

Kährs®

INSTALLATION GUIDE KÄHRS WOOD FLOORING FLOATING INSTALLATION

KÄHRS WOODLOC®5S
KÄHRS WOODLOC®5G
KÄHRS WOODLOC®2G
KÄHRS T&G



AB Gustaf Kähr
Box 805 | 382 28 Nybro
Tel 0481-460 00 | Fax 0481-178 31
info@kahrs.se | www.kahrs.se

CONDITIONS FOR INSTALLATION

General

Kährs 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.

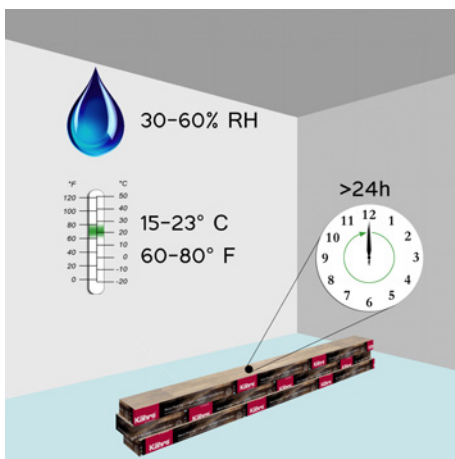
The room and material temperature at the time of installation should have a temperature of 15-23 ° C. The humidity in the room should be between 30-60% RH.

Note that moisture levels in new build premises often remain relatively high by the time wood floors are installed. In these cases, it is important that the correct RH is ensured before installation can take place.

The wooden floor should be installed when all other work is completed, e.g. painting, wallpapering, tiling and when the construction site has the right RH. This is to avoid damage, dirt damage and unnecessary moisture related damage on the floor.

Acclimation of the floor bundles

Before installation, wooden floors must be acclimated in the space where the floor is to be installed, for at least 24 hours. Faster temperature rise is obtained if the floor bundles are not laid in a single pile but are divided into several smaller ones. However, do not open the packaging of the floor bundles until the installation is to begin.



Fixture and fittings

Furnishings, kitchen islands, wardrobes, walls, etc. must never be attached to the wooden floor. Attachment to the subfloor can take place if holes are drilled through the wooden floor to accommodate, for example, support legs or fastening including distance. The same movement joint that applies to the entire floor surface must then also be around the support legs/attachment. The floor must never be pressed down and locked.

Kitchen fittings are attached to the wall to relieve the weight on the floor. The interior rests in the front edge against the floor with support legs. Alternatively, the kitchen fittings can be mounted on four legs. The wooden floor can be laid under the white goods, with the required drip protection on top.

For kitchen fittings with worktops in heavy materials such as stone, stone composite, concrete or other mineral-based materials, the wooden floor must not be installed under the heavier fittings, as this risks locking the floor. If you still want wooden floors under the interior, the wooden floor must be divided and installed as a separate surface with expansion space to the rest of the floor. An alternative to wooden floors under kitchen fittings is a chipboard with a corresponding thickness. Another alternative is to drill holes in the wooden floor so that the support legs rest against the subfloor, do not forget the movement joint around the support legs.

If a wood-burning stove is placed on the floor, for example, a chipboard should be laid on a surface that is slightly smaller than what the "spark protection" is. Do not forget the expansion space. The chipboard also takes up the weight from the wood stove.

The floor is then installed around the chipboard!

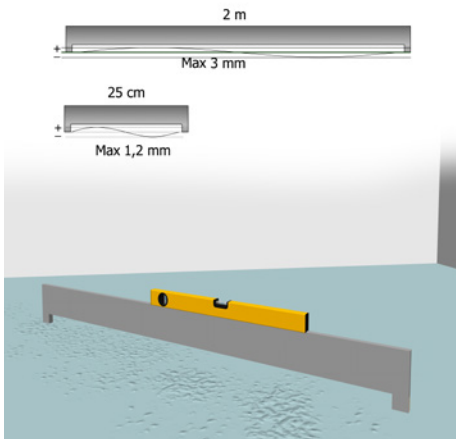
In connection with Kährs guarantee commitment, floors are not replaced or repaired under furnishings, kitchen islands, wardrobes, wood-burning stoves, etc.

