

# **STAGESTEP<sup>®</sup>** ***Flooring Solutions***

*For Dance, Theater & the Performing Arts*



## **INSTALLATION GUIDE** **2021–2022 Edition**

*Supersedes all previous editions as of June 2021*

**U.S. (800) 523-0960 | Canada (866) 491-9019 | [STAGESTEP.COM](https://www.stagestep.com)**

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# FLOOR PREPARATION

## Inspection of Material

- Material should be delivered to the job site in its original unopened packaging with all labels intact.
- Examine the packaging for any damage which may have occurred during transit. The contents shipped to you should be secured to an 7' pallet with orange strapping.
- Upon receipt, all rolls of vinyl flooring should be immediately removed from this pallet, inspected and stood upright on a perfectly level surface or leaned against a wall in the most upright position possible. Failure to do so may result in deformation of the vinyl product, for which **Stagestep®** is not responsible, voiding the warranty.
- If you have questions about the condition of the flooring, or if the rolls have been removed from their packaging, take multiple photos from different angles. Be sure the photos are clear with good lighting and no glare. Contact **Stagestep®** customer service as soon as possible. All damaged products must be noted on the shipping receipt at the time of delivery.
- All issues regarding damage in transit or visual defect must be reported to **Stagestep®** within 72 hours of delivery or claims may not be honored.

*Floor Preparation Continues on Page 4...*

# FLOOR PREPARATION

## Storage

- Materials must be stored in an area that is fully enclosed and weather-tight, with a permanent HVAC system set to a uniform temperature of 68° and a relative humidity of 50% for at least 72 hours prior to and during the installation.
- Material should always be visually inspected during installation. No labor cost will be covered on claims based on visual defects that could have been seen prior to or during installation. Installation of flooring denotes acceptance.

**Caution:** All Concrete slabs must be covered or sealed with a vapor barrier. Use **Stagestep® Plastic Vapor Barrier** and **Moisture Proof Tape**, or **Stagestep®** supplied **Bone Dry Plus**. The space between the sealed concrete floor and the subfloor must be vented. This is achieved by a ¼" or ½" gap around the perimeter of the subfloor. Use **Vented Wall Base** to conceal this gap and allow moisture to escape.

- Wood, like vinyl, needs time to acclimate to the space. Most wood floors require professional installation except for **Stagestep's Encore™** flooring system. For more information on installation preparation for subfloors and wood flooring systems, please see pages 32–44. For pricing of **Stagestep®** installation products, including **Springstep™ IV Plus** subfloor systems go online to **stagestep.com**.
- **Stagestep®** is not responsible for costs related to the shipping delay, damage or installation of its flooring. Floors are insured in customer's name against shipping damage. All floors will be replaced free of charge if there is a manufacturer defect or if damaged by the trucking company when reported within 72 hours of receipt.

# VINYL FLOOR PREPARATION

## Do's & Don'ts

**Do** Make sure the smooth surface is up and foam or texture side down when installing. Except for **Bravo** reversible floors, the outer surface of the shipped roll will always be the top side or dance surface. To lay flooring, securely hold the ends of the roll and unroll or unravel flooring from the core so that smooth-side surface is always facing up. Save core or center tube for future use unless installing permanently. Flooring returned to Stagestep® for any reason must be re-rolled using core or center tube. The unrolling of vinyl flooring may require 2-4 people with adequate strength depending on length of roll and weight. **TIMESTEP™**

**BLACK SHOULD BE HANDLED WITH EXTRA CARE.**

**Do Not** Flip flooring edge over edge. Flooring can tear or crack. Be careful not to severely bend vinyl flooring. Such bending or inadvertent stepping on folded flooring can result in stretch marks or cracking.

**Do** Wash the new floor 2-3 times with **ProClean™** and lukewarm water before using. For special non-slip requirements or treatments, call our customer support department.

**Do Not** Use rosin, solvents, abrasive cleaners, cola, vinegar, ammonia, bleach, or any product that says it will leave your floor shiny.

**Do** Keep the space at a standard room temperature of 68–78° F with humidity between 40–60% prior to and during the installation process. The use of humidifiers or dehumidifiers may be required.

**Do Not** Do overhead work or wall construction after the dance floor has been installed.

**Do** Plan to roll out all sheets in the same direction when installing Stagestep® vinyl flooring.

*Vinyl Floor Preparation Continues on Page 6...*

# VINYL FLOOR PREPARATION

## Vinyl Flooring

- Ensure that moisture tests of the concrete slab have been conducted and meet standard for moisture content. Have the permanent HVAC system turned on and set to a minimum of 68– 78° F and a relative humidity between 40–60% for a minimum of 72 hours prior to, during and after installation. Maximum temperature should not exceed 5-10° F above temperature at time of installation..
- Flooring material must be acclimatized to the installation area for a minimum of 24 hours prior to installation.
- Only **Stagestep®** approved adhesive should be used. Using an unapproved adhesive may void warranty. Use a 1/32" x 1/16" x 1/32" fine notch trowel only. Professional installers are required for permanent installs.
- Material should always be visually inspected prior to installation. Labor costs related to any materials installed with visual defects will not be considered a legitimate claim as it pertains to labor cost.
- Some **Stagestep®** sheet vinyl has a fiberglass interlayer which gives them dimensional stability. They will not shrink or compress. If cut too full or back rolled, it can result in a bubble.
- Install all cuts and rolls in consecutive sequence.
- Ensure that all recommendations for subfloor and job site conditions are met prior to beginning the installation. Once the installation is started, you have accepted those conditions.

## Moisture Test

- It is essential that moisture tests be taken on all concrete and wood floors regardless of the age or grade level.
- Concrete should be tested in a minimum of three places for every 1,000 square feet.
- The test should be conducted according to **ASTM F1869-98** using a calcium chloride test or digital meter.
- The test should be conducted around the perimeter of the room, at columns, and where moisture may be evident.
- The moisture emission from the concrete should not exceed 5.0 lbs. per 1,000 square feet in 24 hours.
- Wood should be tested with a digital moisture meter and should have content not lower than 5% and not higher than 10%.
- If your results exceed these limits, please contact **Stagetest®** for more information.
- It is not the floor installer's responsibility to conduct the test. However, the floor covering installer is responsible to make sure these tests have been conducted with proper results prior to installing the floor covering.
- When moisture tests are conducted, it only indicates the conditions at the time of the test. The flooring contractor cannot be held responsible if moisture is present in the future and causes failure.

*Environmental Control Continues on Page 8...*

# ENVIRONMENTAL CONTROL

## Job Conditions

- The installation of flooring should not begin until the work of all other trades has been completed, especially overhead trades.
- All reasonable efforts must be made to keep installed floor at room temperature and proper humidity at all times and the maximum temperature should not exceed 5-10° F above temperature at time of installation.
- Areas to receive flooring shall be adequately lit to allow for proper inspection of the substrate, installation and seaming of the flooring.

**Note:** Moisture tests should be conducted after HVAC system has been installed and all materials have had ample time to acclimatize. Failure to have a controlled environment within the recommended 68-78° F and 40-60% relative humidity may cause flooring system failure.



## Summary

- The finished appearance and performance of the floor covering will be determined and affected, in part, by the condition of the subfloor. It is essential that all subfloors be structurally sound, finished smooth, flat, level, permanently dry, clean, and free of all foreign materials such as dust, paint, grease, oils, solvents, curing and hardening compounds, sealers, asphalt, and old adhesive residue.
- Flat and level means, and the applicable parameter to maintain product warranties is 1/8" – 1/4" for every 10 feet. Subfloor preparation should be done with the permanent HVAC set 68-78° F and humidity controlled at 40-60%.
- Vacuuming the subfloor with a commercial shop vac is a preferred method for removing dirt and dust. For concrete floors, damp mopping the subfloor is an excellent way to remove fine dust. A clean subfloor ensures proper bond between the subfloor and the floor covering.

**Note:** Wherever trade names, trademarks, product names, or company names are mentioned, they are used only as a reference to establish a comparative standard of quality. It should not be assumed that these products are the only products for the suggested or intended use. Also, it does not mean that other products of similar or equal quality may not be suitable.

*Subfloors Continues on Page 10...*

# SUBFLOORS

## Grade Levels

- 1. On Grade:** A location for a finished floor with no portion below ground level, and with the floor and the ground in contact or separated by less than 18" of well-ventilated space between the bottom of the lowest horizontal structural member and the ground at any point.
- 2. Above Grade:** A location for a finished floor where the floor is not in contact with the ground and which provides at least 18" of well-ventilated space between the bottom of the lowest horizontal structural member and the ground at any point.
- 3. Below Grade:** A location for a floor structure which is in contact with the ground or with less than 18" of well-ventilated space between the bottom of the lowest horizontal structural member and the ground, at any point and if part or all of the floor is below ground level.

While many types of subfloor construction are acceptable for use with our products, **Springstep™ Plus and SpringFlex™ subfloors are the only acceptable subfloor/underlayment combinations for our flooring. Dancestep™ Plus, Woodstep™ Plus and Woodstep™ Ultra** should be installed directly on your existing smooth slab, and do not require a sprung subfloor.

**For further information you may refer to ASTM F141. For wood subfloors, refer to ASTM F1482.**

Existing floors must be structurally sound, free from excessive movement and have well-ventilated air space below. **Stagestep®** floor coverings should not be installed over wooden subfloors built on sleepers over, on grade, or below grade concrete floors without the use of a vapor barrier. Failure to use a vapor barrier will result in high rates of failure due to the excessive moisture vapor emissions from the concrete.

# UNDERLAYMENTS

## Summary

- Underlayment panels are used to correct deficiencies in the subfloor and to provide a smooth, sound surface on which to adhere the resilient flooring. Use ¼" luan for permanent installs.
- Other types of underlayment panels such as Tecply, Multiply, and Masonite Brand Underlayment should not be used with **Stagestep®** subfloor systems. Always install and fasten underlayment panels according to the manufacturer's recommendations.

