

# Installation Instructions for Angle/Angle SPC/ WPC Flooring Products with Locking System (rev. 12.2020)

**Read entire installation instruction sheet prior to beginning installation. Improper installation of the flooring or deficiencies related to site conditions may result in failure of the installation and will void your warranty. Owner/installer assumes all responsibility for final inspection and acceptance of product prior to installation. Always reference the most current manufacturer's installation recommendations.**

**For installations in EU: refer to standards for installation of floorcovering for the country of installation (Germany VOB/C and DIN18365/DIN18299; UK British Standard BS8203:2017; France NF P62-203:2007-04-01; NF DTU 53.2:2007-0401; Spain UNE CEN/TS 14472-4:2004).**

## **Job-site Evaluation:**

Calculate the room size prior to installation. Add 10% to total flooring quantity needed to cover floor surface for cutting waste.

Determine the direction the floor will be installed. It is recommended that the flooring be installed parallel to the longest outside wall or parallel to the main light source for optimal appearance.

Installations greater than 75 lineal feet (22 lineal meters) in any direction will require the use of transitional moldings. Use of transition moldings in doorways is recommended.

**1/4" (5 mm) expansion space is required for installations up to 10 feet (3 meters) in any direction; installations with more than 10 feet (3 meters) in any direction require 1/2" (12 mm) expansion space at all walls and vertical obstructions (cabinets, doors, fireplaces, etc.).** Expansion space will be covered with base or quarter round/shoe moldings that are affixed to the wall. Never affix moldings to the floor. Door jambs or casings should be undercut to allow for required expansion space.

While the flooring is resistant to water, it is not a moisture barrier. Temporary exposure to water (24 hours) does not affect the integrity of the floor, however prolonged exposure to moisture in the subfloor and environment can lead to mold, moisture related damage, or unhealthy indoor air quality. Although WPC and SPC are resistant to moisture, they are not to be considered moisture barriers. Manufacturer is not responsible for moisture related site conditions, or damages to flooring or surrounding structures resulting from moisture. To provide additional protection against moisture, we recommend use of a 6-mil poly film or equivalent vapor retarder with a perm rating of 1 or less between the subfloor and the flooring.

Ensure that subfloors are dry prior to onset of installation and that a moisture barrier is installed between the ground and subfloor. Concrete should be cured and tested for moisture. It is the responsibility of the installer to determine if the concrete is dry enough for installation.

**Acclimate flooring for a minimum of 12 hours prior to installation in the area where it is to be installed. Room temperature and relative humidity must be consistent with normal, year-round living conditions for at least one week prior to installation. Temperature must be maintained between 65-85 degrees F (18-29 degrees C) with relative humidity range between 35-65% before, during and a minimum of two weeks after installation. WPC or SPC should NEVER be installed outdoors, or in an area which does not have consistent year-round temperature and humidity controls suitable for normal living conditions.**

Substrate must be clean and free of dirt, debris, or any contaminants; structurally sound; and level to within 3/16" over a 10-foot radius (4 mm over a 300 cm radius).

Carefully examine each piece of flooring for visible defects prior to installation. Ensure there is sufficient natural or artificial lighting for thorough inspection of the flooring with regard to finish, color, texture and sheen. Do not install any piece of flooring that may be considered questionable in appearance or quality. Installer assumes all responsibility for acceptance of flooring installed with visible or manufacturing defects.

**Work from 2-3 cartons at a time to insure the best representation of pattern, color, and design. Check cartons to ensure that the item number and lot number are the same for all material to be installed. Manufacturer is not responsible for color or sheen variation when material from multiple lots is installed.**

When installing WPC or SPC with attached pad, no additional underlayment should be used. Underlayment for use with WPC or SPC products without pad attached must be specifically designated for use with WPC or SPC.

Follow manufacturer's instructions for installation.

## **Tools Needed:**

Tape measure, pencil, chalk line, circular or hand saw, miter saw, utility knife, rubber mallet, expansion spacers. Use of a small bristle brush for cleaning debris left from milling the locking joints will ensure a tight fit of the pieces.

## **Acceptable Subfloors:**

Interior grade 1/2" (12 mm) plywood or particleboard; 3/4" (19 mm) OSB; existing hardwood floor (sound and well bonded); concrete; existing ceramic tile (well bonded); existing resilient/vinyl flooring (well bonded).

## **Subfloor Preparation:**

All subfloors should be inspected prior to installation, and must be smooth, clean, dry, structurally sound, and free of dust, dirt, oil or any other contaminant. Use a quality Portland cement based leveling compound to fill or smooth any irregularities in the subfloor.