Requirements for subfloors

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

Never leave sawdust or other organic residues on concrete subfloors. This is because the moisture coming from below remains under the vapor barrier and can give rise 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 and 1.2 mm over 0.25 m, the floor must be levelled first. Kährs also accepts a measured length of 1 m. The tolerance in this case is 2 mm.



Check the relative humidity (RH) of the subfloor, if this is above 90%, a vapor barrier of polyethylene foil is not sufficient, but further action is required before installation can begin.

On the following subfloors, regardless of age, it is mandatory to have an approved age-resistant vapor barrier, e.g. polyethylene foil. This should always be installed as close to the floor surface as possible. It is important that it is installed according to the supplier's instructions.

- Concrete floor that lies directly on the ground (slab on the ground)
- Over a hot or humid room (e.g. boiler room or laundry room)
- Flooring over crawl space foundations
- Lightweight concrete floors
- Over floor heating systems

An underlay should be installed on top of the vapor barrier to reduce the impact sound and increase walking comfort. Kährs has various underlay in the accessory range, see www.kahrs.com

The range includes combination underlays that act as both vapor barrier and underlay.

Installation planning

Measure the width of the room and calculate how wide the last row of boards will be. If it is less than 30 mm wide, you should also saw the first row of boards, so that the first and last rows of boards are about the same width. Do not forget to count on the movement joint!

When installing floors with Woodloc®, it is easier if the installation is started at the long side that has the most doors. If there are doors on the short sides of the room, it is also easiest to start a new row of boards from that side. The boards can be laid both from the left and right and backwards. If the floor width and length exceed the specified maximum dimensions, the floor must be divided by an expansion joint.

Be careful with the planning so that the maximum floor width and floor length do not exceeds the maximum width and length of your floor, see table below:

Product	Type of joint	Max Width	Max Length
Parquet floor 15 mm	Woodloc 5S	25 m	50 m
Parquet floor 13-15 mm	Woodloc 5G	15 m	25 m
Veneer floor HDF- core 7-9 mm	Woodloc 5G	15 m	25 m
Other Wood Flooring 10-15 mm	Woodloc 2G	12 m	18 m
Parquet floor 14-20 mm	Tongue & Groove	12 m	18 m

Installation of Kährs wood floors on underfloor heating

Approved vapor barrier is mandatory in the construction when installing on underfloor heating, e.g. the combination product Kährs Tuplex. The vapor barrier should be placed as close to the floor as possible.

Regardless of the choice of floor heating system, it must be ensured that the surface remains flat and stable, even over time, to avoid e.g. noise and flex.

When installing on underfloor heating in grooved subfloors (e.g. chipboard or EPS) with heat distribution plates, the wooden floor must be installed perpendicular to the loops of the underfloor heating. If this is not possible, it is necessary to first cover the subfloor with a board material. If the heating coils are embedded in the substrate, no extra consideration needs to be given to the installation direction.

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

Inspection

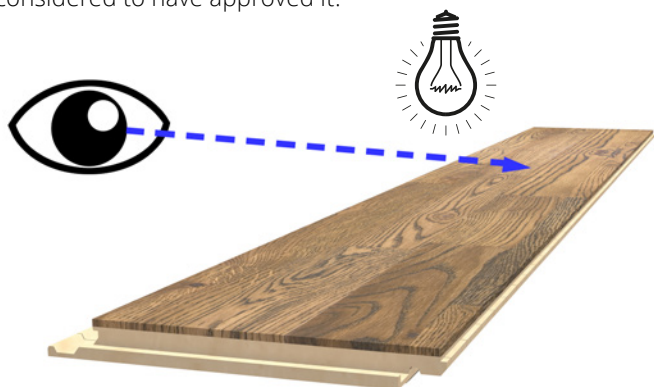
It is always easier to rectify faults if they are discovered early. It is important to always inspect the product during installation. If faulty products are discovered regarding, for example, appearance or other design elements that do not correspond to what is described in the product sheet, it is 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 floors may contain elements that may be perceived as deviating for an individual board, but which on an installed floor surface are an approved and conscious design element. Always make sure that inspection and installation takes place with good lighting!

