screen with 120 grit disc and vacuum entire floor.
- Tack (2) the floor with clean terry cloth towels dampened with Hillyard Kleen-Up Solvent™ until there is no dust on the towels.
- Tack the floor a final time with cleaning cloths, (3) similar to the Chicopee Stretch 'n Dust* Cleaning Cloth (Item No. CHI415).
- The following directions are written around the use of the Hillyard Power-Flo® applicator (4). Trophy Seal and Finish are to be applied using block applicators with lambswool pads only. Refer to their labels for proper application.
- Place the appropriate pads on the applicator (5).
- Fill the applicator 1/2 to 2/3's full with seal (6), squeeze the feeder valve until a puddle appears, and saturate the pads.
- Once the pads are saturated, squeeze the feeder valve and begin walking backwards at a normal pace, pulling the applicator at an angle (7). Walk up and down the floor in the same direction the boards are running. Regulate feeder valve and walking speed to maintain a two-inch wide well of excess seal on the uncoated side of the floor. Keep both pads touching the floor to provide a uniform, even appearance.
- Use a lambswool or synthetic applicator to square up and even the end of each pass (8). Each pass should overlap approximately four inches. Do not leave puddles or any excess on the sealed section. Never let the Power-Flo run completely empty. As a rule of thumb, it should be kept between 1/3 and 2/3's full.
- Allow the seal to dry a minimum of 12 hours (48 hours for 350 and 450 Finish), then abrade the entire floor with maroon pads (250 sq. ft. per side of pad) under a single brush floor machine (9). Run the machine in the same direction the boards are running. NOTE: If the floor has dried longer than 48 hours, abrade with 150-100 grit screen discs to a uniform dullness, leaving no shiny spots.
- After abrading, tack the entire floor with Hillyard Tack-It™ or Hillyard Kleen-Up Solvent. Then tack the floor once more with cleaning cloths, similar to the Chicopee Stretch 'n Dust*.





- When using Gold Medalist Seal, Trophy Seal, Trophy Plus Seal, or 550 Seal II, apply a second coat of seal if necessary following the above directions. A second coat of seal is required if there are any areas of deep penetration where the wood still looks raw. A properly sealed floor will have a smooth, low gloss appearance. If the wood still looks raw, apply a second coat.
- Once the floor is properly sealed and abraded, refer to the *Hillyard Layout and Lining Guide*. Follow the steps outlined under the “Applying Game Lines” section.
- After the game lines have been painted and dried (10), abrade and tack the entire floor before applying two coats of one of the Hillyard finishes (11) following the procedures outlined.
- Trophy® Plus, Gold Medalist® Seal and Finish, 350 Gym Finish, 450 Gym Finish, or Fast Dry 450 Gym Finish II may also be applied with a Weighted T-Bar applicator. Simply follow the T-Bar directions in the next section on applying Contender®
- Respirators are recommended during the application of solvent-based products.
- Ensure there is adequate ventilation (but no draft directly on the floor) during the application. Turn on the exhaust system two to four hours after each application. Close floor to all traffic for 72 hours (12) and do not schedule any heavy activities for one week.

NOTE: Use caution when turning on exhaust systems. It is best to turn the system on before starting any work on the floor. This will allow the exhaust system to clear itself of any dust and debris that could fall onto the floor after it has been sealed, painted, and finished. Once cleared, turn off the exhaust system before sealing, painting, or finishing.

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Applying Water-Based Seals And Finishes To New Or Sanded Floors

Use the following directions for applying Hillyard Court Guard[®], Contender[®], and Tip-Off[®].

- Sand according to MFMA accepted methods (1) making your final cut with 80-100 grit paper. Screen with 120 grit disc and vacuum thoroughly.
- Tack the entire floor (2) with clean terry cloth towels dampened with Hillyard Kleen-Up Solvent[™]. Tack until there is no visible dust on the towels.
- It is recommended that the floor be tacked one last time with cleaning cloths, (3) similar to the Chicopee Stretch 'n Dust^{*} Cleaning Cloth (Item No. CHI415).
- The following directions are written around the use of a Hillyard lightweight T-Bar applicator. Court Guard, Contender, and Tip-Off also may be applied with a Power-Flo[®] applicator.
- Pour a small amount of Court Guard onto the floor and saturate the pad of the T-Bar applicator. Next, pour a four-inch wide well (4) along the starting wall in the direction the boards are running.
- Walk at a normal pace and pull the applicator through the seal at an angle (5) toward the uncoated side.
- After the initial pass, try to maintain a two-inch wide well by adding seal as necessary. Reduce the well when approaching the opposite wall.
- Overlap each pass four inches (6) and be sure to square up the end of each pass (7). Use care not to leave puddles or excess product on the sealed section.

