

## PERFORMANCE PLUS™ INSTALLATION/MAINTENANCE TIP SHEET

### With Lock N Fold Technology

Product: Performance Plus Thickness: 3/8" (9.53 mm) Width: 5" (12.7 cm)  
 Varying Lengths: 9"-48" (22.86-121.92 cm) Species: Birch, Cherry, Hickory, Maple, Oak, Walnut  
 Use: Light Commercial

## INSTALLATION

### TYPES OF SUBFLOORS

- Concrete (all grade levels)
- Acoustical Cork
- Approved Suspended Wood
- Ceramic Tile, Terrazzo, Marble
- Existing Resilient Flooring
- Polymeric Poured (seamless) Floors

### INSTALLATION SYSTEM

- Glue, Float or Staple (Bostitch 2025K Only)

### CONSTRUCTION

- 5 Ply Engineered, 2mm Face

### GLOSS LEVEL

- Medium Gloss

### UNDERLAYMENTS

- Quiet Comfort Premium or Quiet Comfort

### WOOD GLUE

- Armstrong 99 or Bruce EverSeal

### ADHESIVES

- Armstrong ProConnect, Armstrong 57 or Bruce Equalizer



### CLEANER

- Armstrong Hardwood & Laminate Cleaner or Bruce Hardwood & Laminate Cleaner

## SPECIAL PRECAUTIONS AND RECOMMENDATIONS

Calcium Chloride Tests must be conducted. Armstrong offers a guideline of a maximum of acceptable moisture emission level of 3 lbs./1000 ft.<sup>2</sup>/24 hours. Bond tests should also be conducted for compatibility with the substrate. **RH Levels in Concrete Using In-situ Probes (ASTM F 2170-02)** should not exceed 75%.

"DRY" CONCRETE, AS DEFINED BY THESE TESTS CAN BE WET AT OTHER TIMES OF THE YEAR. THESE TESTS DO NOT GUARANTEE A DRY SLAB. ALL NEW CONSTRUCTION CONCRETE SLABS SHOULD HAVE A MINIMUM OF 10 MIL POLY FILM MOISTURE BARRIER BETWEEN THE GROUND AND THE CONCRETE.

- Remove any existing adhesive residue so that 80% of the overall area of the original substrate is exposed. **Note:** Some previously manufactured asphaltic "cutback" adhesives contained asbestos. For removal instructions, refer to the Resilient Floor Covering Institute's publication Recommended Work Practices for Removal of Resilient Floor Coverings.
- Use only Portland Cement-based patching and leveling compounds such as Armstrong S-183 Fast-Setting Cement-Based Underlayment, Armstrong S-184 Fast-Setting Cement-Based Patch and Skim Coat, Armstrong S-194 Patch, Underlayment & Embossing Leveler and Henry 547 Universal Underlayment.
- Allow all flooring and adhesives to condition to room temperature for at least 48 hours. Do not place flooring or adhesives in direct sunlight.
- Newly installed flooring should **not** be exposed to routine rolling load traffic (carts, litters, gurneys, etc.) for at least 24 hours after installation to allow setting and drying of adhesives.
- When moving heavy fixtures or appliances over hardwood flooring on casters or dollies, the flooring should be protected with 1/4" (6.35 mm) or thicker plywood, hardboard or other underlayment panel.
- For more detailed information on job conditions and subfloor preparation, refer to the Installation Instructions in the carton.

## General Information for Glue-Down Installations

- Maximum adhesive working times: Urethane adhesive - 60 minutes; Armstrong™ ProConnect™ Professional Hardwood Flooring Adhesive - 60 minutes. When not in use, keep the adhesive container tightly closed to prevent thickening. Thickening will cause difficulty in spreading the adhesive.
- Open times and curing times of ALL adhesives vary dependent upon subfloor porosity, air movement, humidity and room temperature. Urethane adhesive has a shortened working time in high humidity environments, whereas the working time for ProConnect and polymeric resin adhesives will be lengthened. In areas of low humidity, open time will be longer with urethane adhesives and shorter with ProConnect. Adjust the amount of adhesive spread on the subfloor accordingly. The adhesive should not be applied if subfloor or room temperature is below 60°F (16°C). WORKING TIME WILL VARY DEPENDING ON JOB SITE CONDITIONS.
- Hold trowel at a minimum 45° angle (Figure 7) firmly against the subfloor to obtain a 50-60 ft<sup>2</sup> (4-5.5 m<sup>2</sup>) per gallon spread rate. The trowel will leave ridges of adhesive and very little adhesive between the ridges. This will allow you to still see the chalk lines between the ridges and provide the recommended spread rate.
- For additional application instructions, follow the recommendations on the adhesive container.
- Proper ventilation within the room must be provided. An electric fan is helpful.
- Rolling is not required, but if desired, do not do so until the adhesive has cured for two hours.  
NOTE: DO NOT INSTALL FLOORING USING RUBBER MALLETS. STRIKING THE SURFACE WITH A RUBBER Mallet MAY "BURN" THE FINISH CAUSING IRREPAIRABLE DAMAGE.

