



General Preparations

IMPORTANT NOTICE

After installation, make sure that TUFFPLANK LPT RIGID CORE is not be exposed to temperatures less than 60°F (16°C) or greater than 80°F (27°C). It is preferable to lay boards following the direction of the main source of light. For the best result, make sure to always work from 2 to 3 cartons at a time, mixing the planks during the installation.

TOOLS REQUIRED

- Spacers
 - Rubber Mallet
 - Ruler
 - Pencil
 - Tape Measure
 - Utility Knife
- Prior to installation, inspect material in daylight for visible faults/damage. No claims on surface defects will be accepted after installation.
 - Check if subfloor/site conditions comply with the specifications described in these instructions. If you are not satisfied, do not install, and contact your supplier.
 - Flooring products can be damaged by rough handling before installation. Exercise care when handling and transporting these products. Store, transport and handle the flooring planks in a manner to prevent any damage. Store cartons flat, never on edge.
 - Flooring products can be heavy and bulky. Always use proper lifting techniques when handling these products. Whenever possible, make use of material handling equipment such as dollies or material carts. Never lift more than you can safely handle; get assistance.
 - Calculate the room surface prior to installation and plan an extra 5% of flooring for cutting waste.
 - The environment where TUFFPLANK LPT RIGID CORE is to be installed is critically important with regard to successful installation and continued performance of the flooring products. TUFFPLANK LPT RIGID CORE is intended to be installed in interior locations only. These interior locations must meet climatic and structural requirements as well.
 - Flooring should only be installed in temperature and humidity controlled environments. It is necessary to maintain a constant temperature before, during and after the installation. Portable heaters are not recommended as they may not heat the room and subfloor sufficiently. Kerosene heaters should never be used. Floor and ambient temperature must be between 60°F and 80°F.
 - Acclimation requirements: Concrete and other sub-floors temperatures can be very different from the ambient air

temperature. You will need to make sure both air and floor temperatures are within the acceptable range above. Maintain proper temperature before and after installation. The building's heating and air-conditioning system should be turned on at least one week before installation. Fully functioning HVAC with thermostats is required. Temporary heating and cooling do not sufficiently control temperature and humidity. Failure to follow these guidelines may result in an installation failure including but not limited to flooring expansion (creating peaks) or contraction (causing gaps).

- For floor surfaces exceeding 6400ft² (620m²) and/or lengths exceeding 80 lineal feet (25m), use expansion moldings.

IMPORTANT NOTICE

Flooring may be installed with a direct glue down method on approved wooden (or) concrete substrates that are on or above grade only. Use only premium pressure sensitive vinyl flooring adhesive. Please consult with adhesive manufacturer to determine if suitable for use with this material. For glue down method follow adhesive manufacture installation instructions.

Subfloor Information

- Inspect your subfloor before you begin, it must be clean, dry and level to 3/16" within 10 feet or 1/8" in 6 feet. Substrates must be free from excessive moisture or alkali. Remove dirt, paint, varnish, wax, oils, solvents, any foreign matter and contaminants.
- Do not use products containing petroleum, solvents or citrus oils to prepare substrates as they can cause staining and expansion of the new flooring.
- Although this floor is waterproof, it is not aimed to be used as a moisture barrier. The subfloor must be dry (max 2.5% moisture content CM method). This product is also not to be installed in areas that have a risk of flooding such as saunas or outdoor areas.

IMPORTANT NOTICE

Radiant Heat: Radiant heat systems must have a minimum of 1/2" separation from the product. Maximum operating temperature should never exceed 86°F (30°C). Use of an in floor temperature sensor is recommended to avoid overheating.

When employing the direct glue down installation method, DO NOT include a 6-mil polyfilm vapor barrier in the assembly. Flooring material must be adhered directly to the subfloor. Flooring should NEVER be glued to a polyfilm vapor barrier.

- Turn the heat off for 24 hours before, during and 24 hours after installation when installing over radiant heated subfloors.
- Failure to turn the heat off may result in significantly shortened



working time of the adhesive.

