

## Harvey Maria Dryback LVT Floors Installation Guide

Harvey Maria dryback LVT<sup>+</sup> is a modern flexible luxury vinyl floor tile (LVT) for indoor use, which is warm, quiet and comfortable underfoot, and designed to be fitted onto a suitable subfloor using recommended adhesives. Following these guidelines will ensure the successful installation of your new floor.

### **1. General Summary Guidelines for fitting Harvey Maria dryback LVT**

This section provides a summary of key installation information with additional detail provided in the sections that follow. If you have any questions regarding any aspect of fitting please contact Harvey Maria Ltd or your authorised retailer for support.

#### Transport and storage

On arrival any transportation packaging should be removed and the packs stored indoors horizontally on a flat and firm surface, in neat stacks, not overhanging and never vertically. They should not be stored in damp, cold (below 45°F) or very warm conditions (above 92°F). The ideal storage temperature is between 59°F and 84°F.

#### Acclimation & temperature control

The flooring should be acclimated for 48 hours prior to fitting by placing packs in small piles around the room on the dry floor where they are to be fitted, avoiding any cold or hot spots - this process allows time for the tiles to settle and adjust to room temperature. Throughout acclimation, while fitting, and for 72 hours after fitting, the room temperature should be kept stable between minimum 65°F and maximum 85°F, with no sudden changes or any changes greater than 5°F within this range.

#### Subfloor suitability

Harvey Maria LVT should be fitted onto a well prepared and permanently dry subfloor of flooring grade plywood (minimum 6mm) or a solid screeded floor, finished with a latex smoothing compound. All pre-existing floor coverings e.g. vinyl, tile, textile should be removed prior to preparing the subfloor. Contact our adhesives and underlayments partner [Ardex](#) for subfloor advice and recommended products.

#### Subfloor moisture

Subfloors should be permanently dry within the moisture tolerances measured by Relative Humidity (RH) for the floor (< 65% RH plywood subfloor; < 75% RH all others).

#### Underfloor heating

The maximum allowable surface subfloor temperature is 85°F. Consult the system manufacturer for advice when fitting with LVT floors. Underfloor heating should be switched off for 48 hrs prior to fitting, and 72 hours after, and then only returned to full temperature gradually over 7 days.

## Sun Rooms

Rooms with glass roofs and/or large windows or walls of glass require measures to control the heat and UV through the use of suitable shading and ventilation to avoid the risk of discolouration and damage to the floor.

## Fireplaces

If there is a wood-burning stove or open fireplace, the proper protection must be used so that the floor is not exposed to extreme heat in the immediate vicinity of the heat source.

## Batch control

Batch lot numbers on the packs should be checked to ensure all the material is from the same manufacturing batch. Shade variation can occur from batch to batch so it is advisable to avoid installing material from different batches, especially within the same room. Note that the product may vary in shade from samples so check suitability prior to fitting.

## Product inspection

All floors are checked carefully before leaving the factory but it remains important to check prior to fitting and to put any tiles with imperfections to one side and to notify Harvey Maria or the authorised reseller immediately for replacements. Harvey Maria is not liable for defects in fitted products where defects were visible before installation. Small imperfections known as inclusions which are not visible to the naked eye at a standing height in normal lighting conditions are deemed acceptable and are a standard feature of all LVT production.

## National requirements

The quality and preparation of the subfloor, testing for moisture content and relative humidity, and installation methods must be in accordance with Harvey Maria installation guidelines and country specific standards: ASTM F710 in the United States and Canada; BS8203 and BS8204 for UK, VOB Part C, DIN 18365 in Germany and the EU; and to the appropriate national standards in all other regions.

## Harvey Maria Dryback LVT Summary Information

Suitability	Designed for indoor use. Ensure suitability for intended use and environmental conditions.
Fitting method	Glue-down on suitable subfloor using recommended adhesives according to manufacturer's guidance.
Acclimatisation requirements	Packs placed flat in the room where the floor is fitted at 65°F to 85°F for the 48 hours prior to fitting.*
Ambient room temperature	Throughout project: stable between 65°F to 85°F** During lifetime: between 7°C and 85°F
Subfloor type required	Flooring grade plywood and/or latex screed. See Subfloors sections.
Characteristics of the subfloor surface	Flat, permanently dry, smooth, clean and free of movement. Max. height difference 3mm over 1.8m or 5mm over 3m. See Subfloor sections.
Installation over existing floor coverings	Old coverings should be removed or covered over with a new subfloor. See Subfloors sections.
Maximum permitted moisture content of the subfloor***	< 65% RH wood subfloors. < 75% RH for all other subfloors.
Damp proof membrane (DPM)	Required when the subfloor is not permanently dry. Consider application of surface DPM where there is no structural DPM. See Subfloors sections.
Suitable for underfloor heating	Install following manufacturer's advice, max surface temperature 85°F. Switch off 48 hrs before and 72 hrs after installation, restart gradually.
Expansion requirements	None required - Harvey Maria LVT may be installed and sealed tight (but stress-free) against walls, frames and objects.

