

**Karelia**  
HARDWOOD FLOORS



# INSTALLATION GUIDE

## KARELIA WOOD FLOORING – FLOATING INSTALLATION

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## CONDITIONS FOR INSTALLATION

### General

Karelia wooden floors are only intended to be installed in a controlled indoor environment.

Wood is a hygroscopic material, which means that wood adapts to its ambient humidity. This causes wooden floors to swell when it gets damp and shrinks when it gets dry.

It is the relative humidity (RH) that controls how wood-based floor materials are affected. Excessive variations in temperature and humidity can cause permanent damage to the floor.

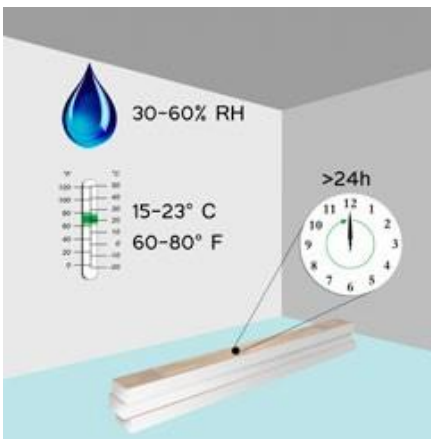
The room and material temperature at the time of installation should be between 15–23 °C. The relative humidity in the room should be between 30–60% RH.

Note that moisture levels in new-build premises are often relatively high at the time wood floors are installed. In such cases, it is important to ensure that the correct RH is achieved before installation can take place.

The wooden floor should be installed only after all other work has been completed, such as painting, wallpapering, and tiling, and when the site has the correct RH. This helps prevent damage, soiling, and unnecessary moisture-related issues affecting the floor.

### Acclimatisation of flooring bundles

Before installation, wooden floors must be acclimatised in the room where they are to be installed for at least 24 hours. A faster temperature increase can be achieved by dividing the floor bundles into several smaller stacks rather than leaving them in a single pile. However, do not open the packaging until installation begins.



### Fixture and fittings

Furnishings, kitchen islands, wardrobes, walls, etc. must never be fixed to the wooden floor. Fixing to the subfloor is permitted if holes are drilled through the wooden floor to accommodate, for example, support legs or fixings with clearance. The same expansion gap that applies to the entire floor area must also be maintained around support legs and fixings. The floor must never be pressed down or locked in place.

Kitchen fittings should be fixed to the wall to reduce the load on the floor. The units rest at the front edge on the floor using support legs. Alternatively, the kitchen fittings can be mounted on four legs.

The wooden floor may be laid under white goods, provided that the required drip protection is installed on top.

For kitchen fittings with worktops made of heavy materials such as stone, stone composite, concrete, or other mineral-based materials, the wooden floor must not be installed beneath these units, as this may cause the floor to become locked. If wooden flooring is nevertheless required under the units, it must be divided and installed as a separate area with an expansion gap separating it from the surrounding floor.

As an alternative to installing wooden flooring beneath kitchen fittings, a chipboard of equivalent thickness may be used. Another option is to drill holes in the wooden floor so that the support legs rest directly on the subfloor. Ensure that an expansion gap is maintained around the support legs.

If a wood-burning stove is installed on the floor, a chipboard panel should be laid on an area slightly smaller than the spark protection plate. Ensure that an expansion gap is maintained.

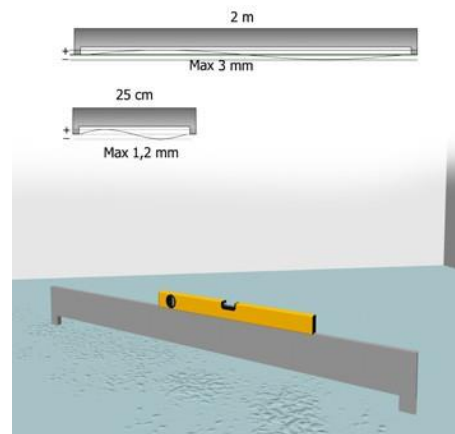
The chipboard also distributes the weight of the stove. The flooring is then installed around the chipboard.

### Subfloor requirements

The subfloor must be dry, level, clean, and sound. Remove any fitted carpets and linoleum.

Never leave sawdust or other organic residues on concrete subfloors, as moisture from below can become trapped beneath the vapour barrier and may lead to unwanted organic growth.

