



Materials Required for Installation:

Square Ruler
 Utility Knife
 Scrap piece of LVP material (for tapping to tighten joints)

• Chalk Line • Tape Measure • Small Hand Roller (Seam Roller)

Storage and Handling

Acclimate the flooring a minimum of 24 hours before installation in the area it is to be installed. Conditions between 65°F and 85°F (18°C and 29°C) are required before, during and after installation. Cartons should be evenly stacked no more than five high on a flat surface and away from any heating/cooling ducts or direct sunlight.

Acceptable Underlayments

NorthStar Flooring's LVP Click products can be installed directly over most existing floor coverings, except for carpet, laminate, floatingfloors systems and cushioned vinyl flooring.

> Radiant Heated Floors

Radiant heated floors must be approved by the manufacturer for the use of their product with resilient vinyl flooring applications. The subfloor temperature should not exceed 85°F (29°C) and the system should be turned off 24 hours prior to and after installation.

Note: Manufacturer does not recommend the use of Kalm underlayment with radiant heated floors. The following guidelines must be followed to maintain warranty coverage. Failure to follow ALL guidelines will result in termination of warranty coverage.

- Concrete must be allowed to properly cure and dry a minimum of 4 weeks prior to operation of radiant heat system
- Over concrete, moisture vapor emission rate for concrete subfloors must not exceed 3 pound per 1000 sf per 24 hours using Calcium Chloride test ASTM 1869, or 75% RH using ASTM 2170 k and documented for warranty coverage.
- Wood subfoors must not exceed 12% moisture content and be within 2% moisture content as that
 of the SPC flooring.
- Subfloor must be flat to 3/16" over a 10' radius or 1/8" over a 6' radius.
- T-moldings must be used to separate heating zones
- Operation of radiant heat system should be set to run at 2/3 of the maximum output for a minimum of 2 weeks prior to installation of flooring to further allow moisture from concrete to dissipate and reach a final moisture content. This must be done in both heating AND non-heating seasons
- Reduce heat to a temperature of 65°F 4 days prior to installation
- For direct Glue Down Turn the heat off for 24 hours before, during and an additional 24 hours after installation. Failure to turn heat off may reduce working time of the adhesive. Follow all adhesive guidelines set forth by adhesive manufacturer.





- Floating Installation Install flooring according to floating floor installation guidelines.
- After 48 hours post-installation, we recommend to slowly raise the temperature of the heating system to its preferred operating level. Please exercise caution and expect to achieve peak after a period of 5 days.
- Do not allow the subfloor surface temperature to exceed 80°F with no more than a 5°F variance in surface temperature over a 24 hour period. Set-back style thermostats are NOT permitted.
- Relative humidity of the job site must be maintained between 35-55% relative humidity. The use of a humidification/dehumidification system may be required to maintain the proper humidity level.
 Failure to maintain proper humidity level can result in excessive dryness of flooring and void the warranty.
- The use of a separate thermostat for each individual room is required. An outdoor temperature sensor is highly recommended to adjust temperature according to anticipated heat loss.
- Seasonal expansion and contraction is expected and does not mean a defect is present within the product.

> Concrete

MUST use 6 mil-poly vapor barrier on ALL concrete. Moisture levels of concrete slabs before, during and after installation must be 8 lbs. or less per 1000 square feet per 24 hours using an anhydrous calcium chloride test according to ASTM F1869 and pH must be between 5.0 and 9.0; or, if using ASTM F2170 IN-Situ Probes, should be less than 90% RH (relative humidity). In some instances, it may be necessary to adhere the LVP to "Special needs" areas (steps, ramps, landings, etc.) Refer to the manufacturer LVP Glue Down instructions if adhering is necessary.

Wood Underlayments

Can go over virtually any sound wood underlayments/subfloors. Always fasten underlayment in accordance with the manufacturer's recommendations. For "special needs" glue down applications (steps, ramps, landings, etc.), manufacturer recommends underlayments that are underlayment grade and warranted by the manufacturer. Any failure of the underlayment or flooring as a result of the underlayment is NOT the responsibility of manufacturer.





Subfloor and Wall/Door Preparation

Note: Do not install cabinets on top of floating LVP. The surface beneath the floor must be sufficiently prepared in advance to guarantee a successful installation of the flooring.

- Fill any low spots in the subfloor greater than 3/16 inch in 10-foot span with a Portland cement leveling compound.
- Ceramic tile and embossed flooring will require skim coating with a Portland based patch to avoid bottom-up pattern telegraphing.
- Remove any existing floor molding. Removal of wall baseboards is optional as quarter round can be installed to avoid baseboard removal.
- Undercut doorjamb so the ¼ inch expansion space is maintained, allowing the LVP to slip under doorjamb/case molding.
- Sweep the subfloor clean. The floor must also be free of all contaminates.

