

INSTALLATION GUIDE

Please note: This installation guide has been written specifically for New Zealand and differs from the factory installation guide found in the Karelia packs.

Please ensure that the person installing the flooring reads this installation guide carefully **prior** to installation.

Quality Floors Ltd will not be held responsible if installation is not done according to this guide!

If you have any questions please ensure you contact us **PRIOR** to commencing installation.

INTRODUCTION

Karelia has been invented in and designed for the Northern Hemisphere (e.g. Europe, USA/Canada, Russia). These countries have a dryer climate with a lower relative humidity (RH) than New Zealand.

RH for your comparison:

Europe, USA and Australia have an average RH of approx. 50 – 60 %

RH	Summer	Winter	Average
Auckland	74%	84%	79%
Wellington	67%	78%	73%
Christchurch	73%	84%	79%
Queenstown	75%	83%	79%

The construction method in New Zealand is also different compared to those markets:

- Houses are built with a larger footprint as opposed to high rise buildings
- Particle board or plywood substrates are more common
- Larger open plan areas for timber flooring on one level
- Concrete slab is poured to U3 standard (often not level enough for timber flooring)

Due to the high humidity and different construction method, it is in your own best interest to install a Karelia timber floor in a way that has been proven to work **in New Zealand** for more than 10 years.

Based on our experience in New Zealand, Quality Floors Ltd's preferred installation method is glue down. However, it is also possible to install Karelia as a floating floor.

The most suitable installation method for **your** situation depends on a many variables.

Please contact us **PRIOR** to installation to get advice on which method to employ.

Karelia requires extra care when installing on underfloor heating. Please ensure you contact us **PRIOR** to installation to discuss.

PRIOR TO INSTALLATION

Storage:

Store the unopened Karelia packs in a dry, covered place, off the ground (on pallet or similar).

Acclimatizing:

We recommend storing the unopened packs in the installation area for 1 to 2 weeks.

Do not open the packs prior to installing!

Timing of Installation:

Karelia should be installed second to last in the building/renovation process (carpet is last).

Karelia is pre-finished so avoid as much traffic (builders, trades people, etc) as possible once installed.

Install kitchen units and similar prior to Karelia (especially when installing Karelia as a floating floor).

Heavy units will create pressure on the timber and potentially lift the floor in a different area (does not apply to glue down installations).

We do not recommend covering the timber floor after installation to protect it against foot traffic. Dust and dirt will still find its way between the timber and the cover.

If the installed flooring needs to be covered, we recommend using "Ram Board" or similar and covering the **entire** timber floor. Ensure you don't use any tape directly on the floor: fix the "Ram Board" by applying low tac masking tape to skirting boards instead. Overlap cardboard in the middle of the room, and join using tape on top of the cardboard, not on the timber floor.

If tape is used on the timber floor, the coating may peel off when the tape is removed. In addition, as soon as a timber floor is exposed to UV light, it starts changing the colour, hence we recommend covering the entire area.

SUBFLOORS/FLOOR PREPARATION

Karelia hardwood flooring can be installed on concrete or wooden substrates (particle board, ply or existing T&G floors). It is also possible to install Karelia on existing cork or vinyl (floating floor installation only).

The subfloor must be dry, clean and level to within 3mm over 3 linear meters (industry standard). To check if floor is level, use a straight edge at least 2m in length over the entire area (Image 1). Any deviation in height should not exceed 2-3mm.

If the subfloor exceeds this given tolerance we recommend the following:

Wooden substrate: fasten any loose floor boards/panels, then sand or use a leveling component

Concrete substrate: grind or use a leveling component

Existing cork or vinyl: remove existing floor, sand/grind subfloor and use a leveling component



Glue-Down Installation (recommended)

On a Wooden Substrate:

Check that the subfloor is level and prepare the floor if necessary as per above.

We always recommend sanding the subfloor to achieve the best bonding with the adhesive.

If installing onto existing floorboards we recommend installing Karelia **across** the existing floorboards.

On a Concrete Substrate:

Check that the subfloor is level and prepare the floor if necessary as per above.

If gluing Karelia direct onto concrete, the relative humidity (RH) of the concrete must get measured.

New Zealand's flooring industry regulations stipulate that the RH of a concrete slab must be less than 70% to allow installing a timber floor without first applying a moisture barrier onto the concrete.

