



*Timberwise*

FLOOR FOR LIFE

**GLUE-DOWN INSTALLATION  
INSTRUCTIONS**

We wish to congratulate you on your excellent choice to purchase a Timberwise wooden floor. The Timberwise single plank wooden floor is an environmentally friendly Finnish high-quality product. Our single plank wooden floors have been classified in the best building material classes for emissions and adhesive joints (M1, JAS F\*\*\*\*, and JAS2), and they meet all the requirements set by EU directives. The adhesive that is used in our products is completely formaldehyde free, which means that the indoor air in your home will also be better and cleaner. In accordance with the principles of sustainability, Timberwise has given up the use of tropical wood species and utilises timber that is acquired from certified forests. Quality, environmental friendliness, and product safety are a matter of honour for us.

### QUALITY CHECK AND LIABILITY FOR DEFECTS

Before you begin the installation, check the boards in sufficient lighting or daylight for possible visible defects. Also check the colour and structure of the boards. The characteristics of grades, such as knots, natural grain pattern, and colour variation, are not defects. In order to evenly distribute boards that contain grain patterns and colour variation, we recommend selecting the boards that are to be installed at the same time from different packages. Defective boards are to be left unused or installed at other suitable locations, such as the ends or beginnings of rows. Each installed floorboard is considered to have been approved by the installer and/or owner. The manufacturer does not accept product complaints after the installation. Before the installation of the floor, the owner must check the subfloor for possible moisture and level deviations and ensure that all the condition requirements stipulated in these installation instructions are met in accordance with the specifications defined below. Liability for defects only covers the Timberwise floors that have been installed and maintained according to the instructions.

### REQUIREMENTS

The wooden floor material can be glued to wooden, concrete, board, and poured gypsum underlays. The underlay must be sufficiently strong and intact in order for the gluing to work. The concrete underlay must be at least float finished. Laitance must always be removed. The tensile strength of the concrete underlay and screed must be at least 1.5 N/mm<sup>2</sup>. The screed must be suitable for gluing the wooden floor material to the underlay. The board underlay must be made of moisture-resistant plywood (EXT). The thickness of the plywood board must be at least 9 mm, and a 2mm gap is to be left between the boards. The underlay must be even, intact, dry, and clean. The properties of the underlay must meet the SisäRYL 2013 quality requirements. Before the installation of the flooring, the relative humidity of the concrete subfloor must be measured in accordance with the instructions provided in the document Betonirakenteiden päällystämisen ohjeet, which was published in 2007 by Suomen Betonitieto Oy and Lattian- ja seinäpäällysteliitto ry. At the appropriate measurement depth for the structure (A), the maximum allowed relative humidity of concrete is 80%, and at the depth of 0.4 x A, it is 75%. The measurement results must be documented. Level the floor, if the level difference exceeds 3 mm/2 metres. **Relative humidity (RH) must be between 35% and 60% and the temperature of the underlay and the materials must be between 18°C and 24°C before, during, and after the installation.** Since some moisture may occur in new facilities, the room must be heated and ventilated in good time before the installation of the floor in order to reach the correct indoor humidity level. Before installation, the wooden floor material must be stored in the conditions described above on an even surface and intact packages for at least two days. The boards must not be stored directly on top of or against concrete. Only open the packages right before the installation.

### TOOLS

You will need the following tools: hammer, tapping block, hand saw, keyhole saw or circular saw, try square, pencil, drill, chisel, adhesive spreader, and weights. If you are using a keyhole saw, saw on the underside of the board. If you are using a regular hand saw, saw on the topside of the board.

### GENERAL MATTERS TO BE TAKEN INTO ACCOUNT

When gluing the wooden floor material to the underlay, use a suitable adhesive, such as MS polymer-type elastic water-free adhesive (e.g., Bona R850 or R848, Kiilto Flex or Kiilto FlexSilan, or Casco Elastic) or similar. Only apply adhesive to an area that you can cover with flooring in half an hour. Do not glue the wooden floor material

by the tongue and groove. Always spread the adhesive to the underlay in a cross-like motion. Always spread the adhesive in accordance with the manufacturer's instructions. The adhesive is usually applied with a steel adhesive spreader on the concrete surface. The wooden floor board is to be pressed down to the adhesive and slid to its place with the aid of a tapping block or pull bar, if necessary. After the installation of each wooden floor board row, a sufficient number of weights must be placed on top of the installed boards (a package of wooden floor material IS NOT a suitable weight). The board must be pressed down to the adhesive. For instance, 10–12kg kettlebells or sand-filled 10l containers can be used as weights. When gluing the wooden floor material to concrete, the weights must remain in place for at least 3 hours. If you want to make sure that the weights remain in place for a sufficient amount of time, leave them on top of the installed flooring overnight. Weights must be used for the entire duration of the gluing process, and they must be kept on top of the boards until the adhesive has dried. In the case of board underlays, no weights are needed, since the wooden floor material is nailed to the underlay in addition to gluing.

The elastic adhesive allows the floor to shrink and expand, and for this reason it is important to leave at least 6mm expansion joints between the floor and walls. Timberwise wooden floor boards are not to be glued together by the tongue and grooves. Instead, adhesive is only to be applied under the boards. Due to this, the floor shrinks and expands only little, and the floor feels sturdy underfoot.

Timberwise single plank wooden floors can also be glued to plywood boards. For instance, in old buildings, sub-floors are often uneven and lacking in strength. In such cases, it may be necessary to strengthen the subfloor with a wooden board. If the subfloor is to be covered with board, the board must always be made of plywood. It is advisable to use strong and dense birch plywood that is at least 9 mm thick. Old chipboards are not sufficiently strong for use as underlay material for a glued-down single plank wooden floor. Thus, birch plywood board is the safest solution. The wooden floor material is to be installed on plywood in the same way as on concrete with the exception that to plywood, the Timberwise single plank wooden floor is to be fastened with both adhesive and crown staples. The staples will remain hidden inside the tongue and grooves of the boards.