PLEASE NOTE: Warranty exclusions with respect to rolling loads. If you have frequent or heavy rolling conditions, click products can be glued down to help reduce the risk of joint separation from rolling load traffic; however, our warranty still excludes any problems associated with rolling loads.

Start of Installation

It is the installer's responsibility to inspect the flooring prior to installation to ensure that there are no visual defects. Do not install flooring with visible defects. If visible defects are present, contact your retailer immediately.

- Floor must be clean, smooth, flat and dry before installation.
- Check the tongue and groove to assure it is free of debris or damage.
- To achieve maximum appearance, mix planks from two to three cartons from the same production.

The advantage of NorthStar Flooring's LVP Click product is that it allows you to choose your own starting position, direction and can workone plank/tile at a time.

Walls are not always straight. Snap a chalk line for your first row to follow.

Maintain a 1/4" (1/2 cm) expansion space around all walls. Quarter round or baseboard molding will cover this expansion space.

IMPORTANT: Maintain the $\frac{1}{4}$ inch space around cabinets, pipes, toilet flanges and any obstacle in the floor.

- For plank installation, we recommend staggering the end joints a minimum of 6 inches.
- For tile installation, we recommend staggering the end joints a minimum of 3 inches.

NOTE: Do not install four corners together, as this will not provide a stable installation.





Clicking Planks/Tiles Together

To click the end joint of the plank/tile together, click the short side of the plank/tile vertically into the previous one by pressing it by hand and rolling it with a hand roller or seam roller to ensure a fully compressed tight fit.

To click the length joint of the plank/tile together, place long joint together, lifting slightly to engage lock. Rotate downward, clicking together for a tight fit. Use a small hand roller or seam roller to press/lock the compression fit end joint.

To tap along the entire length of plank or tile to properly seal the joint, **use a small scrap piece of plank/tile** with the lock on the edge. Lock groove-to-tongue or tongue-to-groove for this application. Lock the scrap piece to the area requiring tapping, and lightly tap the edge of the material. This will bring the tile edges tight together.

Cut the plank/tile by scoring through the top wear layer with a utility knife then snap the plank/tile across the score.

Install adjoining rows as you did the first; one piece at a time. Holding the plank/tile at a slight angle, place it against the profile in the first row. Rotate the plank/tile down to secure the length joint assuring there are no gaps along the joint.

The adjoining planks/tiles are aligned by sliding the long joint into position, shifting it to properly match the end joint against the previous plank/tile. Repeat until you reach the final row of material.

To install the final row of planks/tiles, you will usually need to cut them. We recommend the following: lay a panel on top of the last row installed. Lay another plank/tile against the edge of the wall. Mark the plank/tile underneath. Cut the plank/tile through the wear layer and snap along the score. Install the last row leaving ample expansion space.

Moldings/Transitions Installation and Expansion

- All molding and transition strips need to provide a ¼ inch expansion space to allow expansion and contraction of the subfloor. Ensure moldings and transitions strips will not pinch the flooring.
- Never allow nails or screws to enter the LVP flooring or the expansion zone around the flooring perimeter, as it will prevent proper expansion and contraction of the structure and flooring.
- For rooms over 25ft wide or over 40ft long, an additional expansion joint must be inserted. Expansion joints are also required in doorways and between adjoining rooms or areas where adjacent flooring is installed. Use a T-molding to cover the expansion joint.
- For installation in areas larger than 50' x 50', 2500 sf, provide a minimum expansion space of 1/2" (12.7mm) around the perimeter.





Treads, Risers and Ramps

Glue down method is required on all treads, risers and wheelchair ramps using NorthStar Flooring approved adhesive. Apply the adhesive following the manufacturer's instructions. Install the riser after installing the tread. Install stair nose moldings afterwards to protect the edge of the LVP.

Plank Replacement

Should one of your planks/tiles become damaged and need to be replaced, follow these simple instructions:

- Score top of damaged plank/tile with a utility knife. Make two triangle cuts near the end joint and then connect the points with one long cut in the middle of the plank/tile.
- 2. Use an awl or screwdriver to tap down through plank/tile on scored triangle cut points.
- 3. Lift and remove damaged tile.
- **4.** With the pattern side facing up on the new replacement plank/tile, trim off the short lip on the tongue side and the groove on the compression joint side, making it flush with the edge of the plank/tile. Be careful not to damage the finish surface of the tile.
- **5.** Cut several pieces of acrylic double face tape made for vinyl floors and slide under the edges of the existing floor on the two edges where the replacement plank/tile will have its lips cut off. Tape should face sticky side up; leave the paper on the side facing down on the floor.
- **6.** Using Taylor 2062, run a small bead of sealer on the groove edge of the planks/tiles on the existing floor where the replacement plank/tile will rest that has the lips cut off.

NOTE: The long tongue of the replacement plank/tile and the uncut compression fit end joint will not need tape or seam adhesive as you will be using the plank's/tile's locking mechanism.

