

#### **GENERAL GUIDELINES FOR PANELS**

#### I. BEFORE INSTALLATION

#### **VISUAL INSPECTION**

Before installation, ensure that the product has been inspected for damage, defects or alterations. Check that the colours correspond to those ordered, that the quantities are correct and that there is no visible damage to the boxes. Check the VILO floor panels for visible defects during installation. Do not install panels that show any imperfections. We recommend that you always use materials from one production batch for each installation, as we cannot guarantee shade matching between different batches. Please note that some patterns may undergo natural variations. We also recommend mixing panels within a single pack or between packs.

# **GENERAL GUIDELINES FOR VILO FLOOR PANELS**

#### I. SUITABILITY FOR INSTALLATION

- VILO floor panels can be laid on concrete, cement screed, anhydrite (calcium sulphate), wood, plywood, chipboard and ceramic tiles that are reasonably flat and smooth or have been suitably prepared (see Surface preparation).
- VILO floor panels can be used in conjunction with suitable underfloor heating and cooling systems. Electrical systems, including infra-red systems, are not recommended unless the system's cables are immersed in a suitable levelling compound with a minimum thickness of 9 mm. Direct contact with electrical heating systems should be avoided. The surface temperature must never exceed 27°C. If in doubt, seek professional advice.
- VILO panels are only suitable for indoor installation.
- Seasonal thermal conditions: VILO panels can be used in most temperature-controlled locations such as conservatories and summer houses. The temperature should be maintained between 6°C (min.) and 35°C (max.). Installation is still possible if temperatures are outside this range, see note at the end of this document (\*).
- Once assembled, the joints of the Vilo panels are waterproof. Following the installation instructions will make the floor suitable for use in bathrooms, kitchens, laundry rooms and entrance areas. It is not recommended to install the panels in humid areas, such as in or around swimming pools, saunas and areas with built-in drains such as shower rooms due to the possibility of slipping.

# **COMPOSITION, STRUCTURE AND SURFACE QUALITY**

Knowing the composition and construction of the underlying surface or base provides valuable information to correctly check the permissible moisture content, compressive and tensile strength of the base surface. In addition, it indicates how to prepare the floor, the type of levelling compound or putty and any moisture barrier that may be needed during the installation process. If there is any ambiguity or doubt as to the quality or composition of the base surface, please contact the manufacturer or supplier of the levelling compound or putty.

#### NATIONAL REGULATIONS AND STANDARDS

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

#### **SURFACE PREPARATION**

#### **SURFACE IRREGULARITIES**

Proper preparation of the surface will ensure a trouble-free installation. This is essential for a perfect finish of the VILO panels. The appearance of the VILO panels will only be as good as the quality of the surface on which they are installed. Although VILO floor panels are perfectly suitable for renovating even not fully level surfaces, some major irregularities, bumps, sudden changes in the level of the surface can also appear on the finished floor. Proper preparation before installation is essential.

The base surface must be hard, firm, relatively flat, clean and dry, free from irregularities and defects, and suitable for the intended purpose. If necessary, old adhesive residue and loose or unbound levelling compound should be scraped away and removed. Ensure that the surface is free from chemicals and other contaminants.

The unevenness of the surface must not exceed 2 mm over a length of up to 1 m, and must be measured using a ruler or spirit level. VILO floor panels are able to cover joints, seams and cracks of up to 10 mm in the base surface.

Suitable plywood or levelling compound must be selected to prevent the sudden appearance of unevenness on the surface of the finished floor. However, the selection of suitable materials, including plywood, putty or levelling compounds and any ancillary products, depends on the practical use of the area and should be agreed between the supplier of the preparation materials and the flooring contractor. All materials used in floor preparation should be used in accordance with the manufacturer's recommendations and in accordance with national standards for resilient floor coverings.

#### **SURFACE MOISTURE CONTENT**

VILO floor panels are moisture resistant, but best practice must be implemented to avoid the growth of bacteria and mould under the floor covering:

Concrete and stone surfaces lying directly on the ground should have an effective damp-proof membrane (DPM) in accordance with national standards for resilient floor coverings. If necessary, follow the manufacturer's detailed guidelines for the installation of the applied DPM surface and the use of levelling compound.



The moisture content of the underlying surface should be in accordance with local or national standards for the installation of resilient floor coverings. If in doubt, seek further professional advice.

Important: Floor installation should not begin until the installer has assessed and accepted the underlying surface and installation conditions.

## **ACCLIMATISATION**

VILO floor panels require acclimatisation before installation in rooms and standard conditions for 24h if the ambient temperature is below 15°C. The optimal installation temperature is 15-28°C.