NOTE: Court Guard must be used as a seal for the Contender Finish. Tip-Off may be used as a stand alone product, in which case we recommend two coats, paint, and two more coats over the paint.





- Allow Court Guard™ to dry two to four hours, and apply a second coat of Court Guard in the same manner as the first coat. If the first coat of Court Guard has dried longer than 24 hours between applications, then abrade the entire floor (8) with maroon pads, (250 sq. ft. per side of pad) followed by tacking with Tack-It™.
- After the second coat has dried two to four hours, abrade the entire floor (8) with maroon pads (250 sq. ft. per side of pad). Tack the floor thoroughly with Tack-It (9), followed by using cleaning cloths, similar to the Chicopee Stretch 'n Dust* Cleaning Cloth (Item No. CH1415), to remove all dust and debris.
- Follow the instructions outlined in the *Hillyard Layout and Lining Guide* to tape and paint all necessary game lines.
- After the game lines have been painted (10), dried, and abraded, tack the entire floor with cleaning cloths and apply two coats of Contender® or Tip-Off® Finish (11) following the procedures outlined above. Tip-Off is a one-part system, requiring no mixing. Contender is a two-part system, requiring Part B to be poured into Part A and stirred for five minutes. After mixing, use Contender within two hours.

NOTE: Use a separate T-Bar applicator pad for applying finish.

- Allow a 12-hour dry time between coats of Contender and four-hour dry time between coats of Tip-Off.
- Immediately after the last coat has been applied for the day, turn on the exhaust system.
- Keep the floor closed (12) to all traffic for 72 hours, and do not schedule activities for one week.

NOTE: Use caution when turning on exhaust systems. It is best to turn the system on before starting any work on the floor. This will allow the exhaust system to clear itself of any dust and debris that could fall onto the floor after it has been sealed, painted, and finished. Once cleared, turn off the exhaust system before sealing, painting, or finishing.

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Applying Game Lines

For Solvent-Based Systems

Refer to the *Hillyard Sports Floor Layout and Lining Guide* for complete details on measurements of various court games.

- After the second coat of seal has dried at least 12 hours, abrade the entire floor with maroon pads (250 sq. ft. per side) under a 175 rpm single brush floor machine (1). NOTE: If the floor has dried longer than 48 hours, abrade with 150-100 grit screen discs to ensure proper adhesion. Abrade to a uniform dullness.
- Tack the floor (2) with terry cloth towels dampened in Hillyard Tack-It™ and allow the floor to dry.
- It is recommended that the floor be tacked one last time with cleaning cloths (3), similar to the Chicopee Stretch 'n Dust* Cleaning Cloth (Item No. CHI415).
- Lay the marking tape (4) ensuring the edges are pressed firmly to prevent paint bleed using the Hillyard Gym Line Taper (5), Item No. HIL29969, along with Hillyard Item No. MIN234 masking tape.
- Use only Hillyard Gym Line Paints for marking game lines, keys, and borders (6). Stir the paint thoroughly and apply a thin, uniform coat with a foam brush or synthetic paint pad. Keys and large borders may be rolled, but always strike (feather) these areas smooth with a synthetic paint pad for a smooth appearance.
- Wait at least an hour, then pull the tape to allow for proper drying and curing of the paint edges (7).
- After 24 hour drying, check the painted areas for drying, then abrade the entire floor with maroon pads (8). Note: If the paint dries longer than 48 hours, abrade the entire painted areas with 150-120 grit screen discs to a uniform dullness. To ensure proper bonding, abrade the entire floor with 120 grit screens to prepare the seal for finish coats.
- Tack the floor with Tack-It (9), followed by using cleaning cloths similar to the Chicopee Stretch 'n Dust* Cleaning Cloth (Item No. CHI415), to remove all dust and debris before applying finish coats.
- Proceed with instructions for applying solvent-based finishes.