## Strip Wood/Plank Flooring

- Due to expansion and contraction of strip and plank subflooring during seasonal changes, we recommend **Springstep™ IV Plus** subfloor panels be installed over these types of floors.

**Note:** The use of a skim coat of patching material over wooden subfloors may cause problems in joint areas. The moisture from the patch is absorbed by the wood, swelling the wood fibers, causing telegraphing through the newly installed floor covering. Proper installation of a wooden subfloor is critical to the successful installation of your flooring surface.

# CONCRETE FLOORS

## Summary

(Refer to ASTM F710-98)

- Floors shall be smooth, rigid, flat, level, permanently dry, clean, and free of all foreign materials such as dust, paint, grease, oils, solvents, curing and hardening compounds, sealers, bond breakers, asphalt and old adhesive, residue.
- Concrete shall have a minimum compressive strength of 3500 psi/150 pounds per cubic feet and be covered with a vapor barrier prior to construction of the subfloor.
- Telegraphing of patched joints and subfloor imperfections may often be accentuated if the flooring material is maintained with a high gloss finish.

**Note:** The use of **Stagetest® Vapor Barrier**, either liquid like **Bone Dry Plus**, or 8 mil. or better plastic barrier, is mandatory when installing **Stagetest®** products over, above, on, or below grade concrete. Failure to do so will void all warranties.



# EXISTING RESILIENT FLOORS

## **Most Stagestep® floor coverings may be installed over a single layer of non-cushioned resilient flooring provided it meets certain conditions.**

- The existing flooring must be fully adhered and well-bonded.
- The existing flooring must not be embossed or textured enough that it will telegraph through the new flooring.
- All waxes and finishes must be removed and rinsed with clean water and a pH test should be conducted to assure stripper residues have been removed. An adhesive bond test should be conducted to ensure proper bond between the adhesive and the existing flooring material.
- Cuts, gouges, dents, and other irregularities must be repaired or replaced.
- The current subfloor must be sprung and must meet the recommendations of the existing and the new floor covering.
- The use of embossing levelers is not recommended for commercial installations.

**Note:** Application of a skim coat of patching material over the existing resilient flooring may cause more problems than it resolves, such as bonding failures, cracking and indentations.

- The responsibility of determining if the existing flooring is suitable to be installed over rests solely with the installer and the flooring contractor. If there is any doubt as to its suitability, it should be removed or an acceptable underlayment installed over it.
- Installations over existing resilient flooring may be more susceptible to indentation, and there is always a possibility the existing flooring may telegraph.

*Existing Resilient Floors Continues on Page 14...*

# EXISTING RESILIENT FLOORS / RADIANT HEATED FLOORS

- Telegraphing is when the seams of the subfloor/underlayment shows through to the surface of the flooring. This condition should not affect activity on the surface or impact wear. It is a common occurrence with floating wood subfloors and is not covered by warranty.
- .....

## Radiant Heated Floors

**Stagestep®** floor coverings may be installed over radiant heated floors provided the operating temperature does not exceed 85° F. To allow proper adherence of the adhesive to the subfloor, the radiant heating system should be lowered or turned off for at least 48 hours prior to installation of **Stagestep®** flooring material. This will ensure the surface temperature of the subfloor does not exceed 65° F during the installation of the flooring material.

The room temperature must be maintained at a minimum of 65° F prior to, during, and after installation for 72 hours. Then, the temperature of the radiant heating system can be increased. When raising the floor temperature, do so gradually so that the substrate and flooring material can adapt to the temperature change together. A rapid change could result in bonding problems.

For more information, contact our technical support at **(800) 523-0960** or **[sales@stagestep.com](mailto:sales@stagestep.com)**.

# ASSOCIATIONS & INSTITUTES

For more extensive guidelines and information on the mentioned topics, we encourage you to contact the following associations:

- **APA** – The Engineered Wood Association (253) 565-6600 or [apawood.org](http://apawood.org)
- **ACI** – American Concrete Institute (248) 848-3800 or [concrete.org](http://concrete.org)
- **PCA** – Portland Cement Association (847) 966-6200 or [cement.org](http://cement.org)
- **RFCI** – Resilient Floor Covering Institute (706) 882-3833 or [rfci.com](http://rfci.com)
- **ASTM** – American Society for Testing and Materials 610-832-9500 or [astm.org](http://astm.org)



# BONE DRY PLUS APPLICATION

## Application Instructions

- **Bone Dry Plus** should be used on concrete floors which have cured for at least one month and, ideally, three months or more.
- Surface sealers, paint, grease, oils and adhesives, etc., must be removed prior to the application of **Bone Dry Plus**. Slick, hard toweled surfaces should be etched with Bone Dry Plus products, or mechanically opened to enable Bone Dry Plus to penetrate into the concrete.
- Use **Bone Dry Plus** at full strength. Saturate the surface with **Bone Dry Plus**. Application can be made with an airless sprayer or hand pumped garden type sprayer. Do not allow **Bone Dry Plus** to pond or puddle, as a white residue will likely form on the surface.
- The time for the application of additional material can be judged by observing the time it takes for **Bone Dry Plus** to soak into the concrete. If the material soaks in quickly, generally less than 15 minutes after application, additional applications are required.
- If necessary, 24 hours after the final application of **Bone Dry Plus**, flush or mop the surface thoroughly with water to remove any foreign material that may be brought through the concrete up to the surface.
- After certain applications, a crust of both alkali and lime may be brought up through the concrete to the surface. To remove, use a stiff bristle brush or scrubbing machine with a wire block brush. After removal, flush with water.
- The concrete is now cleaned, deodorized and permanently sealed. Flooring can be installed approximately 72 hours after application on concrete floors. You can safely walk on concrete during the 72 hour window, although surface can be slippery when wet.



# ADHESIVE APPLICATION ON CONCRETE

## Application Instructions

- Use on grade, above grade, or below grade concrete which has been sealed. May be used over plywood, hardboard, terrazzo, steel, and well-bonded, wax-free floor coverings.
- Use a high quality latex/Portland cement patching compound to fill or level any irregular areas.
- The floor must be sound, dry, and free from dirt, dust, old adhesives, grease, wax, or other foreign matter. Concrete floors must be fully cured (per above), free from dust, moisture, excessive alkalinity, curing agents, and excessive moisture vapor emissions (5 lbs./1,000 SF/24 hrs.)
- On and below grade concrete must have a satisfactory moisture barrier beneath the slab.
- **Do not use Safe-Set 299 where moisture is present in the concrete subfloor;** moisture may retard or prevent the adhesive from setting.
- May be used over old cutback adhesive provided the following procedure is followed: scrape and remove the adhesive to expose at least 80% of the concrete surface. Random specs of adhesive and the appearance of a brown surface stain are acceptable.

*Adhesive Application on Concrete Continues on Page 18...*

# ADHESIVE APPLICATION ON CONCRETE

## Application Instructions

The adhesive and room should be maintained at a minimum temperature of 65° F for 48 hours prior to, during, and after installation. For porous subfloors apply the adhesive with a 1/16" x 1/16" x 1/16" square notched trowel; for non-porous subfloors use a 1/32" x 1/32" x 1/16" trowel. Immediately after spreading the adhesive, roll it with a short nap roller dampened with adhesive to flatten the adhesive ridges. This procedure will ensure that the trowel notch pattern does not telegraph through to the finished floor. When using the "wet-set method" of installation test the adhesive to see if it has "strings" and is moist to the touch before installing the floor covering. Check periodically to make sure there is full transfer of adhesive to the back of the floor covering. When using the "tacky" method of installation allow the adhesive to become tacky before beginning the installation (adhesive should not transfer to the finger when touched). That set-up time will vary with the temperature, humidity, and porosity of the subfloor. To test, touch the adhesive lightly; if it does not transfer to your finger, proceed with the installation. Place the vinyl flooring into the adhesive within two hours of spreading. Within an hour of installation roll the entire floor with a 100 lb. roller. Roll twice, once in each direction. Restrict heavy foot traffic or rolling loads for at least 24 hours.

## Clean-up

Dried adhesive can be difficult to remove; take care to remove wet adhesive from the surface of the material before it dries. Fresh adhesive (less than 8 hours old) can be removed with ice cold soapy water and wet cloth. For dried adhesive film, use mineral spirits or acetone carefully, as these products can compromise the floor finishes. Always refer to the material manufacturer for proper dried adhesive removal procedures.

# ROLL OUT VINYL/INSTALLATION

## Five Ways to Install

- Temporary Installation
  - Semi-Permanent Installation using 2” double-faced tape and top tape
  - Long-Term Semi-Permanent Installation using 4” seam tape
  - Extended-Term Semi-Permanent Installation Using **ReUseIt™**
  - Permanent Installation
- .....

## Timestep™ Installation Tips

1. **Timestep™** and all flooring vinyl must be removed from the pallet and stored in the vertical position immediately after receiving.
2. It should always be unrolled or unraveled with outside/dance surface up.
3. Never flip vinyl from side to side. Never grab or hold with one hand.
4. Must be moved carefully by multiple installers after acclimated to room temperature between 68° and 78°F

***Timestep™ Black must be handled with extra care.***

## Temporary Installation (1 Day–2 Weeks)

### Use Top Tape, Vinyl or Cloth Tape

1. Floor must be installed over a clean, smooth, level and dry surface. It is best to install over a sprung subfloor or stage.
2. Before taping, unroll flooring and allow to sit on subfloor until flooring lies flat and acclimates to room temperature.
3. Letting the floor sit overnight or longer is ideal. Flooring must lie flat before taping. Leave a 1/16” gap at all seams and a ½” gap at walls.
4. Tape all seams and the perimeter of the floor using 1-1/2” or 2” vinyl or cloth tape.