Check that the subfloor is flat and level over measured lengths of 2 m and 0.25 m. If any unevenness exceeds 3 mm over 2 m or 1.2 mm over 0.25 m, the subfloor must be levelled. Kährs also accepts a measured length of 1 m, with a tolerance of 2 mm.



Check the relative humidity (RH) of the subfloor. If it exceeds 90%, a polyethylene vapour barrier alone is not sufficient, and additional measures must be taken before installation can begin.

For the following subfloors, regardless of age, an approved age-resistant vapour barrier (e.g. polyethylene foil) is mandatory. It should be installed as close to the floor surface as possible and in accordance with the supplier's instructions:

- Concrete floors directly on the ground (slab-on-ground)
- Floors above hot or humid rooms (e.g. boiler rooms or laundry rooms)
- Floors over crawl space foundations
- Lightweight concrete floors
- Floors with underfloor heating systems

An underlay should be installed on top of the vapour barrier to reduce impact sound and improve walking comfort.

### Installation planning

Measure the width of the room and calculate the width of the last row of boards. If it is less than 30 mm wide, the first row of boards should also be cut so that the first and last rows are approximately the same width. Do not forget to allow for the expansion gap.

When installing floors with Profiloc®, it is easier to start installation along the long side with the most doorways. If there are doorways on the short sides of the room, it is also easier to start a new row of boards from that side. The boards can be laid from both the left and right, as well as backwards. If the floor width or length exceeds the specified maximum dimensions, the floor must be divided with an expansion joint.

In long, narrow spaces such as hallways, the flooring must be laid lengthwise to ensure that it lies flat against the subfloor.

### Installation on underfloor heating

An approved vapor barrier, for example in the form of a combination underlay such as Kährs Tuplex, is mandatory when installing flooring over underfloor heating. The vapor barrier should be placed as close to the subfloor as possible.

Regardless of the type of underfloor heating system, the surface must remain flat and stable over time to avoid noise, flexing, and other potential problems.

When installing flooring over underfloor heating in grooved subfloors (e.g. chipboard or EPS) with heat distribution plates, the wooden floor must be installed perpendicular to the heating loops. If this is not possible, the subfloor must first be covered with a board material. If the heating pipes are embedded in the subfloor, no special consideration needs to be given to the installation direction.

The surface temperature of the floor must never exceed 27°C. This applies during installation, at start-up of the heating system, and after installation is completed.

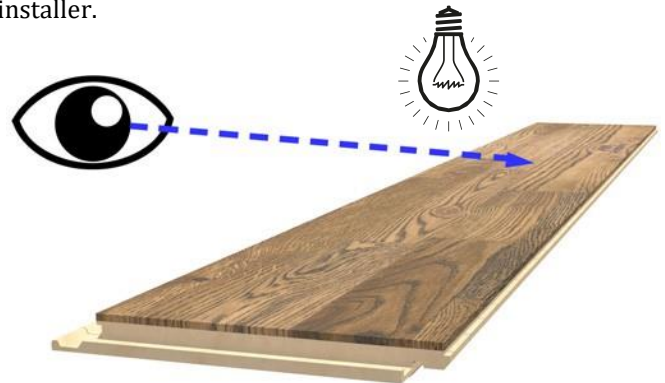
### Inspection

It is always easier to rectify faults if they are discovered early. It is important to always inspect the product during installation. If faulty products are discovered regarding, for example, appearance or other design elements that do not correspond to what is described in the product sheet, it is important that a complaint is made before you install the floor. Defective products are of course replaced, as long as they have not already been installed. Boards with obvious faults that are detectable before installation must not be used.

Note that some boards may contain features that appear to deviate but are intentional and approved in the installed floor as a whole. Always ensure that inspection and installation are carried out under good lighting conditions.

