



WPC/SPC COMPOSITE CORE INSTALLATION & MAINTENANCE

All instructions and recommendations are based on the most recent information available. If you receive a printed copy of these instructions, please refer to <http://www.santeesurfaces.com> to ensure you have the most up to date version of our installation instructions as well as viewing our videos in the installation guidelines section.

By starting installation of this product, you are agreeing that you have read and understand all installer/owner's requirements and responsibilities and are aware that deviating from the instructions and recommendations in this installation guide may result in voiding the product warranty. If you need additional assistance, please contact Santee Surfaces Technical Services at 888-933-4746.

Handle cartons and flooring carefully to protect the locking edge profile. Always transport and store cartons in the original packaging, neatly stacked horizontally on a smooth, flat, solid surface. Never on their sides or ends.

The product is a floating floor suitable for indoor installations only, in a controlled environment (while occupied) within the required temperature range of 55° F to 100°F (12.78°C to 38°C). **Do not install outdoors.** Please note that extreme variances in temperature may increase expansion and contraction not only in the flooring itself but the structure as well.

Do not install fixed objects, such as cabinets, islands, wall units etc. on top of the flooring or fasten trim/molding/transition pieces directly to the floor. Please refer to our warranty for information regarding rolling loads.

Three Season rooms & Cottages: Santee Surfaces Luxury Vinyl Flooring can be installed in 3 season environments. It is important to understand; all Luxury Vinyl Flooring approved for areas such as Solariums, Sun Rooms, three season rooms and seasonal cottages can withstand temperature variations ranging from a low -20°F (-29°C) to a high temperature of 150°F (65°C) **when not occupied**. While occupied, the temperature range requires being maintained between 55°F (13°C) to 100°F (38°C) Note: Special considerations need to be given to proper acclimation and temperature ranges prior to installing in 3 season environments. Verify the temperature fluctuations prior to installation to determine if the area is suitable for LVP flooring.

It is the sole responsibility of the installer/owner, prior to installation, to assure that the planned installation area has proper lighting, is suitable for the flooring and meets local building codes. Confirm that all subflooring meets or exceeds all industry standards and local building codes; as well as the recommendations listed herein. The manufacturer accepts no responsibility for product failure extending from or related to failure to meet job environment and subflooring requirements.

The installer/owner assumes full responsibility for the final inspection of this product. Inspection should be done prior to installation and should include print/color/texture/ factory finish /visible conditions (please note the installation site requires proper lighting). If the product is not acceptable, **DO NOT INSTALL IT**. Contact your supplier immediately for assistance. Flooring that has been installed will be deemed to have been inspected and quality accepted. Santee Surfaces will not accept any responsibility for any flooring installed with visible defects

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The installation, maintenance and warranty are reviewed on an ongoing basis.

Your Luxury Vinyl Flooring is waterproof but is not a moisture barrier. Water traveling over or around the outer edges of the flooring can damage the subfloor. Water damage and or associated conditions are not warranted. In addition, other contaminants could migrate up as well. These are not manufacturing related conditions.

When installing in a lavatory, bathroom, laundry room, or other area with frequent water usage, it is recommended that any perimeter gap be filled with a silicone caulk. This will lower the possibility of the water traveling under the floating floor and help to reduce bacterial growth and problems associated with it.

TOOLS REQUIRED:

Safety glasses, utility knife, straight edge / square, chalk-line, tape measure, pull-bar, saw, 1/4" spacers, saw or tile cutter and rubber mallet for tapping on the scrap tapper and pull bar.

Subfloor & Substrate Requirements and Preparation:

Do not install Santee Surfaces Luxury Vinyl Flooring over soft, rough, uneven surfaces, or floating floors

The Flooring should only be installed after all the other trades have finished and the jobsite has been cleared of any/all debris that could damage a finished installation. Proper lighting is essential.

All sub-floors and substrates must be clean, flat (smooth) and dry prior to installation. Sweep or vacuum your subfloor prior to installation ensuring nothing will interfere with the installation. All subfloors must be flat. High or low areas exceeding 3/16" per 10' (4.8mm in 3 meter) or 1/8" per 6' (3.2mm in 1.8 meter) must be corrected.