# ROLL OUT VINYL INSTALLATION

## Semi-Permanent Installation (2-3 Years)

### Use Double-Faced Tape and Vinyl or Cloth Top Tape

1. Seal concrete slab against moisture. On concrete slab, use liquid moisture barrier such as **Bone Dry Plus** as directed or **Stagestep® Vapor Barrier** plastic sheeting 8 mil or greater. If using plastic sheeting, roll out and place so each sheet overlaps 5" – 7" with **Moisture Proof Tape** at seams, and allow to run up to wall and tape with same waterproof tape at base of perimeter to seal moisture below.
2. Subfloor (ideally sprung subfloor) surface must be clean, dry, level and smooth, with all screw holes and seams filled with wood putty, wood filler or taped over. (See instruction for **Springstep™ II, III, or IV Plus**). It is not necessary to tape tight fitting seams as should be the case with properly installed **Springstep™ II, III or IV Plus**. Taping will result in possible telescoping which is normal.
3. Roll out flooring and let it acclimate to room temperature. When the floor arrives, it may be rolled inside out. Please make certain that the smooth side is up, and the foam or textured surface is down. The room temperature should be the highest temperature the room will reach when in use. Acclimatizing the floor may take anywhere from a few hours to a few days.
4. Make certain the floor is lying flat to the subfloor and that all seams are even. Make all appropriate cuts. Leave a ½" gap at walls and 1/16" gap between the seams.
5. Your floor should look like it is ready to be used.
6. Secure one end of each roll of flooring with weight so it will not move.

*Roll Out Vinyl Installation (2–3 Years) Continues on Page 21...*

7. Mark the edges of the flooring onto the subfloor with a pencil. Begin by re-rolling the flooring roll closest to the furthest wall onto its core and apply double-faced tape to the subfloor at the marked perimeter (not under the seam) and down the middle 3.25 ft. from the edge. Leave all other rolls in place and rolled out.
8. Roll the flooring into place and check positioning over the tape.
9. If all is fine, roll up the floor, remove the protective paper from the double-faced tape and re-roll over the exposed tape surface. Be careful not to step on rolled down vinyl over the double-faced tape until you are confident the vinyl is flat without any ripples or rolls.
10. Repeat procedures 7 through 9 for each roll.
11. If necessary, use a 75 lb. roller to further secure the floor using an “S” path allowing ripples or air bubbles to be pushed out and not trapped under the flooring.
12. Tape all seams and perimeter of the floor using 1-1/2” or 2” vinyl or cloth tape.

**Caution:** Change top tape every three months or as necessary. Change double-faced tape a minimum of every two years. Failure to do so can cause flooring to crack and ripple due to tape failure.

# ROLL OUT VINYL INSTALLATION

## Semi-Permanent Installation (3-4 Years)

Use double-faced professional 4" seam tape. No top tape is required.

1. Seal concrete slab against moisture. On concrete slab, use liquid moisture barrier such as **Bone Dry Plus** as directed or **Stagelstep® Vapor Barrier** plastic sheeting 8 mil or greater. If using plastic sheeting, roll out and place so each sheet overlaps 5" – 7" with **Moisture Proof Tape** at seams, and allow to run up to wall and tape with same waterproof tape at base of perimeter to seal moisture below.
2. Subfloor (ideally sprung subfloor) surface must be clean, dry, level, and smooth, with all screw holes and seams filled with wood putty, wood filler or taped over. It is not necessary to tape tight fitting seams as should be the case with properly installed **Springstep™ II, III or IV**. Taping will result in some telescoping which is normal.
3. Roll out flooring and let it acclimate to room temperature. When the floor arrives, it will be rolled inside out. Please make certain that the smooth side is up, and the foam or textured surface is down. Room temperature should be the highest temperature the room will reach when in use. Acclimatizing the floor may take anywhere from a few hours to a few days.
4. Make certain floor is lying flat to the subfloor and that all seams are even. Make all appropriate cuts. Leave a ½" gap at all walls. Seam areas may be overlapped by up to 1 inch and double, or trace cut to realize two fresh edges so that edges of the 2 adjacent rolls are perfectly aligned. Do not cut floor seams until #12.

**Note:** Double-cutting will reduce coverage of material in the floor width. Please be sure that there is enough material to complete the job before installing the floor in this manner. Not all installations required double cutting seams.

*Roll Out Vinyl Installation (3-4 Years) Continues on Page 23...*

5. Your floor should look like it is ready to be used.
6. Secure one end of each roll of flooring with weight so it will not move.
7. Mark the edges of the flooring onto the subfloor with a pencil. Begin by re-rolling the flooring roll closest to the furthest wall onto its core and apply 4" professional seam tape to the subfloor at the marked perimeter (not under the seams) and down the middle 3.25 ft. from the edge. Leave all other rolls in place and rolled out.
8. Re-roll out this roll to check the positioning over the tape.
9. If all is fine, roll up the floor, remove the protective paper from the double-faced tape and re-roll over the exposed double-faced tape. Be careful not to step on rolled down vinyl over the double-faced tape until you're confident the vinyl is laid out flat without any ripples or rolls. Rolling out vinyl flooring onto double-faced tape should always be done slowly and methodically.
10. Repeat procedures 7 through 9 for each roll.
11. If necessary, use a 75- 100 lbs. roller to further secure the floor using an "S" path allowing ripples or air bubbles to be pushed out and not trapped under the flooring.
12. Once entire floor surface has been rolled, if you have overlapped the rolls at seams, double or trace cut all seams. Once all seams have been cut, roll seam area with 75 to 100 lb. roller. Trimming seams may not be necessary if the roll seams match up.
13. Tape perimeter of the room using 1-1/2" or 2" vinyl or cloth tape unless covered by optional vented cove base.

**Caution:** Change 4-inch seam tape a minimum of every three-four years. Failure to do so can cause flooring to crack and ripple due to tape failure.

# ROLL OUT VINYL INSTALLATION WITH REUSEIT™

## Long Term Semi-Permanent Installation (4–10 Years)\*

### Stagestep's ReUselt™ (Diagram on Page 26)

1. Seal concrete slab against moisture. On concrete slab, use liquid moisture barrier such as **Bone Dry Plus** as directed or **Stagestep® Vapor Barrier** plastic sheeting 8 mil or greater. If using plastic sheeting, roll out and place so each sheet overlaps 5" – 7" with **Moisture Proof Tape** at seams, and allow to run to wall and use same tape at base of perimeter to seal moisture below.
2. Subfloor (ideally sprung subfloor) surface must be clean, dry, level, and smooth, with all screw holes and seams filled with wood putty, wood filler or taped over. It is not necessary to tape tight fitting seams as should be the case with properly installed **Springstep™ II, III or IV**. Taping will result in some telescoping which is normal.
3. **ReUselt™** covers the entire floor perpendicular to the direction of the rollout floor surface. If your floor runs north-south, **ReUselt™** will run east-west.
4. As you roll out **ReUselt™**, you expose the adhesive on the bottom which will stick to your subfloor.
5. As one person slowly walks backwards unrolling **ReUselt™**, another person secures the adhesive side to the subfloor by smoothing it out with a stiff bristle push broom or roller. (See step 1 illustration.)
6. When you reach a wall, cut **ReUselt™** with a utility knife and start the next run. It is good to line up seams as close as possible; however, slight overlaps or gaps are OK. (See step 1 illustration.)

**Note:** \*ReUselt™ should provide adhesion beyond 10 years.

*Roll Out Vinyl Installation With ReUselt™ Continues on Page 25...*



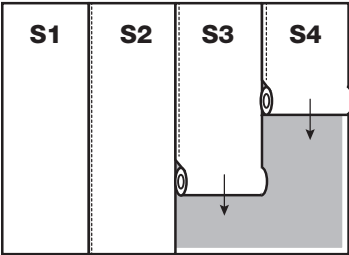
7. Roll out top flooring perpendicular to **ReUselt™** make all rough cuts along wall perimeter, and let top flooring acclimate for at least 24 hours. If floor edges are damaged or deformed, seam areas may be overlapped by up to 1 inch and double or trace cut to realize two fresh edges. Do not make double cuts until step 12. (See step 2 illustration).
8. Roll your flooring up half way using a flooring tube. Do this one section at a time. Peel off the top protective layer of **ReUselt™** exposing the top adhesive. (See step 3 illustration).
9. Gently roll flooring back into adhesive top, making sure not to shift or change alignment of the flooring. Smooth out flooring from the center to the edges.
10. Repeat procedure on each half of the remaining sheets of flooring. Do not cut any seams at this time (See step 4 illustration).
11. Once all flooring has been affixed to **ReUselt™**, roll each sheet one at a time from the center to the edges with a 75 to 100 lb. floor roller. (See step 5 illustration.)
12. Once entire floor surface has been rolled, double cut or scribe all seams if necessary. Be careful not to cut the **ReUselt™** during this procedure. Cutting the **ReUselt™** at the seam areas will weaken its ability to properly hold the seams closed. Once all seams have been cut, roll seam area with 75 to 100 lb. roller (See step 5 illustration).

### Tips

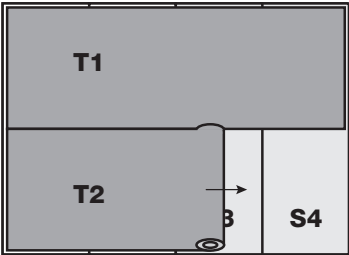
- Room should be warm and dry. **ReUselt™** should not be used in damp areas or outside.
- If a mistake is made and the floor gets tangled or misaligned, gentle pull floor material up and try again. If **ReUselt™** gets dirty, damaged, or wet, cut damaged area out and lay in replacement piece.