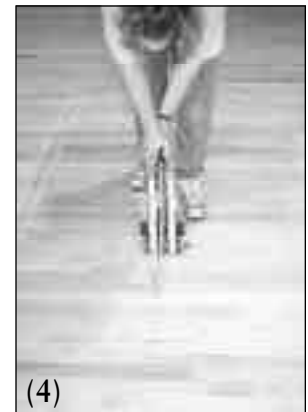
(1)



(2)



(3)



(4)



(5)



(6)



(7)



(8)



(9)

For Water-Based Systems

- After the second coat of Court Guard® has dried for at least four hours, abrade the entire floor with maroon pads (250 sq. ft. per side) under a single brush floor machine (1).
- Tack the floor (2) with terry cloth towels dampened in Tack-It™ and allow the floor to dry.
- It is recommended that the floor be tacked one last time with cleaning cloths (3) similar to the Chicopee Stretch 'n Dust* Cleaning Cloth (Hillyard Item No. CHI415).
- Lay the marking tape (4) ensuring that it is pressed firmly to the floor. Hillyard Item No. MIN234 marking tape is recommended.
- Hillyard also recommends the use of Item No. HIL29969 Gym Line Taper (5).
- Use only Hillyard Contender® Paint for painting lines, keys, and borders (6). Stir the paint thoroughly (DO NOT SHAKE), and apply a thin uniform coat with a foam brush, or a synthetic applicator for large areas.
- Light colored paints normally require two coats.
- Pull the tape (7) 30 minutes after painting.
- After 12 hour drying, abrade the entire floor using maroon pads. If the paint has dried longer than 48 hours, abrade the painted areas with 150-120 grit screen discs, followed by maroon pads (8) over the entire floor (250 sq. ft. per side of pad). Tack the floor with Tack-It (9), followed by using cleaning cloths similar to the Chicopee Stretch 'n Dust* Cleaning Cloth (Item No. CHI415) to remove all dust and debris.
- Proceed with instructions for applying water-based finishes.

NOTE: To minimize paint chipping or fracturing along board edges, Hillyard solvent-based Gym Line Paint is recommended for large graphics, solid keys, and large borders. Allow paint to dry for five days when using a water-based finish over solvent-based paint. After five days, abrade the entire floor with 150-120 grit screen discs.

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Gym Line Paints

Durable, Solvent-Based Line Paints

Hillyard Gym Line Paints are highly pigmented solvent-based enamels that have been formulated especially for marking game lines, keys, and borders. They have been perfected for use with Hillyard solvent-based seals and finishes. All solvent-based line paints are lead-free and comply with the Lead-Based Paint Act of 1972. Refer to the *Hillyard Sports Floor Layout and Lining Guide* for complete details on measurements of various court games.

- Highly pigmented enamels, especially formulated for marking game lines on wood gym floors. The brilliant colors brush on easily and level out smoothly.
- For use with Hillyard solvent-based seals and finishes.
- All Hillyard Gym Line Paints are lead-free.
- All Hillyard Gym Line Paints are fortified with an adhesion promoter to help increase their bond to seals and finishes.
- Standard colors available (in quarts only) are: Red, Blue, Yellow, Light Green, Dark Green, Orange, White, and Black. Also available in gallons: Purple, Kansas State Purple, and Navy Blue.
- Hillyard also offers 855 special colors from its Fan Deck Color Chart, Hillyard Item #HIL09060 (see the color chart at the bottom of page 10). Available in one gallon size only. Coverage rate varies depending on color.

Coverage Table For Solvent-Based Gym Line Paints

Item# & Color	Sq. Ft. per Qt.	Running 2" Line/Qt.
660-Black	187	1125
661-Red	175	1050
662-Blue	162	975
663-Dark Green	187	1125
664-Yellow	87	525
665-White	125	750
666-Orange	137	825
667-Light Green	162	975

Item# & Color	Sq. Ft. per Gal.	Running 2" Line/Gal.
675-Purple	650	3900
676-K-StatePurple	650	3900
677-Navy Blue	650	3900



660 - Black*



661 - Red*



662 - Blue*



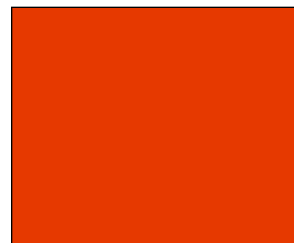
663 - Dark Green*



664 - Yellow*



665 - White*



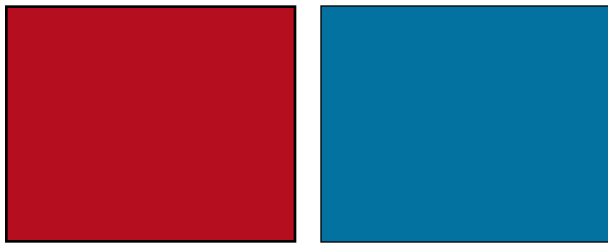
666 - Orange*



667 - Light Green*

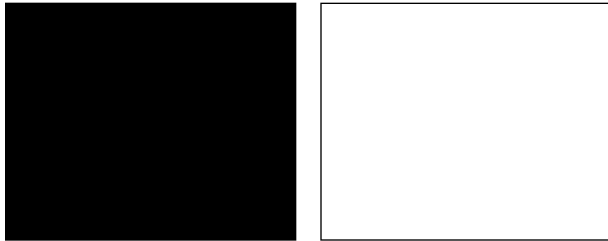


*Colors are simulated and may vary from actual paint color.



