



General Installation
Guidelines LVT
Moduleo® Roots

Storage & transport

Boxes should be stored and transported on a flat surface in neat stacks, always store the cartons flat and never put them upright/on-end. Do not store the boxes in very cold (less than 2°C) or very warm (more than 27°C) or damp places.

Prior to installation

Visual inspection

Please ensure the product is inspected and checked for damage, defect or variation prior to installation in adequate light conditions. Check that the colours correspond to those ordered, the quantities are correct and there is no visible damage to the boxes. Check the Moduleo® Roots panels during installation for any visible defects. Do not install any panels that display any imperfections. We recommend that you always use materials from a single production batch for each installation, as we cannot guarantee a shade match between different batches. Be aware that some designs have a natural variation within them. We also recommend that the product is mixed or shuffled between different boxes.

For defects that are visible prior to installation, Moduleo® will never assume responsibility for the uplift & relay costs. Installation implies acceptance.

Suitability

- Moduleo® Roots can be laid on concrete, cementitious screed, anhydrite (calcium sulphate), timber, plywood, particleboard and ceramic tiles, raised access floors, which have been suitably prepared (see Floor Preparation).
- Moduleo® Roots can be used with traditional water-based underfloor heating and cooling systems. See separate section on underfloor heating. The subfloor surface temperature must never exceed 27°C.
- Moduleo® Roots is only suitable for indoor installation.

- Seasonal temperature conditions: Moduleo® Roots can be used in indoor situations. Under all conditions, keep the temperature between 6°C (min.) and 35°C (max.). Avoid rapid temperature increases of more than 5°C per 12 hours.
- For installation in areas with high temperature variation (in certain cases this includes direct sunlight through glass) we recommend the use of dryback with Xtrafloor® HT adhesive. If you require any further information, please contact your representative.

Composition, construction and quality of the subfloor

Knowledge of the composition and construction of the subfloor or base provides valuable information that allows you to correctly check the acceptable humidity, flatness, compressive and tensile strength of the subfloor. In addition, it tells you what type of floor preparation, levelling/smoothing compound, and possible moisture barrier you may need during the installation process. When there is ambiguity or doubt about the quality or composition of your subfloor, check your local installation standards and/or seek advice from your floor preparation, levelling compound manufacturer/supplier.



National regulations & standards

Site and installation conditions must always comply with the relevant national regulations and installation standards.

In case the national standard or regulation conflicts with the manufacturer's recommendation, the most stringent of the two prevails.

Subfloor preparation

Irregularities in the subfloor

Good preparation is essential for trouble-free installation. It is vital for an excellent Moduleo® Roots finish. The appearance of Moduleo® Roots will only be as good as the quality of the base over which it is installed. Any irregularities in the subfloor will show through the finished floor and must be suitably prepared before installation.

The subfloor must be hard, structurally sound, flat, smooth, clean and dry, as well as being free from defects and fit for purpose. When required, scrape off and remove old adhesives and loose laying levelling compound. Make sure the subfloor is free from chemical substances and other contamination.

For aesthetic reasons, it is recommended that the unevenness of the subfloor is not greater than 2mm measured over a width of 200cm.

A suitable plywood/levelling compound should be selected to ensure that no irregularities show through to the surface of the finished floor. However, the selection of suitable materials, including plywood, smoothing/levelling compounds and any ancillary products, is dependent upon the occupational use of the area and must be agreed by the supplier of the preparative materials and the flooring contractor. All floor preparation materials used must be used in accordance with the manufacturer's recommendations and in accordance with the national standards for resilient floorcoverings.

The moisture content of the subfloor

- The moisture content of the subfloor must be in accordance with local or national standards for the installation of textile floor coverings.
- Unheated cementitious screeds less than 2.0CM% - 75% RH (UK)
- Underfloor heated cementitious screeds less than 1.8CM% - 75% RH (UK)
- Unheated anhydrite (calcium sulphate) screeds less than 0.5CM%
- Underfloor heated anhydrite (calcium sulphate) less than 0.3CM%

Direct-to-earth concrete and stone subfloors must have an effective Damp Proof Membrane (DPM) in accordance with the national standards for the installation of resilient floorcoverings. Follow manufacturer's detailed instructions for the installation of a surface applied DPM and the use of levelling compound. An overview of manufacturers and suppliers can be provided by Moduleo®.

