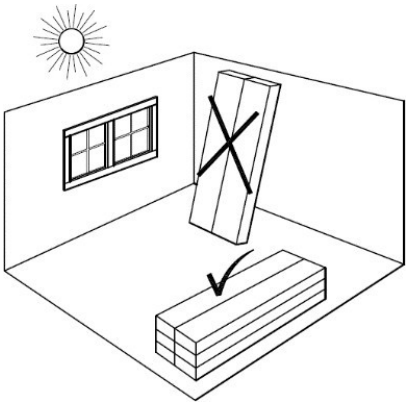
RIGIDFORM™ MLF SPC INSTALLATION RECOMMENDATIONS

All instructions and recommendations are based on the most recent information available. They should be followed for an ideal installation. Visit our website at www.millikenfloors.com.au for the latest information and installation instructions. Contact Milliken Technical support if there are any specific concerns prior to installation.

Milliken RigidForm™ MLF SPC is designed to be a "Floating Floor" installation, however proper preparation of the subfloor is still a major part of a successful installation. Roughness or unevenness of the subfloor may telegraph through the RigidForm™ MLF SPC flooring over time, resulting in an unsightly surface and cause excessive wear on high spots.

Handling and Acclimatisation



1. Store boxes flat, and neatly stacked. Do not store on end or sides or allow to bend during storage or transportation. For best results unbox and store as shown in the diagrams. (First check that the batch and product details are correct). MLF vinyl floors should not be exposed to direct sunlight for extended periods of time.

2. Acclimatisation when installing any resilient flooring in commercial spaces is considered an industry practice and is highly recommended. Temperature within the space where the product will be installed must be maintained consistent between 15°C to 27°C before, during and after installation. If cartons of flooring were exposed over 2 hours to extreme temperatures (under 10°C or over 37°C) within the 12 hours before the installation, acclimation is necessary. In this case keep the product in room temperature for at least 12 hours in unopened package before starting the installation.

3. Ensure the floor space will be permanently dry, clean, smooth, level, structurally sound, and free of all contaminants (e.g. dust, solvents, grease, chemicals, residual adhesive, adhesive removers, alkaline salts, mould, mildew etc.).

4. To prevent damage to the flooring, the installation should be after all other trades have completed their work. If required, use a reinforced fibre-based temporaryfloor protector product.

Floor Preparation and Installation

1. Subfloor preparation must comply with up to date and relevant Australian/New Zealand standards for screeds, bases and in-situ floorings e.g. NZS/AS 1884 and other applicable BCA Guidelines including max RH 85% (for concrete floors) as measured by the in-situ relative humidity probe test method (based on ASTM F2170). Please note that in-situ probe test method as per ASTM F2170 is the only acceptable test method for measuring humidity of concrete subfloor. The pH limit is 10.

2. All substrates must be smooth and flat as per NZS/AS 1884 standard to achieve required smoothness and flatness by mechanical grinding/sanding or by applying suitable non-shrinking, water-resistant Portland based level/patch compound.

3. The following are approved substrates for installation of Milliken RigidForm™ MLF SPC.

- Raised Access Floor: All panels to be level with no "rocking movement". When installing MLF SPC over raised access flooring, please ensure the following:

  i. Panels are firm, level, smooth, dry and clean.
  ii. Lipping of panels must not exceed 0.75mm.
  iii. Height difference between panels must not exceed 0.75mm.
  iv. Gaps between panels must not exceed 1mm.
  v. Overall floor to be level within +/- 1.6mm.

Milliken will not cover or accept responsibility for any joint telegraphing, either as a "ridge" or "valley".

- Wood Subfloors: should be standard double layer construction of 1" thick minimum with at least 18" well ventilated air space. Crawl spaces should be protected by vapor barrier.
- Concrete Subfloors: moisture and pH levels should not exceed 85% RH and pH 10.
- Cement Terrazzo, Epoxy terrazzo, ceramic & porcelain tile & marble. Fill and level low spots grout lines and other surface imperfections with Portland cement-based patching compounds.

4. Adhesive residues from previous installations must be completely removed by mechanical means only. Note: Solvents and other abrasive chemicals used to clean or remove subfloor contaminants can damage the backing.

5. Ensure that all boxes are of the same batch. Different lots should not be mixed in the same room as they may vary in colour, texture or gloss.

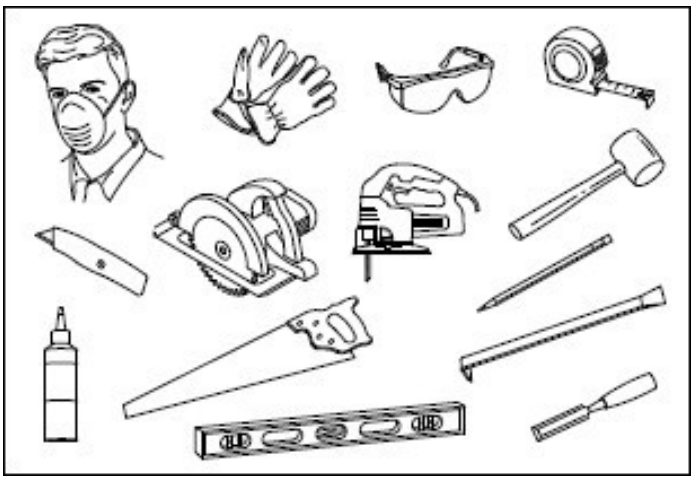
6. When installing RigidForm™ MLF SPC, minimize shade variation by mixing planks from different boxes throughout the installation.