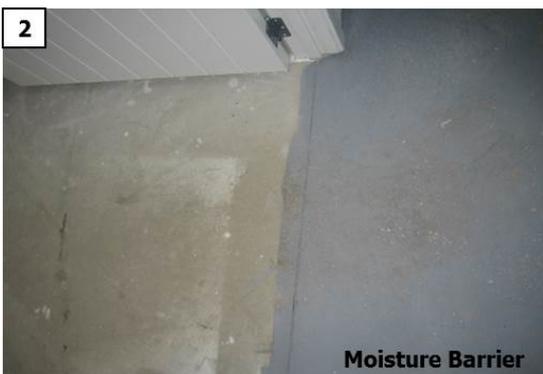
If the RH exceeds 70% you **MUST** apply a moisture barrier prior to installation.

Floor NZ (www.floornz.org.nz), the NZ governing body for standards in the flooring industry, names the hygrometer to be the only appropriate instrument to measure the RH of a concrete slab.

Please contact us for the correct usage of a hygrometer.

The majority of professional timber floor installation companies apply a moisture barrier regardless of RH reading to minimize the risk of potential moisture issues.

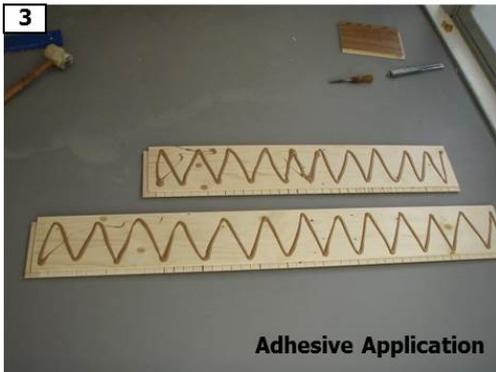
We **ALWAYS** recommend you apply a moisture barrier from trusted brands such as Bostik, Selleys or Sika (Image 2).



Adhesive:

We recommend industry standard adhesives in sausage form (Sika, Bostik, etc). These are applied with a sausage gun onto the back of the board. The adhesive should be applied zig-zag wise, about 100mm apart. (Image 3) Install board by board and try to avoid adhesive on the surface. If adhesive gets on the surface, wipe it off straight away with a damp cloth. There is no need for gluing the interlocking system.

If gluing onto concrete and using a moisture barrier, ensure you use a system = moisture barrier and adhesive from the same brand.



Floating Floor Installation

On a Wooden Substrate:

Check that the subfloor is level and prepare the floor if necessary as per above.
If installing onto existing floorboards we recommend installing Karelia **across** the existing floorboards.

On a Concrete Substrate:

Check that the subfloor is level and prepare the floor if necessary as per above.
Relative humidity (RH) of the concrete slab must be measured prior to installation.
We strongly recommend putting a plastic sheet (PE) of 0.2mm or thicker on the concrete first and then use an underlay which has an integrated moisture barrier, regardless of the RH of the slab.

Underlay:

There are many underlays available in New Zealand for floating timber floor installations.
If your substrate is concrete, it is important that you use an underlay which has an integrated moisture barrier, such as "Roberts Harmony" (Image 4).
We are happy to advise the best underlay for your application.

We strongly recommend using a crosslinking PVA glue (e.g. Roberts) for the interlocking system when installing Karelia as a floating floor installation. This eliminates possible squeaking noises that may occur with floating floors.



INSTALLATION

Prior to installing boards, ensure substrate is level.

If floating the floor, lay out the underlay according to manufacturer's instructions.

If gluing down the floor, only use adhesive as the installation progresses. If substrate is concrete, seal with moisture barrier according to manufacturer's instructions.

Open 2-3 packs to begin with and mix the boards, then open packs as required. Check all boards prior to installing for damage/defects. Should you find a defective/damaged board, this can be installed in an unexposed area (ie, under a dishwasher or fridge) or in a cupboard/wardrobe if applicable.

Laying direction:

Try to lay the boards in the direction of incoming light or parallel to the longer wall.

If you lay Karelia on an existing T&G wooden floor, it is recommended you lay the boards crosswise.

Expansion allowance:

Please ensure you read and understand the introduction of this installation guide.