***Roll Out Vinyl Installation With ReUselt™ Continues on Page 27...***

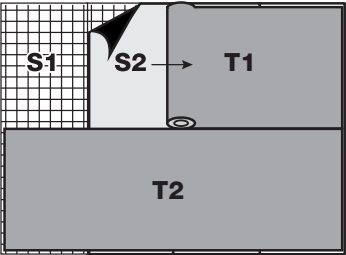
Stagestep's ReUseIt™ Diagram



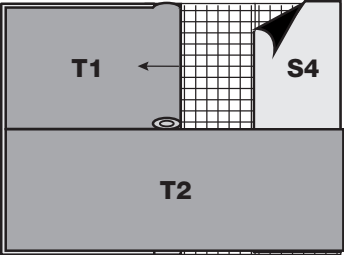
STEP 1



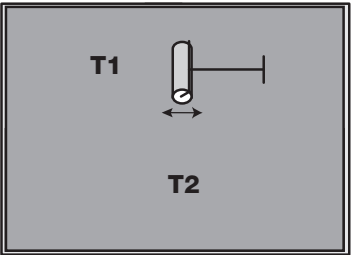
STEP 2



STEP 3



STEP 4



STEP 5

- Test **ReUselt™** to confirm it will stick to your subfloor prior to installation.  
**ReUselt™** is designed to work with **Stagestep®** subfloor systems and most plywood types, however, **Stagestep®** cannot guaranty suitability with any system other than its own. Suitability should be tested prior to installation.  
**ReUselt™** is designed to be removed and not render the subfloor or vinyl flooring unusable. Other permanent installation methods typically mean that the subfloor and vinyl floor cannot be used again. It may be necessary to use double-faced tape or 4" seam tape to hold **ReUselt™** to secure its leading edges.

**Caution:** Extreme heat can damage **ReUselt™** resulting in its failure to bond flooring to subfloor. Use 4" seam tape to address this issue.

**Note:** Do not overlap seams if doing so will compromise floor fit! Do not use **ReUselt™** to install **Timestep™ T**. Use double-faced tape and top tape or 4" installation tape.

.....

## Permanent Installation (10+ Years)

### Stagestep® Adhesive

Professional installation recommended. Complete instructions are included with each container of **Stagestep® Adhesive**. Seams should be double cut by a professional. Chemical welding is not recommended. Heat welding is not necessary but again should only be done by a professional. **Stagestep®** carries heat **Welding Rod** material in all colors.

If you have any questions call **(800) 523-0960** or or email **sales@stagestep.com**. You can also see heat welding instructions on page 30.

# CUTTING AND FITTING SHEETS

## Stagestep® Sheet Vinyls

**Stagestep®** sheet vinyls are flexible and easy to handle when properly acclimated. In most cases, a qualified installer will be able to hand fit the material in areas where base or trim moldings will be installed after the installation is complete. **Timestep™**, in general, and **Timestep™** Black are a little more rigid and extra care must be taken not to bend or crease.

1. Cut the required length off the roll, including enough to run up the wall 2-3" at either end.
2. Push the length of the sheet as close to the starting wall as possible, letting the extra length run up the wall at each end.
3. Set the scribes to a minimum of 3/8" more than the greatest distance between the wall and the flooring material. Scribe the shape of the wall onto the flooring.
4. Next, cut the material along the scribe line using a utility blade knife. Place the fitted sheet approx. 1/2" from the wall. There should be a 1/2" gap around entire perimeter of room.
5. Cut second sheet with proper extra length.
6. Position second sheet with a 1/2 - 1" overlap over first sheet at the seam.
7. Repeat steps 5 and 6 for as many sheets as necessary to complete the area or those sheets that can be installed that day.
8. Lap back all overlapped sheets as one, halfway back.
9. Snap chalk line along area where adhesive will be spread to assure an even and straight line of adhesive. Spread adhesive with proper notched trowel over entire area. Be very careful not to leave any adhesive ridges or puddles.

**Note:** The subfloor porosity and room atmosphere conditions (temperature, humidity,

*Cutting and Fitting Sheets Continues on Page 29...*

etc.) can affect the working time of the adhesive. Floor must be placed into adhesive while wet. Do not install flooring into dry adhesive.

**10.** Push lapped flooring from the fold onto adhesive, working toward the wall. **Do not flop material in**—air will be trapped causing bubbles. Rolling or laying out vinyl flooring onto adhesive should always be done slowly and methodically.

**11.** Roll floor with 75 to 100 lb. roller in both directions. Roll across with width first, then across the length. Using the top floor piece edge as a guide, cut bottom sheet with a sharp utility knife.

**Note:** To ensure proper bonding of the material, it is recommended to roll the material next to the walls with a hand seam roller.

**12.** After material has been laid into the adhesive, double, trace or scribe cut seams. If scribe cutting, underscribe the seams using the short scribes with either the scribe blade or scribe pin.

**Note:** Set scribes so that the seam will have a slight gap, about half the thickness of a razor blade. If cut too full, it will result in bubbles or ridges. Heat welding **Stagetest®** vinyl sheet flooring is optional. When installing **Super Timestep™**, both seam edges must be trimmed as the factory edge is at 45 degree angle.

**13.** Cut material along scribe line with utility knife.

**14.** Roll the seam with a hand roller.

**15.** Repeat the same procedure on the other half of the room. **Take Caution not to overlap adhesive lines or leave ridges of adhesive.**

**16.** Heat weld seams the following day if required.

**Note:** The above instructions assume a permanent install with adhesive. Therefore, these instructions are for professional installers. Any questions, please call (800) 523-0960 or email [sales@stagetest.com](mailto:sales@stagetest.com).

# HEAT WELDING

## To be done by experienced professionals only:

- Heat welding is the optional procedure for all seams, coving, and corner fill pieces of our sheet vinyls. Heat welding provides for strong and hygienic seams. They are not invisible. Heat welding is not appropriate for temporary or semi-permanent installations.
- The welding cord for our vinyls is made of pure PVC which is designed to melt at the same temperature as the PVC of the sheet vinyl flooring. This is why you should never use **Welding Rods** other than those specified for the product you are installing.
- Heat welding should be done after the flooring adhesive has set-up, usually a minimum of 24 hours after sheet vinyl installation.
- It is always a good idea to practice on a scrap piece of material first to ensure proper temperature and speed.

## Procedure

1. Seam edges should be tight. Gaps in the seam will deter a quality weld.
2. Groove seam using a vinyl groover. The depth of the groove should be about 2/3 the depth of the material. Be careful not to go too deep. This is very important to ensure proper strength and bonding of the **Welding Rod**.
3. The ends of the seam, where the groover cannot reach, must be completed using the hand groover.
4. Clean all grooves thoroughly.
5. Use only professional quality welding guns that will maintain the proper temperatures. Use 5 mm speed tip.

*Heat Welding Continues on Page 31...*

6. Preheat welding gun for several minutes before beginning.
7. Cut length of **Welding Rod** long enough to weld over half the seam.
8. Insert rod through welding nozzle about 3-4", hold on to excess and immediately begin welding.
9. The welding tip should always be parallel to the flooring and directly over the groove.
10. Determine the correct welding speed by ensuring that the **Welding Rod** actually melts into the groove. A small bead should form on either side of the **Welding Rod**.
11. While the **Welding Rod** is still warm, trim the excess material with the crescent knife and trim plate in one continuous movement.
12. If the **Welding Rod** has not properly bonded, a new piece of rod can be fused in and trimmed.
13. Repeat the same procedure on the other half starting from the opposite wall working toward the center. Overlap the **Welding Rod** approximately 1" where they join.
14. After the rod has cooled to the touch, make the final trim using only the crescent knife.
15. Minor repairs and smoothing out of the rod may be done using the butane repair tool.

**Note:** Seamless does not mean invisible. Heat welding prevents moisture from penetrating the seam and destroying the adhesive. **Classic Bravo**, **Super Bravo**, and **Super Bravo Pro** cannot be heat welded.

# SPRINGSTEP™ II SUBFLOOR

## Construction

Materials Needed:

1. Two layers of ½" underlayment grade solid core no void plywood, one side finished. (To be supplied locally.)
2. **Springstep™ II** 3" X 3" X ¾" high density foam blocks or 2" x 2" x 2" high density foam cubes.
3. Contact cement or liquid nails (to be supplied locally) but not necessary if using peel-and-stick cubes or blocks.
4. 1" – 1 ¼" continuous thread wood deck screws with counter sinking heads. Do not use drywall screws or nails. (To be supplied locally.) (See schematic at bottom of page 33.)
5. Vapor barrier (Choice of plastic sheeting such as **Stagetest® Vapor Barrier** with reinforcement scrim laminated between polyethylene layers or a liquid vapor barrier like **Bone Dry Plus**.)
6. **Moisture Proof Tape** to tape vapor barrier at seams if using plastic sheeting.
7. Tape floor patch to fill screw holes and realize a smooth surface (to be supplied locally.)
8. Vented wall and transition pieces (optional)

## Process

1. Seal concrete slab against moisture. On concrete slab, use liquid moisture barrier such as **Bone Dry Plus** or **Stagetest® Vapor Barrier** plastic sheeting 8 mil or greater. If using plastic sheeting roll out and place so each sheet overlaps 5" – 7" with **Moisture Proof Tape** at seams, and allow to run up to wall and tape with same **Moisture Proof Tape** at base of perimeter to seal moisture below.

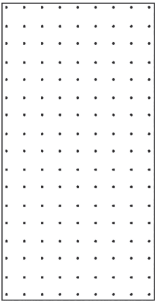
*Springstep™ II Subfloor Continues on Page 33...*



2. Glue or peel and stick foam blocks to bottom layer of ply. (See schematic below.)
3. Position bottom layer of ply with foam affixed. Stagger seams.
4. Run top layer of ply perpendicular to bottom layer. (See schematic on page 35.)
5. Floor is complete when you reach the walls or the desired size. Leave ½” gap around perimeter.
6. Use 1” – 1 ¼” continuous thread wood deck screws with counter sinking heads. (See schematic below.)
7. Tape or patch screw heads and sand seams to realize smooth surface if necessary.
8. Three foot transition pieces are available. May require a custom order.  
Call **(800) 523-0960** or email **sales@stagestep.com**.