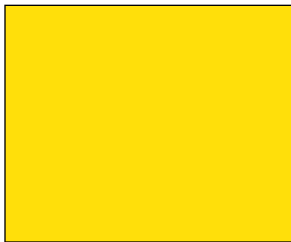
680 – Red*

681 – Blue*



682 – Black*

683 – White*



684 – Yellow*

You can also choose from 855 special colors displayed in the Hillyard Fan Deck Color Chart (Item #HIL09060) for both solvent-based Hillyard Gym Line Paints and water-based Contender® Line Paints. Available in one gallon size only



Contender® Line Paints For Water-Based Systems

- Water-based gym line paints with brilliant colors that brush on easily and level out smoothly.
- For use with Hillyard Contender® and Tip-Off®.
- The standard colors available are: Red, Blue, Yellow, White, and Black. These are packaged in quarts only.
- Hillyard also offers 855 special colors from its Fan Deck Color Chart, Hillyard Item #HIL09060 (see the color chart on the bottom left).
- Refer to the *Hillyard Sports Floor Layout and Lining Guide* for complete details on measurements of various court games.

Coverage Table For Contender Gym Line Paints

Item# & Color	Sq. Ft. per Qt.	Running 2" Line/Qt.
680-Red	130	780
681-Blue	130	780
682-Black	150	900
683-White	100	600
684-Yellow	70	420

Heavy Scrub And Recoat

After a period of hard play, normally one year, your sports floor will begin to show worn areas at entrance ways, keys, and along bleachers. In addition, there will most likely be rubber marks and scuffs. When your floor begins to show these signs of wear, it's time for a heavy scrub and recoat that will renew the floor's appearance.

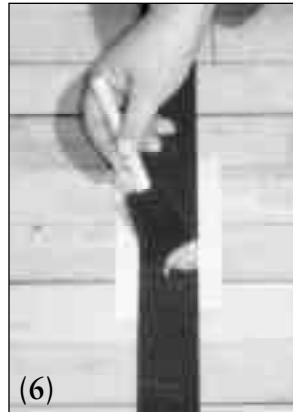
Equipment Needed

- Hillyard Super Shine-All® Cleaner
- Single brush floor machine
- Autoscrubber (Optional)
- Wet vacuum
- Hillyard Kleen-Up Solvent™ or Tack-It™
- Three clean synthetic mops
- 120 grit screen discs (250 sq. ft. per side)
- White pads

Procedures

- Mix 2 oz. of Super Shine-All per gallon of water in a mop bucket (1).
- Using a mop, apply the Super Shine-All solution very lightly and evenly over a 10' x 20' area of the floor (2).
- Immediately scrub the floor using a floor machine equipped with a 120 grit disc under the white pad (3). Operate the machine in the same direction that the boards run. Be sure to remove all rubber marks and scuffs. Use a putty knife to remove gum, tape, etc.
- Pick up the scrubbing solution with a wet vacuum (4) or autoscrubber, if available.
- Damp mop rinse each section (5) with clean water. After the entire floor is scrubbed and rinsed, damp mop rinse the entire floor a second time. Change rinse water when it becomes cloudy with dirt. Follow this step by using cleaning cloths, similar to the Chicopee Stretch 'n Dust* Cleaning Cloth (Item No. CH1415), to remove all dust and debris.
- If applying a solvent-based finish, allow the floor to dry overnight, or one hour if applying water-based finish.
- Worn sections of game lines should be painted. Carefully tape and paint these areas (6) according to directions in the "Applying Game Lines" section of this booklet.





- After overnight drying, abrade painted areas with maroon pads (7) and tack the entire floor with Tack-It™. NOTE: If paint dries longer than 48 hours, abrade with 150 grit screen discs.
- Heavily worn areas, such as entrances and keys, should receive a patch coat of finish before applying a coat to the entire floor. Apply with T-Bar or lambswool applicator (8) and allow to dry overnight.
- Abrade patched in areas with a maroon pads and tack rag the entire floor (9). Follow by tacking the floor with cleaning cloths, similar to the Chicopee Stretch 'n Dust* Cleaning Cloth (Item No. CH1415), to remove all dust and debris.
- Apply a coat of finish over the entire floor (10) as outlined in the sections pertaining to Solvent-Based or Water-Based Finishes.
- Allow the floor to dry thoroughly by keeping it closed to all traffic for at least 72 hours.
- Heavy activities should not be scheduled for one week.

