

HARVEY MARIA DRY-BACK LUXURY VINYL TILE (LVT) INSTALLATION INSTRUCTIONS

Introduction

Harvey Maria luxury vinyl tile (LVT) flooring provides an attractive designed floor in a premium grade durable material, suitable for both residential and commercial use. The installation advice provided in these instructions is in line with the advice and guidance for the installation of most luxury vinyl tile (LVT) dry-back flooring.

For successful installation and the optimum long term performance of the floor covering it is essential to read this document in its entirety prior to commencing fitting. As with all LVT flooring, one of the keys to successful installation is the correct preparation of the base (known as the 'subfloor') onto which the tiles are to be laid, covered in sections 1 thru 9 below.

Take note when fitting that the unique nature of many Harvey Maria designs, in particular plain color tiles and designs with white borders, require more care and attention than standard wood, stone or concrete LVT designs, so be sure to take extra care when preparing the flooring (e.g. note the importance of acclimation) and throughout the fitting process (see sections 10 thru 13).

Subfloor Preparation

Suitable subfloors include plywood and screeded (smoothed) solid (concrete) floors. Plywood subfloors may also benefit from a smoothing compound especially over joints. Prior inspection and preparation of the areas is vital to the performance of the product. Main points to consider during the inspection:

1. The flatness of the subfloor.

It is important to prepare a completely flat, clean subfloor. Any unevenness will show through the tiles and spoil the overall appearance particularly where low light strikes across the floor so be sure to sweep the floor of any loose debris, remove any protruding nails and sand down any protrusions. Any isolated ridges, dips or undulations should be smoothed out using an appropriate smoothing compound. Always consult the smoothing compound manufacturer for a specification.

2. Cracks in the sub-floor.

There are many reasons for cracks including stress and settlement. All cracks must be attended to prior to applying a smoothing compound and they must be investigated to ensure the movement has not fractured the membrane under the screed. Just filling the cracks could lead to longer term problems with the floorcovering. If in doubt seek professional advice.

3. Dry subfloors.

All subfloors solid (smoothed) or plywood need to be dry. The maximum level of relative humidity in the screed is 75%. There are many manufacturers of moisture testing equipment whose instruments can be used to identify areas for further testing with a hygrometer. The duration of the test will depend on the substrate. Sand and cement will normally require 2 to 3 days whereas power floated which will require at least 7 days. Never test floors with underfloor heating artificial drying aids (de-humidifiers) switched on. Switch off for at least 4 days prior to setting the hygrometer and they should remain off during the test period.

As a guide a new sand and cement substrate will dry at a rate of 1mm per day for the first 75mm and 0.5mm per day up to 100mm. Thickness greater than 100mm can take considerably longer (150mm up to and over 1 year) given ideal drying conditions. Anhydrite screeds dry at a similar rate providing the surface laitance has been sanded off to allow evaporation or treat as power floated.

Some types of subfloor can be coated with a liquid damp proof membrane to prevent excess moisture affecting the floorcovering. Always consult the DPM manufacturer for suitability.

Plywood subfloor moisture also needs to be checked. This can be done using the equipment described above with spike attachment. These work by pressing the spikes into the plywood with the spikes (2) in line with the grain. The maximum moisture level is 15% although ideally 13% should be considered. Moisture levels above 17% need to be investigated. High levels could be caused by poor ventilation under the suspended subfloor.

4. Contaminated sub-floor for example, oil, wax, varnish, adhesive, paint etc.

All contamination should be removed prior to application of damp proof membranes, smoothing compounds and adhesive. Some preparation manufacturers have products that will adhere to small amounts of adhesive residues but please check with them for suitability. Oil is a serious problem that may require the removal of the screed or to use an isolating floating membrane.

5. Building expansion join(s)

Expansion joins are required to be left clear and should be bridged over with a suitable cover strip. These can affect the aesthetics of the floorcovering but with prior consideration they can be designed into the floorcovering.

6. Stable temperature and humidity within acceptable limits.

A stable atmosphere prevents stress to the floorcovering. An ideal atmosphere is ambient temperature between 16°C (61°F) to 22°C (72°F) and relative humidity maximum 70%. Quick and large changes of temperature should be avoided as this will negatively affect the tiles and adhesive.

The subfloor temperature is also important and should be at a minimum 15°C (59°F) maximum 27°C (81°F).

When fitting in sunlit areas, use blinds and/or sun-shading and appropriate ventilation to reduce excessive temperature which may temporarily expand the tile and result in gapping once the tiles cool and contract and/or may adversely accelerate adhesive drying time.

Note that in areas with long term exposure to strong sunlight, blinds and/or sun-shading should be used to avoid risk of fading/ damage to the floor.