Differences in color, knots and other design between the boards in 1-strip floor can be large and place higher demands on the installation. Therefore, open several

packages and mix the floorboards to get a good spread of the floor's design elements over the entire floor surface. Avoid, for example, placing boards with a large color difference next to each other. However, never leave bundles open if you make a break in the installation.

When a floorboard has been laid, regardless of whether you lay it yourself or hire a floor layer, you as a buyer are also considered to have approved it.



Choice of installation direction, max. widths

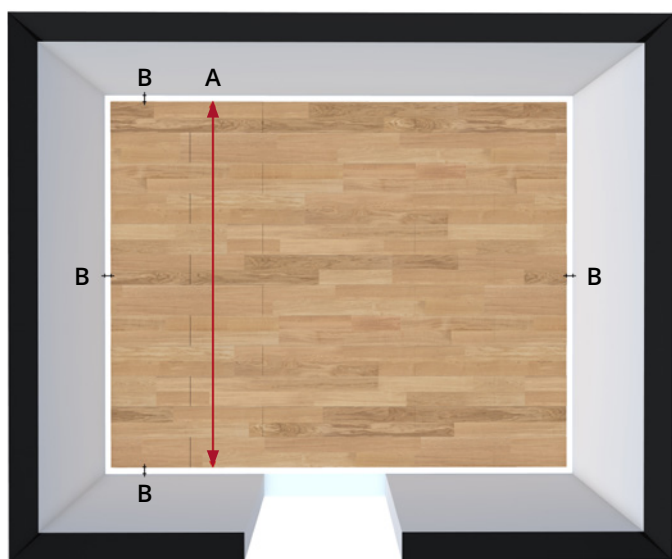
We recommend installing in the longitudinal direction of the room, as the board moves less in length than in width. In the case of long narrow spaces, such as hallways, the floor must be laid in the longitudinal direction to ensure that the floor lies flat against the ground.

Movements joints in wood floors

Natural seasonal variations cause a certain amount of movement (expansion and contraction) in wood floors.

Therefore, the floors must never be installed close to adjacent walls or other fixed building parts. A movement joint according to the table below must therefore be left around all sides of the continuous floor surface.

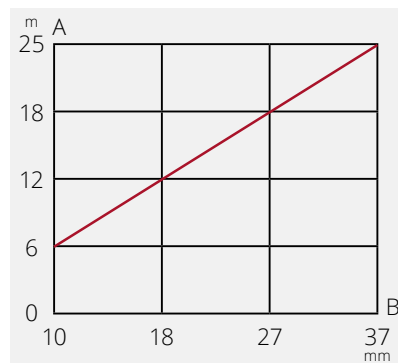
Remember that the width of the expansion joint is the sum of the movement joints of the two connecting surfaces!



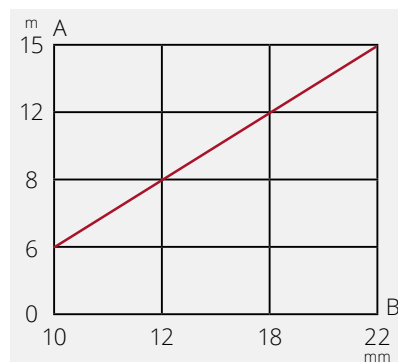
The size of the movement joint in mm is calculated using the formula: 1.5 mm x meter floor width. The size of the movement joint should never be less than 10 mm.

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

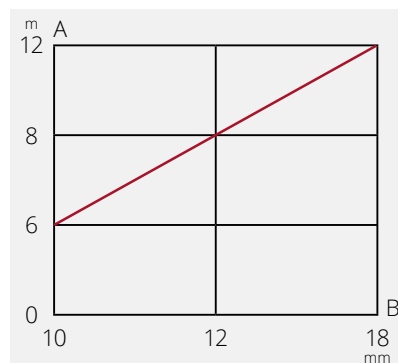
Graph shows: A wood floor's movements as it absorbs and emits moisture. The climate in the bundles corresponds to 20 ° C and 40% RH upon delivery.