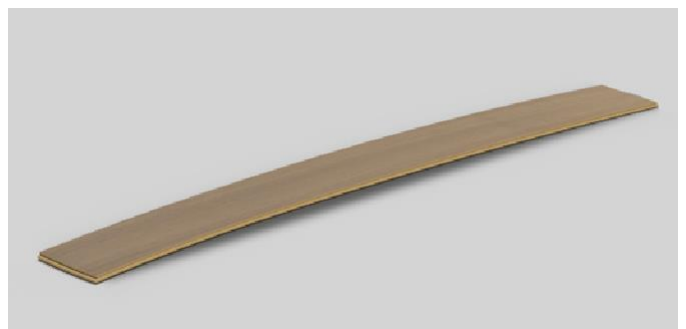
Differences in colour, number and size of knots, and other design features between boards in a 1-strip floor can be significant and place higher demands on installation. Therefore, open several packages and mix the floorboards to achieve an even distribution of the floor's design features across the entire surface. Avoid, for example, placing boards with large colour differences next to each other. However, never leave packages open during breaks in the installation.

Once a floorboard has been installed, it is deemed approved by the buyer, regardless of whether the installation is carried out by the buyer or a professional installer.



### Bowing

We aim to manufacture boards that are slightly convex lengthwise to make the floor easy to install.



### Start & Stop boards

Packages may contain start and stop boards. These boards have no joint on one short side and are used as the first and last board in a row, respectively.

**Movement and expansion gaps in wooden floors**

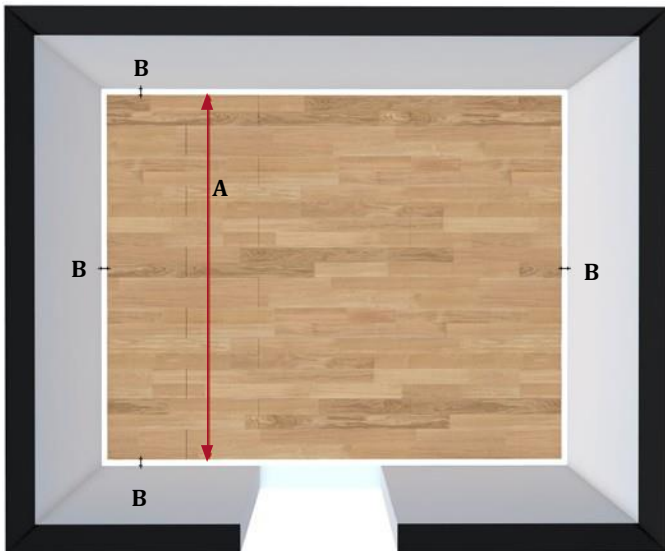
Natural, seasonal variations in the climate cause some movement—swelling and shrinkage—in wooden floors. Therefore, floors must never be installed tight against adjacent walls or other fixed building elements. An expansion gap must be left along all sides of the continuous floor surface.

Remember that the width of the expansion joint is the sum of the expansion gaps of the two adjoining floor areas.

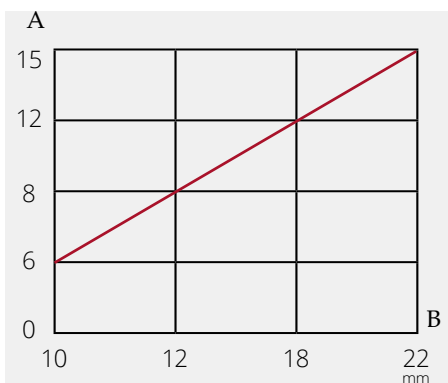
The size of the expansion gap, in mm, is calculated using the formula: 1.5 mm per metre of floor width. The expansion gap must never be less than 10 mm.

The floor must be able to expand at, for example, thresholds, door frames, heating pipes, columns, stairs, tiled floors and other parquet floors. It is important to ensure that any climate-induced shrinkage in winter is also covered by the skirting board.

The maximum installation area is: width (A) 15 m × length 25 m. Ensure careful planning so that the maximum floor width and length are not exceeded.



The graph shows the movement curve of wooden floors under different climate variations and how the size of the expansion gap depends on the floor area. The climate in the packages at the time of delivery corresponds to 20°C and 40% RH.

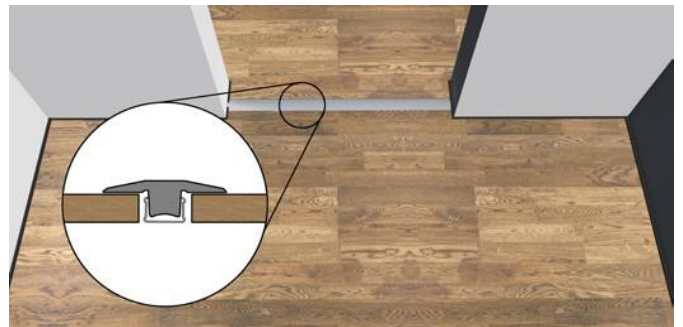


Note that the maximum floor width is based on a rectangular floor area. For more complex room layouts, it may be necessary to consult a floor installer or dealer to review any specific conditions.