Dry Screening Wood Floors

- Pre-clean the floor by tacking with Hillyard Tack-It or a solution of Super Shine All®. Make sure all spills, treatments and dirt, are removed before screening.
- Dry screen the entire floor using 120-100 grit screen disks under a 175 rpm single brush floor machine (250 square feet per side of screen).
- Screen to a uniform dullness making sure to avoid leaving glossy areas. Abrade both with and across the boards if necessary to achieve a uniform cut.
- Sweep, vacuum and remove screening dust.
- Allow airborne dust to settle, vacuum and tack as needed to clean the floor.
- Tack the floor with Tack-It, followed by using the cleaning cloths similar to the Chicopee Stretch 'n Dust Cleaning Cloth (item #CH1415), to remove all dust and debris before applying finish coats.

NOTE: Use proper protective equipment when dry screening, i.e., dust masks, etc.

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Preventive Maintenance

A high level of appearance and a safe surface underfoot requires scheduled, daily preventive maintenance.

Matting

Where there are outside entrances directly to the gym, the use of walk-off mats is the first defense in preventive maintenance. Select a mat that will trap dirt and absorb moisture brought in by foot traffic.

Preventive maintenance should occur outside the building as well. More than 75% of soil in any building is tracked in. Keep sidewalks clean to reduce soil migration into the building.

Dust Mopping

An essential element of preventive maintenance of wood sports flooring is dust mopping daily.

The least expensive and most important tool in floor care is the dust mop. A mop that has been treated with Hillyard Super Hil-Tone®, Hil-Mist®, or Hil-Treat®, will remove dirt and grit that acts like sandpaper underfoot in wearing away the gloss and protective coating on the flooring.

Treat the dust mop by following the label directions. Never treat a dust mop and immediately use it. It should always be brushed out or vacuumed after daily use, retreated, and hung overnight for the next day's use.





Spot Mopping and Damp Mopping

Preventive maintenance of wood sports flooring includes routine removal of spills^(a) and soil that daily dust mopping does not remove. It is important to remove spills as soon as possible to prevent slips and falls.

Tools Required

- “Wet Floor” signs
- Mop bucket with wringer
- Clean rayon mop with handle
- Autoscrubber (optional)
- Hillyard Super Shine-All®

Procedures

- Set out “Wet Floor” signs (1).
- Mix Super Shine-All at 2 oz. per gallon of water in a mop bucket (2), or 1 oz. per gallon in an autoscrubber.
- For spills, soak mop in the solution, wring out, and mop the floor area while absorbing the spill (3).
- Re-soak the mop in the cleaning solution, wring out, and mop the area a second time.
- When damp mopping the entire floor, change the cleaning solution when it becomes cloudy with dirt. **NOTE: Do not mop heavy amounts of cleaning solution onto the floor.**
- If autoscrubbing (4), use a new white pad.
- Allow the floor to dry thoroughly before removing “Wet Floor” signs.

(a) For removal of blood, fecal matter, urine, and other potentially infectious materials as outlined in OSHA Regulation 29 CFR 1910.1030, use the Hillyard Bodily Fluid Disposal Kit (Item No. HIL0018204).

Wood Gym Floor Maintenance

Q - Which finish provides better protection... water-based or solvent-based?

A - In nearly all cases, a solvent-based product provides more protection per coat. This, of course, depends on the square foot coverage and the solids content of the product being applied. The dried measurement of each coat of finish applied, whether it be water or solvent-based, is determined by dividing the square foot coverage of the product being applied into 1,600, which equals wet mil thickness. One mil equals 1/1000 of an inch. This total is then multiplied by the solids content of the product.

Water-Based Example: Hillyard Tip-Off® is applied at approximately 700 sq. ft. per gallon and has a solids content of 32 percent.

$$1600 \div 700 = 2.29 \text{ (wet mil thickness)} \times .32 = .733 \text{ dry mil thickness per coat}$$

Solvent-Based Example: Hillyard 450 Gym Finish is applied at approximately 500 sq. ft. per gallon and has a solids content of 50 percent.

$$1600 \div 500 = 3.2 \text{ (wet mil thickness)} \times .50 = 1.6 \text{ dry mil thickness per coat}$$

Q - After taping and painting all of the game lines, is it necessary to abrade the dried paint after the tape has been removed and before applying the first coat of finish?