\* Acclimatisation allows time for LVT to release any possible distortions or bending caused during transport or storage, while adapting to the steady temperature in the controlled room environment.

\*\* ASTM standards require installation in the range 65-85°F in the US; elsewhere the temperature should be 65-81°F.

\*\*\*Seek guidance from your adhesive/ levelling compound supplier in case of structural or design-related moisture problems.

## 2. Subfloors

The success of an LVT flooring installation is dependent on having a well prepared subfloor on which to fit the tiles.

Suitable subfloors include flooring grade **plywood** (minimum ¼") or **solid subfloors** covered with a smoothing/ levelling compound (minimum ⅛"). In all cases, the subfloor surface should be permanently dry, firm, smooth, clean and free of movement, and in line with the relevant country specific standards (ASTM F710 in the United States and Canada).

Unevenness in the subfloor should be avoided and may adversely impact the finished floor.

Prior to preparing the subfloor, all previous floor coverings (e.g. ceramic, older vinyl) should be removed or, if not practical, then these should be covered over with a new suitably prepared subfloor taking appropriate professional advice.

Advice on subfloor preparation including moisture protection, primer, levelling compound and screed preparation is also available from our adhesives and underlayments partner [Ardex](#).

### **Plywood subfloors**

Flooring grade plywood provides a suitable subfloor with minimum thickness of ¼ inch and as required to provide a level, stable top surface. The plywood should be acclimatised appropriately to site conditions as recommended by the manufacturer and be in good condition, undamaged and dry.

The plywood sheets should be suitably fixed to prevent movement starting from the centre of each sheet screwing or stapling at 6" intervals, and 4" along perimeters, approx ½" from the edge. Fixings should be finished flush with the surface. To optimize stability, sheets should be laid staggered, and if covering over a timber base, then effort should be made to off-set the sheets to prevent joints mirroring the joints beneath.

For optimum finish, plywood joints can be smoothed over as necessary using a skim coat or primer and levelling compound. Consult your underlayment supplier for recommendations. Vacuum to remove debris and dust prior to application of adhesive.

### **Solid subfloors and smoothing / levelling compounds**

Most solid subfloors, including concrete, will need to be smoothed over with a suitable levelling compound / smoothing coat to create a stable, smooth and level surface on which to lay the tiles. Some screeded floors such as anhydrite and power floated screeds may require additional mechanical preparation. In all cases it is important to select the right compound and primer as required for the particular circumstances based on the nature of the surface to be covered and environmental conditions. Consult an underlayment specialist such as [Ardex](#) for recommendations and advice.

### **Subfloor moisture**

Subfloors must be suitably dry before Harvey Maria LVT can be fitted or else risks failure of the adhesive bond - this includes plywood as well as solid subfloors.

The subfloor should be moisture tested using appropriate equipment for the type of subfloor. The subfloor should be considered dry when the moisture content in the subfloor, measured by Relative Humidity (RH), is:

- 65% RH or below for plywood subfloors
- 75% RH or below for all other (non-wooden) subfloors

It is important that the base subfloor (e.g. concrete slab) should be tested for moisture prior to the application of smoothing layer(s). Smoothing layers should be allowed time to dry and moisture tested as necessary prior to commencement of fitting.

In all cases, moisture readings should be taken from several different areas and the readings recorded.

Underfloor heating and artificial drying aids (dehumidifiers) should be switched off for at least 4 days prior to testing and throughout the test period.

Where excess moisture exists then the source of the excess moisture should be assessed and time allowed for the floor to dry or else measures taken to create a permanently dry subfloor.

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). Other structural measures may need to be taken to provide a permanent moisture free subfloor. Always seek professional advice.