Parquet floor 15 mm, Woodloc 5S



Parquet floor 13-15 mm, Woodloc 5G
Veneer floor HDF-core, Woodloc 5G



Parquet floor 14-20 mm, T&G
Other Wood Flooring 10-15 mm, Woodloc 2G

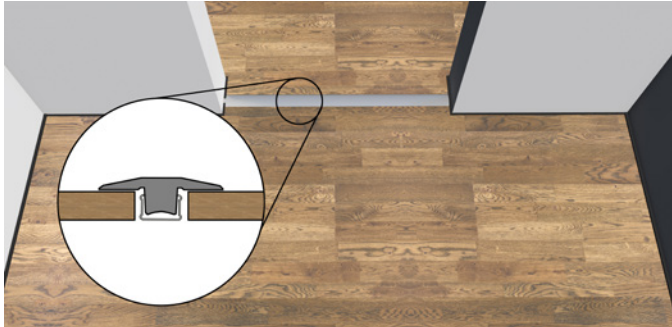
Note that the maximum width of the floor is based on a rectangular floor surface. For a more challenging room design, it may be necessary to contact a floor installer or dealer to go through any specific conditions.

Extra labor or material costs related to, for example, skirting, mouldings or door casing, which are painted or overpainted and cannot be removed without affecting these or wall surface, are not reimbursed by Kährs in the event of a warranty measure on the floor.

Door openings

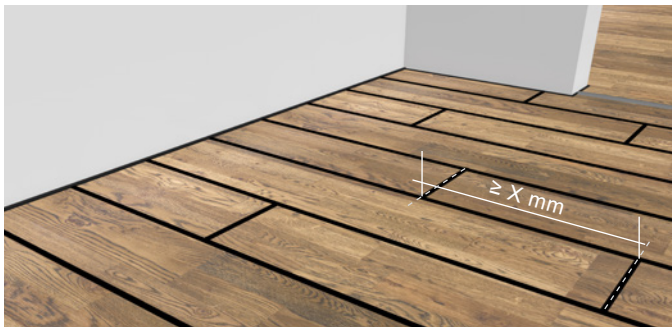
When installing through doorways or narrow passages, e.g. vaults, the floor must be divided by an expansion joint, which is then covered by a threshold or moulding.

The threshold can also be removed, then refitted, when the floor has been installed with an expansion joint under the thresholds position. If the threshold is too high, the door can be trimmed accordingly.



End joints

A proper staggering, according to the table below, of the end joints in adjacent rows, must be present to keep the floor flat during climate variations. Even small areas must be installed staggered, i.e. all floor areas must have end joints in every row. In long narrow areas, such as halls, it is particularly important.



Product	Type of joint	End joint displacement $\geq X$ mm
Parquet floor 15 mm	Woodloc 5S	500 mm
Parquet floor 13–15 mm	Woodloc 5G	500 mm
Veneer floor HDF-core 7–9 mm	Woodloc 5G	300 mm
Other Wood Flooring 10–15 mm	Woodloc 2G	500 mm
Parquet floor 14–20 mm	Tongue & Groove	500 mm

Gluing joints

Adhesive should not normally be used on boards with Woodloc® joints. However, in connection with doorjambs or radiators, installation is sometimes easier if 1/3 of the locking edge is planed off and adhesive is applied to the horizontal underlip (see illustration). This means that board can be tapped into place.



Gluing to the subfloor

In cases where you want to glue the wooden floor to the subfloor, it is important that the requirements for subfloors are met and that the right glue for the purpose is used. Note, that there may be different regulations around what applies to gluing down to the subfloor in different countries.

Consult your glue supplier so that you get the right glue and spatula which is suitable for gluing wooden floors. It is often the properties of the subfloor that determine which glue you should use. Follow the glue supplier's instructions carefully.