A - Yes. After overnight drying, abrade all painted areas with maroon pads. If the paint has dried longer than 48 hours, abrade the entire floor with 150 or 120 grit screen discs. There is a degree of chemical adhesion when applying a coat of finish over paint and/or seal, but it is not adequate enough to hold up to the rigors of foot traffic and fast play. Under these conditions, a physical bonding is also necessary to prevent peeling. Abrading with maroon pads or screen discs leaves fine scratches in the paint and seal. This allows the next coat to physically bond to the abraded area. The floor should be uniformly dull from abrasion.

NOTE: If any application of seal, paint, or finish dries longer than 48 hours, abrade that application with 150-120 grit screen discs, even if it was abraded before.

Q - What type of tape is recommended for temporary game lines on a sports floor?

A - Temporary game lines can be laid out using 3M* #2070 White Marking Tape. It is available in 3/4" and 2" widths. Another choice is 3M #471 Vinyl Marking Tape. It is available in a number of colors and sizes. Always ensure that the finish coat on the sports floor has cured out a minimum of 30 days before applying temporary game lines. Do not allow temporary game line tape to remain on the floor longer than 30 days. Do not use duct tape, athletic wrapping tape, masking tape, Scotch* tape, or medical tape to mark temporary game lines.

Q - This past winter, we noticed separation of the paint over the large painted borders on our gym floor. Is this normal?

A - It is not unusual to see a minor separation of the coating system as the boards expand and contract during seasonal changes. The main focus of the coating is to protect and seal the wood while allowing it to contract and expand in a normal, expected pattern. On dark colored backgrounds, this effect may appear more pronounced due to the light color of the natural wood underneath. This sometimes becomes visible during winter heating months as the wood naturally shrinks in dimension. The summer expansion of the wood will make these areas less visible. As this cycle continues, the cleavage of the coating allows the wood to maintain an individual movement within the confines of the gymnasium floor system.

Frequently Asked Questions

A - Hillyard pioneered water-based gymnasium seals and finishes in 1980 and has been successfully marketing water-based products ever since. Hillyard Contender® and Tip-Off® finish systems exhibit the same properties (tensile strength and elongation characteristics) as our solvent-based products, such as Gold Medalist® and Trophy® Finish. These findings are based on results of testing to date by independent laboratories along with actual product applications at customer sites and Hillyard's laboratory. We do not feel that the use of Contender or Tip-Off will lead to sidebonding any more so than would our solvent-based systems.

A - Following a few simple rules when stacking and storing a portable gym floor can prolong the appearance and performance of the floor, as well as the finish used to protect the wood. We recommend a minimum of two weeks, three if possible, curing time prior to stacking. Proper stacking is very important! Follow a sequence in which the coated panels are laid face-to-face followed by two panels placed back-to-back, and then two panels laid face-to-face. Repeat this sequence so that all finished sides are laid in contact with a finished side of flooring. This requires the persons disassembling the floor to flip panels as they are stacked. As the panels are being stacked, the finished sides are to be separated by brown construction paper or Masonite* panels. Corrugated cardboard may leave a pattern in the finish and certain plastics may stick to the finish due to plasticizer migration.

A - Yes. After the floor has been properly cleaned and abraded (see the "Heavy Scrub and Re-Coat" section of this booklet), we recommend that Hillyard Court Guard seal be applied to the floor before applying the solvent-based finish. Court Guard will act as a primer to help ensure that the solvent-based finish will adhere to the existing water-based finish. Court Guard will also help prevent color penetration into any raw wood that may be present. All solvent-based finishes will give raw wood color, normally amber. If there are deep scratches or the ends of boards were not properly sealed with the water-based system, the solvent-based finish will have a tendency to spread under the water-based finish by capillary action.

A - If a floor has severe gaps between the boards or exposed bare wood, moisture could penetrate between the boards and result in board cupping. In these cases, dry screening would be preferable. Prior to dry screening, we recommend tacking the floor several times with terry cloth towels that have been soaked in a 2 oz. per gallon solution of Super Shine-All® and wrung out. This should be followed by tacking with towels that have been soaked and wrung out in clean water. Repeat this tacking process until all dirt is removed.

Q - Do Hillyard water-based, wood floor seals and finishes cause sidebonding?

Q - We have a portable wood gym floor. How soon can we stack the sections after we have heavily scrubbed and recoated the floor?

Q - Our floor was initially sealed and finished with a water-based system. We now want to switch to a VOC compliant, solvent-based system. Are there precautions that we need to take before application?

Q - When would dry screening in preparation for recoating be preferable to wet screening?

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Wood Gym Floor Maintenance

Q - We are using a water-based system to seal and finish a sports floor, but we want to use solvent-based paints to mark the lines. What precautions are necessary under these circumstances?