- Before installing over newly constructed radiant heat systems, operate the system at maximum capacity to force any residual moisture from the cementitious topping of the radiant heat system. The maximum moisture content of the cement mixture is 1.5% (CM method).
- Make sure that the temperature in the room is at least 60°F to 80°F during installation.
- Once the installation has been completed, the heating system should be turned on and increased gradually (5 degree increments) until returning to normal operating conditions.
- Refer to the radiant heat system's manufacturer recommendations for additional guidance.
- Failure to strictly follow adhesive manufacturer's guidelines may result in failure and void the warranty.

Warning: Electric heating mats that are not embedded into the subfloor are not recommended for use underneath TUFFPLANK LPT RIGID CORE floors. Using electric heating mats that are not embedded and applied directly underneath TUFFPLANK LPT RIGID CORE floors could void the warranty for your floor in case of failure. It is best to install TUFFPLANK LPT RIGID CORE flooring over embedded radiant floor heating systems and adhere to the guidelines listed above.

Wood Subfloors

- If this flooring is intended to be installed over an existing wooden floor, it is recommended to repair any loose boards or squeaks before you begin the installation.
- Nail or screw every 6" along joists to avoid squeaking.
- Basements and crawl spaces must be dry. Use of a 6 mil black polyethylene is required to cover 100% of the crawl space earth.
- We recommend laying on wooden floors crossways to the existing floorboards.
- All other subfloors Plywood, OSB, particleboard, chipboard, wafer board, etc. must be structurally sound and must be installed following their manufacturer's recommendations.

Concrete Subfloors

- Floors must be fully cured, at least 60 days old, smooth, permanently dry, clean, and free of all foreign material such as dust, wax, solvents, paint, grease, oils, and old adhesive residue. Curing agents and hardeners could cause bonding

failure and should not be used.

- Depressions, deep grooves, expansion joints and other subfloor imperfections must be filled with patching & leveling compound.
- Concrete substrates must be flat within 1/8 of an inch within a 6 foot radius, or 3/16 of an inch within a 10 foot radius. The substrate should not slope more than 1 inch per 6 feet in any direction.
- Moisture and alkalinity tests should be performed on all concrete substrates regardless of grade level or age of slab. Perform either ASTM F2170 In-Situ Relative Humidity (RH) test or ASTM F1869 Calcium Chloride Moisture Test (MVER: Moisture Vapor Emission Rating). Perform pH test per ASTM F710 to determine alkalinity of the slab.
- Moisture emission from subfloor cannot exceed 5 lbs. per 1,000 sq. ft. per 24 hours as measured with the calcium chloride test in accordance with ASTM F1869-04 or ASTM F2170 In-Situ Relative Humidity not to exceed 80%. If results are higher than referenced, then a minimum 6mil polyethylene plastic moisture barrier must be applied.
- The Limited Warranty does not cover discoloration from mold or from flooding, floods, leaking plumbing or appliances, water entering through sliding glass doorways, as well as floor covering failure due to hydrostatic pressure or moisture vapor emission

Existing Floors

- TUFFPLANK LPT RIGID CORE flooring can be installed over most existing hard surface floor coverings, provided that the existing floor surface is clean, flat, dry, securely fastened, and structurally sound.
- Existing sheet vinyl floors should not be heavily cushioned and not exceed more than one layer in thickness. Soft underlayment and soft substrates will diminish the products inherent strength in resisting indentations.
- Never use solvents or citrus adhesive removers to remove old adhesive residue. Solvent residue left in and on the subfloor may affect the new floor covering.

DO NOT INSTALL OVER

- Hardwood flooring / wood subfloors that lay directly on concrete or over dimensional lumber or plywood used over concrete.
- Any type of carpet.

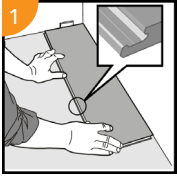


- Existing cushion backed vinyl flooring.
- Floating floor of any type, loose lay, and perimeter fastened sheet vinyl.

