

# Installation Instruction – Luxury Vinyl Tile (by Locking System)

**This is only a guideline for reference when installing products under the brand of SAHARA TILE by FERMA.**

## **A. General Information:**

- Luxury vinyl tile under the brand name of SAHARA TILE by FERMA is designed to be floated or glued for its installation. Floating means that it should never be nailed or glued to the sub-floor. Glue-less luxury vinyl tile is joined together by a specially designed mechanical locking system with no adhesive being required to join the planks. This installation instruction is specified for click luxury vinyl tile by locking system (glue-less luxury vinyl tile).
- Although click luxury vinyl tile is glue-less, it is better to store the unopened cartons for approximately 48 hours in the area where the tile will be installed. The flooring should be installed in climate-controlled, indoor locations between 68F-72F and relative humidity of 35% -55% year round.
- The jobsite should be cleaned and cleared of other trade apparatus that may damage an installation.
- All sub-floor or underlayment patching must be done before installation. Even though it is installed as a floating floor, correct preparation of the sub-floor is still a major part of a successful installation. It is required that sub-floor system is free of deflection. Sub-floor variations should not exceed 1/8" in 6' (3.18 mm in 1.8 m). All high spots must be sanded or ground smooth. Fill in low spots, cracks, and depressions. Roughness or unevenness of the sub-floor may telegraph through the new flooring, resulting in an unsightly surface and excessive wear on high spots.
- The installation of click luxury vinyl tile must be conducted after kitchen cabinet or counter is installed. No flooring should be installed underneath any kitchen cabinet or counter. Otherwise, it will be treated as improper installation.
- Click luxury vinyl tile could be installed over existing resilient floor coverings, wood flooring, and ceramic tile (grout joints must be leveled). Do not install the flooring over carpet. Remove all carpet before proceeding with installation and examine the sub-floor underneath. Make any repairs to the sub-floor if necessary prior to installation.
- Some types of nails, such as common steel nails, cement coated or some resin- or rosin-coated nails, may cause a discoloration of the flooring. Use only non-staining fasteners with underlayment panels. The procedure of gluing and

screwing underlayment panels is not recommended. Solvent-based construction adhesives are known to stain the flooring. All responsibility for discoloration problems caused by fastener staining or the use of construction adhesive rests with the underlayment installer.

- All sub-floors should be checked for excessive moisture, as to not promote mold or mildew conditions under installed product. Warranty does not include coverage for damage from mold, mildew, discoloring of product from excessive alkaline, flooding, and, or other excessive water issues. Moisture content of wood subfloor must be less than 14%. If the flooring is installed over concrete sub-floors directly, a calcium chloride test is needed. The maximum acceptable reading is 3.0 lbs/24 hours/1000 sq. ft.
- The flooring use is for indoor enclosed installations only, and it is not recommended, and has no warranty for outdoor use.
- If a single room is large and has a length of 45 feet and a width greater than 25 feet, an addition of a tee molding expansion joints will be required. Extra caution must be exercised when transitioning from a larger area to a smaller area. Be certain to maintain adequate expansion in the doorways by using T-moldings and/or undercutting the door frames.
- Never install click luxury vinyl tile in high humidity areas where the floor is usually wet (steam rooms, bathrooms, saunas).

#### **B. Wood Sub-floor Preparation:**

- All wood floor must be suspended at least 18" above the ground. Adequate cross-ventilation must be provided, and the ground surface of a crawl space must be covered with a suitable vapor barrier. Wood sub-floor directly on concrete or installed over sleeper construction are not satisfactory for the installation.
- All wood and wood composition panels are suitable for use under the flooring providing that they are smooth, flat, structurally sound and free of deflection, which include plywood, particleboard, oriented strand board (OSB), flake board, and wafer board. If the surface of the wood sub-floor is not smooth, a 1/4" underlayment panel should be installed over the sub-floor.

#### **C. Concrete Sub-floor Preparation:**

- Concrete sub-floor must be dry, smooth and free from dust, solvent, paint, wax, grease, oil, asphalt sealing compounds and other extraneous materials. The surface must be hard and dense, and free from powder or flaking. New concrete slabs must be thoroughly dry (at least six weeks) and completely cured.

- It is an installer's responsibility to determine whether the concrete is dry enough for installation.
- Holes, grooves, expansion joints and other depressions must be filled, and troweled smooth and feathered even with the surrounding surface.
- Concrete sub-floor with a radiant heating system is not satisfactory for installation.