**Note:** Do not use any wood with moisture content exceeding 10%.

**Caution:** By using substandard wood and/or hard-wood, you increase the risk of subfloor failure. Rough edges, defective or non-specified screws can result in damage to your wear surface. Double check your subfloor is secure.



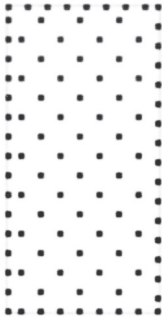
**SCREWS 6"  
ON CENTER**

**150-160 SCREWS  
PER 4'X8' SHEET  
OF PLYWOOD**



**SPRINGSTEP™  
II FOAM BLOCK**

**LAYOUT 52  
REQUIRED PER  
4' X 8' SHEET**



**SPRINGSTEP™  
II FOAM CUBE**

**LAYOUT 100  
REQUIRED PER  
4' X 8' SHEET**

# SPRINGSTEP™ III SUBFLOOR

## Construction

### Materials Needed:

1. Two Layers of ½" underlayment grade solid core no void plywood, one side finished. (To be supplied locally.)
2. **Stagetest®** ½" foam sheeting (rolls come in 5' width by your custom length up to 100.')
3. 1" – 1 ¼" continuous thread wood deck screws with counter sinking heads. Do not use drywall screws or nails. (To be supplied locally.) (See schematic.)
4. Vapor barrier (choice of plastic sheeting such as **Stagetest® Vapor Barrier** with reinforcement scrim laminated between polyethylene layers or a liquid vapor barrier such as **Bone Dry Plus**.)
5. **Moisture Proof Tape** to tape vapor barrier at seams if using plastic sheeting.
6. Tape or floor patch to fill screw holes and realize a smooth surface. (To be supplied locally.)

## Process

1. Seal concrete slab against moisture. On concrete slab, use liquid moisture barrier such as **Bone Dry Plus** as directed, or **Stagetest® Vapor Barrier** plastic sheeting 8 mil or greater. If using plastic sheeting roll out and place so each sheet overlaps 5" – 7" with **Moisture Proof Tape** at seams, and allow to run up to wall and tape with same waterproof tape at base of perimeter to seal moisture.
2. Roll out foam sheeting to conform to slab.
3. Tape seams of foam sheeting.
4. Loosely lay bottom layer of ply directly on foam. Stagger seams.

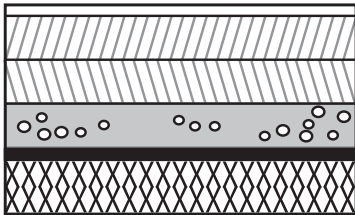
*Springstep™ III Subfloor Continues on Page 35...*

5. Run top layer of ply perpendicular to bottom layer. (See schematic below.)
6. Floor is complete when you reach the walls or desired size. Leave ½" gap around perimeter.
7. Use 1" – 1 ¼" continuous thread wood deck screws with counter sink heads. (See schedule on page 33.)
8. Tape or patch screw heads and sand seams to realize smooth surface if necessary.

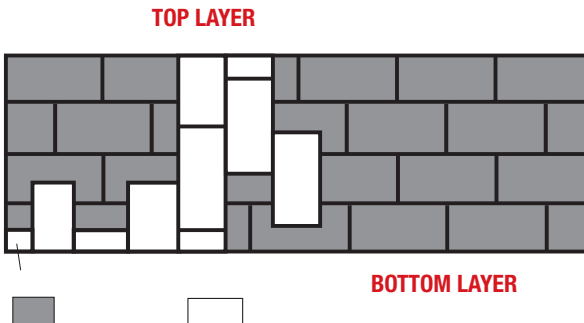
**Note:** Do not use any wood with moisture content exceeding 10%.

**Caution:** By using substandard wood and/or hardwood, you increase the risk of subfloor failure. Rough edges, defective or non-specified screws can result in damage to your wear surface. Double check your subfloor is secure.

#### SPRINGSTEP™ III CROSS SECTION



TOP LAYER 1/2" PLYWOOD (FINISHED ONE SIDE)  
 BOTTOM LAYER 1/2" PLYWOOD  
 1/2" FOAM  
 VAPOR BARRIER  
 CONCRETE SLAB



# SPRINGSTEP™ IV PLUS SUBFLOOR

**Springstep™ IV Plus** is a nominal 2' x 2' high-resin board for enhanced durability. Comes pre-assembled with ¾" thick L-Shaped foam forms. Designed for multi-purpose studios.

## **Springstep™ IV-A Plus**

Unassembled panels with ½" thick foam sheeting (for firm, absorbent floor and sound reduction). Excellent for ballroom dance.

## **Springstep™ IV-B Plus and Springstep™ IV-C Plus**

Unassembled panels with 2" foam cubes for increased resiliency. Ideal for high impact activities. **Springstep™ IV-B Plus** panels come with 2" cubes without adhesive.

**Springstep™ IV-C Plus** panels come with 2" cubes with peel-and-stick adhesive.

**Springstep™ IV-D Plus** is a nominal 2' x 2' board made with a resin that resists moisture. Comes pre-assembled with ¾" thick L-Shaped foam forms and 1/2" plywood brakes to minimize compression of foam. Designed for area which will have stationary weight and for use in block box theaters.

## **Construction**

### **Materials needed:**

- 1. Springstep™ IV Plus** subfloor panels.
- 2. Vapor barrier** (choice of plastic sheeting such as **Stagestep® Vapor Barrier** with reinforcement scrim laminated between polyethylene layers or our liquid vapor barrier, **Bone Dry Plus**).
- 3. Moisture Proof Tape** to tape vapor barrier at seams if using plastic sheeting.
- 4. Vented Wall Base.** (Optional)
- 5. Transition Pieces.** (Optional)
- 6. Tools:** Rubber mallet or hammer, 2 x 4 block, rotary saw to cut perimeter panels.

***Springstep™ IV Plus Subfloor Continues on Page 37...***

## Process

1. Seal concrete slab against moisture. On concrete slab, use liquid moisture barrier such as **Bone Dry Plus** as directed or **Stagetest Vapor Barrier** plastic sheeting 8 mil or greater. If using plastic sheeting roll out and place so each sheet overlaps 5"–7" with **Moisture Proof Tape** at seams, with same waterproof tape at base of perimeter to seal off moisture from below.
2. Press or tap boards into each other making sure to stagger seams. Can use mallet and 2 x 4 blocks on groove side of panel.
3. Every other row should begin with a full board. Rows should alternate starting with full boards and half boards as illustrated. (See page 38.) Cut boards should be no less than 5" in length and have repositioned foam beneath along the perimeter of the panel.
4. Leave ¼" – ½" gap at walls to allow air to circulate.
5. Floor is complete when you reach the walls or the desired size.
6. Vented Wall Base and transition pieces/ramps are available.

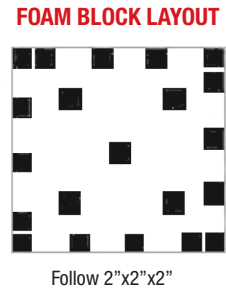
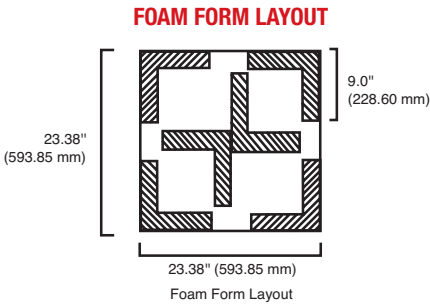
The average two-person crew can complete a minimum of 125-150 sq. ft. per hour, 1,000-1,200 sq. ft. per day.

**Note:** A vapor barrier on your slab is required with all subfloors. The use of **Stagetest® Vapor Barrier**, 8 mil is mandatory when installing our products over, above, on, or below grade concrete. Failure to do so will void all warranties.

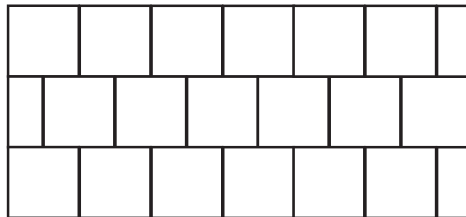
\*Resiliency is the measurement of "spring." Increased resiliency = more "spring." Less resiliency = more firm. Shock absorption of all SSIV products is virtually the same and helps to prevent dance and sport related impact injuries.

***Springstep™ IV Plus Subfloor Continues on Page 38...***

# SPRINGSTEP™ IV PLUS SUBFLOOR



**STAGGERED BRICKWORK PATTERN**



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## SPRINGSTEP™ IV-A PLUS SUBFLOOR

Greater energy absorbency and sound reduction.

**Construction**

**Materials needed:**

1. **Stagestep® Springstep™ IV Plus** panels.
2. **Stagestep® ½"** foam sheeting (rolls come in 5' width by your custom length up to 100.')
3. Vapor barrier (choice of plastic sheeting such as **Stagestep® Vapor Barrier** with reinforcement scrim laminated between polyethylene layers or **Stagestep®** supplied liquid vapor barrier **Bone Dry Plus**).

*Springstep™ IV-A Plus Subfloor Continues on Page 39...*

# SPRINGSTEP™ IV-A PLUS SUBFLOOR

4. **Moisture Proof Tape** to tape at foam sheeting seams and also tape vapor barrier at seams if using plastic sheeting.
5. **Vented Wall Base.** (Optional)
6. Transition pieces or ramps. (Optional)
7. Tools: Rubber mallet or hammer, 2 x 4 block, rotary saw to cut perimeter panels.