Concrete subfloors must be at least 90 days old and fully cured. Concrete must be free of moisture or high alkalinity, with a minimum of 6-mil poly film moisture barrier between the ground and the concrete. Concrete must be pH neutral prior to installation. Moisture levels in concrete should be tested according to ASTM F2170-2 (standard test method for determining relative humidity in concrete floor slabs using in situ probes) with a moisture content not exceeding 5 pounds per 1000 sf; or ASTM F1869-98 (standard test method for measuring moisture vapor emission rate of concrete subfloor using anhydrous calcium chloride – CM method) with a maximum permissible moisture content of 2.0%. See also BS 8203:2017 Annex B Hygrometer test for dampness of concrete, cementitious and calcium sulphate bases.

**Manufacturer does not warrant or guarantee unsatisfactory installations due to the presence of excessive alkali, moisture, or hydrostatic pressure in subfloors.**

**Concrete should be dry, clean, and level to within 3/16" in a 10-foot radius (4 mm in a 300 mm radius).** Level low spots with a Portland cement based leveling compound and grind high spots to ensure floor is level.

Wood and composition panels, including plywood, OSB and particle board can be used, provided they are smooth, flat, structurally sound, and free of deflection. Wood subfloors shall have at least 18" (46 cm) of well-ventilated space below. The ground under crawl spaces must be covered with 6-mil (1.25 mm) poly film to reduce moisture vapor transmission. Wood subfloors (plywood, particleboard, OSB) must be dry and structurally sound. Wood subfloors must be double construction or equivalent, with a minimum thickness of 1" (2.54 cm), such as APA rated underlayment grade plywood with a fully sanded face that is free of voids. Nail or screw loose subflooring every 6" (150 mm) along joists to secure. Level low spots with a Portland cement based leveling compound, and sand down any high areas to ensure levelness of the substrate. All wood substrates should be prepared according to the latest revision of ASTM F1482 Installation and Preparation of Panel Type Underlayment to Receive Resilient Flooring.

WPC and SPC may be installed over some existing floor covering materials.

Existing resilient floor covering must be smooth and consist of a single layer of non-cushioned flooring which is well adhered to the subfloor. Use embossing leveler to smooth the surface and prevent telegraphing on to your new LVT/LVP.

Warning: Existing resilient floor coverings and black asphalt adhesive may contain asbestos, asbestos fiber or crystalline silica. Do not sand, scrape or abrade these materials. If removal of existing resilient floor covering is necessary, be certain that all precautions are taken, and proper procedures are followed. For information regarding proper removal procedures in the US, please refer to "Recommended Work Practices for the Removal of Resilient Floor Coverings" published by The Resilient Floor Covering Institute. In Europe, please refer to "Asbestos and man-made mineral fibre materials in buildings: practical guidance. 2000", DETR publications.

Hardwood floors must be secure and well bonded to the subfloor. Repair any loose boards or squeaks prior to installation.

Ceramic tile must be secure and well bonded to the subfloor. Grout lines should be filled with Portland cement based leveling compound.

Do not install over carpet, perimeter glued resilient flooring, or laminate flooring.

WPC and SPC flooring may be installed over hydronic in-floor radiant heat using the following guidelines. Complete system must be operational at least one week prior to installation. The system should be turned off 72 hours prior to installation and remain off 72 hours after installation is complete. After this timeframe, gradually return system to normal room temperature setting. Subfloor surface must never exceed 80 degrees F (27 degrees C) throughout the life of the floor. Flooring should never come in direct contact with the heating system. All other standard installation instructions apply.

Sweep or vacuum subfloor to remove any loose dust or dirt particles.

#### **Starting the Installation:**

Before starting, first measure the width of the room, and divide the room's width by the width of the plank. If the last row of planks will be less than 2" (50 mm) 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.

You should begin your installation in the left hand corner of the room. Measure the same distance from the wall at several points and snap a chalk line. The distance you measure from the wall should be the width of the first row of planks, plus 1/2" (12 mm) for required expansion space. 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.

Planks should be staggered, with at least 8" (200 mm) or 25% of the length of the plank between end joint of adjacent planks. No plank less than 6" (150 mm) should be installed. Avoid brick like pattern on alternating rows.

It is very important that the first row is installed properly. If the starter row is cut, make certain that you have a clean edge to line up against the wall. 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. When the first row is complete, you must have a straight, even base established.

Begin with a plank cut to one half of the full length. Position the cut of the short side of Plank 1 against the wall in the left corner of the room. Be sure that a 1/2" spacer is in place between the walls and the plank to maintain required expansion space. The first row of planks will be placed with the groove edge facing outward into the room.