## INSTALLATION TIPS

### General Installation Tips

- Floor should be installed from several cartons at the same time to ensure good color and shade mixture.
- When possible, preselect and set aside boards that blend best with all horizontally mounted moldings (reducer/stair nose, etc.) This will ensure a uniform final appearance. Install these boards adjoining the moldings.
- When installing as a linear pattern be attentive to staggering the ends of the boards at least 4"-6" (10-15 cm) when possible, in adjacent rows. This will help ensure a more favorable overall appearance of the floor.
- Avoid staggering the rows uniformly to prevent stair-stepping. Boards cut from the opposite end of the row may be used for the next starter boards. Always allow a minimum 1/4" (6 mm) expansion around all vertical obstructions. Allow 1/2" (13 mm) for floating floors.
- When stapling, use Bostitch 2025K only.

### ■ Laying the Underlayment (*Floating Installations*)

- Install the underlayment in the same direction that the hardwood flooring is to be installed.
- Extend the underlayment a few inches up the wall.
- Trim excess prior to installing trim or moldings.
- The floating floor underlayment already has double-sided tape for ease of taping the precut overlapping seams. If a non-adhesive underlayment is used, tape all seams with the included tape.

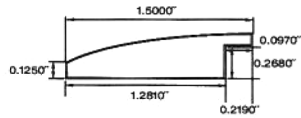
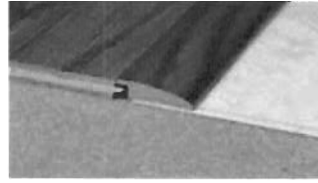
### ■ Installing First Row (*Floating Installations*)

- Select a board to begin installation of the first row using the longest boards available.
- Starting from the **LEFT** with the tongue facing the wall, carefully place the first board in place. Use wedges or 1/2" (13 mm) scrap along the wall to hold plank in place while allowing the required expansion space.
- Align the next piece by overlapping the end of the first board so that the joint is tight when the board lays flat. Some slight adjustment of the board may be necessary to assure a tight fit.
- Again, place wedges or 1/2" (13 mm) scrap as necessary to restrain movement and maintain expansion zone.
- Continue in this manner until the first row is complete.
- Cut the final board to length allowing the necessary expansion zone.
- Place wedges to restrain movement and maintain expansion zone.
- A 1/2" expansion space is required throughout the installation. Do not attach or pinch the flooring to the subfloor at any point of the installation including glueing, nailing, or by any other methods.
- If the wall is not straight, scribe the first board as necessary to maintain alignment.
- Begin the second row with the cut piece from the first row. If the cut piece is shorter than 8" (20 cm) do not use it. Instead, begin with a new board that exceeds 8" (20 cm) in length and allows 6" (15 cm) spacing between the end joints.
- Place the first board in place by angling it up slightly, pushing forward and interlocking the side tongue. Slide the board to the **LEFT** as necessary to align the edges of the end joint.
- Carefully push the board down until tongue and groove lock together on the side and ends.
- A slight tap with a tapping block may be necessary to complete the interlock.
- Restrain the movement of the board by installing a wedge in the expansion zone.
- Install all remaining boards and rows in the same manner.
- Cut the last board to size, allowing for the expansion zone, and install as above.
- If necessary, complete the tight fit by tapping the board into place with a pull bar.
- Whenever practical, use cut pieces from previous rows as a starter board to reduce waste.
- Maintain 6" (15 cm) spacing between end joints after the first four rows for best appearance.

## TRIMS AND MOLDING

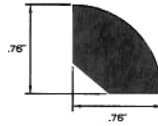
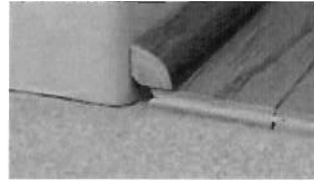
### Reducer Strip

Strips equalize the level between different flooring surfaces.



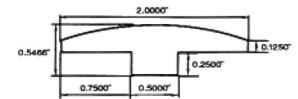
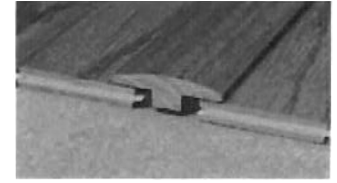
### Quarter Round

Covers the expansion space between the floor and a wall.



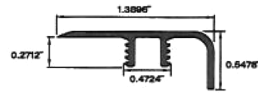
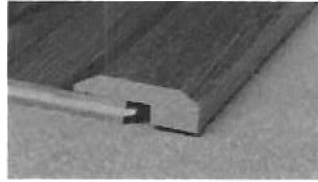
### T-Molding

Covers the expansion space between two equal height flooring surfaces.