Possible causes of higher moisture readings include:

- in plywood floors common causes of high moisture can include poor conditioning of the plywood itself, lack of ventilation under the suspended subfloor (e.g. due to blocked air bricks) and moisture transfer from walls.

- older properties are unlikely to have an effective structural damp-proof membrane (DPM) installed, leading to excess moisture levels particularly at ground floor levels.

- in newly constructed buildings or extensions, consider that a new concrete slab / sand & cement screed will contain considerable residual moisture, and drying time will depend on thickness, temperature/ humidity and location. Typically it will dry at a rate of 0.4" per day for the first 3" and 0.02" per day up to 4". Thickness greater than 4" can take several weeks/ months to dry. Anhydrite screeds dry at a similar rate providing the surface laitance has been sanded off to allow evaporation and power floated screeds will usually take longer to dry and require additional mechanical preparation prior to moisture testing.

- Rooms that are below ground level are particularly vulnerable to high moisture levels. Ensure these areas are suitably ventilated to prevent a build up of humidity and to reduce the risk of condensation.

For further technical guidance relating to subfloor moisture mitigation refer to the advice available from the [Resilient Floor Coverings Institute](#).

### **3. Underfloor Heating**

Harvey Maria LVT can be installed over underfloor heating providing the subfloor surface is controlled to a maximum of 85°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.

Electric/ mesh systems are typically bedded within an appropriate reinforced fibre smoothing compound/ screed and finished with a second smoothing layer to a depth recommended by the manufacturer to insure appropriate insulation. Always consult the heating manufacturer to confirm suitability and advice for fitting with LVT floors.

For underfloor heating pipes within concrete prime the surface and apply an appropriate smoothing compound to the appropriate depth.

Maintain surface temperature within the guidelines to avoid damage / discoloration to the floor and prevent hotspots e.g. rugs and furniture which can restrict the flow of air causing a build up of excess heat.

### **4. Acclimatisation & Temperature Control**

Fitting LVT floors without proper acclimatisation risks unwanted movement occurring in the tiles after being laid into the wet adhesive (most commonly from the expansion or contraction due to temperature imbalance). Movement before the adhesive has fully dried can force tiles to lift up along their edges causing irreparable damage.

#### **Acclimatisation process**

The acclimatisation should begin two days before fitting and is designed to allow time for the LVT material to settle and adapt to the temperature of the room environment.

To acclimatise Harvey Maria LVT, the room temperature where it's to be fitted should be set and maintained within the range of 65°F and 85°F, and the packs then placed flat in the room on the dry floor, in small stacks for the 48 hours prior to commencing installation. See Temperature control (below).

The packs should be kept away from sources of extreme heat or cold as they adjust to the ambient temperature of the room.

#### **Temperature control**

An ambient room temperature in the range of 65°F to 85°F (ideally around 72°F) should be maintained throughout the acclimatisation, installation and 72 hours after installation. The temperature must not be allowed to fluctuate by more than 5°F during this time and never outside of the 65°F to 85°F window.

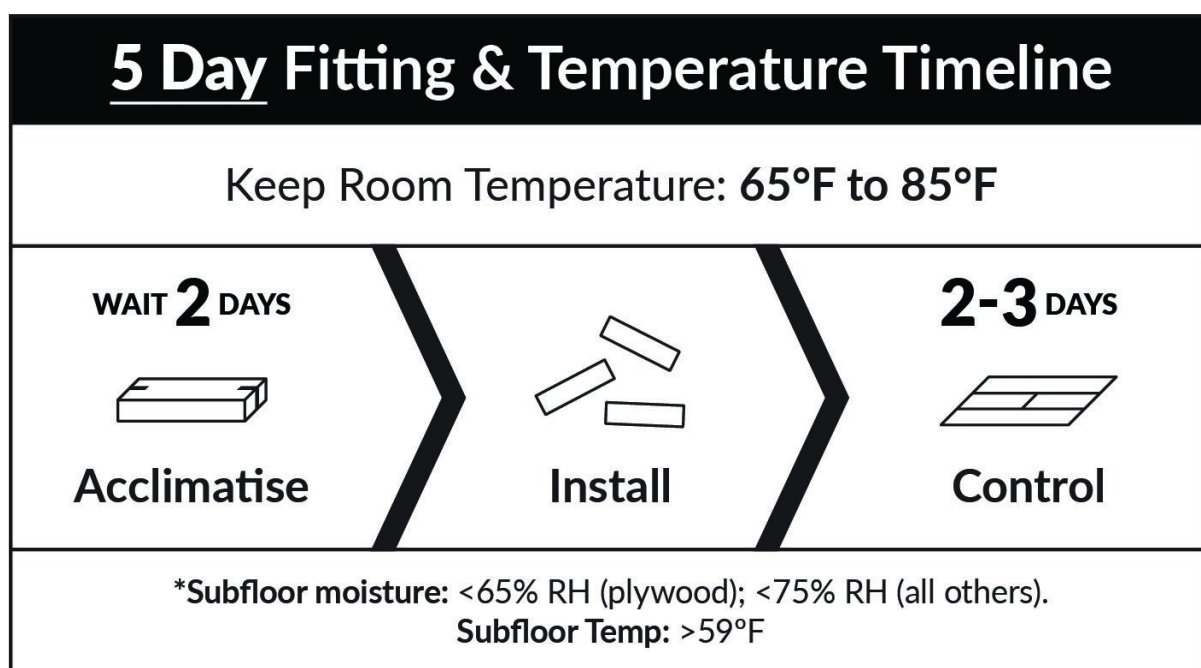
Note: The most important factor in temperature control is to avoid big and/or sudden changes in temperature as these changes are likely to cause the LVT to quickly expand or contract which in turn will destabilise the semi-bonded adhesive as it is curing and cause the tiles to lift up.