Wood Subfloors: Must be a minimum of 3/4" CDX Plywood, OSB, or APA approved plywood. All wood subfloors should be flat, structurally sound, and free from deflection (up and down movement). Sand high areas and fill low areas with a Portland based patching compound. To reduce squeaking of the subfloor, nail or screw the floor every 6". Repair or replace any damaged sheathing. Wood subfloors should never exceed 12% moisture using a pin type moisture meter.

Santee Surfaces requires all crawl spaces be a minimum of at least 18" tall (46cm) from the ground to the underside of the joist. A black ground cover minimum 8mm thick Polyethylene overlapped a minimum of 6" (152mm) and taped using a moisture resistant tape to avoid moisture migration from the ground up through the flooring. Cross ventilation (vents located around the perimeter) equal to 1.5% of the square footage of the area should be highly considered (if not already a local code).

Concrete: Must be fully cured (at least 60 days old). The flatness of concrete subfloors must meet or exceed the requirements of ACI FF25. Most concrete subfloors are not flat/smooth and must be properly prepared before installation. In all cases, verify the substrate is flat (See above subfloor and substrate requirements). Fill all holes and cracks with a latex fortified Portland cement-based patching compound. Santee Surfaces only recommends the use of latex fortified Portland cement-based products as a satisfactory patching or leveling compound. Grind down high areas and fill any low areas with a Portland-based patching compound. **(Do not use solvents or chemical adhesive removers to remove paint residue or adhesives).**

While the product is a waterproof flooring it is required that concrete slabs be tested for moisture vapor emissions with either a Calcium Chloride or an In Situ Relative Humidity test. Corrective measures must be taken if the level of moisture emission exceeds 8 lbs. Calcium Chloride or 85% Relative Humidity. The use of a vapor barrier under the Luxury Vinyl Flooring is optional and should not exceed 8 mills. Moisture in the substrate will not damage the panels. However, excessive moisture in the substrates may migrate to the walls and structure and cause bacterial growth issues if left unattended.

With respect to environments with rolling traffic, glue down applications will help reduce the effects of rolling traffic. For glue down installations refer to Santee Surfaces "Luxury Vinyl Flooring Glue Down Installation Guidelines". Except for using an adhesive suitable for engineered wood flooring. If your Luxury Vinyl flooring comes with the attached back it will be necessary to remove the backing for glue down installations.

Radiant Heated Systems: The Hydronic or Embedded radiant heating system needs to be operational and working for one week prior to install date to reduce any residual moisture. Should the Radiant heating system be in use at the time of installation it is necessary to lower the temperature to 65°F (18.3°C) for a minimum of three days prior to the WPCSPC COMPOSITECOREIM121819GHCMREV

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installation date, during the entire installation, and for 24 hours following upon completion of the installation. The temperature can then be gradually increased in 5° increments. Temperature must never exceed 85°F (29°C). It is the responsibility of the purchaser to confirm the suitability of the radiant heating system for use with this product. Any damage to the floor caused by the radiant heating system will not be covered by the product warranty.

Aftermarket Radiant Heating Systems: Should the radiant heating system be an aftermarket system, Santee Surfaces requires confirming with the manufacturer of that system, that Luxury Modular Flooring (considered resilient) can be installed over their system. Any problems associated with aftermarket radiant heating systems are not the responsibility of Santee Surfaces.

Existing Ceramic Tile, Quarry Tile, and Terrazzo Flooring: All existing tile must be well-bonded to the subfloor or substrate. Terrazzo flooring should be sound and stable. Any weak area should be filled in using a Portland based patching compound. The floor must be cleaned and contaminate free. Santee Surfaces recommends that you skim coat any existing grout lines exceeding the specifications with a latex fortified Portland cement-based patching compound. Grind any irregular surfaces.