**Door openings**

When installing across doorways or through narrow passages, e.g. archways, the floor must be divided by an expansion joint, which is then covered by a threshold or moulding.

The threshold can also be removed and refitted after the floor has been installed, with an expansion joint left under the threshold. If the threshold is too high, the door can be trimmed accordingly.



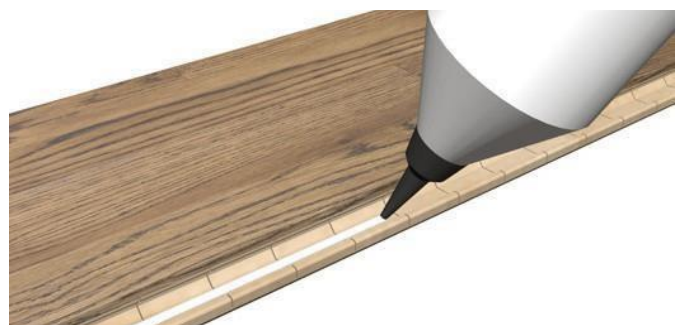
**End joints**

End joints in adjacent rows must be staggered in accordance with the illustration below to maintain a flat floor during climate variations. Even small areas must be installed with staggered joints, i.e. each row must include end joints.



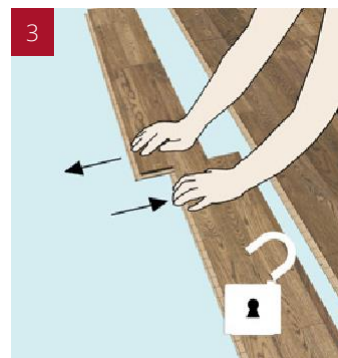
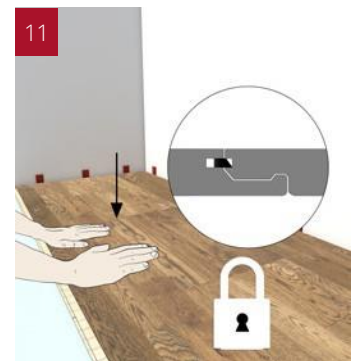
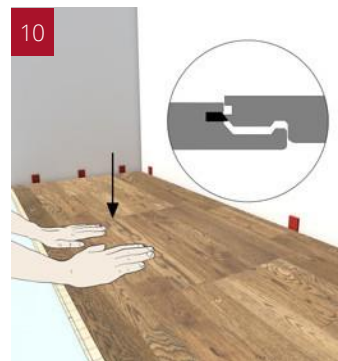
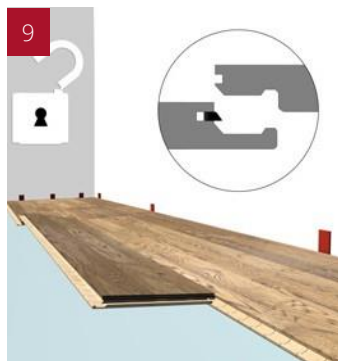
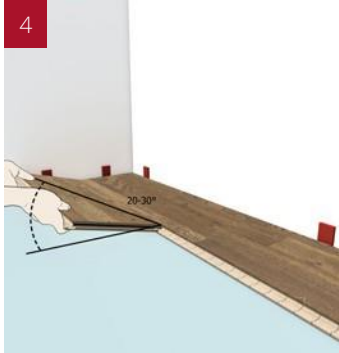
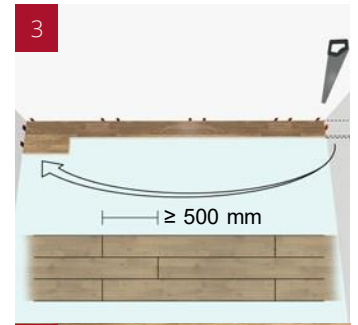
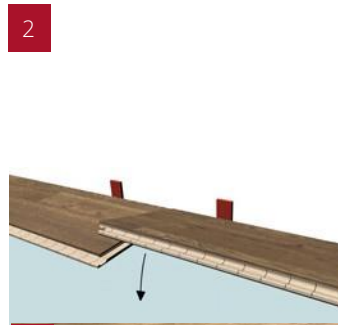
**Gluing joints**

Adhesive should not normally be used on boards with Woodloc® joints. However, in areas such as door jambs or around radiators, installation may be easier if one-third of the locking edge is planed off and adhesive is applied to the horizontal underlip (see illustration). This allows the board to be tapped into place.