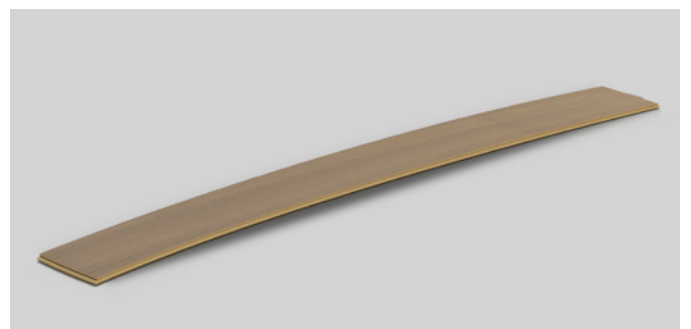
Before gluing can begin, it is important to ensure the quality and moisture of the subfloor, the type of glue and the amount applied glue per m².

Pattern misalignments

Minor pattern misalignments that occur during manufacturing of for example Dutch pattern are permitted. When installing boards with a Dutch pattern, the transverse strip must fit in the center of the longitudinal strip on the adjoining row of boards. In the case of large areas, the installation can advantageously start from the middle of a new board row and then be laid out towards the edges, in order to minimize the effect of a possible pattern misalignment over large areas.

Bowing

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



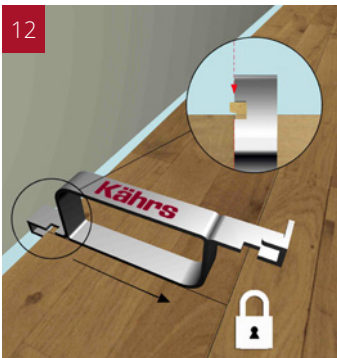
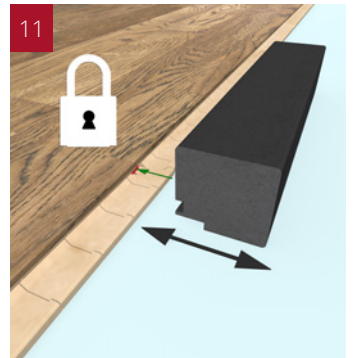
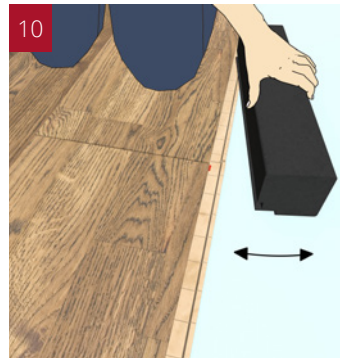
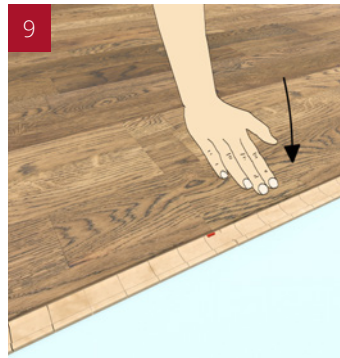
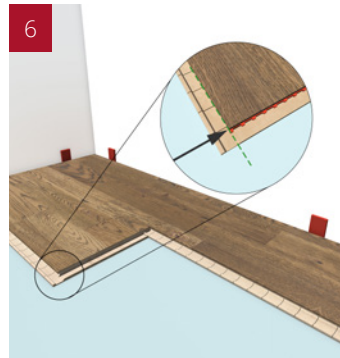
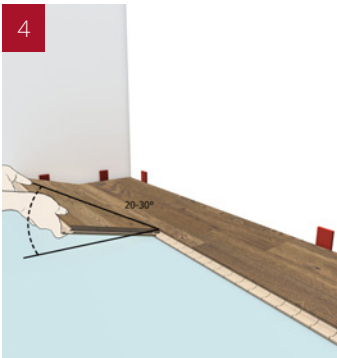
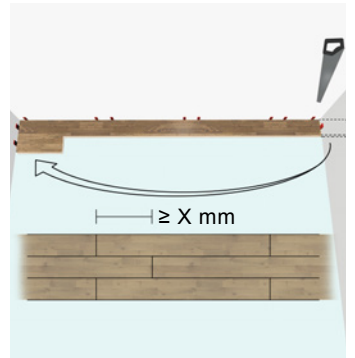
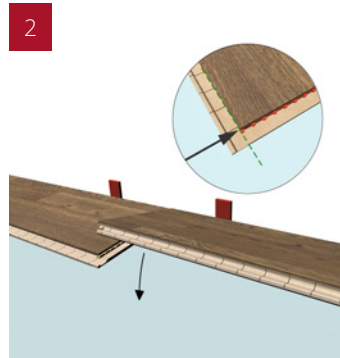
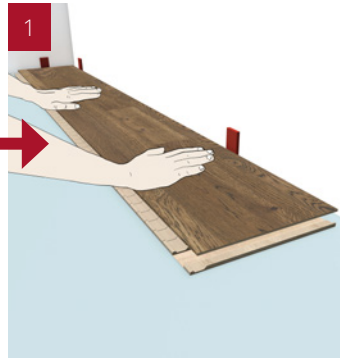
Start & Stop boards