Unpack the VILO floor panels and inspect them in daylight for any defects or discrepancies in colour. In the event of defects that are apparent prior to installation, the Manufacturer will never be liable for the costs of laying down the panels and transport.

Temperature before and during installation

The standard installation instructions apply for standard rooms and conditions, see note at the end of this document (\*).

## **UNDERFLOOR HEATING**

VILO floor panels can be used with conventional water-based underfloor heating and cooling systems (according to EN 1264, sections 1 to 5). The use of electric systems is not recommended unless the manufacturer or installer of the UFH system guarantees that the surface temperature will not exceed 27°C, the temperature rise will be gradual or progressive and the temperature will not rise suddenly or immediately.

Note: Infra-red-based electrical systems require special attention, they heat up immediately and can transfer heat to very specific parts or layers of the floor covering, leading to unpredictable behaviour associated with a potential fire risk. If in doubt, seek further professional advice.

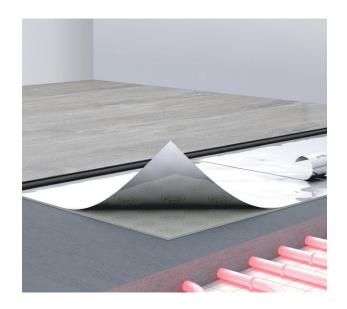
## **UNDERFLOOR COOLING**

VILO floor panels can also be installed on underfloor cooling systems. However, the supply temperature of the cooling water must not fall below the dew point temperature. A temperature below this point will cause condensation and may accumulate moisture under the floor covering, which may promote the growth of mould etc.

## **RECOMMENDED UNDERLAY**

Proper placement of the underlay is of paramount importance. Whether you need excellent acoustic insulation, a solution to make the surface resistant to harsh conditions or a base surface for general purposes, Max-Pod Alu Extreme by VOX is the underlay to meet all requirements.

It is the best acoustic underlay (floor soundproofing) available on the market – as the only heavy duty underlay, it features the patented RWS Barrier technology. Ideal for use with underfloor heating and under heavy duty floors. Max-Pod Alu Extreme levels localised surface irregularities 69% better than popular quartz mats.



## START OF INSTALLATION

## I. EXPANSION GAP REQUIRED

- VILO floor panels form a 'floating' floor. The floor panels can be glued to the underlying surface (Use adhesive for vinyl flooring).
- An expansion gap of 0.75 mm per running metre of VILO flooring must be provided in each direction and taken into account along the perimeter of the room or area in 'standard rooms and conditions', see note below the table and at the end of this document (\*).

Expansion gaps of 1.5 mm per running metre in each direction must be provided at the perimeter of the room or area in 'extreme rooms and conditions', see note below the table and at the end of this document (\*).

Running metres	Expansion joint on both sides x mm in standard rooms and conditions (see below)	Expansion joint on both sides x mm in extreme rooms and conditions (see below)
2	1,5	3
3	2,25	4,5
4	3	6
5	3,75	7,5
8	6	12

Standard rooms and conditions are rooms with a temperature of 15 to 35°C, e.g. without direct sunlight behind glass in rooms with a sunshade coating.

Extreme rooms and conditions are areas with potential surface temperatures of 0 to 60°C, such as conservatories, unoccupied holiday homes, etc. When installing in an 'extreme room' according to the above definition at temperatures above 25°C, an expansion gap such as in a 'standard room' is allowed in order to avoid too large a gap at lower temperatures.

Please refer to the note at the end of this document for more detailed information on standard rooms and conditions (\*).

In the case of fitted skirting boards which should not be removed, it is possible to cut off the lower part of the skirting board with a specialised trimming tool available on the market.

### STEP-BY-STEP INSTALLATION OF VILO FLOOR PANELS

#### I. RECOMMENDED TOOLS:

- Measuring tape
- Pencil
- Straight-edge or string
- Set square
- Punching tool
- · Sturdy tool knife
- Nylon or rubber mallet
- Spacers for lining up the first rows straight on an uneven wall



VILO floor panels allow you to choose where to start the installation. You should consider the easiest way to install the floor covering. Here we will explain the installation for right-handers, guiding the installation from left to right. The installation can also be carried out in the opposite direction.

VILO panels should be installed using the angle-to-angle method in two different ways:

#### **METHOD A:**

Position the end joint of the panel to be mounted at an angle of 20° to 30° to the end joint of an already mounted panel. Carefully place the panel about 5 mm from the long joint and then lift the panel by 25° while applying pressure. The panel will slide in and be locked into place. You can either place the tongue in groove or place the groove over the tongue. The most common and simplest method is to place the tongue in the groove. Lay the panels in rows.

