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## INSTALLATION AND MAINTENANCE INSTRUCTIONS

### Karelia Engineered Wood Flooring

#### INSTALLATION OF 14 MM KARELIA WOOD FLOORING

#### INSTALLATION OF KARELIA 22 MM SELF-SUPPORTING WOOD FLOORING

#### INSTALLATION OF LOCK TONGUE AND GROOVE WOODFLOORING

#### INSTALLING KARELIA ON A FLOOR WITH UNDERFLOOR HEATING

#### HOW TO CARE FOR YOUR LACQUERED KARELIA WOOD FLOORING

#### HOW TO CARE FOR YOUR OILED KARELIA SILKY WOOD FLOORING

#### FREQUENTLY ASKED QUESTIONS

##### 14MM KARELIA WOOD FLOORING

14 mm Karelia is laid either as a floating floor or is glued permanently to the subfloor using glue which has a high solid matter content, min. 73 % of the weight. It is recommended that you use a professional installer if you are gluing to the subfloor.

Tools required: fine-toothed handsaw, hammer, Stanley knife, square, PVA glue (carpentry glue), a drill, tape measure, laying jemmy, chisel, pencil, wooden spacers, tapping block (do not use a piece of parquet board as a tapping block).

The installation surface must be dry, solid and level, e.g. concrete, chipboard or an existing wooden floor are suitable subfloors. Parquet can be installed also on vinyl floor covering. The laying surface has to be thoroughly cleaned before installation.

Humidity of the installation surface must be below 3,0 weight-% or the relative humidity must be below 80 %. The relative humidity of the ambient air has to be 40 - 60 % and the temperature 18-24 ° C.

##### PREPARATION (FLOATING FLOOR)

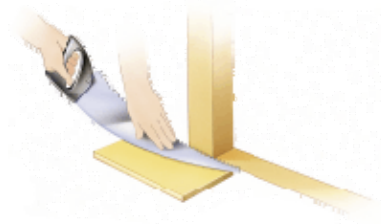
1. Clean the subfloor and check that it is even - a length of parquet is ideal for this purpose (+/-2 mm within 2 metres distance allowed).



2. If the unevenness exceeds the limits given in figure 1, use a self-levelling compound or screed, or for wooden floors use a sander.



3. Saw the bottom of the doorframe to allow for the parquet board and insulation to fit under it.



4. On the concrete subfloors spread a plastic membrane and soundproofing insulation. As soundproofing insulation you can use corrugated cardboard, bituminous cardboard with cork granules, foamed plastic or other purpose-designed homogenous material.

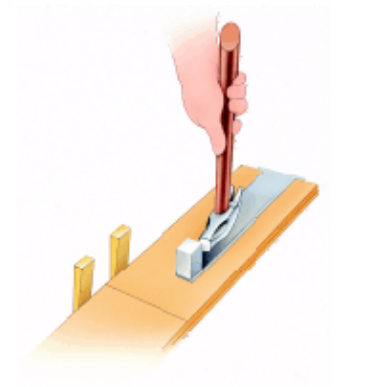


#### **INSTALLATION (FLOATING FLOOR)**

5. Lay the boards to face the incoming daylight. If the subfloor is an existing wooden plank floor, lay the parquet crosswise to the planks. Lay the first row of boards with female grooves against the wall and keep the board from the wall approx. 10 mm with the help of the wooden spacers provided.



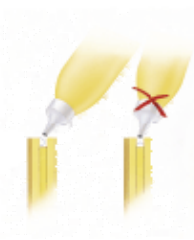
6. Attach the final board of the first row with the help of the laying jemmy. Tap the jemmy to close the final header joint and create a 10 mm space at the narrow end of the board to set the wooden spacers in the same way as you have already done along the long edge.



