- 1 - REV.4-7-10

Starloc Installation Manual 2010 Table of Contents

	<u>Page</u>
Subfloor Preparation and Installing	2-5
Replacement Plank instructions	6-7
Starloc Tile Installation Instructions	7-8
Starloc Repair and Reinforcing Adhesive Instructions	8
Starloc Maintenance Instructions	9-10
Starloc Accessories Information	10

What makes **Starloc** so unique & revolutionary?

No messy adhesives or glue is necessary. Because of **Starloc**'s flexibility the planks can be installed over existing floors such as natural wood, concrete, vinyl, linoleum, and even ceramic.

Starloc looks and feels like wood, yet it is water resistant so it can be installed in moisture prone areas that traditionally have been "off limits" for traditional wood flooring and laminate products, like basements and bathrooms. Must refer to "Subfloor Preparation" on the following page for specific instructions.

Each **Starloc** plank secures to each other not your sub-floor, using the revolutionary Starloc Strip. It's free floating. To cut a plank, simply score and snap.

No underlayment is necessary and **Starloc** is quiet and warm under foot.

It comes in grades and colors choices to fit your budget and ascetic needs.

Starloc is guaranteed not to delaminate.

Starloc Plank Installation Instructions:

- 1. Tools needed: Utility knife & straight edge, Hand Roller, 100lb roller.
- **2.** Material Needed: Measure the length & width of your room. If the room has alcoves or offsets, measure these separately. This will give you the square footage of the room. Have a minimum of 10% extra to cover mistakes, trimming and for future needs and or replacement.

 An example: **Starloc Southern Woods** comes in 36" x 6" planks or 1.5 Square feet per plank. 15

planks per case = 22.5 square feet per case.

So, if your room is 10' x 10' or 100 sq.ft., we would recommend you have 6 cases (135 sq.ft)

Most installations require about 10% overage. However this can vary depending upon the room size and layout.

Condition Starloc Prior to installation: Starloc must be stored at room temperature of at least 65 degrees

Fahrenheit. For 24 to 48 hours before installation. Do not open the packages but spread them out. Stack no
more than 3 high with at least 4" of airflow around not next to and heat or cooling ducts and direct sunlight.

When each plank is joined, **utilize a hand roller** directly on the joined seam to create the proper bond between strip A and strip B. <u>This is a mandatory part of the installation procedure!</u> After completion roll the entire floor in both directions with a 100 lbs roller

Before starting an installation two planks should be joined and then rolled and pulled apart. A bond should be observed throughout the whole strip. Adhesive legs and/or transfer from one side to the other should be seen. This will confirm the material is acclimated and the temperature of material is correct for installation.

Not rolling will void Warranty!

When installing **Starloc** be sure to keep dust, dirt or foreign particles away from the StarlocStrip. The cleaner the StarlocStrip remains, the better the bond between planks. A protective sheet of paper has been placed between each plank insuring the StarlocStrip remains clean and ready to use.

When installing tiles and planks you should work out of a minimum of 3 boxes and mix planks or tiles when installing.

- 3 - REV.4-7-10

Subfloor Preparation:

WHILE STARLOC IS SUITABLE FOR SITUATIONS WHERE MANY OTHER TYPES OF FLOORING SHOULD NOT BE USED, CERTAIN PRECAUTIONS SHOULD BE OBSERVED FOR EVEN THIS VERY FORGIVING FLOORING PRODUCT.

STARLOC IS A FLOATING FLOOR UNDER NO CIRCUMSTANSES CAN ANYTHING BE FASTENED THOUGH THE FLOOR OR PINCHED CAUSING STARLOC TO BE LOCKED IN PLACE.

All subfloors must be sound, solid and have little flexibility

Approved subfloors

All Levels of Concrete: Any large cracks or voids must be filled with a cementitous patching compound. Concrete should be flat within 3/16" in 10 FT.

Lightweight concretes are approved

<u>Please Note:</u> As we state in all our sales literature, Starloc is Water Resistant and will withstand standing water. However this does not mean that Starloc is designed to be exposed to water, or be underwater, for extended periods of time. Moisture intrusion is a totally different situation that can arise with new or old concrete that exhibits high levels of Moisture Vapor

Emissions/Hydrostatic pressure in combination with high levels of alkalinity. This combination provides a substance that is highly corrosive. No floor covering, including Starloc, can withstand the long-term corrosive nature of this chemical. If testing determines that the level of Vapor Emissions/Hydrostatic pressure exceeds 8 pounds using the Calcium chloride test and/or a P.H. test indicates alkalinity levels in excess of 9, steps must be taken to separate Starloc from the source of the corrosive effect of this chemical.