## Process

1. Seal concrete slab against moisture. On concrete slab, use liquid moisture barrier such as **Bone Dry Plus** as directed or **Stagetest® Vapor Barrier** plastic sheeting 8 mil or greater. If using plastic sheeting, roll out and place so each sheet overlaps 5" – 7" with **Moisture Proof Tape** at seams, with same waterproof tape at base of perimeter to seal off moisture from below.
2. Roll out foam sheeting to conform to slab. Cut with sharp matte knife to fit.
3. Tape seams of foam sheeting.
4. Press or tap boards into each other making sure to stagger seams. Can use mallet and 2 x 4 blocks on groove side of panel.
5. Every other row should begin with a full board. Rows should alternate starting with full boards and half boards as illustrated. (See page 38.) Cut boards should be no less than 5" in length and have repositioned foam beneath along the perimeter of the panel.
6. Leave ¼" – 1/2" gap at walls to allow air to circulate.
7. Floor is complete when you reach the walls or the desired size.
8. **Vented Wall Base** and transition pieces/ramps are available. The average two-person crew can complete a minimum of 150-200 sq. ft. per hour, 1,600 sq. ft. per day.

# SPRINGSTEP™ IV-B PLUS AND SPRINGSTEP™ IV-C PLUS

Greater resilience and bounce.

## Construction

### Materials needed:

1. **Springstep™ IV-B Plus and Springstep™ IV-C Plus** subfloor panels. For increased resiliency.
2. **Stagestep® 2"** high density foam cubes. 2" foam cubes and **Springstep™ IV Plus** panels will ship in separate packages.
3. Contact cement or liquid nails for SSIV-B to be supplied locally but not needed for SSIV-C panels which come with peel and stick cubes.
4. Vapor barrier (choice of plastic sheeting such as **Stagestep® Vapor Barrier** with reinforcement scrim laminated between polyethylene layers or **Stagestep®** supplied liquid vapor barrier **Bone Dry Plus**).
5. **Moisture Proof Tape** to tape vapor barrier at seams if using plastic sheeting.
6. Vented Wall Base. (Optional)
7. Transition pieces or ramps. (Optional)
8. Tools: Rubber mallet or hammer, 2 x 4 block, rotary saw to cut perimeter panels.

## Process

1. Seal concrete slab against moisture. On concrete slab, use liquid moisture barrier such as **Bone Dry Plus** as directed or **Stagestep® Vapor Barrier** plastic sheeting 8 mil or greater. If using plastic sheeting roll out and place so each sheet

*Springstep™ IV-B Plus & Springstep™ IV-C Plus Subfloor Continues on Page 41...*



overlaps 5"–7" with **Moisture Proof Tape** at seams, with same waterproof tape at base of perimeter to seal off moisture from below.

2. **SSIV-B Plus** and **SSIV-C Plus** panels are shipped bottom-side up which is typically lighter in color. (See page 38 for foam block layout). After attaching foam cubes flip right-side up. Glue/apply foam cubes with liquid nail/contact adhesive or "peel and stick" to bottom of **SSIV-B Plus** or **SSIV-C Plus** panel.
3. Press or tap boards into each other making sure to stagger seams. Can use mallet and 2 x 4 blocks on groove side of panel.
4. Every other row should begin with a full board. Rows should alternate starting with full boards and half boards as illustrated (See page 38.) Cut boards should be no less than 5" in length and have repositioned foam beneath along the perimeter of the panel.
5. Leave ¼" – ½" gap at walls to allow air to circulate and floor to expand.
6. Floor is complete when you reach the walls or have achieved the desired size.
7. **Vented Wall Base** and Transition pieces/ramps are available (Optional.)

After foam cubes have been attached to the panels, the average two-person crew can complete 125-150 sq. ft. per hour, 1,000-1,200 sq. ft. per day.

The use of **Stagestep® Vapor Barrier**, 8 mil or better plastic barrier, is mandatory when installing our products over, above, on, below grade concrete. Failure to do so will void all warranties.

**Note:** All wood components must be acclimated to the room prior to install. Temperature must be maintained between 65-75° and humidity between 40-60%. Failure to do so will result in warranty being voided.

# PERMANENT HARDWOOD FLOORING

## Permanent Hardwood Flooring System using SpringFlex™

**This floor should only be installed by professional floor installers**

1. On concrete slab, use liquid moisture barrier such as **Bone Dry Plus** as directed or **Stagetest® Vapor Barrier** plastic sheeting 8 mil or greater. If using plastic sheeting roll out and place so each sheet overlaps 5" – 7" with **Moisture Proof Tape** at seams, and tape with same waterproof tape at base of perimeter to seal off moisture from below. Check that the floor is dry, even and dustless. Install the first component part of the subfloor parallel to the walls. Install subfloor following perimeter walls, and around the poles and pillars as well. Remember to leave a gap of at least 1/2 inch and up to 2 inches (large gaps will require special molding to visually cover the gap) between the wall/pole/pillars and the subfloor components. Wedges can be used to adjusted and maintain the gap. (See image 1 on page 44).
2. Install the first component row at a 45 degree angle to the wall. Measure 16' 4" from the corner to each side. This is how you get a 45 degree angle. (See image 2 on page 44).
3. Continue installing with the 45 degree angle. You can install several rows (e.g. 3 rows) at the same time. Check that the measurements between the elements are 14" (inches) center to center and the empty area between the elements is approx. 12" (inch). An end joint in one row needs to be staggered at the minimum of 20" (inches) from an end joint in the next row. (See image 3 on page 44).
4. Install the entire area. (See image 4 on page 44).
5. Install wood boards on top of **Stagetest's SpringFlex™** subfloor. Apply a bead of glue on the subfloor strip prior to placing each hardwood strip. Maintain same gap distance from the hardwood to wall as used during subfloor installation. Space can be adjusted and maintained by using wedges (See image 5 on page 44).

***Permanent Hardwood Flooring Continues on Page 43...***

6. Nail the wood board to each subfloor strip using standard hardwood staples. Fasteners should be of the glue coated type. Do not use normal nails or screws. Follow standard hardwood nailing procedures using a hardwood floor nail gun and driving fasteners/staples through the tongue at 45° degree angle (See image 6 on page 44).
7. Apply glue to the groove of the short side of the hardwood board. Glue may also be applied to the length of the long side of the board. Also remember to apply glue between the hardwood board and the subfloor strips. Hardwood end joints in one row needs to be staggered at the minimum of 20 inches from an end joint in the next row (See image 7 on page 44).
8. Continue to lay the boards until the floor is finished, remove all wedges. Apply any additional coatings as instructed. If installing vented molding or other decorative trim pieces be sure to not install tightly against floor surface. (See image 8 on page 44).

### Stiffening

The floor must be stiffened e.g. near the doorways, auditoriums, storages and other places, which carry heavy loads. Stiffen the sprung structure by using pieces of plywood. Use glue and nails to keep them in place (See image 9).

**Note:** Permanent wood flooring system should must be installed by a professional installer who is familiar with installing this type of flooring system. **Stagetest®** has a recommended installation team that ensures the proper install. Local installers must consult with a **Stagetest®** representative prior to installation and must take responsibility for any repairs resulting from faulty installation.

***Permanent Hardwood Flooring Continues on Page 44...***

# PERMANENT FLOORING

## Permanent Flooring System using SpringFlex™ and Rollout Vinyl

Construct **SpringFlex™** subfloor system as described on page 42-43 and below images #1 - #9. Instead of floating hardwood on diagonally-oriented beams, substitute a layer of ½" OSB Tongue & Groove (bottom) and ¼" Luan (top). (For position, see schematic on page 35.) It is critical to use T & G OSB. Pre-position OSB for corners to be supported by SpringFlex™ optimally. Use glue whole length of SpringFlex™ sleeper and then 3 screws for each sleeper as well. The luan will need to be stapled to the OSB 4 1/2" to 6" on center in middle and every 1 1/2" along the seam. All seams need to be tight. Rollout vinyl to be installed on top to complete. (See pages 19–29.)

This floor should only be installed by professional floor installers.

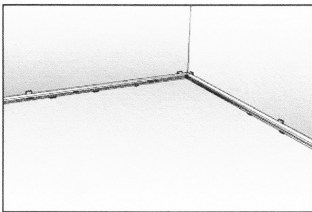


IMAGE 1

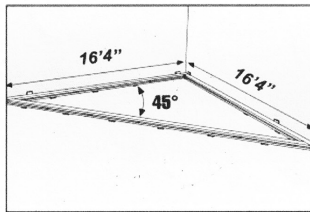


IMAGE 2

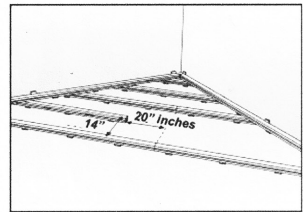


IMAGE 3

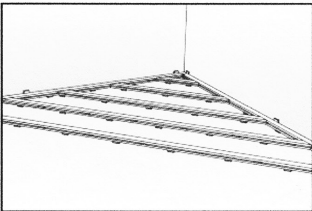


IMAGE 4

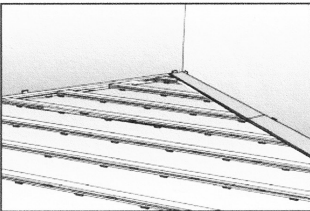


IMAGE 5

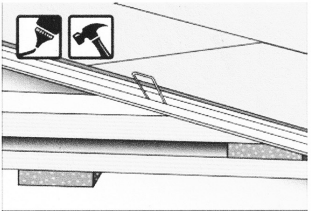


IMAGE 6

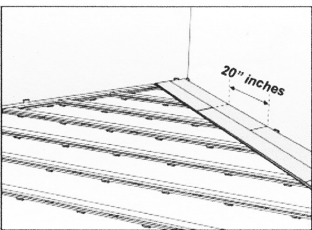


IMAGE 7

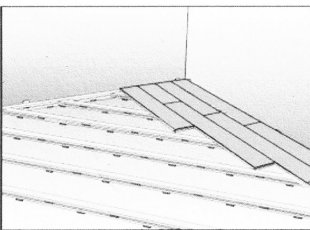


IMAGE 8

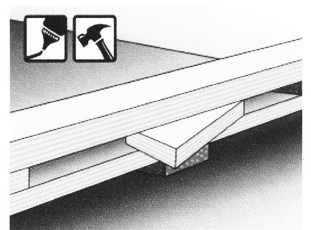


IMAGE 9

# ENCORE™ FLOORING

## Preparations

Store the floor planks in the room of installation. Allow to acclimate at least 48 hours prior to install. **Encore™** flooring with click and lock is laid as a floating floor. **Encore™** is joined together without being attached to the existing floor. The planks are joined together without glue.