Use a full length piece for Plank 2. Align the tongue on the short side of Plank 2 with the groove on the short side of Plank 1, and press down or gently tap into place with a rubber mallet. Continue installation of row 1 in this manner, keeping the planks in alignment and maintaining the expansion space with spacers. When you reach the end of row 1, you may need to cut a plank to complete the row. Do not use any plank shorter than 6" in length.

To start the second row, cut a plank that is at least 6" (150 mm) shorter than the first plank in the first row. You may use the cut piece from the last plank in the first row if it is at least 8" (200 mm) in length. Line up the first plank in the second row with the end of Plank 1, making sure that a 1/2" expansion spacer is in place between the wall and the end of the plank.

Insert the tongue on the long side of the first plank in the second row into the long side of the groove on Plank 1, while holding the plank at a 30 degree angle from the floor. Make sure that there is no gap between the long side of plank 1 and the first plank in row 2, then press the plank down flat to lock firmly into place.

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. Align the plank so the long side tongue is positioned just over the long side groove of the adjacent plank in the first row. Push the long side tongue into the groove by sliding along the short side seam. You may need to lift the plank to the left slightly to allow for the "sliding" action.

Angle the plank down toward the floor. Lock the plank into place by gently pressing the long side of the plank. Make sure that there is no gap on the long or short side of the plank. The plank is properly engaged when no gaps are visible and the two planks are flush across the top surface.

Continue to install remaining planks and rows in this manner. Planks should be staggered, with at least 8" (200 mm) or 25% of the length of the plank between end joint of adjacent planks. No plank less than 6" should be installed. Stagger planks to avoid installing in a brick like pattern on alternating rows.

When installing the last row, you may need to cut the width of the planks.

Once installation is completed, remove spacers and cover expansion space with trim. Do not affix trim to the floor as this will prevent free movement of the floor.

#### **Preventive Care:**

The easiest way to maintain the optimal look and performance of your floor is to reduce the amount of dirt, grit, and moisture with an effective barrier mat. This should be cleaned regularly. The use of rubber-backed or coco-fiber mats is NOT acceptable, as they are known to stain resilient floors.

Never slide heavy furniture or fittings over an unprotected floor. Severe scratching or damage may occur as a result. The floor should be protected from wheels, casters or feet of fittings and furniture, avoiding rubber products, which may stain the floor. Use hard plastic or felt pads under heavy furniture to prevent point loads. Non-staining felt pads can also be used, provided they are changed on a regular basis to prevent dirt, debris and grit build-up. Wide, non-staining type W casters at least 2" (50 mm) in diameter, or floor protectors should be used on rolling furniture, such as office chairs (in Europe, casters must be in accordance with DIN18354 and EN12529).

Cabinets or heavy equipment should never be installed or placed on top of the flooring. Furniture should have evenly distributed weight not exceeding 400 pounds (183 kg), with weight of point loads not exceeding 100 pounds each (45 kg). Insure distribution points are not directly positioned over side or end joint of plank.

Furniture polish and window cleaning agents should be applied directly to a cloth to avoid overspray or spillage onto the floor. Contact with some agents, such as silicone, will make the floor surface extremely slippery, which may result in accidents.

#### **Regular Maintenance**

Sweep or vacuum regularly to remove dust and loose debris, then clean with pH neutral cleaner specifically formulated for use on resilient floor covering in accordance with the manufacturer's instructions and allow to dry. Always remove excess moisture to prevent slip and fall hazards. Do not use soap-based detergents, caustic or abrasive cleaners.

Most cleaning agents will not harm the floor, however all residue of cleaning agents should be removed immediately to avoid discoloration. The following substances may stain or discolor resilient flooring: tar, nail-polish, varnish, some spices, shoe polish, lipstick, solvent-based paints, rubber mats, coco-fiber mats, asphalt, permanent markers, crayons, hair dye.

Additional considerations for floor care:

- Never use a steam mop on the flooring. Use of steam mops may cause damage to your floor.
- Always use clean floor care applicators. Use of dirty applicators redistributes the dirt throughout the floor surface.
- Do not mix cleaning products from different manufacturers – they may not be compatible.
- Wipe up spills immediately.
- Take precautions to prevent dark rubber from coming into contact with the floor.
- Never deviate from the manufacturer's recommended instructions for use of maintenance products.
- Use warning signs to advise that cleaning is in progress – damp floors are slippery and may present a slip/fall hazard
- Protect against exposure to direct sunlight through the use of curtains, blinds or solar film to protect against thermal dimensional changes and discoloration of the flooring.