A - After sealing and abrading the floor, refer to the *Hillyard Layout and Lining Guide* and follow the directions. When applying a water-based finish over solvent-based paint, it is extremely important for the paint to cure as long as possible (Hillyard recommends five days). If you apply finish before the paint has had time to cure properly, an incompatibility problem may occur when a water-based finish comes in contact with the solvent vapor. This can cause the finish to lose adhesion. After you have allowed the paint to cure for at least five days, abrade the paint with 150-100 grit screen disc. Start with 150 grit, and if these do not give a uniform dullness to the painted areas, switch to 120 grit. Even though the floor has been abraded before painting, the seal will continue to harden through curing. This hardening process can prevent the first coat of finish from adhering properly if not abraded a second time. If you used Court Guard® to seal, abrade the floor with maroon pads. If you used Tip-Off®, abrade with 150-100 grit screens as described above. Do not exceed 250 square feet per side of disc or pad.

Q - Hillyard uses the term “solvent rainback.” What does it mean?

A - Under certain conditions, normally on a hot, extremely muggy day, the solvent vapor that evaporates from the coating may lock onto water molecules in the air and actually drop back to the floor. This can result in improper curing of the coating due to extended tackiness. In extreme cases, puddles of solvent have actually formed on the floor. To prevent this from happening, turn on the exhaust system two to four hours after each application of solvent-based seal, paint, or finish. If the exhaust system is inadequate to pull a significant amount of air out of the facility, or if an exhaust system does not exist, we recommend setting a large, box fan at an entrance to the facility. Set the fan so it exhausts the air out of the facility.

Q - What’s this VOC thing all about?

A - The Environmental Protection Agency issued a regulation to control Volatile Organic Compound (VOC) emissions from architectural coatings with an effective date of September 13, 1999. This rule affects manufacturers of coatings for sports floors. The VOC limit on clear varnishes (finishes) is 450 grams per liter. Sanding sealers have a VOC limit of 550 grams per liter. All states must adopt these limitations with the option of enforcing more severe limitations; e.g., most of California has a limitation of 350 grams per liter for clear varnishes (finishes) and seals. Manufacturers of coatings have an option to continue manufacturing clear varnishes (finishes) and seals that exceed the limitations, but must pay the government an exceedance fee on each gallon sold. Hillyard will continue to produce clear varnishes and seals (Trophy®, Trophy Plus, and Gold Medalist®) using this option.

Q - When using the higher solids, VOC compliant seals and finishes, are there certain precautions that need to be taken?

A - Yes. When preparing the floor, it is extremely important to remove any dust, grit, lint, and other debris from the floor before applying seal or finish. Any debris that is left on the floor may become embedded in the film of the higher solids product. When the film dries, this debris is more readily seen in these coatings as compared to the lower solids products on the market. Small bubbles may form around the debris, resulting in a blemished appearance. After tacking the floor with Hillyard Kleen-Up Solvent™ or Tack-It™, we recommend the floor be tacked a final time with cleaning cloths similar to the Chicopee Stretch ‘n Dust®; Hillyard Item No. CHI415.

Frequently Asked Questions

A - Most solvent-based finishes rely on exposure to oxygen to cure the film. The situation you describe may occur when the finish is applied and allowed to penetrate between the board seams. Once it is in the seams of the floor, it becomes more difficult for oxygen to react with the driers in the finish. This allows the finish to remain partially cured for an indefinite period of time. As the floor takes on higher moisture content, the wood expands and squeezes any partially cured finish to the surface. It has the appearance of a bubble filled with fluid. These bubbles may break open and deposit a minute amount of finish onto the floor surface. This does not affect the performance of the finish but does make the floor less attractive. While still fresh, use Hillyard Kleen-Up Solvent™ to clean these areas. When applying solvent-based seals and finishes to a sports floor without air conditioning, it is best to apply as the humidity is beginning to drop, but right after very humid conditions. This will have allowed the floor to expand to its full capacity with minimal gaps between the boards.

A - Allowing the paint to dry may only require one to twelve hours, during which time the surface of the film will become hard and free from tackiness. Drying is the first phase of curing the paint. As the paint continues to harden, it cures throughout the entire thickness of the film as it develops its ultimate hardness and durability. This process can take one or more days for water-based paints and several days or weeks for oil-based paints.

