## TECHNICAL SERVICE

# Vinyl Composition Floor Tile Installation and Maintenance Instructions 

## PRIOR TO INSTALLATION

- Carefully check flooring material for any defects. Contact your supplier immediately if any defect is found.
- To insure the best color match when installing from two or more cartons, make sure the run numbers on each carton of tile are the same.
- Allow flooring and adhesive to acclimate to room temperature for 48 hours before, during and after installation. Room temperature shall be no less than $65^{\circ} \mathrm{F}$.
- Remove quarter round, baseboard molding or cove base.


## WOOD SUBSTRATES

Suspended wood substrates shall be $1^{\prime \prime}$ or thicker, double-construction, strongly constructed, free from spring/deflection and have minimum of $18^{\prime \prime}$ of well-ventilated air space clearance above the ground. A moisture vapor retarder ( 10 mil or thicker polyethylene sheeting) should be installed over the ground with overlapped widths and lengths, to reduce moisture vapor transmission. Top layer of plywood shall be $1 / 4$ " minimum thickness underlayment grade plywood. Tarkett recommended underlayments include the following:

- APA Underlayment Grade Plywood A-C, B-C or C-C Plugged.
- ACCU-PLY
- SurePly
- TECPLY
- ULAY
- C.S.A. (CanPly)
- Proboard


## CONCRETE SUBSTRATES

Flooring may be installed over on grade, above grade or below grade concrete subfloors. Concrete floors shall be constructed in accordance with the American Concrete Institute (ACI) 302.1 Guide for Concrete Floor and Slab Construction. Concrete shall be finished and cured according to ACl and have a minimum compressive strength of 3500 psi. Floors must be free of any sealers, curing, hardening or parting compounds that would adversely affect the adhesive. Installation of moisture vapor barrier is recommended prior to the pouring of on or below grade slabs. Moisture vapor transmission shall not exceed $5 \mathrm{lbs} . / 1000$ sq.ft./24 hours per ASTM F-1869 (Anhydrous Calcium Chloride Test). Moisture may also be tested according to ASTM F 2170 (Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes). When tested according to this method, the internal relative humidity shall not exceed $80 \%$. Do not install over gypsum based underlayments.

## EXISTING FLOORS

Flooring may be installed over a properly prepared, single layer, non-cushioned existing resilient flooring (residential applications only). Check flooring for any curled areas around the perimeter or at seams and repair if necessary. Use of a good quality cementitious based embossing leveler to fill and level any irregularities. Do not install tile over existing tile that is installed below grade.

WARNING: Do not sand, dry sweep, dry scrape, drill, saw, beadblast or mechanically chip or pulverize existing resilient flooring, backing, lining felt or asphaltic "cutback" adhesive. These products may contain asbestos fibers 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.

## SUBSTRATE PREPARATION

- All substrates must be dry, clean, smooth and level.
- Any materials present such as paint, wax, grease, oil, adhesive residues, crayon, pen markings, etc. that may prevent a proper bond, must be removed.
- Fill and level all plywood seams, cracks in concrete, construction joints, control joints, depressions, grooves or other irregularities. Use a cementitious based patching compound.
- Sweep and/or vacuum substrate to remove all dirt and debris.


## SQUARE LAYOUT

To square the area to be covered, first find the center of one end of the main rectangle. Locate the same point at the other end wall. Snap a chalk line between these points. Measure this center line to find the middle of the room and mark. A right angle must be established off this center mark. Use one of the following methods to establish a right angle.

## Method 1

At the center point, mark off a line across the room at exactly right angles to the first line. This may be accomplished by the 3-4-5 triangle method (Figure 1).

- Measure 4 feet out on the chalk line towards each side wall from the center point and mark chalk line.
- Using a carpenters square and a straight edge, establish a right angle on both sides of the chalk line 3 feet out from the center point of the chalk line and mark substrate
- Measure the distance between the 3 foot mark and the 4 foot mark. This measurement should be exactly 5 feet. If the 5 foot measurement is not exactly 5 feet, the center crossing line is not at a true right angle and must be adjusted to achieve a right angle. For larger rooms, multiples of 6-8-10 or 9-12-15 may be used to obtain greater accuracy.



## Method 2

- Measure 4 feet out on the chalk line towards each side wall from the center point and mark chalk line.
- At each 4 foot mark, swing a 5 foot line and mark an arc on the floor approximately 3 feet out from the center point of the first line. Where the arcs intersect is the right angle to the first line.
- Repeat the process on the opposite side of the first line.
- Snap a chalk line between both intersecting points to achieve a right angle.