Wood subfloors must be sturdy, flat within 3/16" in 10 FT, and have little flexibility.

All other subfloors, i.e. particleboard, OSB, chipboard, wafer board, Gypsum Underlayment and Floor Toppings etc. must be sturdy, flat, and have little flexibility and manufacturers installation specifications need to be followed. Caution: Soft Underlayment and Substrates can diminish Starloc inherent strength in resisting Indentations.

Quarry tile, terrazzo, and ceramic tile: Use caution with highly embossed tile. This type of tile plus grout joints should be filled with a high quality cementitous patching product.

Starloc is water/moisture resistant, and does not support mold or mildew. However, excessive moisture in the subfloor can cause mold, mildew, and other moisture related issues like the trapping of moisture emissions under Starloc. This will cause an adverse affect on existing glue down substrates causing it to release. Example: Parquet and Strip Wood Flooring which can also swell and buckle.

Radiant Heat: Radiant heat components must be a minimum of 1/2" separated from Starloc. This is the only type of radiant heat that is approved.

Subfloors should have been operational for at least 3 weeks prior to installation to drive out moisture and calibrate temperature settings. All radiant heat floors should be turned down so subfloor temperature is maintained at 65 degrees for 3 days prior to installation and kept at 65 degrees for at least 48 hours after installation to allow the adhesive to fully cure. Maximum operating temperature should never exceed 85°F.

Temperature: The room temperature and the sub floor temperature must be between 65° and 85° Fahrenheit. Maintain proper temperature for 48 hours before, during and after installation. The building's heating and air-conditioning system should be turned on at least one week before installation. Failure to follow these guidelines may result in an installation failure (i.e. flooring may expand or contract resulting in gapping). Starloc is an interior product only, and must be installed in a temperature controlled environment, maintained between 65 and 85 degrees F. Please keep in mind a concrete floor can be up to ten degrees colder than the actual room temperature.

- 4 - REV.4-7-10

Existing Resilient Floors:

Existing resilient tile and sheet vinyl floors must be in good condition and fully bonded to the structural floor... The exception is that any tile or sheet that is of a soft cushion construction must be removed.

Note: A layer of resilient or soft underlayments like lauan may compromise the inherent strength of Starloc. Do not install over more than one layer of existing flooring, to prevent indentation or possible stress on the adhesive seams.

When installing **Starloc** over existing ceramic tile, you must skim coat the grout lines with a floor leveler. If you install **Starloc** over an existing floor that has an embossing or grout line on it, we recommend you skim coat with a floor leveler. Check for any dips in the subfloor that can create a void underneath the floor that will cause stress on the plank seams when walking on it. If so please fill in and level subfloor with embossing leveler. **Starloc** is water resistant so it can be installed directly over concrete floors in the basement, (Refer to Approved Sub Floors, Page 3). If your concrete floor has any bumps or burrs of concrete sticking up, simply knock them off with a hammer and chisel and fill in the holes. If you have asbestos tiles and don't want to pay for an expensive asbestos abatement job, **Starloc** is the perfect answer. Any loose or damaged tiles should be patched prior to installing **Starloc** over the asbestos floor. Never sand asbestos floors make sure you are positive asbestos is not present when ever you sand. We recommend the following actions in the room you are installing **Starloc** in: Beware of any sheetrock taping and sanding, painting, wall prep, finishes, and other activities that produce lots of dust. Cover **Starloc** with a drop cloth...

Installing:

Before laying out the floor, check the wall you are starting from and make sure it is square to the opposite wall. Simply measure the room from opposite ends of the wall to the far wall. If the measurements are different you can make adjustments on the first row of Starloc by scribing the plank on the over edge.

- Lay a row of loose planks without securing them to each other first to determine if you need to adjust the length of the first plank to avoid a small piece of less than 6" on the opposite wall from where you started.
- 2. Installation should start in a corner and proceed from the wall with the under- edge facing out away from the wall (Figure 1). Allow a gap of 1/4" or more for floor movement which should be covered by molding. Do not net fit to wall or any vertical structure!
 Trim off the top over-edge facing the start wall (Figure 2).

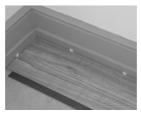




Figure 1 Figure 2

3. When securing two planks together, you should use a low level angle to secure the second plank into the corresponding edge. The over-edge always placed on top of the under-edge. Use one hand to hold the plank and the other hand to guide the edge into place for a tight fit by hand rolling the plank as you go. Be careful to keep the seams tight. You can push the plank slightly against the adjoining plank to create a tight seam, if necessary, after the connection has been made.