The timber comes in shrink wrapped packs with a moisture content lower than the New Zealand environment. This means the timber will start expanding as soon as you open a pack.

Once the installed Karelia floor has acclimatized to the environment, expansion from thereon will be according to the relative humidity of the air, but never back to its original size.

With any timber floor and expansion the golden rule is: "less is more"!

Leave as much expansion as you can around the perimeters, preferably at least 7-10mm. The gap can be covered with skirting boards, cover strips, quad moulding, etc (Image 5).

Use wedges to maintain the expansion gap when installing.

Remember to also leave expansion gaps around thresholds, door frames, pillars, etc.

Please note: Karelia expands 6 times more across the width of a board than across the length.

If you decide to install Karelia as a floating floor please note the following:

After every 8 linear meters of installed Karelia, an expansion joint must be inserted, regardless of the laying direction.

In larger open plan areas we recommend lining up the gib boards approximately 20mm off the ground or undercutting them to achieve more room for expansion.

Karelia expands substantially more if installed as a floating floor than as a glue down.



Starting place:

Ensure skirting boards and kitchen toe kicks are removed/off.

Measure the width of the room, and calculate how many rows of boards are required. If the width of the last row is less than 40mm, cut the first row of boards to a narrower width.

Start from a solid wall. First check with a cord that the wall is straight. A straight and solid starting line is crucial for successful installation. When necessary, draw a line matching the shape of the wall on the first boards and cut them to that shape.

Installation:

Install the boards from left to right (Image 6). **Always** remove the tongues from the first row of boards to ensure the expansion gap is wide enough. Do this with beginning and end joints too.

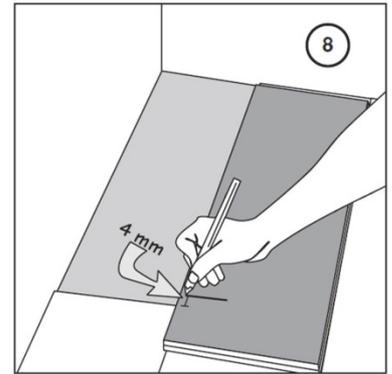
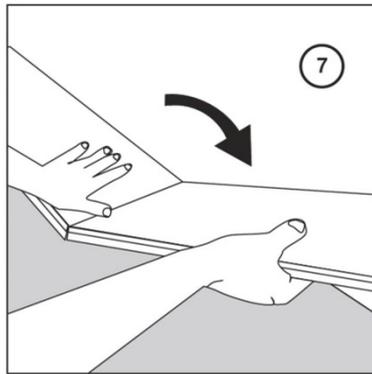
Install the next board with its short side (Image 7) at an angle to the previous board, and lower the board carefully onto the floor, while pushing the end groove and tongue joints together. Proceed in this manner to then end of the first row.

**You can 'ease' the end joint into the locking position by slightly waggling the board up and down while installing it.

Be careful not to damage the end cleat. Be careful not to bend the boards forcibly, since this causes microfractures in the varnished surface.

Cut the last board of the row to size, taking the expansion gap into account, and install the board.

**You can achieve the correct length by turning the short side tongue to face the wall, and marking the correct cut-off point (Image 8).

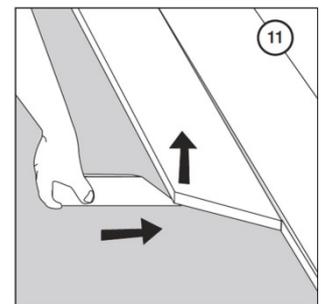
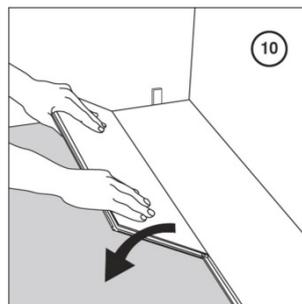
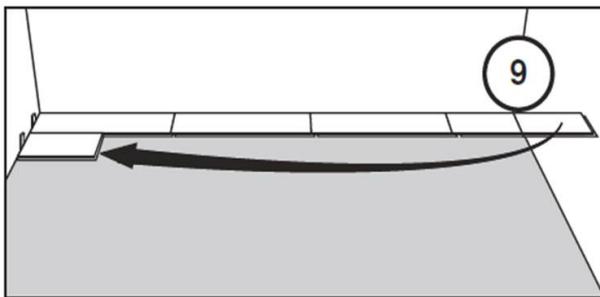


Start the next row with the left-over piece (if this is less than 500mm, then discard, cut a board in half, and begin). The overlap should be no less than 500mm (Image 9).