#### **METHOD B:**

VILO panels allow you to punch in the long edges of the panels without having to lift them. For this method, a special punching tool must be used. The panels should not be joined with a single punch. In order to avoid damage to the panels, they must be punched in gradually. Lay the panels in rows.

- 1. During installation, make sure that the panels are properly mixed, so that you do not place too many similar (light or dark) panels next to each other. For the best visual effect, it is best to position the floorboards towards the longest wall and parallel to the direction of light.
- 2. Before starting the installation, measure the length and width of the room carefully to plan the exact layout for a balanced floor appearance. This is very important when laying typical tile décors. This will ensure that the last row of panels is not too narrow. With the last row narrower than 40 mm, installation will be easier if the panels from the first row are cut to length.
- 3. Firstly, cut or saw off the tongue on both the long and short sides.
- 4. Lay the panel with the cut off sides against the wall. Using spacers, fill in any contour of the wall so that the panels do not move, are straight and are 100% fitted and correctly fixed.
- 5. Ensure that the end joints of the panels in two consecutive rows are never in alignment. Always ensure that the joints are offset by at least 30 cm and avoid the 'staircase' effect by randomly using cut off parts and not always in the next row. For the last panel, measure it so that the required expansion gap is maintained. Do not lay the panel closely against the wall. Cut off the selected piece and fit the final panel in the same way as the previous panels. When cutting the panel with a tool knife, make sure to cut through the abrasive layer before breaking the panel apart.
- 6. Position the end joint of the panel to be installed at an angle of 20° to 30° to the end joint of the already installed panel. Carefully place the panel about 5 mm from the long joint and then lift the panel by 25° while applying pressure. The panel will slide in and be locked into place. Some panels may need to be punched to close the gap.
- 7. In areas where it is too difficult to install the VILO panels with a punching tool (e.g. against a wall), the panels can be joined together using a pusher and mallet.
- 8. Once a sufficient number of rows have been installed, assembly can easily continue as follows: Place an unopened package of panels on top of the already installed rows to weigh them down and ensure they remain stationary. Change position and snap the short side of the panel into the previous panel.
- 9. Then place BOTH hands close to the joint and pull the long side of the panel towards you. The panels will connect by snapping into place.
- 10. To fit the last row of panels, you will usually need to trim them. This should be done as follows: lay the panel on top of the previous row with the groove towards the wall, place the next panel in an inverted position against the edge of the wall and mark the panel underneath. Cut the panel to size and fit the last row.
- 11. The panels should also be fitted separately to the jambs and heating pipes to maintain clearance for movement. First cut the panel to the correct length, then place the panel next to the object and draw out the correct fitting. Then cut the panel to size. Jambs can also be sawn (cut) to size and, if required, VILO floor panels can be fitted underneath accordingly.



## **FLOOR MAINTENANCE**

Proper maintenance procedures will help maintain the appearance and extend the life of the VILO floor. The frequency of maintenance will depend on the volume and type of traffic, degree of dirt, colour and type of flooring.

## **IMPORTANT:**

- Virtually all floors will change colour over time when exposed to UV light. This should be prevented by using curtains or sunscreens when the sun is very bright.
- Rubber or latex mats, furniture feet etc. should be avoided as they can leave stains. Rubber and latex castors or protective pads under furniture must also not be used (we recommend using 'W' castors in accordance with EN 12529).
- Protect the floor from scratches by furniture feet with wide, free-moving castors, skids, rollers or felt pads. To prevent indentations, place furniture pads under heavy objects or appliances.
- Mechanical damage to the floor covering caused by heavy loads, moving furniture or objects is not covered by the terms of the warranty.
- Cigarettes, matches and other heated objects should not be allowed to come into contact with the floor, as this causes permanent damage.

(\*) The manufacturer considers the following rooms and conditions to be standard:

Minimum temperature during transport and storage: 0°C

Minimum temperature during installation: +15°C

Minimum temperature during use: +6°C

Maximum temperature during transport and storage: +35°C

Maximum temperature during installation: +28°C

Maximum temperature during use: 35°C

Acclimatisation period: 24h.

Room size without expansion joints: wall-to-wall length max. 8 m

The manufacturer considers the following rooms and conditions to be extreme:

Minimum temperature during transport and storage: 0°C

Minimum temperature during installation: +15°C

Minimum temperature during use: +0°C

Maximum temperature during transport and storage: +35°C

Maximum temperature during installation: +35°C

Maximum temperature during use: +60°C

Acclimatisation period: 24 hours if the temperature difference between the warehouse and the installation site is greater than 20°C or is less than 15°C.

Room size without expansion joints: wall-to-wall length max. 8 m

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