Installation

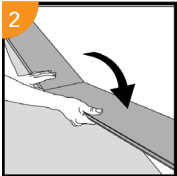
- Remove baseboard, quarter round moldings, wall base, appliances and furniture from room. For best results, door trim should be under cut to allow flooring to move freely without being pinched. After preparation work, sweep and vacuum the entire work area to remove all dust and debris.
- With a floating floor you must always ensure you leave a 1/4" (6mm) gap between walls and fixtures such as pipes and pillars, stairs, etc. These gaps will be covered with trim moldings after the floor is installed. Tip: When installing around pipes, drill the holes 1/2" (12mm) larger than the diameter of the pipes.
- Whenever possible, plan the layout so that the joints in the planks do not fall on top of joints or seams in the existing substrate. The end joints of the planks should be staggered a minimum of 8" (20.32 cm) apart. Do not install over expansion joints. Avoid installing pieces shorter than 12" (30 cm) at beginning or end of rows.
- Do not install your kitchen cabinets directly over your TUFFPLANK LPT RIGID CORE floor. TUFFPLANK LPT RIGID CORE quality can be guaranteed as long as the floor can move freely.
- Decide the installation direction. It is recommended to install the length direction of the planks parallel to the main light direction.
- Measure the area to be installed: The board width of the last row shall not be less than 2" (50mm). If so, adjust the width of the first row to be installed. In narrow hallways, it is recommended to install the floor parallel to the length of the hall.

General Installation Preparations



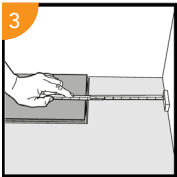
FIRST PLANK, FIRST ROW

Place a spacer with predicted thickness to the left and position the panel against the wall. Later, after 3 rows, you can easily position the flooring against the front wall with predicted spacers.

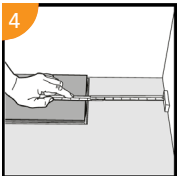


SECOND PLANK, FIRST ROW

Press the short end of the next plank at an angle to the first one, and then fold down. Complete the first row in the same way.

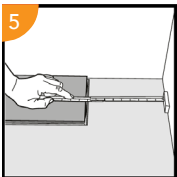


At the end of the first row, put a spacer to the wall and measure the length of the last panel to fit.

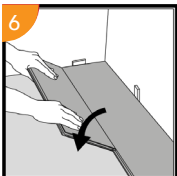


SECOND ROW

First panel min length > 400 mm. Put a spacer against the left wall.



Staggered joint distance i.e. minimum distance between short ends of panels in parallel rows shall not be less than the given length.

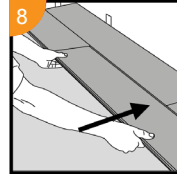


Place the plank and angle against the plank in the previous row, press forward and fold down at the same time. Leave the plank in a somewhat up angled position when the planks start to lock. To make this further easier, a wedge with the suitable angle can be placed under the plank near the short side joint as support.

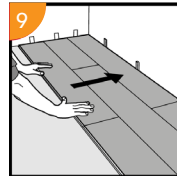


SECOND PLANK, SECOND ROW

Place the short end of the plank at an angle against the previous installed plank and fold down all the way.

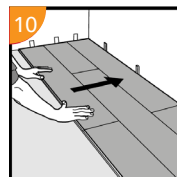


Push to slide the plank against the row in front so it aligns with the first plank. Put it down like the first plank positioned tightly together. The first/previous plank can now be folded completely down to horizontal position and if a wedge is used it can be moved to the next short end joint.



AFTER 2-3 ROWS

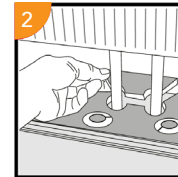
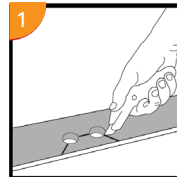
Adjust the distance to the front wall by placing distances. Keep the distances in position during the entire time of installation and remove once the installation is completed.