7. Squeeze some glue on the end joints and all the way along the joint lengthwise.



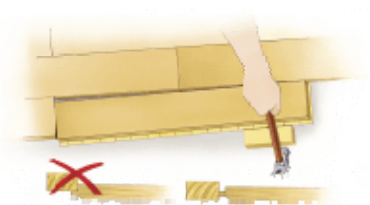
8. Squeeze some glue on the top edge of the female groove. Tap the boards together using a hammer and tapping block.



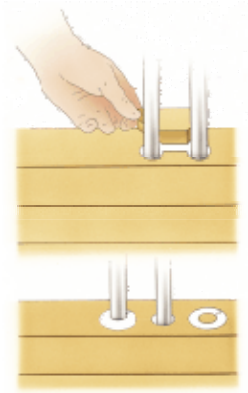
9. Start the next row with the leftover piece from the previous row. Always ensure that the end joints of adjoining rows are at least 500 mm apart.



10. Tap the boards together with the help of the tapping block. In order to avoid gaps between the end joints, fit the next board from the open side as shown. i.e. fit header joint tightly: working from open end. Tap down the length working toward the header joint.



11. Drill holes to accommodate pipes and cut the piece off with a saw as shown. When the board is in position, glue the sawn-out section back in its place and cover with pipe ferrules.



12. Fit the last row using a piece of parquet as a guide.



13. When the glue has dried, remove the spacers and fix the skirting boards. Do not set them too tightly against the floor that is being fitted.



### **KARELIA 22 MM SELF-SUPPORTING WOOD FLOORING**

22 mm Karelia wood flooring is installed on sub-supports as a self-supporting floor construction.

Tools required: fine-toothed handsaw, hammer, nails, nail punch, Stanley knife, square, PVA glue (carpentry glue), a hand drill, tape measure, laying jemmy, chisel, pencil, wooden spacers, tapping block (do not use a piece of parquet board as a tapping block).

As supports you have to use materials onto which Karelia 22 mm wood flooring can be permanently nailed, e.g. timber, laminated wood or gluelam beams. Supports have to be dry and straight. Prior to installation, check that adjoining supports are level and flat. A piece of parquet is ideal for this purpose. Use a sander to get a flat even top surface.

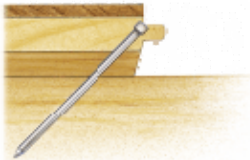
Supports must be firmly attached to the subfloor and they must not be able to move under the wood flooring. Maximum distance between the supports from centre to centre is 600 mm. It is recommended that mineral wool insulation is used between the supports to improve sound insulation and to prevent water from condensing in the structure. On top of the supports you can use thin and non-elastic material to prevent creaks. Recyclable paper or cardboard are suitable for this purpose.

The relative humidity of the ambient air has to be 40-60 % and the temperature 18-24 ° C. These figures also apply once the floor is laid.

### **FOLLOW THE RELEVANT SECTIONS OF THE INSTALLATION INSTRUCTIONS FOR THE LAYING OF 14 MM KARELIA**

1. The first row of boards is nailed vertically through the board onto the support beam. If the skirting board does not cover the nailhead, the nailhead has to be sunk and the holes topped with filler to match the colour of the parquet. Leave a gap of 10 mm in width between the wall and the parquet.

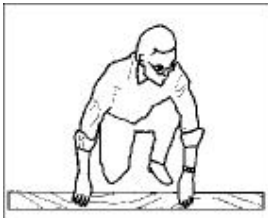
2. The subsequent rows of board must be nailed on the male bevels at a 45 degree angle to the surface of the supporting beam (hidden nailing). Nailing must be done at each support, using 60 mm long bright zinc wire nails, nails with glue points or staples. If the nails cause the male bevel to split, drill a hole before nailing. The nailheads must be sunk by a nail punch in order that the next board can be laid without obstruction. An end joint in one row needs to be staggered a minimum of 500 mm from an end joint in the next row.



3. Glue must be spread on the top edge of the female groove only on the short end of each board. No more than one header joint in three may fall over the gap between support beams. The last board must be nailed from the top through the board and the nailhead sunk by a nail punch. If the skirting board does not cover the nailhead, the hole of the nailhead must be topped with filler to match the colour of the parquet.