The floor surface temperature must be above 59°F and within 5°F degrees of ambient room temperature throughout acclimatisation, installation and while the adhesive cures.

For installation in warmer spaces consider reducing the temperature by using fans, blinds, etc. and take measures to prevent excessive daytime peaks.

Take measures to prevent colder overnight temperatures: Fitting tiles first thing in the morning that have been stored overnight in a cool room, risks the tiles expanding as daytime temperatures rise. And if well acclimatised tiles are fitted at the correct ambient temperature during the day, but the night time temperature then allowed to drop, then there's the risk of tiles contracting and lifting up overnight.

Colder planks/ tiles are also less easy to handle and less flexible making the material harder to cut.



## 5. Installation

### Setting Out - Laying plan

It is advisable to draw up a working plan beforehand showing how the planks or tiles will be laid in order to optimize the appearance and minimise cutting wastage.

Select the preferred laying plan based on the product and room orientation.

Finding the centre of the room is important as this will usually dictate the starting point. To do this, firstly measure the edges of the room and strike a line using a pencil, chalk line or laser 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 find the centre, and will be your starting point for setting out the tiles.

From the centre, dry lay rows in both directions using the lines to work out the optimum starting position. Move the tiles off the central lines as necessary to identify the best starting point. Once the appearance at each wall, entrances and other significant features (e.g. kitchen island, fireplace) has been worked out to achieve the best overall appearance then use the central line or draw a new adjusted line to start the fitting.

With standard planks it is usual to start fitting along the perfectly straight line through the middle of the longest length of the room, then working to the left and right and ending towards the exit of the room.

With square tiles, once the optimum starting point has been agreed, it is more usual to start from the central point, then work in sections towards the furthest corners of the room and then work back to finish at the exit.

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.

Note that it is never advisable to start directly against a wall with the first row of planks/ tiles as rooms are rarely completely symmetrical and they can be uneven and therefore negatively affect the installation.

Special requirements - Check for additional fitting requirements and guidance on the 'Fitting & Care' section of the product page for the design.

To create the authentic hand-made appearance of a true handmade tiled floor, it's important to note that the patterns/ motifs of tiles in the Harvey Maria Design Series collections are printed 'off-centre' of the tile. This creates different size 'borders' around each tile (the area between the edge of the tile and the commencement of the pattern, or the border pattern itself if there is one) so that a wider border on one side will have a narrower border on the other and vice versa. This feature creates a more pleasing, less engineered overall appearance closer to the original artisan floors which inspired these collections.

Note that the border 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 3.5, Parquet 4, Pattern 4, Northmore 8, Walbrook 3. Tiles with a smaller border would be classed as faulty and should not be fitted.

Lattice Design - The nine smaller motifs in this design mean that where a more symmetrical, engineered appearance is required, then tiles should be selectively laid to create more uniform border sizes from tile to tile. This is achieved by pairing adjacent tiles, so that a tile with a larger border is laid next to a tile with a narrow border.