- The subfloor must be dry, level and solid.
- Check the level of the subfloor over a measured length of 7 ft. and a measured length of 1 ft. If any unevenness is greater than 1/8" over a measured length of 7 ft. or greater than 1/16" over a measured length of 1 ft. the subfloor must be leveled first.
- The room must be set at a uniform temperature between 68 and 78° F with a relative humidity between 40-60%. If the relative humidity is less than 30%, there is an increased risk of the planks becoming concave. Both the room and the planks shall be warmed to normal room use temperature before the floor is laid. In most cases, the flooring needs to be protected against moisture from the concrete surface below by using **Stagestep® Vapor Barrier**.

**Note:** Installing a vapor barrier is required on any slab made of concrete or concrete joists, concrete flooring directly on the ground, crawl space foundation, or underfloor heating systems. The slab should be cleaned thoroughly to avoid mold.

- On concrete slab, use liquid moisture barrier such as **Bone Dry Plus** as directed or **Stagestep® Vapor Barrier** plastic sheeting 8 mil or greater. If using plastic sheeting roll out and place so each sheet overlaps 5"–7" with **Moisture Proof Tape** at seams, and at base of perimeter to seal off moisture from below. Check the floor is dry, level and dustless.

***Encore™ Flooring Continues on Page 46...***

- The planks should be laid so that the length or the long-side of the boards spans the short-side or narrowest dimension of the room. The floor moves as the air humidity changes and therefore there must be a movement joint of at least ½" and up to 1" next to walls and fixed objects in the room. This movement joint shall be provided around the entire floor.
- The cove base needs to be 50% wider than the movement joint. Example: if you have installed the floor with a movement joint of ¾" in between the floor and wall, the cove base must be at least 1½" otherwise there is a risk that the floor's shrinkage will mean that you will get a gap between the floor and the cove base when the floor shrinks during periods of humidity.

## Installation

1. Work out first how many planks you need. If the last plank is narrower than 2", you will need to saw the first plank as well. When installing flooring with click and lock, the work is made easier if you start with the long side that has most doors. If there are doors on the short side of the room, begin each plank row on that side.
2. Start in a corner and work from left to right with the long underlip out towards the room, The distance of the long side to the wall can be adjusted later when three rows have been laid. (See image 1 on page 50.)
3. An additional element must be installed using double-sided tape on the underside of the plank on the wall side to stop the plank from "sagging." This element is provided by cutting excess support material from the boards that will be installed in the last row. This support element will be approximately 1 3/8" wide x 84" long. (Typically extra components are added to shipment.) (See image 2–3 on page 50.)
4. Press the next floor plank at an angle against the first one and lay it down. Continue in the same way along the length of the first row. A gap of ½" to 1" must be maintained around the perimeter of the floor. (See image 4 on page 50.)

***Encore™ Flooring Continues on Page 47...***

5. Cut the last plank in the first row to the correct length and begin the next row with the piece that is left over. Check using the piece of string that the starting planks lie in a straight line. The end joints of the planks must be staggered by at least 10 in. (In wall-to-wall installations). (See image 5 on page 50.)
6. Make a staggered pattern of planks width-wise (See image 6 on page 50.)
7. Press the floor plank at an angle against the plank in front. Tap lightly with a hand block while carefully pressing down the plank at the same time. (See image 7 on page 50.)
8. Press in a wedge at the short end under the plank already installed (See image 8 on page 50.)
9. Press in the next plank's short end at an angle and lay down the long side (See image 9 on page 50.)
10. Tap lightly with the hand block on the long side at the same time as you carefully press the plank down and it will be easier to position it.

**Tip:** The work is easier if you screw together two blocks so that the hand block is higher (See image 10–11 on page 50.)

11. The first floor row sometimes needs to be adjusted to a crooked wall. Draw the contour of the wall on the floor planks. Saw the last plank but remember that an additional resilient element may need to be installed using double-sided tape underneath on the wall side to prevent the plank from “sagging”. (See image 12 on page 50.)
12. Holes are drilled in the plank for heater pipes. The holes shall be at least twice as large as the calculated movement joint plus the pipe's diameter. Example: If

***Encore™ Flooring Continues on Page 48...***

the floor is 32 feet wide,  $32 \times .02 = .6$  in. This means that the hole must be 1.2" larger than the pipe. Saw. When the plank is fitted, the sawn-out piece is glued in place and the holes covered with pipe collars. If you need to cut a door architrave, use a floor plank as an underlay so you get exactly the right height. If you need to knock a plank length-ways, protect the plank joint with a cut-off from a short end. Skirting boards must not be nailed or pressed down so that the floor is locked. All connection rails must be anchored in the concrete to permit natural movement of the wooden floor. If you plan to carry out more building work in the room, remember to protect the floor with protective paper that allows moisture through. Our floors should not be installed until all other building work has been completed. Planks can be laid from all directions if necessary. **Encore™** flooring is also easy to take up. This facilitates installation around doors, for example. (See image 13 on page 50.)

**13.** Proceed as follows if you cannot gain access to angle in a plank under a door architrave or low radiators, for example:

- Cut away 2/3 of the locking edge. (See image 14a on page 50.)
- Glue, Tape the plank into place using a cleat. (See image 14b on page 50.)

***Encore™ Flooring Continues on Page 49...***



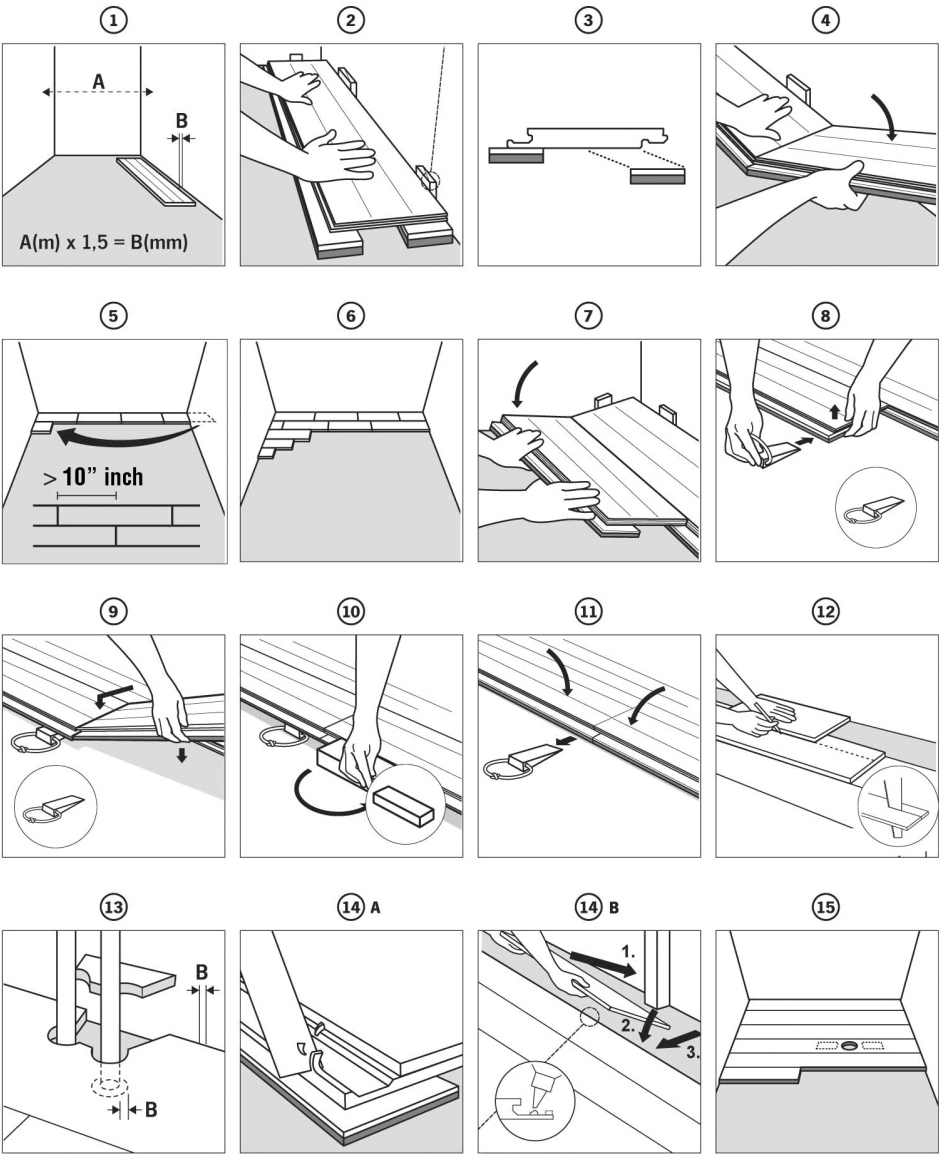
## Care & Maintenance

One of the major benefits with **Encore™** is that it is so easy to keep clean. Daily care is best done by vacuum-cleaning or using a dry mop and occasional moist wiping using a well-wrung cloth. Use **ProClean™** or floor cleaner with a pH no higher than 8. If a cleaning machine is used, the amount of water used should be as little as possible. The machine must not leave any watermarks when it turns or stops. Residual moisture shall have dried completely within a minute. Follow the instructions for the respective surface treatment during maintenance.

Spillage will not leave any traces on **Encore™** if wiped up immediately. If the floor is subject to heavy wear, it is probably best to renovate it by machine sanding and applying a new surface treatment. **Encore™** has a surface layer that can be sanded and refinished at least two times. If you should get a mark on the floor you can try and remove it using a mild detergent (without ammonia) such as **ProClean™**, with diluted warm water. Take care when using strong stain removal materials since using too much and applying too much pressure could affect the finish.

