

SPC & WPC Installation Guide



—Tools needed—

Jig Saw
Measuring Tape
Pull Bar

Safety Glasses
Expansion Spacers: 3/8" or 1/2"
Dust Mask

Straight Edge
T-Square
Utility Knife

How to Measure Your Installation:

Measure the length and width of each room. Length x Width= Square feet. Measure and add alcoves or offsets separately. Purchase a minimum of 10% extra to cover mistakes, trimming, and future needs or replacements.

General Information:

- Use personal safety precautions by wearing a Dust Mask, Safety Glasses, and gloves.
- Flooring should be transported and stored in a neatly stacked fashion on a smooth, flat surface.
- Protect carton edges; do not drop, and do not lean cartons against walls.
- Cabinets, built-in appliances, or heavy equipment should never be installed or placed on the floating floor.
- Do not install in areas exposed to the movement of heavy objects or rolling traffic, such as wheelchairs.
- Do not install in non-climate-controlled rooms such as sunrooms, solariums, and saunas.
- The flooring should be protected from prolonged exposure to sunlight or excessive heat.
- Maintain a climate-controlled environment with an ambient temperature range between 55°F – 85°F and a humidity range of 30%-65% before, during, and after installation.
- If planks are not connecting correctly, check the joint alignment and inspect the joints for debris; DO NOT force the planks together.
- Proper moisture testing is a must, and all sources of subfloor moisture should be remedied prior to installation.

Before Installation:

- Check cartons to ensure the Pattern and Color are correct.
- Check the planks for color, finish, gloss, and quality.
- Ensure adequate lighting for proper inspection. Planks installed with a visible defect will not be warranted.
- Plan to mix and install planks/tiles from several different cartons during installation to achieve the desirable plank/tile variations.
- Color, shade, or texture variations between samples, print color photography, and the actual material are not warranted.
- The Manufacturer will not warrant color, gloss, texture, or appearance from different dye lots.

Acclimation:

- Acclimate unopened cartons for a minimum of 12 hours and install the flooring in a climate-controlled environment:
 - 55°F – 85°F with a relative humidity range of 30%-65%
- NOTE: Failure to maintain temperature can cause dimensional changes and permanent damage to the flooring.

Crawl Spaces:

- Crawl spaces must be a minimum of 18" from the ground to the underside of the joists.
- A 6-mil black polyurethane is required to cover 100% of the crawl space earth with joints lapped 6" and sealed with moisture-resistant tape.

Installation Checklist:

- **Subfloors:**
 - Follow the appropriate instructions detailed below for Wood, Concrete, or Hydronic Radiant Heat.
 - **Flatness:** any area higher or lower than 1/16" must be flattened out.
 - **Slope:** should not exceed more than 3/16" in 10' or 1/8" in 6'.
 - Fill all holes, saw cuts, and depressions with a Portland cement-based floor patch.
 - Fill control joints with a flexible polyurethane sealant designed to allow the slab to expand and contract.

- **Underlayments and Existing Floors:**

- Do Not install any additional Foam Underlayment or install over heavily cushioned sheet vinyl. Soft underlayment and soft substrates will diminish the product's inherent strength in resisting indentation and joint integrity.
- Do Not install over hardwood flooring (glued or nailed), carpet, carpet pad, floating floors, or existing vinyl floors with more than 1-layer.
- Existing Ceramic Tiles must be well bonded, and grout joints should be less than ¼" wide. Fill grout joints wider than ¼" with Portland cement.

- **Expansion space:**

- Required in the width and length direction of the planks, along the walls, and at all vertical surfaces, including cabinets, posts, partitions, doorjambes, pipes, pillars, stairs, floor vents, closet & door tracks, etc.
- **3/8" Expansion space is required for installations up to 1600 SF**
- **1/2" Expansion space is required for installations over 1600 SF**
- T-mold is required for greater than 40' in length or width.
- Undercut all door jambs.
- Leave a credit card space (1/32") below the baseboard, moldings, and other finish trim.
- **DO NOT** nail or screw anything through the installed flooring into the subfloor, including:
 - Baseboards, moldings, Transitions (T-molding, end caps, reducer, quarter round), metal, floor vents, closet door tracks, doors, furniture, cabinets, or wood transitions.
- **NOTE:** Failure to provide proper expansion space may cause buckling, gapping, cupping, or peaking.