### **INSTALLATION OF LOCK TONGUE AND GROOVE WOODFLOORING**

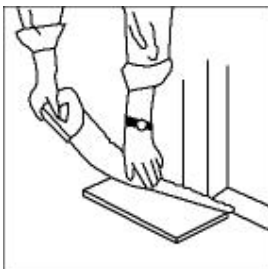
Start the installation by carefully reading the laying instruction. Clean the subfloor and check that it is even.



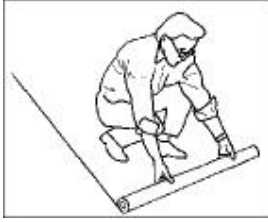
If the subfloor is more uneven than shown, level by sanding or using filler. Concrete floors must be dry.



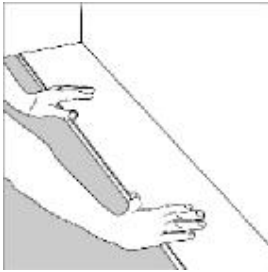
Saw the door frame so that the flooring has sufficient space to expand.



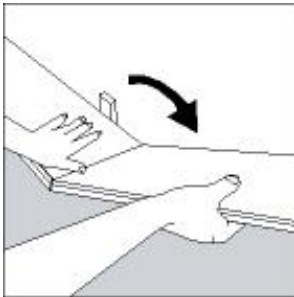
Spread a 0.2 mm plastic film on new concrete sub-floors as a moisture barrier and a sound insulation material or use only Karelia-underlay.



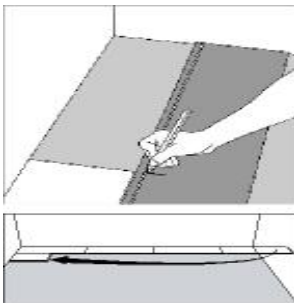
Store the Profiloc in the intended installation place for two or three days and open the package just prior to installation. Install the board chiefly from the main light. If the subfloor is made of planks, lay the flooring crosswise in relation to it. Place the first row of boards with the long side tongue against the wall. Expansion gap from the wall on the longside of the first board can be adjusted after e.g three rows have been installed.



Install next board as shown in the picture.



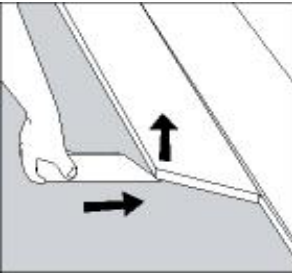
Cut the last board of the row to size and install it in place. Use the cut piece of the previous row to start the next row, min. length 30 cm.



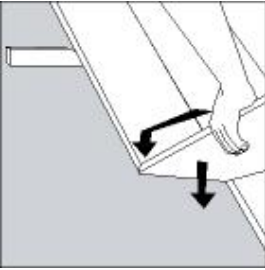
Press the first board of the next row at an angle against the board in the previous row and lay it flat. Check, that the groove of the board of the previous row is free from grit and dirt. In case a gap remains between the boards, tap with your hand on the board joint.



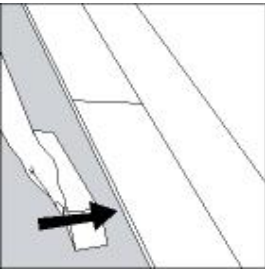
Place an installation wedge underneath the end of the installed board.



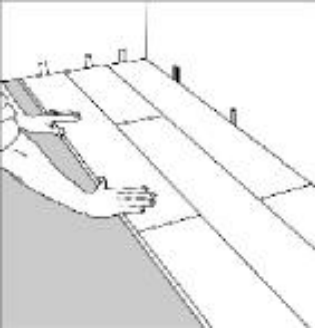
Install first at an angle the short end of the board into place and after that the long edge of the board.



