# Installation Instructions for ToughLock<sup>™</sup> flooring products with I4F Licensed Locking system

Read entire installation instructions prior to beginning installation. Improper installation of the flooring or deficiencies related to site conditions may result in failure of the I4F Locking System and will void your warranty. Owner/installer assumes all responsibility for final inspection and acceptance of product prior to installation.

## 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 in any direction will require the use of a transition moldings.

1/4" expansion space is required at all walls and vertical obstructions (cabinets, doors, fireplaces, etc.). Door jambs or casings should be undercut to allow for required expansion space.

Expansion space will be covered with base or quarter round/ shoe moldings that are affixed to the wall. Never affix moldings to the floor.

While the flooring is resistant to water, it is not a moisture barrier. Moisture does not affect the integrity of the floor; however, mold/mildew growth can occur from prolonged exposure to moisture. 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. Wood subfloors should not exceed 12% with a pin meter and concrete no more then 80% using ASTM F2170.

Acclimate flooring for a minimum of 48 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 60-80°F with relative humidity range between 30-50%, before and during installation.

Substrate must be clean and free of dirt, debris, or contaminates; structurally sound; and level to within 3/16" over a 10-foot 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 regarding finish, color, texture and sheen. Do not install any piece of flooring that may be considered questionable in appearance or quality. Install assumes all responsibility for acceptance of flooring installed with visible or manufacturing defects.

Check cartons to ensure the item number and lot number are the same for all material to be installed. Work from 2-3 cartons at a time to insure the best representation of pattern, color and design.

# Tools needed:

Tape measure, pencil, chalk line, chircular or hand saw, miter saw, utility knife, rubber mallet, 1/4" expansion spacers.

## Acceptable Subfloors:

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

#### **Subfloor Preparation:**

Wood subfloors (plywood, particleboard, OSB) must be dry and structurally sound. Nail or screw loose subflooring every 6" along joists to secure. Level low spots with a Portland based leveling compound, and sand down any high areas to insure levelness of the substrate.

Concrete subfloors must be at least 60 days old and fully cured, with a minimum of 6-mil poly film between the ground and the concrete. Concrete should be dry, clean, and level to within 3/16" in a 10-foot radius. Level low spots with a Portland based leveling compound and grind high spots to ensure floor is level.

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

Ceramic tile and resilient flooring must be secure and well bonded to the subfloor. Grout lines should be filled with Portland based leveling compound. Do not install over perimeter glued resilient floor covering.

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 plans will be less then 2" wide, you will need to cut the first row of the planks in such a way that the first and last rows will have the same approximate width.

You should begin your installation starting 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 2 planks (or the standard width of the plank and the cut plank), plus 1/4'' for required expansion space. Expansion spacers should be placed along all walls, and at all vertical obstructions (walls, cabinets, fireplace, etc.), and remain in place until installation is completed.

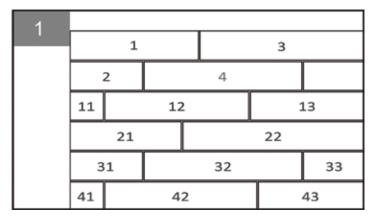


Figure 1: Planks should be staggered in a brick like pattern, with at least 8" (or 25% of the length of the plank) between end joint of adjacent planks. No plank less than 6" should be installed.

It is very important that the first two rows are installed properly. Installation will alternate back and forth between rows one and two, for the first two rows only. The first row of planks will be placed with the grooved edge facing outward into the room.



Figure 2: Begin by cutting plank 1 in half. Position the cut end of plank 1 against the wall in the left corner of the room.



Figure 3: Use a full length for Plank 2 which will be installed in the second row. Align plank 2 at an angle, onto the long side of plank 1 making sure there are no gaps. Drop plank 2 to lock in place.



Figure 4: Working from the wall, insert plank 3 into the long side of plank 2.

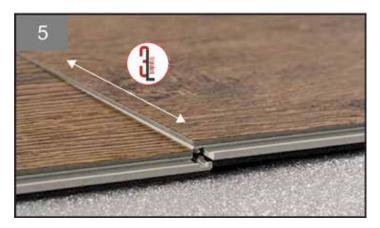


Figure 5: Slide plank 3 to your left until the short side is in contact with the short side of plank 1. Drop the short side of plank 3 onto the short side of plank 1 making sure that there is no gap between the short side of plank 1 and plank 3.



Figure 6: Using a rubber mallet, lightly tap the joint on the short side to engage the locking system.



Figure 7: Continue alternating planks on rows 1 and 2. Ensure planks are properly aligned along the chalk line and against the spacers. Finish rows 1 and 2 in this manner, cutting planks at the end of the row as necessary. Ensure that the end planks are a minimum of 6" in length. If necessary, adjust the length of the starter pieces to ensure minimum plank lengths for each row, with proper end joint stagger row to row.

Installation of all additional rows will start by angling a plank on the long side and sliding plank to the left until the short sides are in contact. Lock the short side as instructed for rows 1 and 2 using rubber mallet to engage locking system as shown in Figure 5.

When installing the last row, you may need to use a pull bar to lock the long side of the planks together.

Once installation is completed, remove spacers and cover expansion space and 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 ware 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. Use flat, polished metal glides with a minimum diameter of 1" (25mm) under chairs and stools. These should have a rounded edge and pivot to remain in flat contact with the floor. 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 casters at least 2" (50mm) in diameter, or floor protectors should be used on rolling furniture, such as office chairs.

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 an approved floor cleaner (or cleaner specifically formulated for use on resilient floor covering) in accordance with the manufacturer's instruction and allow to dry. Always remove excess water 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, cocofiber 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.
- Remove excess water from the floor.
- 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 wet floors are slipper and may present a slip/fall hazard.
- Protect against exposure to direct sunlight by using curtains, blinds or solar film to protect against thermal dimensional changes.