Wood Subfloors:

- Subfloors should conform to US Voluntary Product Standard PS1-95.
 - Particle board subfloors are NOT recommended.
- The subfloor surface must be smooth, flat, solid, dry, clean, and free of all foreign materials such as dust, wax, solvents, paint, grease, oils, and old adhesive residue. Adhesive residue must be removed, or skim coated.
 - Remove carpet staples and loose nails or protruding screws.
 - Check for loose or uneven panels.
 - The subfloor must be free of deflection, wide voids, and gaps.
 - The subfloor should be permanently screwed down every 6" along the floor joists to avoid deflection and noise.
- If an additional layer of APA-rated underlayment is needed, fasten and secure according to the underlayment manufacturer's recommendations.
- **Wood Subfloor Moisture testing is required:**
 - Test the wood subfloor with a calibrated wood moisture meter in several areas in each room.
 - Wood subfloor moisture should be less than 14%.
 - If greater than 14%, the property owner should have moisture problems resolved before installation.
- Do not install material on wood subfloors applied directly over concrete or on sleeper-construction subfloors over, on, or below-grade concrete.
- Wood subfloor damage may occur if the subfloor is exposed to moisture. Foil-faced rigid foam (impermeable or closed-cell sprayed polyurethane foam (somewhat impermeable are recommended to maintain subfloor moisture content within acceptable levels. Wood subfloor damage is not warranted due to moisture.
- The minimum temperature of the substrate must be 60°F (15.6C). The substrate temperature should be a minimum of 5° F higher than the dew point temperature at the time of installation. [Dew Point Calculator](#)
- ***Any issues caused by excessive moisture, alkali, mold, mildew growth, floods, natural disasters, or water in, on, above, or below the subfloor, regardless of the presence or absence of a moisture barrier on or below the subfloor, are not warranted and we disclaim any liability for resulting damages, repairs or replacements caused thereby.***

Concrete Subfloors:

- The subfloor surface must be smooth, flat, solid, dry, clean, and free of all foreign materials such as dust, wax, solvents, paint, grease, oils, and old adhesive residue. Adhesive residue must be removed or skim-coated.
- The minimum temperature of the substrate must be 60°F (15.6C). The substrate temperature should be a minimum of 5° F higher than the dew point temperature at the time of installation. [Dew Point Calculator](#)
- **Document the following:**
 - Subfloor Moisture Tests
 - Room temperature and relative humidity
 - Floor temperature
- **Moisture Testing is Required** for Concrete, Gypcrete, and other floor slabs On, Above, or Below grade:
- Concrete must be at least 90 days old and fully cured.
- pH and Moisture Testing is required regardless of the grade or age of the slab.
- Moisture testing must be performed in accordance with ASTM Standards by the general contractor, flooring installer, or an independent testing firm.
 - Concrete pH level should measure between 7 – 10.
 - Moisture Testing is required with a calibrated Concrete Moisture Meter.

- 4% is the maximum allowable moisture content for concrete.
- **Concrete meters must be in compliance with ASTM F 2659 such as:**
 - Tramex CEMX5
 - Measures slab temperature
 - Tramex CMEX5 provides a phone App to document test results.
 - [Tramex Quick Check Video](#)
 - Tramex CME5
 - Wagner C555
 - DeFelsko PosiTest CMM
 - Ligno-VersaTec
- If Concrete Moisture Meter readings are higher than 4% the following tests are required:
 - Anhydrous Calcium Chloride in accordance with ASTM F 1869.
 - Maximum tolerance: 5 lbs. / 24 hours per 1,000 SF
 - RH In-Situ in accordance with ASTM F 2170.
 - Maximum tolerance: 80%
- Professional Moisture Remediation is required if moisture tests are higher than:
 - 14% on wood
 - 4% per Concrete Moisture Meter
 - 5 lbs. per Anhydrous Calcium Chloride
 - 80% per RH In-Situ
- **6-mil Polyethylene moisture-resistant plastic sheeting (with perm rating of .1 or less) is REQUIRED** for all Concrete, Gypcrete, or Cementitious Subfloors.
 - Overlap the sheeting 8" and seal the edges with moisture-resistant tape.
 - Lap the barrier 1"-2" up the walls.
- Plastic sheeting is a moisture retarder, not a moisture barrier. It may not provide for or prevent damage due to excessive moisture.
- *Any issues caused by excessive moisture, alkali, mold, mildew growth, water below the flooring, and/or hydrostatic pressure, floods, standing water, or natural disasters, regardless of the presence or absence of a moisture barrier, in, on, or below concrete, gypcrete, or cementitious subfloors are not warranted, and we disclaim any liability for resulting damages, repairs or replacements caused thereby.*