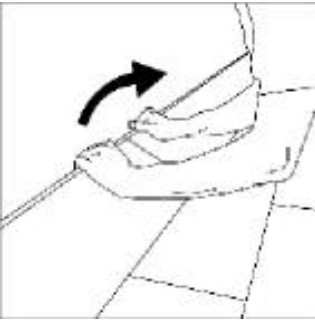
Remove the wedge and tap with the side of the wedge the board in its place.



After three rows have been installed, the distance between the wood-flooring and the walls (min. 10 mm) can be adjusted by using wedges.



In case the wall is not straight, can the shape of the wall be drawn on the boards of the first row. Lift the boards of the first row up and cut them to match the wall. Reinstall the boards from left to right.

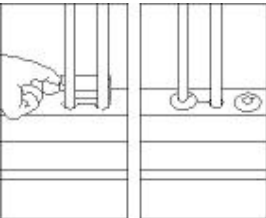


In case the last row of boards is to be installed underneath a door frame, cut away the locking edge, apply glue on the groove and install the board.



Drill a hole into the flooring for the pipe and saw out the piece. When the board is in position, glue the sawn out section back into place and cover with pipe ferrules.

Remove the wedges and fasten the skirting boards, without pushing them too tightly against the floor.



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## INSTALLATION ON A FLOOR WITH UNDERFLOOR HEATING

Due to special manufacturing technique Karelia parquet is suitable to be installed on a floor with underfloor heating. Prior to installation it has to be decided whether Karelia parquet will be laid as a floating floor or glued to the subfloor. Both methods are from the technical point of view possible, but a glued floor transmits heat better into the room. The capacity of heat transmission varies (see surface temperature diagrams).

In order to avoid uneven swelling and shrinking of the floor (flooring material) the total area of the woodflooring shall be heated.

Beech and birch are not recommended for floors with underfloor heating due to higher movement of timber based on timber's own properties.

Please pay attention to very important points in connection with underfloor heating, which are not contained in our standard installation instructions.

### 1. PRIOR TO INSTALLATION

Allow two weeks' standing time for concrete to dry out. Switch on the heating starting at minimum and raising the temperature daily by approx. 5 degrees C until the heating reaches two-thirds of maximum. This action has to be taken both in summer and winter. Ventilate the room well.

Run the heating at maximum during the last few days before installation. Duration 1 day per 1 cm cast form thickness.

Two days prior to the installation switch off the heating or in cold weather reduce it to 15-18 degrees C surface heat.

### 2. FLOATING INSTALLATION

Check that the surface is level (see installation instructions)

Check that the subfloor is sufficiently dry; 80 % of relative moisture or 3,0 weight-%.

Spread 0,2 mm thick plastic membrane on the subfloor overlapping 200 mm or with joints taped. On top of the membrane, spread a corrugated cardboard or other porous soundproofing material (NB: a cork granulate felt or cellular plastic are not suitable because they add to heat insulation).

On top of the membrane, spread a corrugated cardboard or other porous soundproofing material (NB: a cork granulate felt or cellular plastic are not suitable because they add to heat insulation).

Lay the Karelia according to our installation instructions.

Fix the skirting boards in place with screws or nails and screw down thresholds and apron pieces. When fixing thresholds allow 10 mm gap around fixing screws.

### 3. INSTALLATION ON THE SUBFLOOR BY GLUING

We recommend that the gluing should be done by a professional installer.

Switch off the underfloor heating about one day prior to the installation.

Check that the subfloor is dry enough, 60 % of relative moisture or 1,5 weight-% of concrete mixture content.

Check that the subfloor is absolutely level, maximum deviation allowed  $\pm 1,0$  mm within the space of 2 metres.

If the surface has to be levelled, make sure that the levelling compound has completely dried.