The effectiveness of a surface applied DPM heavily depends on the type of product, the way of application and the site conditions. It is the responsibility of the installer to get the correct advice from the manufacturer of the DPM and to apply it in accordance with their recommendations.



Important

Floor installation should not begin until the installer has assessed and approved the subfloor and installation conditions.

Acclimatisation

Moduleo® Roots must acclimatise in the room of installation, or an equivalent area for at least 24 hours prior to installation, or until such time as the product has achieved an ambient temperature: this is a minimum temperature of 18°C and a maximum of 27°C.

- Store the planks or tiles in straight piles away from heating, cooling or windows with direct intense sunlight. This is to achieve a gradual acclimatisation.

Temperature condition before installation

Moduleo® Roots should be installed with a room temperature of between 18°C and 27°C and a subfloor temperature of above 15°C.



Installations in areas colder than recommended will influence the installation properties of Moduleo® Roots. The planks or tiles will be less flexible, cutting will be harder and small pieces difficult to cut out. The lower the temperature, the

more difficult the installation. Also, the risk to have excessive expansion is increasing with decreasing installation temperature. Installation in areas warmer than recommended increases the risk for excessive shrinking/gaps between panels.

Starting installation

Temperature conditions during and after installation

A constant temperature, fluctuating no more than 5°C per day, not below the required 18°C room temperature and 15°C subfloor temperature, should be maintained 24 hours before, during and 72 hours after installation.

Underfloor heating

Moduleo® Roots can be used with traditional water-based underfloor heating systems (according to standard EN 1264 part 1 to 5). Wired electrical systems are not recommended unless the system is encased in a minimum of 9mm of suitable levelling compound. Direct contact with electrical wired heating systems must be avoided. The surface temperature must never exceed 27°C. If in doubt seek further advice.

The underfloor heating installation must be switched off at least 24 hours prior to, and during the installation of Moduleo® Roots.

72 hours after installation the underfloor heating must be gradually increased by increments of 5°C per day until it reaches the standard operating temperature conditions, with a maximum operating temperature of 27°C. For the suitability of the system please check the manufacturer's instructions.

Note (the following is only applicable to installation on Xtrafloor looselay self-adhesive underlays): Some infrared heating panels may be suitable, however care should be taken as some of these systems can provide very sudden heat gain which is not recommended. In any circumstance the surface temperature must not exceed 27°C. If in doubt seek further advice.

Underfloor cooling

Moduleo® Roots can also be installed over floor cooling systems. However, the supply temperature of the cooling water must not be reduced below the dew point temperature. Always keep the temperature of the subfloor at least 3 degrees above the dewpoint. Temperatures below the dew point will produce condensation and can therefore damage the adhesive and the floor covering.

Required Expansion Gap

Moduleo® Roots floors which are directly adhered to the subfloor with a suitable permanent adhesive, do not require expansion gaps. For installation on top of self-adhesive looselay underlays, please refer to the section “recommended underlay”

Installation methods

Moduleo® Roots can generally be installed with the following methods:

- Fully adhered to the subfloor (see the section “recommended adhesives”)
- Adhered to a looselaid underlay
- Adhered to an underlay which is adhered to the subfloor

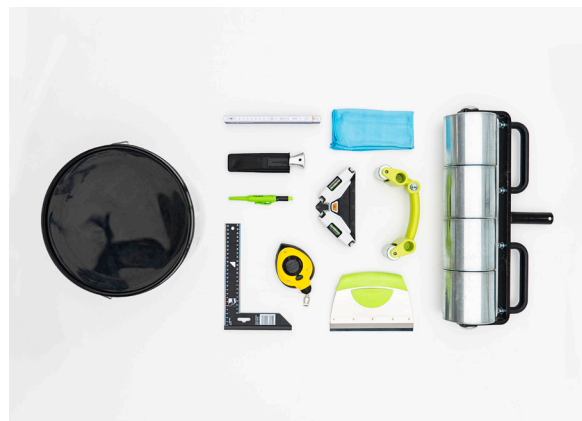
For alternative installation methods, not included in this overview, always seek technical advice from Moduleo®.

Installation step by step

Recommended tools

- Tape measure

- Pencil
- Chalk line/laser line to ensure the installation starts/remains straight
- Adhesive and appropriate trowel (not required with a self-adhesive underlay)
- Damp cloth to remove adhesive residue (not required with a self-adhesive underlay)
- Set Square
- Utility knife
- Roller minimum 50kg (or a hand-roller for small areas, not accessible with the big roller)



Step 1: determine the installation direction of the Moduleo® flooring.

