INSTALLATION OF POLYFLOR VCT TILES

On receipt of tiles, check that colours correspond to those ordered, that quantities are correct and there is not damage. In particular, check that tiles are from one batch, if this was requested on the order. For Design Floors, identify and check each element before work proceeds.

Substrate Moisture

Australian standard AS1884-2012 Floor coverings—Resilient sheet and tiles—Installation practices **3.1.1.2** states *Dryness. Before subfloor preparation is performed and a floor covering laid on a concrete subfloor the dryness of the concrete shall be determined as described in Appendix A* ***APPENDIX A A3.1.2 Relative humidity in-situ probe test****. Concrete subfloors shall be considered dry when measurements taken in accordance with ASTMF2170 do not exceed 75% relative humidity*. If Desi-Proof is applied to the concrete substrate refer to ***APPENDIX A A3.1.3 Relative humidity surface mounted insulated hood test*** *Concrete subfloors shall be considered sufficiently dry when measurements taken in accordance ASTM2420 do not exceed 70% relative humidity*.

When the RH readings of a concrete substrate exceed AS 1884-2012, Polyflor Australia recommends **Protect Crete Moisture fix,** it is a single pack ready to use (no mixing) deeply penetrating, safe, odourless easy to apply (simply pour & spread) liquid that allows early site access (foot traffic in one hour) and in most cases ready to accept floor prep and coverings in 24 hours. It is recommended that the floor surface be mechanically prepared by diamond grinding, to open up the surface of the concrete to the point where when the surface has water applied to it of 75mm diameter the water starts to penetrate the surface within 90 seconds. Manufacturer's installations recommendations must be followed. The surface must be sanded thoroughly sanded after a minimum 24 hours to remove any purged contaminant.

Substrate PH

When the concrete substrate PH level exceeds AS 1884-2012, it is recommended the installation of **Kiesel Okapox GF** is to be applied, once dry primed undiluted with **Kiesel EG20** and the application of **KieselP200 plus** or **Kiesel FS101**.

Substrate Preparation

Firstly the substrate needs to comply with Australian standard AS1884-2012 Floor coverings—Resilient sheet and tiles—Installation practices in particular clause **3.1.1.4** *Surface. (a) Planeness. When a straightedge 2000 mm long is placed at rest at two points 2000mm apart on the surface, no part of the surface shall be more than 4mm below the straightedge. (b) Smoothness. When a straightedge 150 mm long is placed on the surface at any position at rest at two points on the surface, no part of the surface shall be more than 1 mm below the straightedge.*
NOTE: Where a subfloor is so rough or uneven that it is unsuitable for the direct application of the floor covering, corrective action should be taken (e.g. steel-trowelled underlay), as agreed between the purchaser and the floor laying contractor. (c) Cleaning. Before laying operations begin, materials such as grease, oil, paint, existing floor coverings, curing or parting agents, or any surface treatment which could adversely affect adhesion shall be removed from the subfloors

The concrete surface should be a steel trowel finish but <u>not</u> a burnished finish. Over working using power floaters and alike on the surface will create a non porous finish that will require costly diamond grinding process to remove it. The surface should be one of open porosity that allows surface penetration of primers and adhesives.

In recent times excessive surface contaminates such as “mark out paints” have been causing de-lamination and migration issues with vinyl installations. Every effort should be taken to ensure non-solvent based marks out paints are used These types of contaminates including curing membranes, plaster, paint and general construction residues should be mechanically removed from the surface via diamond grinding, shot blasting etc to ensure the surface is a clean open porous substrate. Following this the substrate should be thoroughly vacuumed to remove any dust, dirt and loose materials.
It is recommended that a minimum of 3mm of Kiesel levelling compound is allowed for to ensure compliance with the above standard. This will also ensure the optimum warranty period of Polyflor products being installed to the substrate.

Note: We can not stress enough importance for correct substrate preparation as this provides the key for the entire installation.