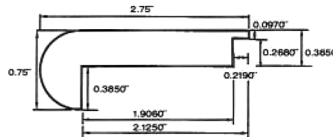
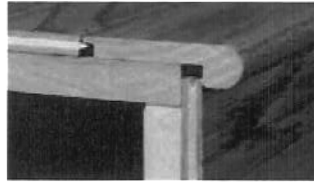
### Baby Threshold

Covers the expansion space at a threshold or sliding door.



### Stair Nosing

Covers the expansion space on stair edges and provides a finished trim.



	Installation System					Moisture Limits		
	Glue Down	Staple	Float	Locking	Glued Joints	MVER Calcium Chloride Test (lbs./1000 sq. ft./24 hrs.)	Relative Humidity In-Situ Probe	pH Readings
<b>HARDWOOD</b>	Engineered Construction installs on, above or below grade							
<b>PERFORMANCE PLUS*</b>	Bruce® Equalizer Armstrong 57® or Armstrong Pro Connect	✓	✓	✓	—	3	75	5-9

## MAINTENANCE

### Permion Finishing System

**Do not apply wax to this floor**

#### For Best Results:

- Do not apply wax to this floor.
- Do not use oil-treated dust mops.
- Place mats at all entrances to help prevent dirt and other debris from being tracked onto the hardwood flooring. Rugs and mats should be slip resistant with a backing that is breathable and will not discolor the floor. All mats should be vacuumed daily.
- Use protective castors/castor cups (non-marking rubber) or felt glides on the legs of furniture, racks, chairs and tables etc. to prevent scratching, scuffing and other damage to the hardwood floor.
- Recognize that hardwood flooring dimensions will be slightly affected by varying levels of humidity within your building, care should be taken to control humidity levels within the 35%-55% range. To protect your investment and to assure that your floors provide lasting satisfaction, we have provided our recommendations below.

**Heating Season (Dry):** A humidifier is recommended to prevent excessive shrinkage in hardwood floors due to low humidity levels. Wood stoves and electric heat tend to create very dry conditions.

**Non-Heating Season (Humid, Wet):** Proper humidity levels can be maintained by use of an air conditioner, dehumidifier, or by turning on your heating system periodically during the summer months. Avoid excessive exposure to water from tracking during periods of inclement weather. Do not obstruct in any way the expansion joint around the perimeter of your floor.

#### **A. Initial Maintenance**

1. Remove any adhesive residue or petroleum based products with low odor mineral spirits. Urethane adhesives should be removed with low odor mineral spirits.
2. Following installation, the floor should be swept, dust mopped or vacuumed to remove any grit or debris that could scratch the floor.
3. Thoroughly clean the floor with Armstrong Hardwood & Laminate Floor Cleaner spray.
4. Spray the floor cleaner directly on the floor or on a clean cloth dust mop. Do not allow excess liquid to remain on the surface. Do not use dirty mops or those that contain the residue of dust attractant compounds. Dust mop the floor as normal, misting the materials periodically while proceeding through out the installation.

#### **B. Routine Maintenance (daily)**

1. Following a regular maintenance schedule, sweep, dust mop or vacuum to remove any grit or debris that could scratch the floor.
2. Clean the floor as needed with Armstrong Hardwood & Laminate Floor Cleaner.

#### **C. Periodic Maintenance (weekly-monthly)**

1. Sweep, dust mop or vacuum the floor to remove any grit or debris that could scratch the floor.
2. Clean the floor as needed with Armstrong Hardwood & Laminate Floor Cleaner.
3. Buff the floor using a medium high speed buffer (175-750 rpm) and white/buff colored buffing pads. Apply Armstrong Hardwood & Laminate Floor Cleaner to the surface in the path of the buffing machine using a misting bottle while proceeding throughout the installation.

#### **D. Restorative Maintenance -Stripping**

##### **Floor Repair**

Minor damage can be repaired with an Armstrong touch-up kit or filler. Major damage will require board replacement, which can be done by a professional floor installer.

##### **Refurbishing/Reconditioning**

From time to time, traffic patterns may appear in the areas of high traffic or areas with many pivot points (cash, wrap, etc.). When necessary, the finish can be recoated using a number of different coating systems.

##### **Chemical Bonding Systems**

The floor is cleaned and a bonding agent is sprayed/buffed on the surface. Once the material is dry, one or more coats of commercial finish are applied.

##### **Mechanical Bonding Systems**

The floor is cleaned and lightly abraded with an abrasive pad. One or more coats of commercial finish are applied.

##### **Rubber Heel Marks, Crayon, Gum or Asphalt Deposits**

Dampen a clean cloth with low odor mineral spirits and rub to remove.