# INSTALLATION

## Profiloc 5G



## Glue-down installation

In cases where you wish to glue the wooden floor to the subfloor, it is important that the subfloor meets the required standards and that the correct adhesive is used for the purpose. Note that different countries may have different regulations regarding glue-down installation.

Consult your adhesive supplier to ensure that you obtain the correct adhesive and trowel suitable for installing wooden flooring. The properties of the subfloor often determine which adhesive should be used. Follow the adhesive supplier's instructions carefully.

Before gluing can begin, it is important to ensure the quality and moisture content of the subfloor, as well as the type of adhesive and the amount applied per m<sup>2</sup>.

## AFTER INSTALLATION

### Temperature and relative humidity in the room

The temperature in the room where the floor is installed should be between 15–23°C.

The relative humidity (RH) must always be maintained between 30–60% to avoid unwanted climate-related damage and movement in the wooden floor, such as cracks, gaps, noise, and cupping. During summer, it may be necessary to dehumidify the air, while in winter it may instead be necessary to increase the humidity. If the relative humidity is too high or too low, permanent deformation of the wooden floor may occur.

It is important to ensure correct temperature and humidity even in empty or unoccupied spaces. This is particularly important when installing flooring in connection with new construction or major renovations.

When installing flooring in so-called modular construction, it is important that the above criteria are met both immediately after installation, as well as during storage and assembly of the modules.

It is not only wooden floors that benefit—people also experience better indoor air quality when the relative humidity is kept within this range.

### Skirting boards

Note that the dimensions of the skirting boards must never determine the size of the expansion gaps. For large floor areas, the skirting boards must therefore be selected based on the required size of the expansion gaps—not the other way around.

One solution, when large skirting dimensions are required (e.g. in new constructions), is to create additional expansion space by stopping the wall cladding slightly above the floor surface. If the wall cladding consists of, for example, 13 mm plasterboard, this provides an additional 13 mm of expansion space. This allows a thinner skirting board to be used than would otherwise be necessary.

Additional labor or material costs related to, for example, skirting boards, mouldings or door casings that are painted or covered (e.g. with wallpaper) and cannot be removed without affecting them or the wall surface are not covered under a flooring warranty claim.

In connection with a warranty claim, flooring under fixed installations such as cabinetry, kitchen islands, wardrobes, fireplaces, etc., will not be replaced or repaired.

### Protective covering

If further work is to be carried out in the room where the floor has been installed, the floor must be protected with a material that allows moisture to pass through (e.g. cardboard). Ensure that the material used does not discolor the floor. Note that some commonly used coated papers are not moisture-permeable and may have a wax layer that can be transferred to the wooden floor, causing undesirable variations in gloss.

Household appliances generally do not have sufficiently large wheels to prevent damage if they are moved across the floor. In such cases, a more rigid board material is usually required as protection to avoid damage to the parquet surface.

Under wheeled furniture, such as office chairs, permanent protection against point loads is required, for example a transparent plastic mat or similar.

### Tape

Never apply tape directly to the floor surface, skirting boards, or mouldings—only to the protective covering. Many types of tape adhere so strongly to the floor surface that the finish may be damaged when the tape is removed. The longer the tape remains in place, the greater the risk that it will adhere more strongly to the finish.

### Colour change

Wood is a natural material that gradually matures to its natural colour, with the change occurring most rapidly at the beginning. To avoid uneven colour changes, rugs should not be placed on the floor during the first months after installation.

### End of use

#### Packaging material

Please recycle packaging materials responsibly, in accordance with local regulations and available recycling options.

Cardboard packaging consists of paper – recycle as paper.



Foil packaging consists of plastic – recycle as plastic.



#### Floors and underlays

At the end of the product's life cycle (flooring or underlay), dispose of materials in accordance with local waste regulations. Some materials may be recyclable—please check local regulations and available recycling options.