A - Hillyard's Gym Line Paint and Contender® Paint are specially formulated to provide our customers with the most compatible wood sports floor coating system available. Because of the control we have over the manufacturing and production of our paints, we can better ensure the success of their use with our seals and finishes. If an alternative paint is necessary for a flooring project, we have been successful using Sherwin-Williams* KEM LUSTRAL* 2 and Industrial Enamel, as well as Benjamin Moore* M-22 oil-based paints. If a water-based paint is needed, our best alternative recommendation is Benjamin Moore Impervex* water-based enamel paint. In any event, when an alternative paint is used in place of Hillyard paints, these alternatives are offered on good faith and we do not have control over their manufacturing or changes in their formulation that may affect their success

Got a question? Have a coating problem? Need answers now? We can help. With nearly 100 years of coating experience, we can get you the answers you need. Call us at 800-365-1555. And remember, you can always contact your local Hillyard consultant for expert technical advice.

Q - After we coated our floor with a solvent-based finish, a month or so later we noticed small bubbles of finish along some of the board seams. What could have caused this?

Q - What is the difference between allowing a paint to dry and allowing a paint to cure?

Q - Can I use a paint other than Hillyard's Gym Line Paint or Contender® Paint?

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Choose The Best Seal And Finish For Your Wood Gym Floor

No other company offers a greater selection of wood gym seals and finishes formulated to help you get the most wear and beauty from your gym floor. The chart below lists Hillyard solvent-based seals and finishes in red and our innovative water-based seals and finishes in blue. Check the features of each of these products to see how they can benefit your wood gym floor maintenance program.

PRODUCTS	VOC LEVEL (GRAMS/LITER)	RESIN TYPE	SOLIDS CONTENT	DURABILITY	COVERAGE RATE (SQ. FT./GAL.)	# OF COATS FOR RECOATING	METHOD OF APPLICATION	AVG. DRY TIME BETWEEN COATS	DESCRIPTION
Trophy® Gym Finish	539	Epoxy Ester	38.5%	Excellent	500-600	1-2	6	12 Hrs.	High Quality, Extremely Durable Epoxy Gym Finish
Trophy® Wood Seal	608	Epoxy Ester	30%		350-500		6	12 Hrs.	Clear Epoxy Penetrating Seal Strengthens The Surface Of The Floor
Trophy® Plus Gym Finish	518	Epoxy Ester	40%	Excellent	500-600	1-2	1,3,4,6	12 Hrs.	Durable Epoxy Gym Finish That Applies With A Variety Of Applicators
Trophy® Plus Wood Seal	601	Epoxy Ester	28%		350-500		1,3,4,6	12 Hrs.	Clear Epoxy Penetrating Seal That Applies With A Variety Of Applicators
Gold Medalist® Gym Finish	520	Oil-Mod. Urethane	40%	Very Good	500-600	1-2	1,3,4,6	12 Hrs.	Tough Wearing Urethane Gym Finish That's Ideal For Grade & H.S. Gyms
Gold Medalist® Wood Seal	603	Oil-Mod. Urethane	28%		350-500		1,3,4,6	12 Hrs.	Urethane Seal That Strengthens And Seals The Surface Of The Floor
350 Gym Finish	350	Oil-Mod. Urethane	50%	Very Good	500-600	1-2	1,3,6	48 Hrs.	Low VOC, High Solids Urethane Finish With Great Wear Properties
450 Gym Finish	<450	Oil-Mod. Urethane	50%	Very Good	500-600	1-2	1,3,6	48 Hrs.	VOC Compliant, High Solids Urethane Finish With Great Wear Properties
Fast Dry 450 Gym Finish II	<450	Oil-Mod. Urethane	50%	Very Good	500-600	1-2	1,3,6	12 Hrs.	Fast Drying, VOC Compliant, High Solids, Long-Wearing Urethane Finish
550 Seal II	<550	Oil-Mod. Urethane	37%		350-500		1,3,4,6	12 Hrs.	VOC Compliant Sanding Sealer That Strengthens And Seals The Floor
Contender® Gym Finish	<350	Waterborne Epoxy	26%	Very Good	450-600	1-2	1,2,5	12 Hrs.	Durable, Low VOC, Two-Part, Waterborne Epoxy Wood Gym Finish
Tip-Off® Gym Finish	<275	Waterborne Urethane	32%	Good	500-700	2	1,2,5	4 Hrs.	Low VOC, Easy-To-Apply, Fast Drying Wood Gym Finish
Court Guard®	<250	Acrylic	30%		500-800		1,2	2 Hrs.	Low VOC, Fast Drying, Waterborne Penetrating Seal

1 = Power-Flo Applicator; 2 = Light Weight T-Bar; 3 = Weighted T-Bar; 4 = EZ Way Applicator; 5 = Synthetic Pad/Block Applicator; 6 = Lambswool Pad/Block Applicator