Over Hydronic Radiant Heat:

- The hot water tubing must be 1/2" below the slab.
- The system must be on and operational for at least 2 weeks prior to installation to reduce residual moisture.
- Acclimate and install the floor at an average temperature of 55 – 85°F.
- Increase temperature no more than 5 degrees at a time to avoid thermal expansion.
- Maximum operating temperature should never exceed 85°F.
- The use of an in-floor temperature sensor is recommended to avoid overheating.
- Contact the manufacturer of your radiant heating system for further recommendations.
- Damage caused by Radiant Heat is not warranted.

Plan the layout:

- **Measure** the width of the room and divide it by the width of the plank.
 - If the last row of planks will be less than 3" (76.2mm) wide, you will need to cut the first row of planks in such a way that the first and last rows will have the same approximate width.
 - Expansion spacers should be placed along all walls and at all vertical obstructions (walls, cabinets, fireplaces, etc.) and remain in place until installation is completed. Spacers must be removed before moldings are installed.
- **Transitions:**
 - Use T-molding, reducers, or end caps in doorways or where the flooring planks may meet other flooring surfaces, exterior door tracks, glass windows, walls, or doorframes.
 - Plan the location for each Transition.
 - Install the Transition Tracks before installing the floor.
 - Leave 1/4" - 3/8" expansion space between the planks and the transition trim and adjoining surfaces.
 - Transitions must be used when changing the direction of the planks.
- **Caulk:**
 - Do Not use Acrylic Caulk.
 - Use 100% Flexible (neutral curing, no-odor) Silicone Caulk.

- In moisture-prone areas, around bathtubs, shower stalls, toilets, etc.
- Fill voids/expansion gaps where the floor has been scribed to metal doorjambs, etc.

Installation Videos – Also available on QR Code		
2G Angle/Angle Lock	5G Locking System	
2G-for-resilient-flooring-technical Aquarius-Installation-Tips.m4v		5G Installation Video
How to Disassemble Rows 2G or 5G Installation		
Lift the row up on the long sides- Slide the short (end) joints apart.		

Install the First Row:

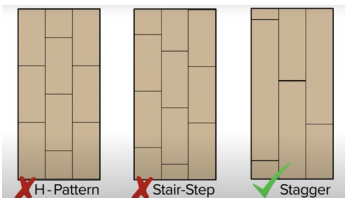
1. Start the installation in the left-hand corner of the room.
2. Square up the first row:
 - a. Measure the same distance from the wall at several points and snap a chalk line.
 - b. The distance you measure from the wall should be the width of the first row of planks plus the required expansion space.
 - c. If the starting wall is out of square, it will be necessary to scribe the first row to match the wall, allowing the opposite side of the row to present a true square base for the rest of the floor.
3. Place 3/8" or 1/2" expansion spacers on the starting wall and at each end of the first row.
4. Measure the length of the wall to ensure the last piece will be longer than 8".
5. Cut the first plank to the desired length (longer than 8")
6. Start the first row with the tongue facing the wall and the groove edge facing into the room.
 - a. Optional: cut the long-side tongues off the starting row.



7. Lay the first plank down with the tongue side facing the wall.
8. Use a full-length piece for Plank 2.
 - a. Align the tongue on the short side of Plank-2 with the groove on the short side of Plank-1 and press down.
 - b. To disassemble an end joint, slide the end joint apart. Lifting may break the joint.
9. Continue installation of row 1 in this manner, keeping the planks in alignment.
10. At the end of row 1, you may need to cut a plank to complete the row.
11. When the first row is complete, make sure you have a straight, even base established with expansion space on three sides.

Install the Second Row:

1. Planks should be staggered, with at least 8" (200 mm) or 25% of the length of the plank between the end joint of adjacent planks.
2. Avoid H and Stair-Step patterns.