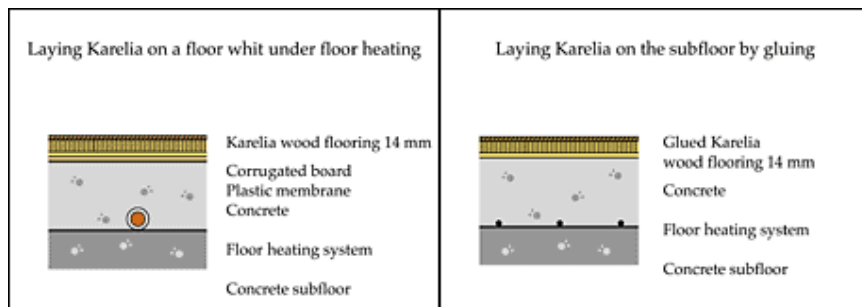
Glue the Karelia onto the surface by using a 5 mm comb spreading spatula and a bitumastic-based adhesive having a very high dry matter content, min. 73 weight-%. Suitable glues are PVA, two-component or resin. Glue the boards on tongue and groove according to installation instruction. Glue application at the most 500 gr/m<sup>2</sup>.

To hold the fitted parquet down while it dries, place weights on the surface. If available, unused packages are ideal for this purpose but any similar object will suffice. Pay special attention to areas where there is likely to be heavy foot traffic, i.e. entrances and walkways. Remove the weights when the glue has dried. If there are traces of glue stain on the surface, remove immediately with a damp cloth.

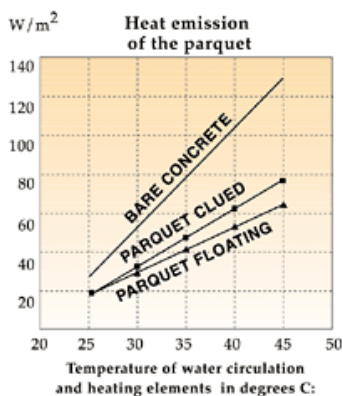
### 4. AFTER THE INSTALLATION

Wait 12-24 hours and then switch on the underfloor heating. Raise the temperature so that a maximum temperature is achieved within five days. Then adjust the underfloor heating so that the wooden floor surface temperature does not exceed + 27 ° C.

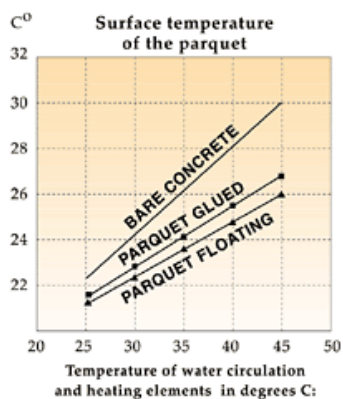
The ambient air humidity must be kept at 40-60 %. Recommended room temperature is 18 degrees C to 24 degrees C. If these conditions are not observed, abnormal movement may occur. The manufacturer, seller or installer cannot accept any responsibility for such occurrences, nor are they covered by the guarantee.



Karelia wood flooring can be installed with electrically heated floors or floors with warm water circulation systems. Karelia can be laid either as a floating floor or glued to the subfloor.



Heat emission of bare concrete floor, wood flooring glued to the subfloor and floating wood flooring, when the room temperature is + 20 ° C.



Surface temperature of bare concrete floor, wood flooring glued to the subfloor and floating wood flooring, when the room temperature is + 20 ° C.

## MAINTENANCE INSTRUCTIONS - LACQUERED KARELIA WOOD FLOOR

The surface of Karelia wood flooring has been pre-finished with five coats of hardwearing UV hardened acrylic lacquer, which has no formaldehyde content and does not emit any other harmful additives into the room space. In order to maintain the beauty of your parquet floor, follow our simple maintenance instructions.

### AMBIENT AIR

It is important that, in rooms where the flooring is laid, the relative humidity of the air is kept within the limits of 40 % and 60 % and the room temperature between 18 degrees C and 24 degrees C. In the United Kingdom, these conditions will normally obtain but, in exceptionally hot or exceptionally cold weather, heating and ventilation need to be balanced lest there be abnormal expanding and shrinking of the parquet, for which the retailer, manufacturer or installer cannot take responsibility. Distortion can be prevented by using an air humidifier in dry conditions. This will also be healthier for you and your family.