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

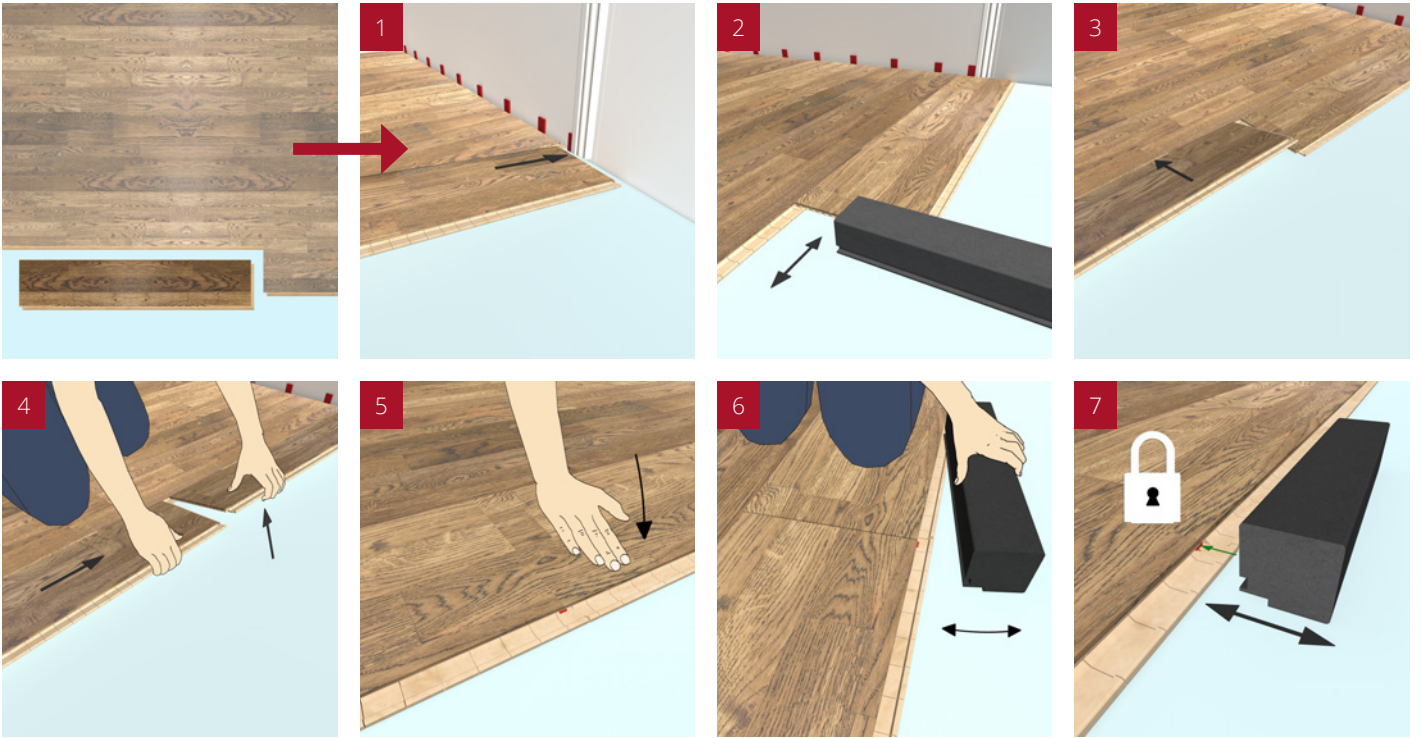