Existing Resilient Floor Covering: The existing resilient must be single layered, non-cushioned backed, well bonded, fully adhered, and smooth. The flooring should show no signs of moisture or alkalinity. All topical waxes, polishes, airborne contaminants, etc. must be removed. Any irregularities must be repaired or replaced. Skim coating the surface is recommended to prevent telegraphing. Do not install over rubber-based substrates.

Old Adhesive Residue: Santee Surfaces does not recommend skim coating over existing adhesive. Because we cannot control how the adhesive was applied, the existing adhesive may break down possibly leading to a failure. Remove existing adhesives using a scraper such as a razor scraper designed for scraping flooring surfaces. The adhesive must be removed to the level of a film. **Do not use solvents or chemical adhesive removers to remove old residue.** These products can leave a residue in the concrete that may affect the performance of your new flooring

WARNING

For installation over, old resilient floor coverings or when considering removing existing resilient floors, please be advised that these products may possibly contain asbestos fibers or crystalline silica. Please follow all recommended Resilient Floor Covering Institute 9RFCI) work practices as www.rfci.com

Your Luxury Vinyl Flooring comes with an attached backing. **Do not install additional backings or foam/cushioned underlays**

PRE-INSTALLATION:

- When calculating flooring square footage requirements, allow a minimum of an additional 10% for cuts, waste and defects. If installing a diagonal or other special pattern, allow for 15-20 % additional in material.
- All installations require estimating additional material, due to trimming and culling of material (overages occur). This overage then becomes what is commonly referred to as "Attic Stock". It is recommended the end user keep attic stock in the event their installation require additional service.
- Verify material prior to installing, checking for debris or damage. Clean, trim or discard any affected sections.
- It is recommended to mix panels from a minimum of 3 different boxes during installation to assure an even distribution of any minor color variations, slight variances in texture and gloss levels. Hint: Try dry racking (laying out) your panels prior to final assembly to confirm this is an acceptable layout.
- Santee Surfaces requires a ¼" expansion gap around the entire perimeter of the installation, any transitions to adjacent flooring materials, door frames, and heating vents.
- Your WPC / SPC core flooring can be installed unlimited lengths and widths without the need for additional transition strips.
- It is recommended to undercut doorjamb so the material slides easily under them. A ¼" (6.35mm) expansion space is necessary here as well. If the door casings are metal the ¼" (6.35mm) expansion space can be filled using a silicone or acrylic silicone caulk. **Please note the expansion gap must be maintained past the edge of the doorjamb.**

ACCLIMATION:

(Uncontrolled storage) Acclimate all materials in the area to be installed between the temperatures of 55°F to 100°F (12.78°C to 38°C) a minimum of 48 hours before, during, and after the installation. Protect flooring from excessive

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heat/cold during storage. If the product is stored in an environment different from the installation site and the temperature ranges are controlled within the 55°F to 100°F (12.78°C to 38°C) The offsite acclimation can be considered acceptable. Please note the material will need to be delivered directly to the installation site with no stops in between.

INSTALLATION INSTRUCTIONS:

- With tile installations a half stagger (Ashlar/Brick) stagger is normal (see Illustration A).
- With plank installations a random stagger will provide improved structural stability and appearance (see illustration R).
- **Never install four corners together.**

Illustration A

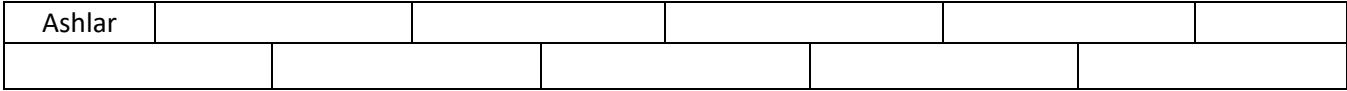
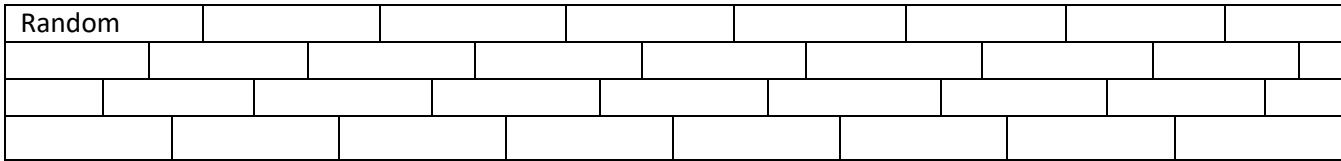