### CLEANING

- Use mats on both sides of your front door, so that as little as possible grit and other dirt is carried onto the floor.
- Remove particles with a vacuum cleaner or a brush.
- When you want to clean the floor thoroughly, 'dry' wipe it with a barely moist cloth.
- A drop of any neutral washing liquid can be added to the washing water if required and your cloth dipped in it and well squeezed out before wiping the floor. If liquid is spilt on the floor, wipe it off immediately.
- We do not recommend any conditioner for parquet floors.
- Do not use wax.

### PREVENTION OF SCRATCHES

In order to protect the floor from scratches and knocks, use felt pads on your furniture. Remove any grit or other abrasives immediately. Remember parquet does not like stiletto heels.

### REMOVAL OF STAINS

The fresher the spot, the easier it will be to remove. For stain removal you can use the substances mentioned in the table below.

Type of stain	Cleaning substance
fruit, berries, juices, milk, cream, soft drinks, beer, wine, coffee, tea, urine	synthetic cleaning agents
chocolate, fat, oil, shoe polish, marks by shoes, tar, bitumen	mineral turpentine
sealing wax, correcting ink, ballpoint pen, ink, lipstick	household spirits
Blood	cold water

### RECONDITIONING OF A LACQUERED KARELIA FLOOR

If in the fullness of time the lacquer surface becomes worn or dull, the floor can be sanded and re-lacquered. Then your floor will be as good as new.

It is recommended that re-lacquering is carried out by a professional. A number of special tools are required and the expertise of the professional is needed to ensure the best possible finish for your high quality Karelia flooring.

For re-lacquering, standard varnishes for parquet floors can be used. Read the instructions carefully.

To remove the old varnish a suitable abrasive-belt sander should be used. The grade of sanding paper or net must be approx. 50 and sanding carried out at right angles to the parquet boards. Corners and edges have to be sanded with a disc sanding machine using sanding paper grade 50. In the same way, scratches and knocks can be repaired with a mastic of sanding dust and base varnish or with a filler that matches the colour of the floor.

After repairs have been completed, a final sanding is required. The grade of the sanding paper or net should be between 80 and 100.

After sanding, loose dust must be carefully removed from the surface of the parquet.

Apply three coats of base varnish using a steel spatula. Consumption of varnish approx. 100 - 150 gr/m<sup>2</sup>.

If sanding is required after applying the base varnish, the grade of the sanding paper or net has to be between 120 and 160. After sanding, loose sanding dust must be very carefully removed from the surface of the parquet using a barely-moist cloth.

Apply two layers of finishing lacquer using a steel spatula, mohair spatula or lacquering spatula and brush. Consumption of varnish approx. 250-300 gr/m<sup>2</sup>.

After lacquering, let the floor dry properly.

Caring for your pre-finished Karelia parquet is very simple and satisfying providing you remember the most important principles:

- correct humidity and temperature conditions, ventilation, air humidification
- mats on both sides of the front door
- prevent water being trodden onto the floor especially in hallways
- immediate removal of stains
- felt pads on furniture.

#### **MAINTENANCE INSTRUCTIONS - OILED KARELIA SILKY WOOD FLOOR**

It is important that, in rooms where the flooring is laid, the relative humidity of the air is kept within the limits of 30 % and 60 % and the room temperature between 18 degrees C and 24 degrees C. In the United Kingdom, these conditions will normally obtain but, in exceptionally hot or exceptionally cold weather, heating and ventilation need to be balanced lest there be abnormal swelling and shrinking of the parquet, for which the retailer, manufacturer or installer cannot take responsibility. Distortion can be prevented by using an air humidifier in dry conditions. This will also be healthier for you and your family.

#### **OILED KARELIA SILKY**

The surface of Karelia Silky has been treated with a special oil mixture, which is based on natural vegetable oils. This does not contain formaldehyde nor does it release into the room any harmful substances. In order to preserve oiled Karelia Silky, treat it carefully following the instructions below.