Install the next row's first board at a slight angle to the previous row's board and lay it on the floor (Image 10).

If there is a slight gap between the joints, make sure that the previous row's board groove is clean.

Use an installation wedge (45 degree cut block of timber), placed around 50mm from the end of the previously installed board (Image 11).

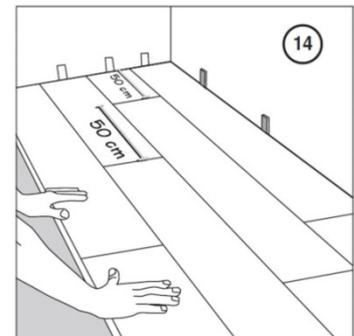
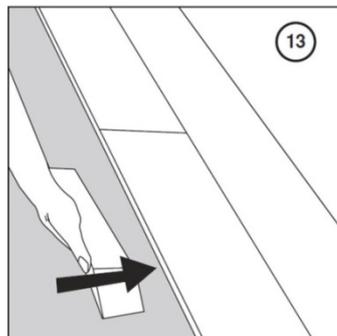
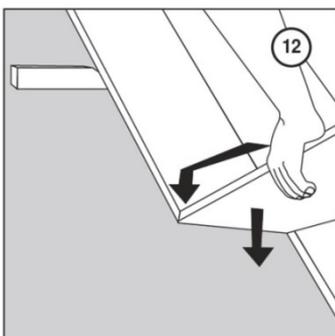


First install the next board's short side at a slight angle to the previous board, and then install the long side. Push the board simultaneously forward and downwards towards the floor at a similar angle to the previous board (Image 12).

Remove the wedge and tap (**not bang!**) the boards into place with the edge, making the side joints tight in the process (Image 13). **Please see under Tips & Tricks for further information regarding overstriking.**

After installing three to four rows, check the wooden floor's expansion gaps, and adjust if necessary.

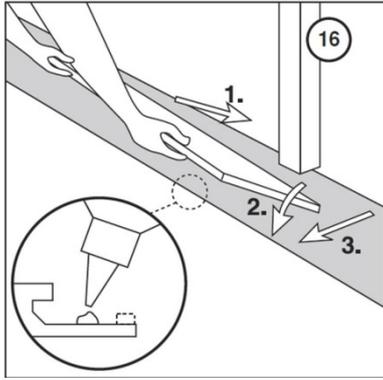
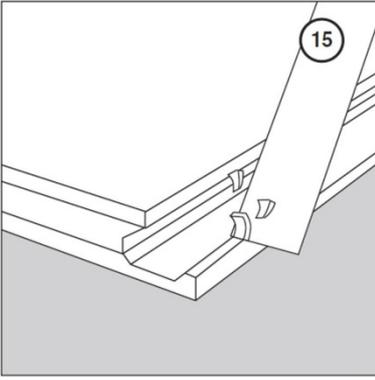
As you progress through the installation please note that the joints for adjoining rows should be staggered randomly and never less than 500mm apart. This is particularly crucial when installing Karelia as a floating floor installation (Image 14).



Last Row:

Measure the width required by the last row of boards at several points (remembering the expansion gap), mark the cutting line and cut the boards to the appropriate size. Install the boards and tighten them into place.

If the last row of boards must be installed under a door frame, cut away the locking edge (Image 15), apply crosslinking PVA glue to the groove, and install the board (Image 16).



Finishing:

Wipe any glue stains off the floor with a damp cloth.

Install the skirting boards, kitchen toe kicks, trim bars, etc. Do not install the skirtings too tightly against the floor, or fasten the bars through the wooden floor as this will restrict the floor's natural movement.

PROFILOC 5G

Introduction:

Karelia have recently introduced the next generation interlocking/joint system called Profiloc 5G. This is an upgrade of the current 2G system. During the transition period, Quality Floors will supply either 2G or 5G, depending on the product purchased and quantity ordered.