7. Underfloor heating suitability.

The tiles can be installed over underfloor heating providing the sub-floor surface is controlled to a maximum of 27°C (81°F). The heating system should be switched off for 48 hours before and after installation of the flooring, and then brought up slowly to full operating temperature over the following 7 days. The temperature should then only be increased by a maximum of 3°C (5°F) each 12 hours. It is suggested that the sub-floor surface temperature is set at a minimum 15°C (59°F) maximum 27°C (81°F).

8. Structurally sound subfloor i.e. minimal vertical movement and firm screed.

Excess vertical movement can cause stress to the floorcovering. Measuring this is not easy but as a guide, place a straight edge across the floor and walk next to the straight edge. If the subfloor dips by more than 10mm (0.4") you should consider strengthening. Also if you walk with one foot either side of a joint in the subfloor and the joints move independently this will transmit through to the floorcovering. In this instance and with most wood subfloor it is recommended to overlay with plywood of at least ¼" thickness and should be laid at right angles to the run of the board long joints. If in doubt seek expert advice.

Laitance can be present on new screeds particularly anhydrite screeds and should be removed by sanding or grinding. The strength of the surface can also be a problem to the effectiveness of the adhesive bond. To check for laitance or friable surface of a screed, scratch the surface with a hard sharp object such as a nail or similar (a "tear" device guarantees a constant pressure when scratching the screed). Scratch two lines approximately ½" apart horizontally and vertically crossing each other. The appearance of the edges (for example, jagged or clean) provides a hint about the surface firmness of the screed as does the delamination of the surface between the lines. Be careful with anhydrite screeds as laitance can form to a hard finish if not sanded within two weeks of laying the screed. This surface may appear firm but may delaminate with time and usage.

9. Below ground level areas.

Ensure these areas are suitably ventilated to prevent a buildup of humidity and to reduce the risk of condensation. Moisture can penetrate the walls as well as the sub-floor and could affect the adhesive bond. Always check the moisture level using a suitable instrument or seek expert help.

Installation

10. Setting out / laying plan.

For optimum appearance measure and strike a line down the middle of the width of the area and another line at right angles across the first line at the middle of the length. These lines can be used to set out the tiles.

Dry lay a row of tiles in both directions using the lines. If the appearance at each wall and entrances looks acceptable use the lines to start your installation. If however the appearance such as small cuts against the wall are present try moving the tiles off the line by half a tile which may give a better appearance.

In odd shaped rooms and when creating borders and feature areas, take extra care to choose an optimal starting position to ensure the best overall look, especially around the edges of the room. Always consult with the customer prior to wet laying to give them the opportunity to make the final decision. Record any decisions for future reference.

Some tiles are directional and will normally have an arrow on the back to indicate the required direction of lay.

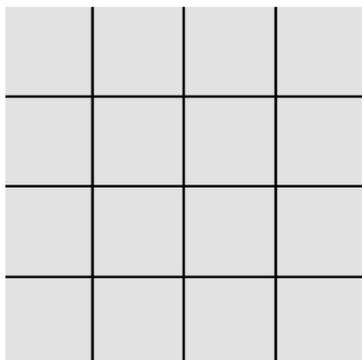
To achieve the artisan 'hand painted' appearance of Harvey Maria designer collections it is important to note that the patterns/ motifs are not printed centrally on the tile. This creates 'borders' of various width around the edge of each tile (the area between the edge of the tile and the pattern), so that a wider border on one side will have a narrower border on the other and vice versa. This 'off-setting' manufacturing feature is designed to enhance the character of the floor.

Note that these borders as measured from the edge of a tile to the printed pattern should be no less than the following in millimetres: Check 4.5, Dovetail 5, Lattice 3, Parquet 4 - tiles with a smaller border would be classed as faulty and should not be fitted and your supplier contacted immediately for replacements.

Lattice Design - if a less artisan, more symmetrical appearance is required then tiles should be selectively chosen and laid to create a more uniform border size between tiles. This is achieved simply by not fitting adjacent tiles where both borders are particularly narrow or particularly wide. This may also involve rotating tiles by 180 degrees during fitting, which would override the need to follow the directional arrows on the reverse of the tile. Note that rotating by 90 degrees is not recommended as this may change the overall appearance of the floor when laying in different lighting conditions.

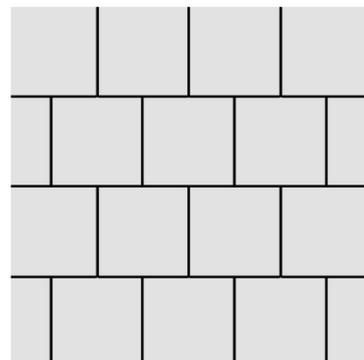
Wood strip or plank tiles are usually laid in a random pattern. Rectangular or slab tiles are best installed in an offset or brick pattern. Square tiles are best laid either directly side by side or offset if plain colour.

See **Laying Patterns** below for recommendations.