Illustration R



- The length and width of the area must be accurately measured to determine the center point and to ensure the installation will be square. To obtain a balanced layout, it may be necessary to adjust the center point affecting the width of the first row to prevent short narrow panels around the perimeter.
- Set up a starting line for the first row by measuring the width of the (adjusted) panel. Add ¼” to this number and mark the floor at each end of your starting wall.
- Using a chalk-line, carefully snap a line between these two points. Check to make sure there will be approximately ¼” between the edge of your first row of flooring and the wall. This space allows for any slight expansion of the structure and flooring and will be covered by the baseboard and/or quarter-round.
- If you are starting along a perimeter wall cut the profile (tongue or groove) off on the length side from the first row of material. This will ensure the decorative surface of the flooring is under the finished trim when installed.
- We recommend you use temporary spacers to keep the floor away from the walls, as the floor will shift during installation due to it being a floating floor. Place the spacers every 2’ to 3’ along the starting wall, plus at the end of each of the starting rows so panels do not shift when set into place.
- **Method 1:** After cutting your first panel to the desired length place the cut end towards the perimeter of the installation and along the starter wall. Connect the end joints by inserting the tongue on the short side of the panel at an approx. angle of 25 degrees and lower it into the groove. Note: for the first row this method is commonly referred to as an “angle angle” install.
- Continue along the wall until you reach the last full panel, connecting each tile in the manner described above. Measure the length needed for the final section of flooring in the first row taking into consideration the necessary expansion space as well as the cut portion of the panel. (see illustration #1)
- To start the second row, use the remainder of the last panel of the first row if it is 12” or longer, otherwise, cut a new panel in half and proceed. To ensure structural integrity of your floor, it is mandatory to **ALWAYS STAGGER THE END JOINTS FROM ROW TO ROW BY AT LEAST 8”**.
- Install one panel at a time, so that the end with the groove is exposed to receive the next panel. Place the profile of the scrap section along the large end of the next panel (groove) gently tapping on the scrap piece until the ends of the two panels lock together. Avoid locking the scrap section and panel being installed. Should it become locked you will need to gently slide it away from the former row. **NEVER USE EXCESSIVE FORCE** when tapping the panels together, as this may damage the locking profile. Continue and repeat for the remainder of the installation. Hint: For the final piece in a row, use a pull-bar to pull it tight and lock the end profiles. DO NOT strike directly on the locking profile to tap the pieces together, as this may damage the locking profile or the panel.
- Always check to assure your end joints remain properly engaged and the length joint is straight.

Illustration #1

#1	#2	#3	#4	#5	#6
#7	#8	#9	#10	#11	#12
					#13

- **Method II: See Illustration # 2:** After cutting your 1st panel to the desired length (#1) place the cut end towards the perimeter of the installation and along the starter wall. **Note: Always leave the larger profile (groove) of the end joint exposed to receive the following panel.** Next place the length edge of 1st panel of the 2nd row (#2) against your 1st panel (#1) of the starter row and rotate down connecting the panel #2 to panel #1 of the starter row. Align panel #3 against panel #2 and slide towards the end joint of #1 panel and rotate the panel down. You can then connect the end joints of panel #1 & #3 by gently tapping the two end joints together using the scrap piece cut with the profile that locks into the groove end of the #3 panel. Secure the end joint as instructed above and continue connecting the first two rows.
- Once the first two rows are completed the remaining rows can be installed connecting one panel at a time along the same row (see illustration #2).