LAST ROW (AND PERHAPS ALSO FIRST ROW)

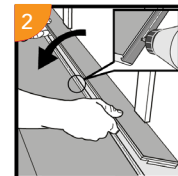
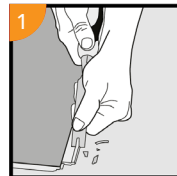
Minimum width 50 mm. Place a spacer to the wall before measuring. Make a simple drawing tool (piece of wood with a hole) and mark the panel along the wall. Cut the panels lengthwise including the flexible tongues.

INSTALLATION AROUND RADIATOR/HEATING PIPES



Drill holes two times larger than the diameter of the pipes. Remove a piece of the panel with a utility knife. Put the panel on one side of the pipes and the removed piece on the other side.

WHEN ANGLING IS NOT POSSIBLE



Remove the vertical locking part of the strip with a chisel, put applicable glue on the strip and push the panels horizontally together. Place some spacers between last board and the wall.

IMPORTANT NOTICE: If you notice both planks aren't at the same height or are not well locked together, please follow the disassembling instructions on the back page. Disassemble and check if any debris is stuck inside, obstructing the lock. Failure to properly line up the end joint and attempting to force it in while out of alignment could result in permanent damage to the end joint.

Finishing The Installation

Replace molding or wall base, allowing slight clearance between the molding and the planks. Nail the molding to the wall surface, not through the flooring. At doorways and at other areas where the flooring planks may meet other flooring surfaces, it is preferable to use a "T" molding, or similar, to cover the exposed edge but not pinch the planks. Leave a small gap between the planks and the adjoining surface.

Maintenance

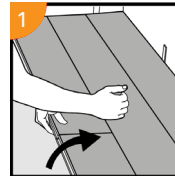
- Sweep or vacuum daily using soft bristle attachments.
- Clean up spills and excessive liquids immediately.
- Damp mop as needed and use cleaners recommended for vinyl flooring.
- Use proper floor protection devices such as felt protectors under furniture.
- Place a walk off mat at outside entrances to reduce the amount of dirt brought into your home. Do not use mats with a latex or rubber backing since these backings can cause permanent discoloration.
- Do not use abrasive cleaners, bleach or wax to maintain the floor.
- Do not drag or slide heavy objects across the floor.

Preventive Care

- When moving appliances or heavy furniture it is always wise to lay a plywood panel, or similar, on your floor and "walk" the item across it. This protects your floor from scuffing, gouging and tears.
- Frequently moved furniture should be equipped with felt pads to avoid scratching the floor. Heavy furniture and appliances should be equipped with non-staining large surface floor protectors. Furniture with castors or wheels must be easy swiveling, large surface non-staining and suitable for resilient floors. Do NOT use ball type castors as they can damage the floor.
- Caster wheeled chairs should have wide, rubber casters. Place protective mats under of office chairs.

- Use floor protectors under furniture to reduce indentation. As a general rule of thumb, the heavier the item, the wider the floor protector needed.

Dismantling Panels



Separate the whole row by carefully lifting up and release the whole row.

Fold up the row and release the whole long side.



Disassemble the panels by angling the short sides up vertically.

WARNING:

ON EXISTING RESILIENT FLOORING, BACKING, LINING FELT, ASPHALTIC "CUTBACK" ADHESIVES OR OTHER ADHESIVES; DO NOT SAND, DRY SWEEP, DRY SCRAPE, DRILL, SAW, BEAD BLAST OR MECHANICALLY CHIP OR PULVERIZE.

These products may contain either asbestos fibers and/or crystalline silica. Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard. Smoking by individuals exposed to asbestos fibers greatly increases the risk of serious bodily harm. Unless positively certain that the product is a non asbestos containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content and may govern the removal and disposal of material. See current edition of the Resilient Floor Covering Institute (RFCI) publication Recommended Work Practices for Removal of Resilient Floor Coverings for detailed information and instructions on removing all resilient covering structures. For current information go to www.rfci.com

Please read all the instructions before you begin the installation. Improper installation will void warranty.