**Note:** Ask the advice of our staff if you have any questions concerning building moisture, if you plan to install a floor on a structure that is different than what we have described here or if anything else is unclear. If you find a damaged or faulty plank, put it aside. It can be surplus or used for finishing.

***Encore™ Flooring Continues on Page 50...***



# VENTED WALL BASE

1. The purpose of **Vented Wall Base** is to cover the ¼" to ½" gap between the subfloor and the wall while still allowing moisture from the room to escape from beneath subfloor and not be trapped causing the subfloor to fail. Install SSIV, or other sub-floor system as required leaving ¼" to ½" half inch gap around perimeter of room. (See images 1 & 2 on page 52).
2. Starting in the corner of the room, affix vent backing to wall using **Vented Cove Based Double-Faced Tape** or cove base adhesive so that the top of the vent backing is 4 inches above the surface of the subfloor. Note some of the vent backing will be below the sub-floor surface in the gap that was made during installation of the sub-floor. When using 2" cove base double-faced tape, use a double run (4" total) to secure both white-fluted strips or panels to the wall and the vinyl cove base to the white strips. Be careful not to cover or obstruct air flow through those white strips. That will defeat the whole purpose of using Stagesstep's Vented Wall Base. (See image 3 on page 52).
3. Continue installing vent backing around the entire perimeter of the room making cuts as needed.
4. Install surface as instructed. (See image 4 on page 52). Trim floor surface flush to the edge of the sub-floor. Do not install surface tight to the vent backing, and use caution not to damage vent backing.
5. Install **Vented Cover Base** by starting in corner of room and adhering base to the vent backing using Vented Cove Based Double-Faced Tape or cove base adhesive. Continue around perimeter of room trimming base where needed.

**Tip:** To create finished corners cut toe of base on a 45 ° degree angle using a standard utility knife. (See image 5 on page 52).

**Note:** Base toe can be heat welded to floor surface using standard heat welding procedures, however, this process should only be done by a trained professional.

***Vented Wall Base Continues on Page 52...***

# VENTED WALL BASE

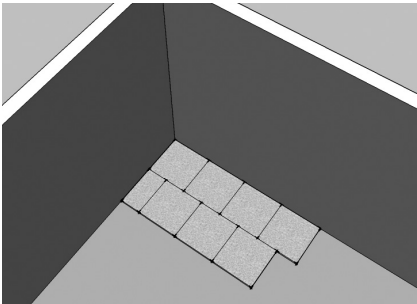


IMAGE 1

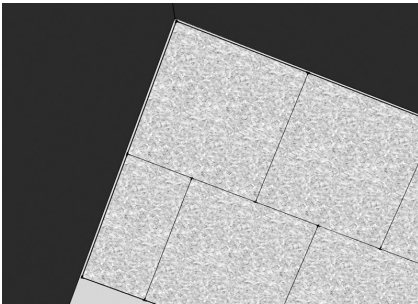


IMAGE 2

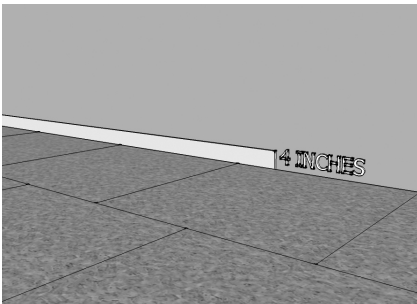


IMAGE 3

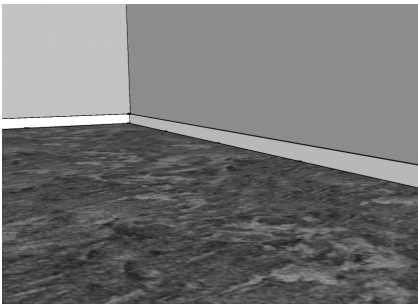


IMAGE 4

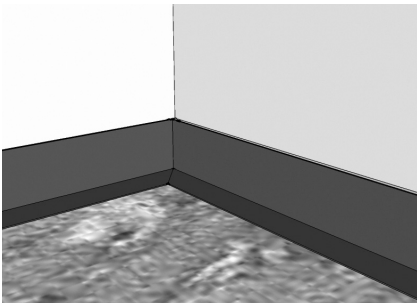


IMAGE 5

# FLOORSHIELD™ II

## Initial Application on Vinyl Floors

### Deep clean or strip the Floor (as required):

1. Remove coarse dirt by vacuum or sweeping.

### If DEEP CLEANING:

2. Dilute **ProClean™ Ultra** as required 2 oz to 1 gallon of water.

### If STRIPPING:

2. Dilute stripper as required. New unfinished floors only require LIGHT BUILD-UP dilution.

### DILUTIONS:

LIGHT BUILD-UP 8 oz per gallon hot/warm water

MEDIUM BUILD-UP 16 oz per gallon hot/warm water

HEAVY BUILD-UP 24 oz per gallon hot/warm water

3. Apply solution liberally to cover a workspace of about 100 square feet. Apply liberally but not so heavily to run into puddles or run under tiles.
4. Allow 3 to 5 minutes for solution to penetrate. DO NOT ALLOW SOLUTION TO DRY.
5. Run floor scrubbing machine over surface of floor.
6. Pick up dirty solution with wet vac or mop.
7. Rinse area thoroughly with clear water.
8. Allow floor to complete dry before proceeding to apply finish.

### Finish the Floor:

Maintain temperature in the 68° to 78° range. Windows and all outside doors should be closed during application and drying. Floor should not be exposed to sunlight. Radiant heated floors should be turned off several hours before finishing.

1. Shake bottle of **FloorShield™ II Finish** thoroughly.
2. Pour directly on flooring. Use the applicator(s) supplied with the **FloorShield™ II Finish** to apply 2 coats to the floor. One coat is applied to vinyl flooring, the second coat is applied perpendicular to the first coat. When applying the finish, do not put pressure on

# FLOORSHIELD™ II

the applicator. **FloorShield™ II Finish** should be applied so that solution will self-level. Each bottle of finish covers 500/sf for 2 coats.

3. Apply **FloorShield™ II Finish** in straight, even strokes that will cover fully.
4. Allow to dry completely. Do not re-work finish while it is drying. Floor should not be subject to air circulation from fans or open windows.
5. When dry, an additional coat, or coats, may be applied if needed. We recommend a minimum of two coats applied perpendicularly to prior coat. Each bottle of finish covers a little more than 500/sf for 2 coats. You must apply the 2 coats of finish within a 24-hour period but ideally as soon after prior coat is completely dry to the touch.
6. FloorShield™ II Finish will continue to harden over a week. Allow 36 hours to pass before barefoot dancing on the floor, tap dancing 48 hours.

## Initial Application on Wood Floors

Room temperature should be maintained between 68°-78° F and relative humidity between 40-60%. Windows and all outside doors should be closed during application and drying. Floor should not be exposed to sunlight. Radiant heated floors should be turned off several hours before finishing. Floor must be coarse sanded, fine sanded, clean, dry, free of dust, grease, oil and wax. Wood floor must be prepared same as any wood floor to be finished.

- 1 Shake bottle of **FloorShield™ II Finish** thoroughly.
2. Apply **FloorShield™ II Finish** evenly in the direction of the wood grain using applicator supplied. Never pour **FloorShield™ II Finish** directly on an unfinished wood floor. It must be dry to the touch one hour before proceeding to the next step. Do not use fans or forced air to dry the finish. Allow the natural drying time.
3. If grain is raised, lightly fine sand before applying next coat. After sanding always damp mop floor so that it is clean and free of dust.
4. Repeat application process perpendicular to prior coating with at least 2 additional coats.
5. **FloorShield™ II Finish** will continue to harden over next several days. Allow 36 hours before barefoot dancing on the floor, 48 hours before tap dancing.

***FloorShield™ for Wood Continues on Page 55...***

# FLOORSHIELD™ II

## Re-Application on Vinyl and Wood Floors

### Scuff the Floor:

1. Place stripper pad (black) onto a floor machine and use dry.

Heavily scratch wood floors may require more extensive sanding/screening with a coarse sanding followed by a fine sanding.

2. Remove coarse dirt by vacuum or sweeping.

3. Do a warm water rinse to clean the floor of any residue. Make sure all residue/dust resulting from the scuffing is removed from the floor or the finish will not adhere.

### Finish the Floor:

Room temperature should be maintained between 68°-78° F and relative humidity between 40-60%. Windows and all outside doors should be closed during application and drying.

Floor should not be exposed to sunlight. Radiant heated floors should be turned off several hours before finishing.

1. Shake bottle of FloorShield™ II Finish thoroughly.

2. Pour directly on flooring. Use the applicator(s) supplied with the FloorShield™ II Finish to apply 2 coats to the floor. The coats should be applied perpendicularly which generally assures no spot is left uncoated. Be careful to apply coating to entire floor evenly. When applying the finish, do not put pressure on the applicator. FloorShield™ II Finish should be applied so that solution will self-level. Each bottle of finish covers 500/sf for 2 coats.

3. Apply FloorShield™ II Finish in straight, even strokes that will cover fully.

4. Allow to dry completely. Do not re-work finish while it is drying. Floor should not be subject to air circulation from fans or open windows.

3. When dry, an additional coat, or coats, may be applied if needed. We recommend a minimum of two coats applied perpendicularly to prior coat. Each bottle of finish covers a little more than 500/sf for 2 coats. You must apply the 2 coats of finish within a 24-hour period but ideally as soon after prior coat is completely dry to the touch.

4. Allow the natural drying time. FloorShield™ II Finish will continue to harden over next several days. Allow 36 hours before barefoot dancing on the floor, 48 hours before tap dancing.

5. Wood floors may require fine sanding between coats of FloorShield™ II Finish.

***STAGESTEP®***

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