After room has been squared, determine the width of the border tile/planks. Generally, the width of the border tile/planks should be at least one half the size of a tile/full plank. This can be done simply by measuring across the room full tile/planks. It will be necessary to adjust the starting line to achieve equal sized border tile/planks. Make sure to snap a new guide line.

Once guideline has been finalized, place a straight edge over the chalk line and pencil the line.

## DIAGONAL LAYOUT

Square the area to be covered and mark center lines as outlined for Square Layout. It is then necessary to snap diagonal lines on the floor through the center point which are at a 450 angle to the center lines (Figure 5).

- From the intersection of the two center lines, measure equal distances in all four directions along the center lines.
- Mark an arc at right angles on both sides of each mark. Be sure to use a radius greater than the distance between the center point and each mark. Where the arcs intersect is a $45^{\circ}$ angle to each line.
- Snap a chalk line between both intersecting points and the center point of the room to achieve a $45^{\circ}$ angle.


To determine border tile size, lay loose tiles from the center point to the wall (Figure 6). If two or more colors are used, the borderline should be established so that the field will end with half tile of the same color on all sides of the room. The half tile touching the border should be of a color contrasting to that of the border for the best appearance.

To increase or decrease the width of the border or to change the color of the half tile, start at the center line with the opposite color. If this does not produce a satisfactory border size, move the guide lines over half the width of a tile from the established line.

## Once all guidelines have been finalized, place a straight edge over the chalk lines and pencil the lines.

## ADHESIVE APPLICATION

Apply the recommended adhesive over one half the area. Use Lowe's in-stock vinyl composition floor tile adhesive. Apply adhesive according to manufacturer's recommendations.

Note: All warranties and guarantees for adhesive and adhesive performance are the responsibility of the adhesive manufacturer, not Tarkett.

## INSTALLING TILE

Begin laying the tile from the right angle formed in the center of the room by the intersecting lines. Lay the first few tiles perfectly on the guidelines as this will affect the entire installation. Lay tile toward the two corners of the room laying the field area first. Install tile in a stair step (pyramid) fashion, placing the tile firmly into the adhesive.


Complete the first half of the room laying all full tiles first. It may be necessary at times to compromise on the alignment of the joints to make allowances for unevenness of the subfloor. Take care to place tiles as accurately as possible without sliding them into place. Always work ahead of yourself from the finished floor, using care not to shift the tile you are kneeling on. Roll tile with a 100 lb . sectional floor roller.

After laying field tile in the first half of the room, apply adhesive over the second half and complete installation as described above.

## INSTALLING BORDER TILE

If moldings are to be installed, border tile can be fit by measuring the distance between the wall and the last full tile installed. Using a full tile, mark or score the surface with a sharp utility knife, then snap off the section along the scored line. Place the tile firmly into the adhesive.

Border tiles may also be fit by placing a loose tile over the last full tile in the row. Place another full tile over the loose tile and butt it against the wall. Use this tile as a marking tile and score or mark the bottom tile. Cut or score along the mark. Place the tile firmly into the adhesive.


Fitting tile around door moldings, pipes or irregular shaped walls can be done by direct scribing. Whenever possible, undercut door molding the thickness of the tile. Heat the back of the tile and cut along the scribe or pencil mark on the pattern side of tile.

## FINISHING

- Do not allow foot traffic for at least 24 hours after installation.
- Do not allow rolling loads for at least 72 hours after installation.
- Use plywood to cover the top of the flooring when moving heavy furniture or appliances into position.
- Use proper floor protectors under the legs of furniture.
- Maintain post installation temperature between $55^{\circ} \mathrm{F}$ and $100^{\circ} \mathrm{F}$. Maintain relative humidity between $40 \%$ and $70 \%$.


## CARE AND MAINTENANCE

- Do not wash floor for at least 72 hours after installation.
- Remove any dried adhesive with a clean, white cloth dampened with mineral spirits (use caution when handling flammable solvents).
- Place walk off mats at all entryways. This will help dirt from being tracked onto the floor and extend the life of the floor.
- Sweep or vacuum floor to remove to remove any loose dirt and debris.
- Damp mop floor with a neutral floor cleaner. For commercial applications, a 175 rpm rotary scrubbing machine equipped with a blue scrubbing pad is acceptable.
- Thoroughly rinse floor with clean water and allow to dry.
- Apply 3-5 coats of a good quality floor finish. Apply and maintain floor finish according to manufacturer's recommendations.