#### **CONDITIONERS**

For the care of Karelia Silky parquet there are three conditioners, produced by OsmoColor which are available from your retailer or by specialised paint shops.

regularly **Wash and Care** floor cleaner for wooden floors (based on coconut oils and vegetable soaps)

when needed **Liquid Wax Cleaner** for cleaning and maintenance (not water-soluble)

#### **RECONDITIONERS**

for renewal **Hardwax-Oil** for complete or partial renovation of wooden floors (based on vegetable oils and waxes, not water-soluble, minimal solvent content)

These products are safe and secure, if they are used correctly. Test results are available through your distributor when needed. The Hardwax-Oil penetrates deep into the wood and improves its resistance to dirt.

#### **FIRST CARE AFTER INSTALLATION**

- Remove all surface dust or dirt on the floor with a vacuum cleaner or a broom.
- Wipe with a barely damp cloth. Add Wash and Care floor cleaner to the water according to the instructions in the package.
- Remove persistent stains with Liquid Wax Cleaner.
- In **public areas** we recommend the Liquid Wax Cleaner following the instructions in the package.
- After the cleaner has dried, polish slightly with a machine using a white pad.

One litre of Liquid Wax Cleaner is enough for the care of at least 100 sqm, if used correctly (2 tea spoons for approx. 1 sqm)

## GENERAL

- Use a doormat in order to prevent sand and other abrasive materials damaging your floor.
- Please read the instructions in the package of the maintenance products carefully.
- Never use an excessive amount of water when cleaning your wood floor. Remove any liquid spilt on your floor immediately.

## IN THE HOME

- Normal care can be carried out with a vacuum cleaner.
- When necessary you can wipe your floor with a barely damp cloth. Add some Wash and Care floor cleaner to the water following the instructions in the package.
- Remove heavy stains with Liquid Wax Cleaner.

## IN PUBLIC BUILDINGS (OFFICES, SHOPS, SCHOOLS, HOTELS)

- Wipe the floor daily or when needed with a barely damp cloth. Add some Wash and Care floor cleaner.
- Remove heavy stains with Liquid Wax Cleaner.
- Refresh the floor when needed with Liquid Wax Cleaner

## FREQUENTLY ASKED QUESTIONS

### Is it necessary to treat Karelia wood flooring immediately after installation?

You can use Karelia wood flooring as soon as it is installed. Pre-finished, either lacquered or oiled, boards require no treatment at the time of installation.

### What kinds of materials can be used under the wood flooring?

As an underlay you can use cellular plastic, cork granulate felt, corrugated cardboard or other homogenous materials, e.g. felt manufactured from recycled cloth.

### What kind of glue should be used for installing Karelia wood flooring?

For the floating installation a normal PVA-glue (carpentry glue) is recommended. When glued permanently to the subfloor a bitumastic-based glue with high solid matter content ( min. 73 weight %) is recommended. It is desirable to use a professional installer when glueing to the subfloor.

### How do I install Karelia wood flooring?

Karelia wood flooring is delivered prefinished and ready to lay. The precision manufactured parquet boards enable a high quality floor to be laid quickly and easily. In every third package you will find a clear installation instruction leaflet. .  
Further info

### How do I maintain Karelia wood flooring after installation?

Maintenance of Karelia wood flooring is easy and carefree when you follow our simple maintenance instructions precisely. Remove particles and dust with a vacuum cleaner or a brush. When you want to clean the floor thoroughly, "dry" wipe it with a barely moist cloth.  
Further maintenance instructions

### Is it possible to install Karelia wood flooring together with underfloor heating?

Due to a special manufacturing technique Karelia parquet is suitable to be installed on a floor with underfloor heating.  
Installation instructions

### Which of the wood species is the hardest?

Of the wood species used for Karelia, merbau is the hardest. Hardness of various timber species is defined by a Brinell hardness value test. As a rule the higher the rating of the lamina, the more durable the floor.  
Brinell-hardnesses