5 - REV.4-7-10

- 4. One of the great attributes of **Starloc**, it's forgiving. If your seam appears not to be tight, you can immediately pull apart the planks and reapply it. Slowly lift the top plank away from the bottom plank and simply reapply them. Please use Starloc Adhesive to re-enforce the bond after pulling apart.
- 5. When installing the plank, it is required to stagger the rows so that the end joint seams are a minimum 6" apart and the seams are not in a straight uniform line. We recommend the staggered random method.



Figure 3

- 6. Start the second row with the plank cut at about 2/3 length (2 feet). Simply measure and mark the plank, then using a straight edge and utility knife, simply score the plank and snap.
- 7. The over-edge butts up to the first row. Again, get one corner of the plank started tightly against the other and use a low level angle and roll the plank tightly into place. The remaining 1/3 piece can be used on the far wall, if the layout of the room permits.

When cutting **Starloc** for length, be sure to always cut the short side of the plank with the over edge, the remaining piece can then be used on the opposite side of the room, at the end of that row (Figure 4).



Figure 4

- 8. Start the third row with the plank cut at 1/3 of a length (1 foot). Again the remaining piece can be used at the opposite end of the row, if the layout of the room permits
- 9. Continue this pattern for the remainder of the rows to be installed. Always place the cut end of the first plank against the wall (Figure 5).



Figure 5

- 10. Fitting around irregular objects, simply 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 or heavy duty scissors, and lay plank.
- 11. When each plank is installed a hand roller with direct pressure to the seams must be used! After completion a 100 lbs roller should be used across all seams. Not Rolling will Void Warranty!

Replacement of Plank

Be sure to keep some spare **Starloc** planks in case there is an unforeseen need for replacement. If you need to replace a plank of Starloc use a heat gun and heat up the outside of the damaged plank, along the "under lip" StarlocStrip on the long and butt end of the plank. You can determine the "under lip" StarlocStrip by finding the installation starting wall. It is on the right side and top of the plank when facing plank and starting wall is on your left from the second row on. Hold the head gun at least 6" away and be careful not to burn surface of plank. This will soften the adhesive enough for you to then make an incision with your utility knife along the seam cutting through the whole plank. MAKE SURE YOU HAVE A VERY SHARP BLADE IN YOUR UTILITY KNIFE!! (Figure 6)



Figure 6

Cut a slot around 6 inches from the long side you just cut. Then using a flat head screw driver or putty knife, pry up the damaged plank use the heat gun to help release the plank. Once you can grip the plank pull it away from the "under lip" StarlocStrip from the adjoining plank be careful not to rip or damage strip. (Figure 7 and 8)





Figure 7 Figure 8

If strip is damaged then please replace using alternate method below. On "Over lip" StarlocStrip on adjoining plank use heat gun to soften adhesive and peel back original "Underlip" StarlocStrip on side and butt end of plank (Figure 9)



Figure 9

If possible fold a piece of wax paper enclosed in Starloc cartons and wrap around each edge. Lift adjoining planks and slide replacement plank into place. The wax paper will help keep the plank from sticking to adjoining plank when sliding in plank. Remove the wax paper. Use a hand roller on all four seams of plank. - 7 - REV.4-7-10

Alternate Method:

Use a heat gun being careful not to burn plank surface. This will soften the adhesive enough for you to then make an incision with your utility knife along the seam cutting through both the "over lip" and "under lip" StarlocStrip. Do this on all four sides. MAKE SURE YOU HAVE A VERY SHARP BLADE IN YOUR UTILITY KNIFE!! Cut a slot in the center of the plank to be removed. Then using a flat head screw driver or putty knives, pry up the damaged plank. If the edges of plank that is removed do not cut out cleanly, you may need to go back with your SHARP utility knife and with a straight edge "clean up" the edges so that perfect rectangle is left with no StarlocStrips remaining from the adjoining planks—just a perfect rectangle remains (See Figure 10)



Figure 10

When installing the replacement plank, first cut off the "under lip" StarlocStrip from one side and simply "attach it" to the "over lip" on the opposite side. Do this for both the long and short sides.

Take double face tape and cut four pieces to be place all around the plank leaving the bottom cover on tape lift adjoining planks and side tape into position leaving at least 1 inch of tape exposed all around plank (Figure 11)



Figure 11

Position replacement Planks and press into place. By not gluing the tape to the floor you will keep the installation floating so no buckling can occur.