Illustration #2

#1	#3	#5	#7	#9	#11	#13
#2	#4	#6	#8	#10	#12	
#14	#15	#16	#17	#18	#19	#20

Note: Care must be taken when aligning the end joints. If they are not properly aligned it will damage the locking system. If a panel needs to be removed, slide the panel horizontally to disengage. DO NOT pull up to disengage. This will damage the locking system. The resulting damage is not considered a manufacturing related condition in the product.

- As indicated above; a half stagger (Ashlar/Brick) stagger is normal with tile installations (12" or ½ the length of the tile), with a minimum length material of 8" in length. With plank installation the random stagger is highly recommended with a minimum length of 12" and a minimum stagger of 8".
- To install the remainder of your flooring, tilt the tile or plank you are installing slightly upwards along the length at about 15-25-degree angle, insert the tongue into the previous row's groove (or groove under the tongue) and lower it into place. The panel will lock into place with minimal pressure. Hint: At times it is helpful to gently tap along the length profile to tighten the joint. Use a scrap section of the material with the opposite profile. Join the sections and gently tap the scrap section. This method will reduce the possibility of damaging the tongue or groove. You can then connect the end joints of panels by gently tapping the two end joints together using the scrap piece cut with the profile that locks into the groove end of the following panel. Secure the end joint as instructed above and continue connecting the rows. **NEVER TAP DIRECTLY AGAINST THE PROFILE.**
- Replace or install new coordinating baseboards and quarter rounds in all areas. Baseboards are to be nailed into the wall and quarter rounds into the baseboards. **DO NOT** nail either of these into the LVF flooring. Hint: When possible select a tile or plank from the cartons that will best coordinate with the molding to avoid moderate and above variances.

PROTECTION AND MAINTENANCE:

- It is recommended that you sweep & vacuum the area immediately after installation to remove potential damaging soil and debris. You can use your flooring immediately (unless glued down).
- Santee Surfaces recommends using a pH neutral vinyl floor cleaner as required. Examples of pH neutral floor cleaners are Bona Stone, Tile, and Laminate Cleaner, ZEP, Diversey Stride, Hilway Direct HD pH Neutral Cleaner, Armstrong's Once-n-Done, etc. **NOTE:** The listed cleaning agents are a representation of flooring cleaners that Santee Surfaces recognizes as acceptable for our products. Other neutral pH cleaner may provide satisfactory results as well. Santee Surfaces does not warrant any of the cleaning agents or conditions associated with them as the application of them is beyond our control.
- For commercial installations, we approve the use of a low speed (175 rpm) floor cleaning machine with 3M red or white pad. Santee Surfaces will not be responsible for damages associated with a floor cleaning machine.
- Always rinse the floor thoroughly with clean water and allow to dry as the floor may be slippery when wet. Air movers or fans will speed up drying time.
- Never saturate your flooring.
- Do not buff, wax or use cleaning products that contain surfactants. Dish lotions, laundry detergents, Murphy Oil Soap cleaners should not be used to maintain your flooring.

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- **Never steam clean or use a steam mop on the floor.**
- **Furniture & appliances:** When moving heavy furniture or appliances place a hard surface between the item and the floor and roll or slide the item on it. **DO NOT** roll or slide them across the floor without this protection. When possible lift the object being careful to avoid injury. Furniture glides may cause damage to your flooring.
- Felt pads on chair legs should be installed and replaced periodically, as they wear and accumulate abrasive materials with use and can damage the floor.
- Hard surface mats are required under office chairs. Rolling traffic may damage your flooring and is not warranted.
- We recommend the use of non-staining walk off mats at all entryways. Note: Always use non-staining area rugs and mats as they can reduce the risk of permanently staining your flooring caused by latex and rubber backed rugs. Woven rugs may have dye's that can permanently stain your flooring. Using a non- staining padding / mat under it will help reduce that risk.
- Santee Surfaces cannot recommend any brand of rugs or mats as we have no control over their production.
- High heels and spiked shoes, may mark, abrade, or otherwise damage the surface and finish of your floor. This is not a warranted condition.

For information regarding our products, and warranties please visit our web-site: www.santeesurfaces.com