7. For rooms greater than 225m^2 or runs longer than 15 meters control/expansion joints with a suitable T-Molding must be installed with a minimum of 6mm gap on each side of the T-Molding.

Layout and Cutting

Milliken planks simulate stone, wood or abstract designs and can be installed in the same pattern as a wood plank floor: Staggered Ashlar or Brick.

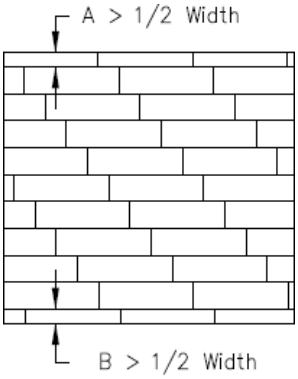
Standard flooring tools are useful for installation, including circular saw, reciprocating jigsaw or oscillating multi tool with fine tooth blade work well for cutting planks, etc.



1. Determine plank orientation to customer preference.

2. It is important to plan the layout of the plank format to prevent narrow pieces along all wall junctions.

3. Using calculated dimensions or dry layout, determine starting and finishing wall plank widths. Such that both are greater than at least 1/2 plank width. Trim starting plank row according to determined measurements.



4. It is beneficial to snap a chalk line near the first row to assure a straight installation.

5. Be sure to allow for 6mm (1/4") spacing along all walls when determining your starting plank width.

Installation

1. Determine if the starter row will need to be cut from the layout instructions above. It will be necessary to cut off the unsupported tongue on long side of edge against the wall so that a clean, solid edge is toward the wall.

2. If undulations in wall, scribe planks to match wall and cut with jig saw.

3. To protect joints when installing, recommend creating 6" tapping blocks by cutting off ends of 1 plank.

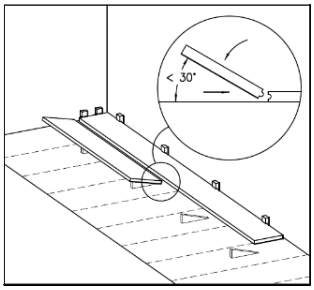
4. From the top, left corner of the room put the first plank in place so both the head and side seam grooves are exposed. Planks are to be installed from left to right.

5. Install the second piece in the first row by laying the short- end tongue onto the previously installed piece short-end groove. Hold second piece at a 15 to 25-degree angle and lower as you engage the locking mechanism. Use your thumb to ensure that the joints are vertically aligned, and one plank is not lying on top of or away from the other. This is critical to the joint locking properly.

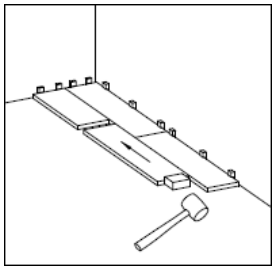
6. Fasten the piece together by firmly pressing down with your thumb along the seam to align the planks vertically. Use of a soft, white No. 2 rubber mallet and tapping block if necessary, to vertically engage the joint. Do not tap on plank directly without tapping block as this will damage locking mechanism.

7. Continue in this manner for the rest of the first row. The last piece in the row should be cut to length while maintaining the 6mm (1/4") expansion space along the perimeter of the room (recommend use of 6mm spacers).

8. Cut a piece in half of the length to start the second row. Install the first piece in the second row by inserting the long side tongue into the groove of the piece in the first row at a low angle (30°) to the installed piece. Then firmly lower the plank while maintaining a slight pressure towards the installed piece. The pieces should fit snugly together and lay flat.



Ensure that expansion space is kept along this wall by using spacers or blocks will damage the locking mechanism! Reinstall the piece. If necessary, use tapping block and hammer to assure locking mechanism is engaged.



9. To install the remaining planks in the second row, first align the long edge tongue into the groove of the previous row at a shallow angle. Slide the piece to the left until the piece meets the previously installed piece. Firmly lower the piece while maintaining a slight pressure towards the installed piece. The pieces should fit snugly together and lay flat. To engage the short edge joint place pre-cut tapping block into tongue and grove joint of exposed end (right side). Align joint on left side, slide plank to left by hitting tapping block placed in right end.

10. Work across the length of the room installing pieces in the second row. It is critical to keep these first two rows straight and square, as they are the "foundation" for the rest of the installation. Check for squareness and straightness often while installing the floor.

11. Use of several 6mm (1/4") spacer blocks along the first wall will ensure the proper spacing is achieved and that floor does not 'walk' back towards the wall during installation.

12. Alternate starting plank width for subsequent rows based upon desired pattern. For example, 1/4, 1/3, 1/2, random, etc. You want your cut pieces (next to wall) to be greater than 6 inches. Any new joint should be at least 12 inches from previous joints.