3. To start the second row, cut a plank that is at least 8" shorter than the first plank in the row. You may use the cut piece from the last plank in the first row if it is at least 8" in length.
4. Place a spacer on the walls at each end of the row.
5. Line up the first plank in the second row with the end of Plank 1.
6. Insert the tongue on the long side of the first plank into the long side of the groove on Plank 1 while holding the plank at a 30-degree angle.
 - a. Make sure that there is no gap between the long side of plank 1 and the first plank in row 2, and then press the plank down flat to lock it firmly into place.
7. Lay the second plank in the second row by first inserting the tongue on the short side of the plank into the groove on the previously installed plank at a 30-degree angle.
 - a. Align the plank, so the long side tongue is positioned just over the long side groove of the adjacent plank in the first row.
 - b. Push the long side tongue into the groove by sliding along the short side seam.
 - c. You may need to lift the plank to the left slightly to allow for the "sliding" action.
8. Angle the plank down toward the floor. Lock the plank into place by gently pressing the long side of the plank.
 - a. Make sure that there is no gap on the long or short side of the plank.
 - b. The plank is properly engaged when no gaps are visible, and the two planks are flush across the top surface.
 - c. To disassemble a row, lift the row up on the long sides and slide the short (end) joints apart.
9. Continue to install the remaining planks and rows in this manner.
10. When installing the last row, you may need to cut the width of the planks.

Fitting around irregular objects:

1. Make a pattern out of heavy paper to fit around pipes or irregular objects. Place the pattern upon the plank and trace. Cut along trace lines using a utility knife.
2. Be sure to leave a minimum of 3/8" or 1/2" expansion space around all fixed objects, floor vents, pipes, pillars, doorjamb, doorframes, etc.

T-Molding, Reducer, Square Nose/End Cap:

1. Secure the molding track to the subfloor.
 - a. Use Concrete Anchors for concrete subfloors
 - b. Use Wood screws for wood subfloors.
2. Install the product with 1/4" – 3/8" expansion space between the flooring and the track.
3. Snap the molding into the track.
4. **DO NOT GLUE** Transitions to the installed floor, the installed floor to the track, or the installed floor to the subfloor.

Complete the installation:

1. Remove the spacers and replace the molding or wall base.
2. Leave a credit card space (1/32") below the baseboard, moldings, and other finish trim.
3. Nail the base or quarter round to the wall, not the flooring.
4. **DO NOT** nail or screw anything through the installed flooring into the subfloor, including:
 - a. Baseboards, moldings, Transitions (T-molding, end caps, reducer, quarter round), metal, floor vents, closet door tracks, doors, furniture, cabinets, or wood transitions.
5. Fill voids/expansion gaps where the floor has been scribed to metal door jambs (etc.) with 100% Flexible Silicone Caulk.

Closet door tracks (full length):



Concrete:

1. Install with screws shorter than the combined thickness of the track and the plank.

Wood Subfloor:

1. Place track in position
2. Drill pilot holes aligning with the screw holes on the track
3. Remove the track

2. The screw will only be attached to the vinyl plank.
3. **DO NOT insert the screws into the subfloor.**
4. Drill a hole through the plank larger than the pilot hole
5. Replace the Track. Install the screws.

Closet Door Guides:



Wood & Concrete Subfloors:

1. Install with screws shorter than the combined thickness of the track and the plank.
2. The screw will only be attached to the vinyl plank.
3. **DO NOT insert the screws into the subfloor.**

Stairs and Landings Only: Glue down Instructions:

1. Recommended adhesive Mapei ECO399.
2. Follow the above instructions, including all expansion space requirements.
3. Do not glue down over Particleboard.
4. Follow adhesive label instructions, including temperature ranges during installation for the adhesive. The adhesive spread rate will vary depending on the subfloor, environment, and towel size used.
5. When the installation is complete, roll flooring in both directions using a 100 lb. (45-50 kg) sectional floor roller or Hand roller in tight areas.
6. Install trim to cover any exposed space or uneven cuts at walls or vertical obstructions. Do not affix trim to the floor.

***Warning:** Drilling, sawing sanding, or machining wood products can expose you to wood dust, a substance known to the state of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection, For more information go to www.Prop65warning.ca.gov/wood.

Do not sand, dry scrape, bead blast, or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphaltic “cut back adhesive”, or other adhesives. These products may contain asbestos fibers and/or crystalline silica. Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard. Local building requirements may require the existing floor material be tested to determine if there are asbestos materials. Review the Resilient Floor Covering Institute [Recommended Work Practices for Removal of Resilient Floor Covering](#) instructions.

Contact your Dealer for further information.