To identify which interlocking system you have, please refer to the package label: 5G products will clearly be marked '5G', whereas 2G products will simply mention 'Profiloc'.

Alternatively, feel free to contact your point of purchase, and they can advise which system you have.

Advantages:

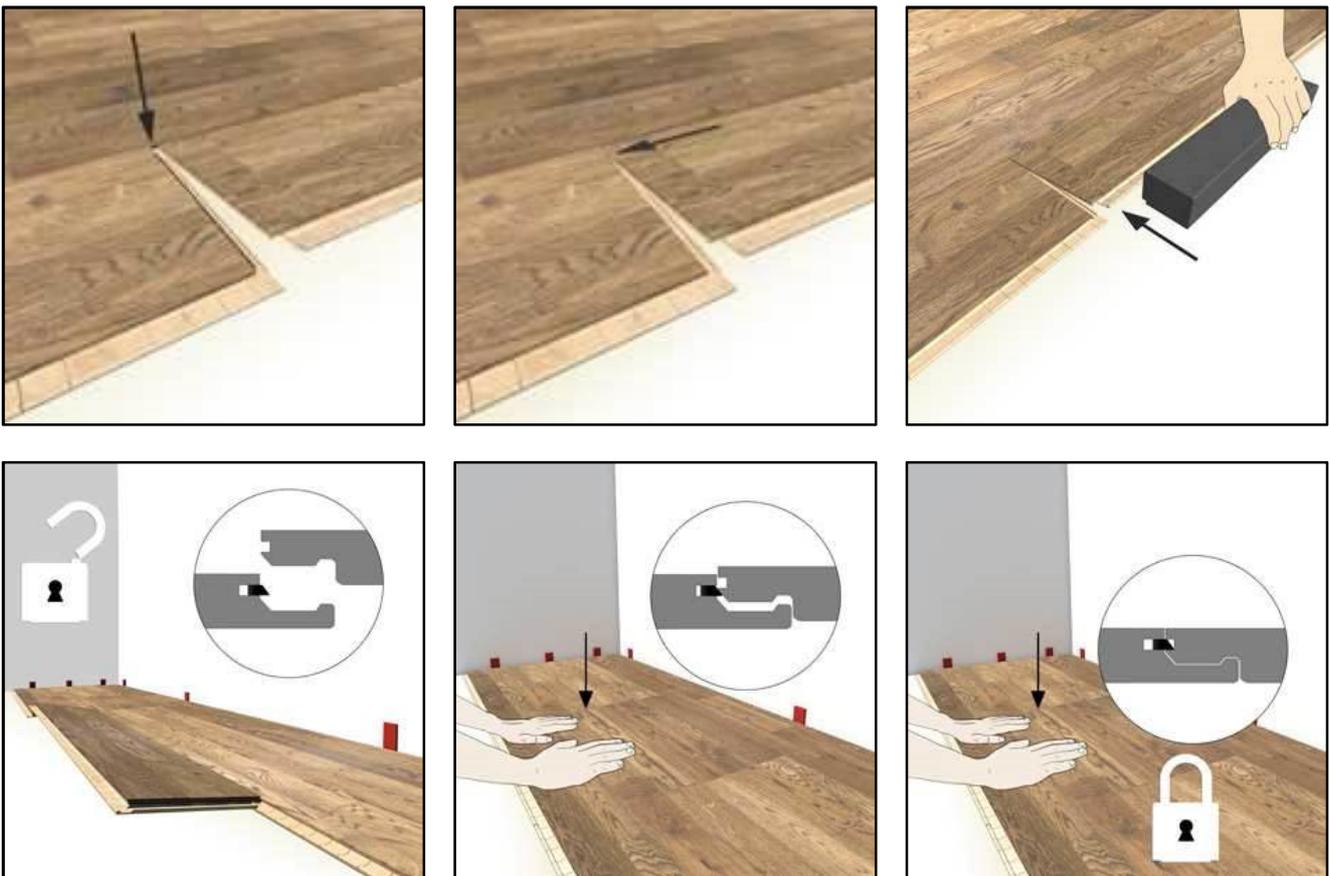
The advantages of the new Profiloc 5G interlocking system are:

- Easier and faster installation, as boards are connected vertically instead of using a specific angle
- Simpler when installing in tricky corners or when fine-tuning is needed
- Easier to install the last row, especially when the board has been cut to size

Installation:

The 5G interlocking system is very precise, therefore it is sensitive – please inspect it carefully **prior to installation**. Pay close attention to the black 'plastic' locking mechanism at the short end of the board, and ensure it is not damaged/has fallen out/hampered by dirt. Should a board with a defective interlock be installed, this could cause the board to 'pop' or become 'lippy' at a later date. The only solution to remedy this is to replace the board. Please note that this would then become an installation issue, not a product fault.