13. Continue installing flooring, being certain to maintain a random appearance (planks) or the pattern (tiles) and offset end seams by at least 6" and span joint greater than 24 Inches (at least 12 inches each side of joint). Maintain a 6mm (1/4") expansion gap at all fixed vertical surfaces. Check to be certain all planks are fully engaged; if slight gapping is noticed or the pieces will not lay flat, simply disengage the long/top side joint and then carefully slide the short/end joint apart. Do not pull up on this joint as it will damage the locking mechanism! Reinstall the price. If necessary, use tapping block and hammer to assure locking mechanism is engaged.

14. Being a floating floor that has the ability to naturally expand and contract wth exposed environmental conditions, the floating floor should not be locked down (pinched) by wall base board, portable walls, door thresholds or any interior structures mounted on or directly secured to or through the RigidForm™ MLF SPC flooring system.

15. The RigidForm floating floor should not be installed over structural expansion joints or construction joints.

After Installation

1. Be sure planks are set, flat and have tight edges.

2. In the event that the Milliken RigidForm™ MLF flooring is not the last portion of the construction project, the floor must be protected from construction traffic and damage. Utilize a reinforced fibre protective board or a commercially available flooring protector board or heavy kraft paper (min. 60lbs.) and cover the floor.

Initial Maintenance for Owner

1. Thoroughly clean the floor using a neutral pH cleaner. If necessary, a slow (175rpm) buffer can be used with a white, non-abrasive pad to remove heavier deposits.

2. Thoroughly damp mop the floor and allow to dry. Do not pour water on the floor.

Daily and Weekly Maintenance for Owner

1. Sweep, vacuum or dust mop the floor as needed to remove dust loose dirt and grit. In high traffic areas this may be a daily or twice daily procedure. Use only vacuums that do not have bristle beater bars or metal heads.

2. Clean liquid spills immediately to prevent the possibility of stains, slips or falls.

3. Damp mop the floor as needed to remove dirt and stains. Use a neutral pH cleaner and a red pad if needed to remove ground in dirt. Soft bristle brushes can also be used on flooring with embossed surfaces.

4. Use mats at all entry areas to keep dirt, sand and water away from the floor. Clean the mats on a regular basis. If mats are placed directly on top of the floor, be sure the mats have a non-staining back. Rubber mats are also not recommended over Milliken MLF flooring products.

5. Furniture shall have protective glides of at least 1" in diameter to minimize the chance of indentations or scratching to the surface of the floor. Do not use narrow chair glides! Felt pads are also excellent protection for the floor for furniture that will be frequently moved directly across the floor.

6. Areas with caster chairs must have protective mats under the chairs.

7. Do not move heavy furniture, appliances or fixtures directly across the floor. Use protective boards or appropriate furniture movers designed for use over hard surface flooring.

8. Protect the floor from direct sunlight by using appropriate window coverings.

9. Periodically clean caster wheels and check for wheels that may be broken or no longer rotating. Replace damaged wheels immediately.

10. Avoid use of metal or razor scrapers to remove dirt, residues or other marks from flooring. This will damage the protective wear layer of the vinyl flooring.

Damaged Plank Replacement

1. Identify damaged plank to be removed.

2. Markup damaged plank to be removed (draw rectangle within body of plank).

   - Mark 2 parallel lines along centre of plank approximately 50mm apart.
   - Ending approximately 64 from each end.
   - Mark two 45-degree angles at each end from the plank corner to the rectangle corner.

3. Set circular saw blade to plank depth (use regular or compact circular saw with plastic non-melt 80T blade).
   - Cut along mark-up lines carful to not cut into adjoining planks.

4. Fine cut in corners with razor blade or small cutting tool (oscillating multi tool).
   - Cut along markup lines carful to not cut into adjoining planks.

5. Lift out center cut plank section using small pry bar.
   - Be careful to not damage the tongue and groove sides as you lift out long side pieces.

6. Lift / slide out end sections and remaining side pieces.
   - Be careful to not damage the tongue and groove sides.

7. Thoroughly clean/vacuum the area to remove any loose debris.

8. Prepare new plank by removing the following:
   - Tongue profile on leading edge of long side.
   - Set table saw depth to top of tongue.
   - Tongue profile on short end – use sharp razor knife and straight edge.
   - Bottom grove on short end – cut at an angle with sharp razor knife and straight edge.
   - Be careful not to cut into the decorative surface.

9. Place wax paper under all edges to prevent adhesive bonding to the floor.

10. Dry fit plank by inserting long side tongue into existing groove.

11. Lift plank – place bead of glue (e.g. Loctite Power Grab – clear) around three cut edges, insert plank.

12. Remove excess glue with clean cloth and mild detergent.

13. Roll plank edges with hand roller.

14. Remove excess glue with clean cloth and mild detergent. Note, if allowed to dry on surface, the adhesive film is not removable.

15. Place weight on inserted plank edges for 1-2 hour minimum.

16. Avoid traffic for 12 hrs.