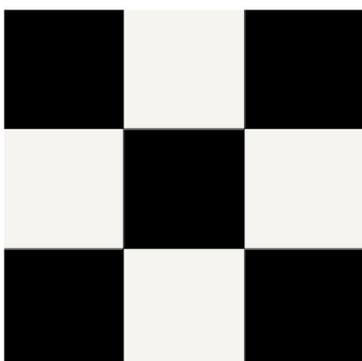
Stack Bond

All Collections



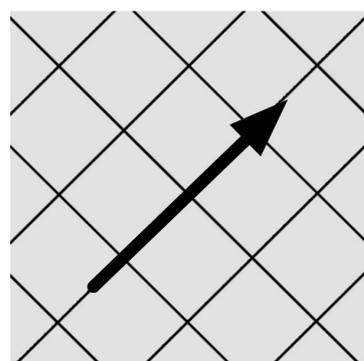
Sketcher (half-bond)

Heritage Colours Squares - when solid colour



Checkered

Heritage Colours Squares



And all options look great going diagonal!

Start fitting from the centre or adjusted line. Once the adhesive has become receptive (see manufacturer's instructions) place the first tile and press down in the center working outward until all the air is expelled. Place the next tile in position. Tiles should be butted cleanly, evenly and snugly against the adjacent tile (tip: taping adjacent tiles together can help maintain a tight joint while adhesive sets). Remove excess adhesive during work in progress and roll in both directions with a 100lb roller, or hand roller applied carefully with equivalent even pressure.

11. Acclimation of the tiles prior to laying.

It is vitally important to allow the tiles to reach equilibrium with the condition of the area of installation to prevent tension issues at a later stage. This is achieved by placing the tiles in small piles in the room to be fitted for at least 24 hours prior to fitting, at the room's normal temperature. Ideally keep the temperature and humidity at a constant level even through the night when temperature can reduce to low temperatures. Ideally the temperature should be 18°C (64°F) and relative humidity maximum 70%.

If the tiles are exposed to high or low temperature just prior to the installation they will move when they reach equilibrium with the room atmosphere and usually prior to the adhesive reaching full cure strength. Too hot will normally result in shrinkage of the tile and conversely too cold will allow the tiles to expand.

Areas exposed to sunlight need special attention as they may be very hot and very cold within 24 hours. Control the heat before, during and after fitting with proper ventilation and by shading the room from the sunlight to reduce extremes of temperature until the room until the adhesive has cured normally 24 to 72 hours (check adhesive manufacturer's instructions).

12. Checking prior to installation.

Within the same room, ensure all of the tiles are from the same production batch. Check for colour variation by placing a few tiles from different boxes on the floor and carry out a visual inspection. Check tiles for size variation and for any visual blemishes or gauges. It is essential that you consult your authorised supplier or Harvey Maria directly prior to installation if there are product defects of any kind. To avoid fitting delays consider using any blemished tiles as the cut tiles at the edge of the room. The installer makes the final decision and is responsible if any defects are found after commencement of installation.

13. Adhesive.

Use only Harvey Maria recommended adhesives.

Avoid the use of any adhesives not specifically designed for use with vinyl tile products. Harvey Maria does not recommend the use of pressure sensitive adhesives for fitting of designer patterns.

Priming the subfloor can make the surface more receptive to the adhesive and increase the working time of the adhesive especially on more porous subfloors. Consult the primer manufacturer for the most appropriate primer to use with your subfloor. Alternatively a mixture of PVA well diluted with water (ratio 1:5) is a suitable primer to brush over the surface of the subfloor in most circumstances. Allow the primed floor to dry properly prior to fitting the tiles.

Care must be taken to avoid trowel marks which can show if the wrong trowel is used; the tiles are not rolled after fitting; or the adhesive is left for too long an open time. Only spread adhesive on an area that can be covered within the open time. Note: open time will depend on the atmosphere. Dry atmosphere will reduce the time, conversely moist conditions will prolong the open time. Temperature and ventilation will also influence the open time.

Any residues of adhesive that are on the surface of the tile should be removed immediately and prior to the adhesive setting. Never use solvents or abrasive sponges etc. on the surface of the tiles as this will damage the surface coating. If required use a wet wipe (hand wipe type) cloth to remove wet adhesive. The Scrub solution in the Harvey Maria FloorSpa kit will remove any dried on adhesive.

Keep foot traffic off the tiles during the curing time of the adhesive but at least 24 hours. If unavoidable place a sheet of plywood over the tiles to distribute the weight. Never cover tiles with a plastic sheet prior to the full cure time of adhesive as this will adversely affect the drying / curing of the adhesive. Also keep the temperature constant throughout the first 24 hour to avoid movement of the tiles.

For any non standard fitting situations (e.g. wet rooms, vertical surfaces etc) seek technical advice from Harvey Maria Ltd.

These instructions are not exhaustive and are issued as general instructions. For more technical advice please contact Harvey Maria Ltd.