## **DIFFERENT UNDERLAY TYPES**

### **Concrete underlays:**

If the concrete underlay is sufficiently straight and even, no priming is required. If necessary, even out any level differences using screed with a minimum compressive strength of class C35 and minimum flexural tensile strength of class F7. Before levelling, always prime the surface in accordance with the screed manufacturer's instructions. Carefully remove all dirt from the underlay before priming the surface. Use a primer when necessary or in accordance with the adhesive manufacturer's instructions. Install the wooden floor material in accordance with the instructions provided above.

### **Poured gypsum underlays:**

In the case of poured gypsum floors, the weak surface layer must be sanded off so that the aggregate sand is exposed. The underlay must always be primed in accordance with the adhesive manufacturer's instructions. Carefully remove all dirt from the underlay. Install the wooden floor material in accordance with the instructions provided above.

### **Board underlays:**

In the case of sites with underfloor heating, the boards are to be attached using water-free adhesive and weights but no mechanical fastening. The same adhesive that is used for gluing the wooden floor material to the underlay is to be used for gluing the boards. The board underlay must be made of moisture-resistant EXT plywood. The thickness of the plywood board must be at least 9 mm, and a 2mm gap is to be left between the boards. Install the wooden floor material in accordance with the instructions provided above.

### **Old hardwood floors:**

Make sure that the subfloor is even and intact and that is not rotten or squeaky. If there are any level differences, even them out with screed or sand them off. Old layers of paint or lacquer must be sanded off before the installation of the flooring. The subfloor is to be covered with boards, if necessary. See the instructions in section 'Board underlays'.

## **GRADE**

Familiarise yourself with the grade before beginning the installation. Plank pattern. Planks are large pieces of wood, and any differences between the tones of adjacent floor boards can be considered disturbing. For this reason, floor material with a plank pattern ought to be 'sorted' during installation in order to even out the colour differences. Sort the boards that are to be installed during the same day. **Open at least 3 packages at a time to get the installed floor to match the grade.**

## EXPANSION JOINT

Even though gluing down to the underlay makes the wood less susceptible to expansion and shrinkage due to fluctuations in relative humidity and temperature, it is advisable to leave at least a 6mm gap next to all fixed obstacles. This also applies to sections that will be left between the floor and thresholds, pipes, stairs, pillars, fireplaces, and fixtures, as well as between wooden and stone floors. If there is an expansion joint in the concrete, the expansion joint of the wooden floor is to be created in the same place. The expansion joint is to be covered with a skirting board.

## UNDERFLOOR HEATING

Timberwise floors can be installed on an underfloor heating system. The underfloor heating should be evenly distributed over the whole floor area. The subfloor must be allowed to dry for approximately two (2) weeks before installing the floor. Please follow the instructions below:

Increase the temperature daily by approximately +5°C until the heating effect is approximately 50% of the maximum. Do this in the summertime, as well. Then, raise the underfloor heating temperature to the maximum for 3 days. Reduce the heating so that the surface temperature of the subfloor drops to +18°C. Make sure that sufficient ventilation is provided during the heating and cooling phases. Install the floor in accordance with the instructions. Increase the temperature gradually over a period of 5 days, and make sure that the surface temperature of the wooden floor never exceeds +27°C. Do not cover the floor even partially at this stage. Relative humidity must be kept at 35–65%. The recommended room temperature is +18–24°C. In circumstances that deviate from this, the floor may expand or shrink to an exceptional degree. The manufacturer, seller, or installer cannot be held responsible for these kinds of changes.

The following matters must be taken into account when installing the floor on an underfloor heating system:

**The surface temperature of the floor must not exceed +27°C.** Please note that regular rugs increase the surface temperature of the floor by approximately +2°C. Floor temperature must not regularly fluctuate more than 2°C (night electricity). Use an expansion joint to separate the floor areas that are not equipped with underfloor heating from the areas that are. We recommend that an at least 30mm gap be left between the underfloor heating cables or pipes and the underlay material of the Timberwise wooden floor. Always follow the instructions provided by the manufacturer of the underfloor heating system.

- In the case of wooden floor structures, this gap contains air.
- In the case of concrete floor structures, this gap contains a layer of screed.

**If the underfloor heating cables or pipes are installed less than 30 mm away from the underlay material of the wooden floor, the surface temperature of the floor must not exceed +25°C.**

## PROTECTION

If construction work will be carried out or if other surfaces will be finished off in the room after the installation of the floor, the floor must first be vacuum-cleaned of the installation debris and then protected with a permeable material (e.g., cardboard). When using corrugated cardboard, the smooth surface must be placed against the wooden floor! When furnishing a room, cardboard does not provide sufficient cover for the wooden floor, so also cover the floor with, e.g., hardboard in addition to cardboard. Remember to check that the protective material does not colour or stain the floor. If the wooden floor has been installed on an underfloor heating system and protected with, e.g., a piece of cardboard, the surface temperature of the floor must not exceed +18°C. Any tape that is used in connection with the protection **MUST NOT** be fastened to the wooden floor. Removing the tape may damage the surface treatment.

**DO NOT FASTEN THE TAPE DIRECTLY TO THE WOODEN FLOOR!**

## MAINTENANCE

SEPARATE MAINTENANCE INSTRUCTIONS ARE AVAILABLE AT: [www.timberwise.fi/en](http://www.timberwise.fi/en)

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