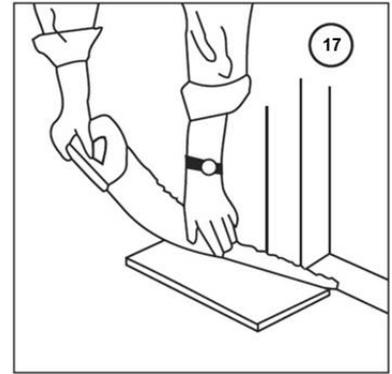
Below are the images that apply to 5G installations:



TIPS AND TRICKS

Cutting Door Frames, Undercutting Skirtings, etc

Place a loose board (plus underlay if being used) on the floor next to the door frame/skirting. This will give you the correct height to saw into the door frame and enable you to push the boards under, while taking a sufficient expansion gap into account (Image 17)



Removing the Locking Edge

If you cannot tilt a board lengthwise or width-wise when installing, you can remove the locking edge by using a chisel or similar (Image 15). The board can then be installed by sliding it horizontally. In these cases, you should apply crosslinking PVA glue to the tongue-and-groove structure.

Narrow hallways / galley kitchens:

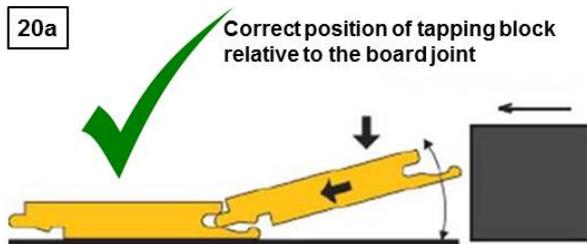
If you are doing a floating floor installation, and the installation direction is crosswise e.g. a narrow hallway (Images 18 & 19), cut the backing and middle layer of all the boards at two or three points. These cuts should be made diagonally to every board at a 45 degree angle either by using a saw or carpet knife. Please ensure you don't cut into the top/wear layer.

Do not use full length boards **only** in these areas. You have to make an end joint for every second row (ie. two half boards in a row).

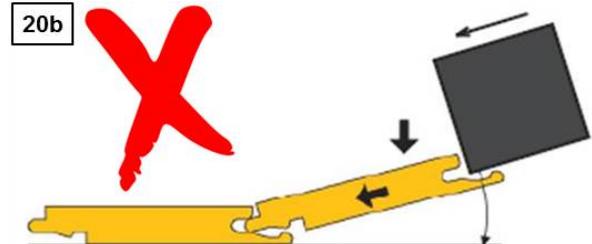


Overstriking:

Overstriking occurs when the cells of the timber are damaged at the edge of the flooring. This can happen by placing a tapping block, or worse an offcut, at the wrong spot when tapping the boards together. Splintering may then occur, not immediately, but up to a few months after installation. See Images 20a & 20b for correct placement of block.



Tap lightly with a tapping block, whilst lowering the board into position



Incorrect placement of tapping block, using this method will splinter the edge of the hardwood

Disclaimer:

Responsibility lies with the person who is installing to determine if the sub-floor is acceptable for the timber flooring installation. Quality Floors Ltd (QFL) is not responsible for timber flooring failure due to sub-floor deficiencies or lack of preparation.

Karelia is a natural wood product. Therefore natural variations in colour, tone and grain are to be expected. Again, it is the responsibility of the person installing to inspect each Karelia board carefully before installation.

QFL does not take responsibility for boards with visible defects once they are installed. QFL will not take any responsibility for moisture issues caused by the subfloor, trades people or faulty appliances. QFL can not be held liable for any installation related potential issues e.g. expansion, uneven subfloor or moisture issues.