Step 2: calculate how the partition of the planks or tiles will be across the width of the room/area and mark a 100% straight line on the floor with help of a chalk line/laser line, normally in parallel with the longest straight wall.

Note: for an adhered installation (including adhered Xtrafloor® acoustic underlay), continue from step 3. For installation on a Xtrafloor® looselayed underlay, see the section “installation of looselayed underlay” above.

Step 3: highlight a second line so creating a section (for example, 5 rows wide) to be glued with the correct type of adhesive. Prior to using the adhesive read the manufacturer's instructions.

Step 4: spread the right amount of adhesive evenly over the subfloor and let it tack-off (open time) until it reaches its initial bonding strength. For more information consult the specifications of the adhesive being used.

Step 5: lay the planks or tiles, observing the direction of the arrows of the backing, into the tacked-off adhesive, in order to transfer the adhesive fully onto the backing (working time).

Step 6: for the second/next row, take a new panel and decide how big the first piece must be (or use one of the left-overs from previous rows). For an attractive and natural appearance, we do not advise to use the piece left over from row 1 as the first piece in the following row, install at random intervals. Otherwise this creates a so called "staircase effect".

Step 7: cut the planks or tiles, free of tension, against the wall or skirting.

Step 8: do not spread adhesive on a section greater than can be processed within the working time.

Step 9: to ensure full contact with adhesive, immediately press every plank or tile with a rubbing block or hand roller.

Step 10: wipe excess adhesive with a damp cloth.

Step 11: immediately roll each section with a (minimum) 50kg flooring roller. Roll several times, in different direction, during the adhesive working time.

Repeat steps 3 to 11 until the entire installation is completed.

Protection

Moduleo® floors should be protected from heavy traffic for 72 hours after installation so that the tiles and adhesive can stabilise at constant temperature between 18-27°C.

First contact with water

Prevent the floor from coming into contact with water for the first 72 hours after installation. Hereafter the adhesive is sufficiently resistant to water so that the bonding strength will not be affected.

Finishing your floor

Xtrafloor® offers a range of smart flooring solutions to your finishing needs. The offer combines unique functionality with style: a hardwearing solution that ensures smooth transitions at all times.

How to finish your floor at a wall

Xtrafloor® standard skirting in matching designs

- The identical connection for your Moduleo® Roots floor
- Water-resistant
- Wear-resistant
- Perfect water-resistant corner solution as the HDF carrier does not come into contact with cleaning water



Xtrafloor® paintable skirtings: style by choice

- Unique water-resistant material
- Colour coordinate your pre-primed skirting boards with the walls
- Use our renovation skirting to cover existing skirting boards



Xtrafloor® end profile

- Sleek aluminium profile on a strong aluminium base for a minimalistic design that lends a smart and modern look



How to cover the expansion gap within the floor surface, when installed over an existing

expansion gap in the subfloor (only required when the floor is fully adhered).

Xtrafloor® T-profile

- Sleek aluminium profile on a strong aluminium base for a minimalistic design that lends a smart and modern look
- Durable and easy solution to cover the gap between 2 adjacent floors at the same level



How to connect your floor with higher or lower level floor surfaces

Xtrafloor® Adapter profile

- Sleek aluminium profile on a strong aluminium base for a minimalistic design that lends a smart and modern look
- Connect the floor with lower floor surfaces, with a height difference up to 6mm
- Also suitable to make the transition between 2 different types of floorcovering (e.g. Carpet)

How to finish your stairs in the same material as the floor (residential use only)

Xtrafloor® stairnosing

- Sleek aluminium profile for a minimalistic design that lends a smart and modern look
- Inner and outer corner stair nosing for LVT Moduleo® Roots

Note: Moduleo® Roots design floor must be adhered to the treads and risers on stairs.

Maintaining your floor

Appropriate maintenance procedures will help to preserve the appearance and will extend the life of a Moduleo® Roots floor. The frequency of maintenance will depend on the amount and type of traffic, degree of soiling, the floor colour and type.

Below we will give a short summary of the 5 key points to effective maintenance.

For full maintenance instructions and recommended products we refer you to www.moduleo.com.