Installation instructions for 16" x 32" Tile. When installing the tile lay the tile in an offset method (Full size/Half Size) to stagger the rows so that the short edge (16") seams are not in a straight uniform line for every row. Dry-Lay a row of Tiles using the enclosed wax paper to protect the Starloc Strip, across the room to determine the plank width for the first row and the other side of the room last row, then down the room for the size of start piece and end piece. No start or end piece should be less than 6". (This can readily be figure out from measuring the room dimensions and dividing the size of the tile with out putting down the tile if desired.) To cut the tile to size use a straight edge and utility knife, simply score the plank and snap.

Once the size of the start piece is determined lay down the first row then to start the second row determine the size of the start piece. To do this take a full plank and place it next to the first cross seam of the first row so it falls exactly in the middle of the plank then measure the distance from the wall to the start of the plank minus expansion space and this will be the size of the second row start piece. (See Figure 12)

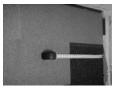


Figure 12

- 8 - REV.4-7-10

- 8. The start piece of the third row should be the same as the first and keep alternating until completion. Make sure the start pieces are exact for each row to eliminate run off and to keep the rows uniformed.
- 9. Fitting around irregular objects, no problem. Simply 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 or heavy duty scissors, and lay plank.

IMPORTANT: Roll floor!! The two preferred methods of rolling are using a hand roller with direct pressure to the seams, and a 100 lb -3-section flooring roller. Use a hand roller as you install and follow after installation with a 100 lb-3-section flooring roller. Both methods are required.

Tile Replacement: Please follow information listed for Starloc Plank for the Tile and follow same acclimation and subfloor conditions instructions.

Troubleshooting for Plank and Tile:

Edges not sticking:

The Starloc adhesive can be reactivated as long as the strip is not contaminated with dirt and dust. You can reheat with heat gun to loosen plank completely and then use Starloc adhesive to reinforce bond. In the winter time the adhesive is freeze thaw stable so if areas of the Starloc strip are dull and not sticky then reactivate with a heat gun.

Starloc Butt end over edge is bending down when taking out of box: Because of Starloc's flexibility the edges sometime bend in carton because of shipping. Just pull back the edge straight and put together and roll with hand roller. If this is not done the front edge will stick and a hump in the material will be seen that rolling may not take out.

Starloc Adhesive Instructions

Starloc adhesive is a specially formulated adhesive to be used in reinforcing the bond of the Starloc Plank and Tile adhesive strip. Special care should be taken to use the adhesive properly. Avoid skin and eye contact and use with proper ventilation. Please follow instructions on bottle for First Aid and Storage.

The adhesive should be applied in a steady bead in the middle of the Starloc strip from top to bottom of strip, being careful not to get any on the edge so it will bleed on to the surface of the tile. If any adhesive gets on the Plank or Tile surface it needs to be immediately removed with a rag dampened with fingernail polish remover containing acetone (not straight acetone) before it dries or it will not be able to be removed without damaging the plank or tile. Use a weight over repaired area for short period of time. A full carton of Starloc works well.





GENERAL MAINTENANCE

Although STARLOC floors are durable, all floor coverings require some care to look their best and many problems can be prevented before they occur. The type and frequency of traffic on your floor will determine the frequency of maintenance needed. The type of floor and even the color will also have some bearing on how much care may be necessary. For example, solid color floors will visually show scuffs, scratches, dirt and general wear to a greater degree than multi-colors of chips or patterns. Of course, white or light colors will visually show staining to a greater degree than darker colors. For this reason, solid color and white floors should receive special attention in regard to preventative maintenance and amount of care provided. Good judgment when choosing the type and style of floor will help prevent maintenance problems before the floor is even installed! Here are the proper steps for maintaining your STARLOC floor:

- 1. In order to prevent indentations and scratches, provide glass, plastic or other non-staining cups with flat under surfaces not less than 2" in width for the legs of heavy furniture or appliance. Equip swiveled-type office chairs and other rolling furniture with broad surface non-staining casters at least 2" in diameter. Remove small diameter buttons from the legs of straight chairs and replace with metal glides that have bearing surfaces no less than 1" in diameter.
- 2. Protect your floor against burns. Burns from the glowing end of a cigarette, matches, or other extremely hot items can damage STARLOC floors.
- 3. Do not flood floor or subject to frequent standing water. Problems associated with excessive moisture can affect the job site and should be addressed. STARLOC plank should not be used as a Moisture Reduction System.
- 4. Protect your floor from tracked-in-dirt and grit particles by using walk of mats at all outside entrances. Take time to remove any imbedded grit particles from shoe soles before entering the room. Avoid the use of rubber-backed mats, as certain rubber compounds can permanently stain vinyl. Avoid tracking in tar or asphalt from driveways, as this can also discolor vinyl.. Do not use vinegar, one-step cleaner/polishes or oil soaps on STARLOC products.
- 5. All STARLOC floors have a good resistance to stains. They are not affected by most common household spills: however, any spill should be cleaned up immediately. The longer the spilled materials are left on the floor, the greater the risk of permanently staining the floor. For information regarding the proper method or solution to use on a specific stain, contact STARLOC's Technical Department or check troubleshooting guide.
- 6. Avoid exposure to direct sunlight for prolonged periods. During peak sunlight hours, the use of the drapes or blinds is recommended. Prolonged direct sunlight can result in discoloration, and excessive temperatures might cause tile expansion.
- 7. Do not use vinegar as a cleaning agent on STARLOC vinyl Products.

MAINTENANCE FOR STARLOC COMMERCIAL FLOORS

- The type frequency of traffic on your STARLOC floor will determine the frequency of maintenance needed.
- The type of floor, and even the color, will have some bearing on how much care may be necessary.
- Regular adherence to an effective maintenance program should include:
 - thorough dirt and grit regulation and prompt removal of spills and stains protection of the floor surface

The most effective part of any floor maintenance program is the simplest: sweep, dust mop or vacuum STARLOC flooring DAILY, or more frequently if needed.

Initial Maintenance Upon Completion of the Installation:

- 1. Sweep or vacuum thoroughly and remove any adhesive residue from surface. Mineral Spirits is fine for this.
- 2. Do not wash the floor for at least 24 hours after installation. Lightly damp mop with Starloc Cleaner following instruction on bottle. Remove any scuffs and excessive soil by careful scrubbing. Certain types of rubber heel marks may be removed by rubbing with a cloth dampened in Metroflor Black Scuff and Adhesive Remover.

- 10 - REV.4-7-10

Routine Commercial Maintenance:

1. STARLOC vinyl plank and tile has excellent durability and a history of performing well in heavy commercial installations as long as a sound maintenance program is followed. Light daily sweeping, dust mopping or vacuuming will prevent dirt and grit particles from being ground into the surface of the tile. Non-rubber, walk off mats should be used to control the amount of dirt and grit reaching the floor. The mats should be as wide as the doorway and thick enough to trap dirt. Frequent light mopping will prevent the floor from becoming heavily soiled and will remove most spills and stains. The amount and type of traffic will dictate the frequency of washing. Wash the floor by damp mopping or use an Auto-Scrubbing machine with Starloc Cleaner following instructions on the bottle.

2. If the floor receives hard use and becomes extremely dirty, as in heavily used commercial installations, Floor scrubbing with a 175-300 RPM floor Buffer will be necessary with a red scrubbing-type (polyester or nylon) pad. Mop the floor with Starloc Cleaner and work the solution over the floor using the buffer and the scrubbing pad. After this has been done, remove the dirty residue by damp mopping with a clean bucket of Starloc Cleaner following instructions on bottle. Let floor dry, you will then see a light film residue, take low speed buffer and a White polishing pad and buff until the film is removed. Please Note: Do not use a buffer that is more than 300 RPM under any circumstances.

Stain Removal:

To remove stubborn spots or stains from STARLOC Luxury Vinyl floors, always begin with mild cleaners such as Starloc Cleaner. If this fails to remove stain, use mineral spirits. Do not use harsh solvents such as lacquer thinner, as these can permanently soften the vinyl surface. For extreme staining (paints, permanent markers, dyes) try applying fingernail polish remover containing acetone (not straight acetone) applied to a soft cloth and rubbing. Any damage resulting from use of pure solvents IS NOT covered by warranty. Always test stronger cleaning agents on sample pieces or in unnoticeable areas first.

Starloc Accessories Available thru our toll free # 1-877-827-5779 And Distribution

Starloc Adhesive: A liquid aggressive adhesive that when place on Starloc strip will leave a lasting re-enforced tight bond.

Starloc Floor Cleaner: A specially formulated concentrated cleaner that when mixed with water will remove dirt and grime plus remove light scratches.

Starloc Scratch remover: A 22 oz spray that will remove and conceal scratch on isolated planks or tiles.

Starloc Accessories Available Distribution only

Starloc Spine: A strip when apply will change an overlip to and underlip Starloc strip to change directions.

.