- Install replacement plank/tile by sliding the long groove of the replacement plank/tile under the tongue
 of the floor plank/tile until the finish edge of the replacement plank/tile is tight against the finish edge of
 the floor plank/tile, and the compression end joint is lined up. Rotate down, locking the long tongue
 joint and roll the compression end joint to lock into place with a small or hand roller and follow with a
 dry cloth.
- Wipe any excess sealer that comes to the surface of the tiles with a damp cloth and follow with a dry cloth to assure all sealer is removed from the tile surface.
- Keep foot traffic off the replaced plank/tile for 24 hours.

*Manufacturer will not be held responsible for problems that may arise for approved secondary alternative seam sealers. Please contact the approved secondary alternative seam sealer's manufacturer with issues.





Care and Maintenance

LVP Care & Maintenance Guide- Residential

Your NorthStar Flooring LVP flooring will provide years of carefree use. You will find that it is not only beautiful, but durable. It is also much easier to maintain than most other flooring products, thanks to its tough protective finish and moisture resistance. It only takes a few simple care and maintenance steps to keep your NorthStar Flooring LVP floor looking beautiful for years to come.

Residential Care & Maintenance Guidelines

To help protect and keep your floor clean, following these proper care and maintenance guidelines:

Preventative Maintenance

- Prevent indentations and scratches using non-staining floor protectors on the legs of chairs, appliances and all heavy furniture. Floor protectors should be at least one inch in diameter. All leg protectors must be maintained and replaced when worn.
- Do not flood floor or subject to standing water.
- Protect your floor from tracked-in dirt by using mats at all outside entrances. Mats should have a non-rubberized backing and be marked as non-staining.
- Avoid tracking-in tar or asphalt from driveways.
- Avoid high heel shoes on your floor as they can cause permanent indentations.
- Protect your floors against burns. Burns from cigarettes, matches or other extremely hot items can cause permanent damage.
- Avoid exposure to direct sunlight for prolonged periods, as this can cause discoloration.
- Chairs with rolling castors must remain on appropriate protective chair mats.

Cleaning & Maintenance

- Sweep the floor regularly with a soft bristle broom to remove loose dirt.
- Wash the floor with non-abrasive, neutral PH floor cleaner.
- For everyday maintenance, a mop moistened with warm water will suffice. Spills should be cleaned up immediately.
- Soap Based Detergents

DO NOT USE THE FOLLOWING ON OUR LVP FLOOR

- Abrasive or mop and shine products
- Floor wax
- Ammonia or bleaches*(*For spot treatment, a diluted 10/1 solution of water/liquid bleach is tolerable for stain removal)
- · Vacuum cleaner with a rotating beater bar.

Always read the cautionary information on all cleaners prior to use.

IMPORTANT: Never push, pull or drag furniture, appliances or other items across the floor. When moving furniture or heavy items, always lift and carry the items. Place hardboards between the flooring and object to move.





Care and Maintenance

How to Treat Stains, Spills, & Scuffs

Follow the remedies in order. Unless instructed otherwise, use a clean, white cloth or towel with products recommended for your LVP flooring. Always rinse the affected area with clean water after treatment.

The Stain or Spill – acids, alkalis, blood, ketchup, mustard, food, fruit, fruit juices, candy, cleaners, strong soaps, dye, dye markings, urine, feces, grass, iodine, mercurochrome, and rust

The Remedy:

- 1. First, remove as much solid material as possible.
- 2. Scrub area with cleaner full strength.
- **3.** Rub the area with a 10/1 dilution of water/liquid bleach.
- 4. Rub the area with isopropyl alcohol.
- 5. If rust stain does not respond, use lemon juice or a cream of tartar solution.

The Paint & Solvent Spills – dry cleaning fluids, lacquer and latex paint, nail polish, solvents, oil-based paints, woodstains, and varnish

The Remedy:

- 1. If substance is dry, gently peel it from the floor. Avoid sharp instruments that could scratch floor.
- 2. Scrub area with non-abrasive cleaner.
- 3. Rub lightly with odorless mineral spirits or paint thinner.

NOTE: Do not use acetone or nail polish remover!

Substances That Won't Wipe Up – adhesives, chewing gum, oil, grease, candle wax, and tar **The Remedy:**

- 1. First, remove as much solid material as possible.
- 2. Carefully remove excess with a spoon or fingernail.
- 3. Scrub area with non-abrasive cleaner.
- 4. Rub lightly with odorless mineral spirits, isopropyl alcohol or lighter fluids.

Scuffs & Smudges – rubber heel marks, shoe polish, scuffs and smudges The Remedy:

- 1. Rub the scuff with fingertip, rubber will come right off. The friction from the rubbing will remove rubber.
- 2. Scrub area with non-abrasive cleaner.
- 3. Rub lightly with isopropyl alcohol or lighter fluid.

CAUTION

Isopropyl alcohol, lighter fluid, odorless mineral spirits and paint thinner are flammable solvents. Carefully read and follow cautionary information on their respective labels. Keep traffic off treated area for 30 minutes.