Site Conditions

One of the most important parts of a successful installation is providing suitable site conditions for the installation of products. AS1884 – 2012 clause **4.1.2 Air-conditioned areas** states. W*here air conditioning is installed, no underlay or floor covering shall be laid on the subfloor until the conditioning units have been in operation at expected operating temperature and humidity for at least seven days. During this period the temperature and humidity shall not be allowed to fall outside the recommended limits of the manufacturer of the floor covering. These conditions shall be maintained during laying and for 48 h thereafter.*
NOTE: Without such temperature control at this stage, subsequent failure of the subfloor, underlay or underlayment and floor covering may occur

Concrete subfloors with under floor heating must be installed as per AS 1884-2012 4.1.3

We can not stress enough the importance of providing simulated site conditions of what the buildings operating temperatures will be once operational. We can not guarantee or warrant any issues that may arise as a result of our products being installed outside of these conditions.

Adhesives
As per AS 1884-2012 5.1.3 Polyflor recommend the adhesive shall be of a type appropriate to the product being installed. The resilient floor covering manufacturer's recommendations should be followed so that the floor covering adheres permanently to the underlay or subfloor under the conditions of service for which the floor was designed. The floor covering shall be laid and rolled down in the manner recommended by the manufacturer.

Polyflor Australia only recommends the use of Kiesel Star 150 a pressure sensitive adhesive that is only to be used with VCT. It has the advantage of very long open times, but because they are laid into dry, have the disadvantage that the adhesive ridges are not flattened when the vinyl is rolled, and may show through the tile. To eliminate this disadvantage, Polyflor recommends the use of a 10mm nap roller to be passed over the adhesive once it is applied to the floor using a V1 trowel.

INSTALLATION OF TILES TO A LARGE AREA

Maintaining a clearly defined straight line over long distances can be difficult and often leads to inaccuracies. To eliminate this problem, an alternative technique is used when laying tiles in large areas.

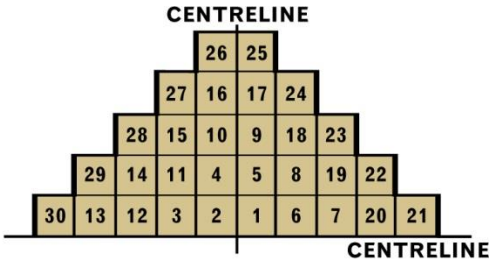

Figure 1 Pyramid layout

A

Establish the central starting point as described previously, minimising small cuts on perimeter tiles.

B

Lay the first pyramid of tiles from the centre lines, using the sequence shown. Ensure a close bond is maintained at all times.

C

Repeat this sequence on the opposite side of the centre line.

D

Continue working in larger and larger pyramids until only the perimeter tiles require fitting.

E

Fit perimeter tiles as described earlier.

Construction of a pyramid should always start at the centre of the baseline, working in the same sequence as shown above (Figure 1).

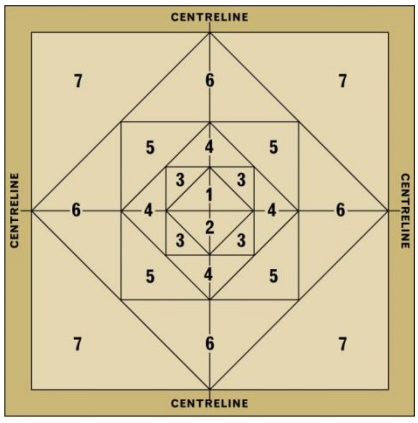

Figure 2 Floor layout

Once the start point has been established, depending on the size of the area, it may be necessary to section off the area so that the adhesive can be applied to areas that can be laid within the open time. When sectioning off for adhesive application, parallel lines should be marked and adhesive spread within them. This will ensure that only the amount of adhesive is applied that can be laid within the open time.

When a section has been laid, except for the perimeter, it should be thoroughly rolled in both directions with a 68kg articulated floor roller. Repeat for each section until the main field of tiles has been laid.

It is advantageous to leave the last full tile and the cut at the perimeter without adhesive until all tiles have been cut to size.