Wood strip or plank tiles are usually laid in a random pattern. Rectangular or slab tiles should be installed in an offset or brick pattern. Square tiles with patterns should be laid side by side and those without a pattern should be laid offset.

It's recommended to use material from the same batch in each room and, with wood and stone designs, mixing the packs together will create an optimum overall appearance.

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



For professional installers it is advisable to agree the final layout with the customer prior to wet laying.

## **Fitting**

Spread the adhesive onto the subfloor covering an area that can be fitted based on the open time of the adhesive. Once the adhesive has become receptive (see manufacturer's instructions) place the first tile and press down in the centre working outward until all the air is expelled. Place the next tile in position. Tiles should be butted cleanly, evenly and snugly, but never with tension, against the adjacent tile. To achieve a tighter finish consider taping together adjacent tiles to prevent slippage as the adhesive dries.

For optimal adhesive transfer, bed the tiles into the adhesive in sections using a hand roller to flatten the adhesive ridges. After 20 minutes roll the whole area or larger sections with a heavier roller of at least 100lb, or hand roller in smaller rooms, to ensure full adhesive contact with the whole of the back of the tile paying particular attention to the edges of the tile.

Remove excess adhesive with a damp cloth during work in progress. Never use solvents for removing adhesive residue.

## **After Fitting**

Keep foot traffic and heavy items off the tiles while the adhesive begins to dry for a minimum of 24 hours and remain cautious during remaining adhesive curing time of up to 72 hours. If unavoidable, place a plywood board over the tiles to distribute the weight. Never cover tiles with a plastic sheet prior to the setting of adhesive as this will adversely affect the curing.

## **Type of bonding**

Harvey Maria recommends using only wet-set adhesive from Harvey Maria or wet-set adhesives recommended by [Ardex](#) for securing Harvey Maria LVT to a suitable subfloor.

Follow the instructions on the adhesive packaging. Spread adhesive evenly using a suitable trowel. Do not use worn trowels. Only spread small areas to allow for the restricted open/working time for the adhesive, so that it stays receptive for the time required to fit the tiles in that section.

Open/ working time will be affected by environmental conditions. Dry and warm atmospheres will reduce the time, conversely cold and moist conditions will prolong the open time. Dry laying and cutting tiles in advance will optimize the working time.

Wipe away excess adhesive with a damp cloth. Never use solvents or abrasive materials etc. on the surface of the tiles as this can damage the surface coating. If required use a wet wipe (hand wipe type) cloth to remove wet adhesive. Ensure no adhesive residue remains on the surface or else it can attract dirt and make the floor difficult to keep clean. The scrub solution in the Harvey Maria Floor Care Kit will safely remove any dried-on adhesive.

## 6. Care and maintenance

For optimum protection of your floor after installation, carefully read and observe the [cleaning & care instructions](#) for the floor.

Protect the floor by fitting the felt pads from the FloorSpa kit to the legs of chairs and all sliding furniture and for busier environments use more permanent (rubber-free) protection.

Use indoor matting specially designed for LVT floors at all entrance ways and robust matting to the outside to prevent dirt getting onto the floor.

In more demanding environments with high footfall and in busy homes and commercial spaces such as bars and restaurants, reduce the need for day to day cleaning and add extra protection against scuffing and scratching by sealing the floor with a suitable LVT floor sealant.

Sealing the floor is required for applications such as industrial environments, laboratories, showrooms (for cars, motorcycles, mopeds, bicycles, etc.), hairdressing salons and all other applications where chemicals, pollutants and staining rubberised products can discolour the surface of the floor.

### Commercial environments

Harvey Maria LVT should be cleaned following the [advice for commercial floors](#).

**Please contact Harvey Maria or your supplier if you are unsure about any part of these installation instructions, and for information regarding the maintenance and warranty terms.**

**Only those installation methods described in this installation guide are covered by the product warranty. No guarantee is given for installations of Harvey Maria LVT. For any non standard fitting situations (e.g. wet rooms, vertical surfaces etc) seek technical advice from Harvey Maria Ltd.**

\*For the purposes of this document *Harvey Maria LVT* and *Harvey Maria floors* refer to both Harvey Maria branded dryback LVT and other, third party branded or unbranded, dryback LVT products supplied and/or distributed by Harvey Maria Ltd. Where these other products are fitted in the UK then the installation protocols described herein shall override any fitting advice supplied by the producers of these third party products. Should any concerning discrepancies occur then the installer should confirm with Harvey Maria Ltd. prior to fitting.