1. Preventative measures

- Keeping dirt off the floor is easier and less expensive than removing it.
- Proper entrance walk-off material is able to remove large amounts of dry soil as well as absorb water or oil-based moisture.



- Prevention also means making the right choice of floorcovering and design/colour for the right area, e.g. avoid too dark or too light colours for high traffic areas near the entrance of a commercial building.

- Protect against scratching from furniture feet by using wide, free-moving, castors, glides, rollers or pads, e.g. www.scratchnomore.nl. NOTE: felt protection pads can pick up dirt and grit and subsequently cause scratching or further damage to the floorcovering.



- Use furniture caps or other protection under heavy items or appliances to prevent indentation.
- Avoid rubber or latex backed mats, furniture feet and the like as the rubber or latex may leave permanent stains.
- Almost all flooring will vary in colour over time when exposed to UV light. Avoid this by using curtains or sunscreens when the sun is very bright.
- Mechanical damage of the floorcovering, caused by heavy overloading or sliding of furniture/items and permanent stains caused by rubber/latex are not covered by the product warranty.

2. Vacuuming

Regular vacuuming is the most important part of a successful maintenance program to remove all grit, debris and other solid particles. Vacuuming is far more effective for this type of soiling than wet mopping, which normally moves soiling from one place to another, rather than removing it.

3. Spill and spot cleaning

Spills and spots are inevitable, but they don't have to be permanent. Remove a spill quickly and there is less chance of permanent staining. First try to blot the spill with a dry cloth/kitchen towel, then use water. Only use detergents/cleaning products when the above is not sufficient to remove the spill/stain. Use neutral pH detergents, e.g. from the product range of www.james.eu.

4. Periodic cleaning

Inspect and assess the appearance of the floor. Seasonality may also alter the maintenance requirements.

Vacuum to remove all grit, debris and other solid particles.

For light cleaning, a damp mop may be sufficient. Do not use cleaning products when not required.

5. Deep cleaning

Periodic cleaning is far more beneficial to the floorcovering than infrequent heavy or deep cleaning. However, seasonality can influence the amount of cleaning required.

Remove surface dust and grit by vacuuming.

Once dust and debris free, with a spray, apply a solution of neutral pH cleaner to the section to be cleaned (or dependent upon the level of soiling, a light alkaline cleaner), carefully diluted to the manufacturer's instructions. Leave for enough time to react with and lift the soiling. Some agitation with a soft brush may be required.

Pick up the solution with a clean "microfiber" mop, using a continuous and steady side-to-side motion. When the mop head becomes loaded, it will leave residues and start to streak the floor. At this point the dirty mop head should be removed, wrung out, placed into a suitable bag and a clean mop head fitted. The cycle should then be

repeated until the whole floor is completed, is clean and streak-free. Do not move dirty water from one place to another, extraction cleaning may be required.

The dirty mop heads should then be machine washed and dried ready for reuse.

Heavy soiling and soiling in the grain, may require a "scrubber dryer" with immediate wet vacuum extraction prior to mopping. Numatic International have a range of appropriate machines for this application. Further advice can be obtained directly from the manufacturer, their distributors or specialist floor care companies.

Important part from the warranty:

- Almost all flooring will vary in colour over time when exposed to UV light. Avoid this by using curtains or blinds when the sun is very bright. PVC also has a tendency to yellow in the dark. The combined effect can cause covered areas (under furniture, under permanently closed doors, etc.) to differ in colour compared to non-covered areas. This is a characteristic of all PVC floorcoverings and is excluded in our warranty conditions.
- Avoid rubber or latex backed mats as they may leave stains. Rubber and latex castors or protection caps under furniture must not be used (we advise the use of castors type 'W' in accordance with EN 12529).
- In case of loose lay installation, damage of the vinyl flooring caused by heavy overload, rolling loads or sliding activities is excluded in our warranty conditions.
- Do not allow cigarettes, matches and other very hot items to contact the floor as this causes permanent damage.
- Important: Cleaning or maintenance may only take place if the floor is correctly installed and there are no visible imperfections.
- Contact your representative / supplier for the complete warranty conditions.
- This document was issued on (see at the end of this document) and supercedes all previous versions, at the same time it is superceded as soon as a new version is published. For the latest version please always check www.moduleo.com. The original English version is always leading.
- In case of conflict between these installation instructions and the local technical standards/legislation, the most stringent of the two prevails.

IVC Group - 22/03/2023