Spread the adhesive to the manufacturers recommendations. Trowels should be checked regularly to ensure the correct notch size is maintained throughout the installation. If the notch shows signs of wear it should be renewed immediately

PLEASE NOTE:

Contractors are to ensure that the bond line of any tiles does not step out any more than 2mm per meter of length in any direction. If the bond of the tiles begins to step out it will cause misalignment of edges and windows in the corners of the tiles, It will also appear to make the tiles seem out of square.

If this occurs a “cut back” or realignment of tiles is required to ensure the bond of the tiles remains square to the centre line.

CUTTING THE PERIMETER TILES (STRAIGHT CUT)

To avoid run out of the bond, cutting of perimeter tiles should start at the centre of the wall and work out towards corners.

The choice of technique used for cutting perimeter tiles is largely dependent upon the straightness of the wall.

Overlapping Method

Used when there is little or no run out of the abutting wall.

A

Place the tile to be cut exactly over the last tile laid, ensuring the colour is correct and the decoration runs the correct way.

B

Place another full tile on top of the tile to be cut with its “top edge” against the wall or set-in coved skirting (Figure 1).

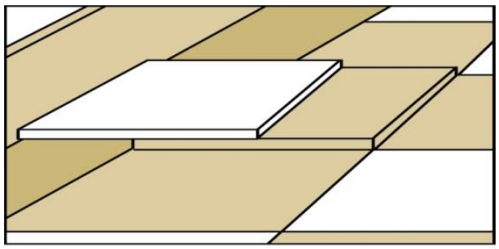

Figure 1 Measuring using a overlapping tile

C

Scribe a line onto the tile to be cut, using the “bottom edge” of the top tile as a guide.

D

Cut the tile to the scribed line, loose lay into position and check the fit. Repeat along the whole wall.

Scriber Method

Used when the wall run out is quite severe or when the wall profile cannot be picked up using a straight edge.

A

Place the tile to be cut exactly over the last tile laid, ensuring the colour is correct and the decoration runs the correct way.

B

Set the bar scriber to the size of tile being laid.

C

Trace the profile of the wall onto the tile to be cut, ensuring the bar scriber is kept flat to the floor and square to the edge of the tile (Figure 2).

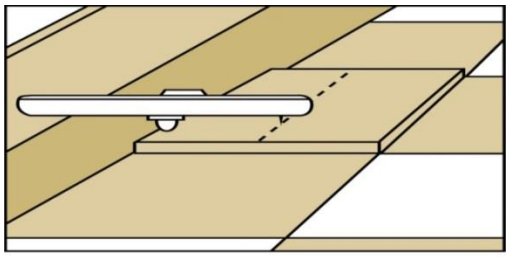

Figure 2 Scribing a line

D

Cut the tile to the scribed line, loose lay into position and check the fit. Repeat along the whole wall.

Vinyl Composite Tiles - Floorcare

This information is intended as a guide to all parties involved in the cleaning and maintenance of Polyflor vinyl floorcovering. This information will not replace the skills of a trained experienced professional cleaning contractor and Polyflor always recommends the use of reputable cleaning contractors, whose experience will prove invaluable in maintaining not only the appearance of Polyflor floorcoverings but also in extending it's useful life.

Selecting a cleaning contractor solely on price can lead to a reduction of not only the general appearance of the floorcovering, but also increase the potential hazard risk due to poor maintenance practices. A successful maintenance programme not only depends on the skills of the cleaning contractor but also on the formulation and implementation of a planned cleaning and maintenance regimen prior to installation. Consultation between all parties concerned will eliminate problems and will ensure that the floorcovering is not only aesthetically pleasing but also reduces the potential hazards associated with a contaminated floor.

1. The VC Tile will need to be protected immediately after installation **and before the store fit out program starts, as this is the period when significant irreparable damage can be done to the tile.** This program should be included in the builders contract and designed using the same compatible floor finish to be used after formal store take over, and should comprise:

    - Strip and clean the surface of site contamination.
    - Apply two semi permanent base coats of sealer and 4/5 coats of polish applied as directed by the manufacturer.
    - Review condition of the floor after 10 days and apply further coats as required to ensure adequate protection of the tile.