#### **D. Installation over Existing Floor Coverings:**

The flooring could also be installed over most glued down or nailed down existing hard-surface floors, provided that the existing floor surface can be made smooth and solid. The flooring cannot be installed over any existing type floating floors.

#### **E. Installation:**

The luxury vinyl tile is designed to be installed as a floating floor. Do not secure the planks to the sub-floor. Always undercut all doorjambes. Use care when installing wall moldings and transition strips to not fasten through the flooring.

- It is important to balance the layout of the plank format. Proper planning and layout will prevent narrow plank widths at wall junctures. Determine layout to prevent having less than a half plank width or very short length pieces.
- As with all plank products, lay the long dimension of the plank parallel to the long dimension of the work area.
- Accurately measure the room to determine the centerline, adjust this established line to accommodate a balanced layout and then transpose this line to a comfortable width away from the starting wall (approximately 2' to 3' wide). Determine if the starter row will need to cut. If the first row of planks does not need to be trimmed in width, it will be necessary to cut off the unsupported tongue so that a clean, solid edge is toward the wall.
- Position the first plank so that both the head and side seam groove is exposed. This requires installing the product from left to right in the room.
- Install the second plank in the row by angling the end tongue into the end groove of the first plank. Be careful not to bend the corner of the plank. Maintain an expansion gap of approximately 5/16" from the wall. Then cut a plank to length to start the second row. Stagger the end seam at least 6" from the first plank.
- Install the first plank in the second row by inserting the long side tongue into the groove of the plank in the first row. This is best done with a low angle of the plank.
- Install the second plank in the second row by inserting the short end tongue into the previously installed plank groove. Align the plank so the long side into the

previously installed plank groove. Align the plank so the long side tongue tip is positioned just over the groove lip of the plank in the first row. Working from the end seam, at a low angle, insert the long tongue into the groove of the adjoining plank. Very little force is required to seat the tongue into the groove. You should feel the tongue lock into the groove.

- Work across the length of the room installing planks along the wall in the first row and then aligning the planks in the second row. It is critical to keep these two rows straight and square, as they are the foundation for the rest of the installation. Check square-ness and straightness often.
- Cut the last plank in the first row to fit approximately 5/16" short of the end wall. Planks may be cut with a utility knife using the "score and snap" technique. Oftentimes the remainder of this plank may be used to start the third row.
- Continue installing planks, being certain to maintain a random appearance and offset end seams by at least 6". Maintain a 5/16" expansion gap at all fixed vertical surfaces. Check to be certain all planks are fully engaged. If slight gapping is noticed, the gap can be tapped closed using a scrap of flooring and a tapping block.
- When fitting under door casings, etc, the flexibility and low angle of connection of the flooring becomes evident. If necessary, a flat pull bar or last board puller may be used to assist in locking the planks.
- When fitting around obstacles or into irregular spaces, the flooring could be cut easily and cleanly using a utility knife with a sharp blade. It is often good to make a cardboard template of the area and transfer this pattern to the plank.
- Protect all exposed edges of the flooring by installing wall molding and/or transition strips. Use caution to prevent the fasteners from securing the planks to the sub-floor.
- Protect the finished flooring installation from exposure to direct sunlight.

## **F. Repair:**

If a plank becomes damaged, it could be replaced.

- If the damaged plank is along the perimeter of the room, the easiest way is to disconnect the planks until the damaged plank is removed. Replace the plank and reassemble the planks.
- If it is impractical to disconnect and reassemble the plank, the following procedure should be used:
  - (a) Using a straight edge and a sharp utility knife, cut out and remove the center of the damaged plank, leaving approximately a 1" strip attached to the surrounding planks on all sides.
  - (b) Carefully cut back from the corners of the plank to the inside edge.

- (c) Remove the plank edges by wiggling the cut plank out from the tongue and groove of the surrounding planks.
- (d) Prepare the replacement plank by placing the plank face down and folding back and removing the groove strip on both the long and end profile. Using the decorative surface of the tongue end as a guide, cut away this overhanging profile using a sharp utility knife.
- (e) Position the replacement plank by engaging the tongue of the long side into the groove of the adjoining plank. Hinge the prepared replacement plank into position.
- (f) Use a hand roller to assist in aligning the plank edges into position.
- (g) Weight the replaced plank for at least 15 minutes until the sealer secures the planks.

### **G. Further Information:**

FERMA FLOORING is a member of National Wood Flooring Association (NWFA). For more technical information about the installation, please also refer to other associated instructions by NWFA which may be applied to installation of luxury vinyl flooring as follow:

<http://fermaflooring.com/wp-content/uploads/2017/01/NWFA-Installation-Guidelines.pdf>