INSTALLATION

Woodloc 5S

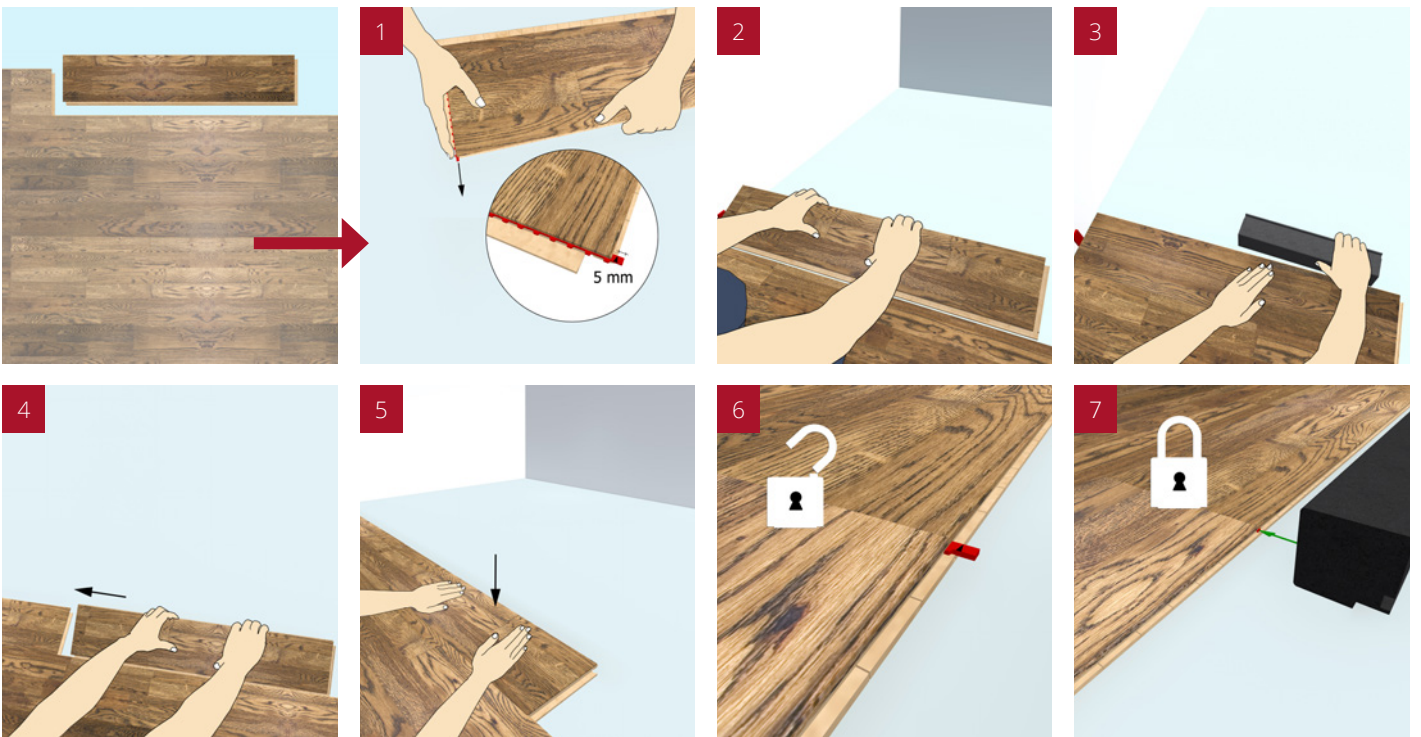
Normal Installation



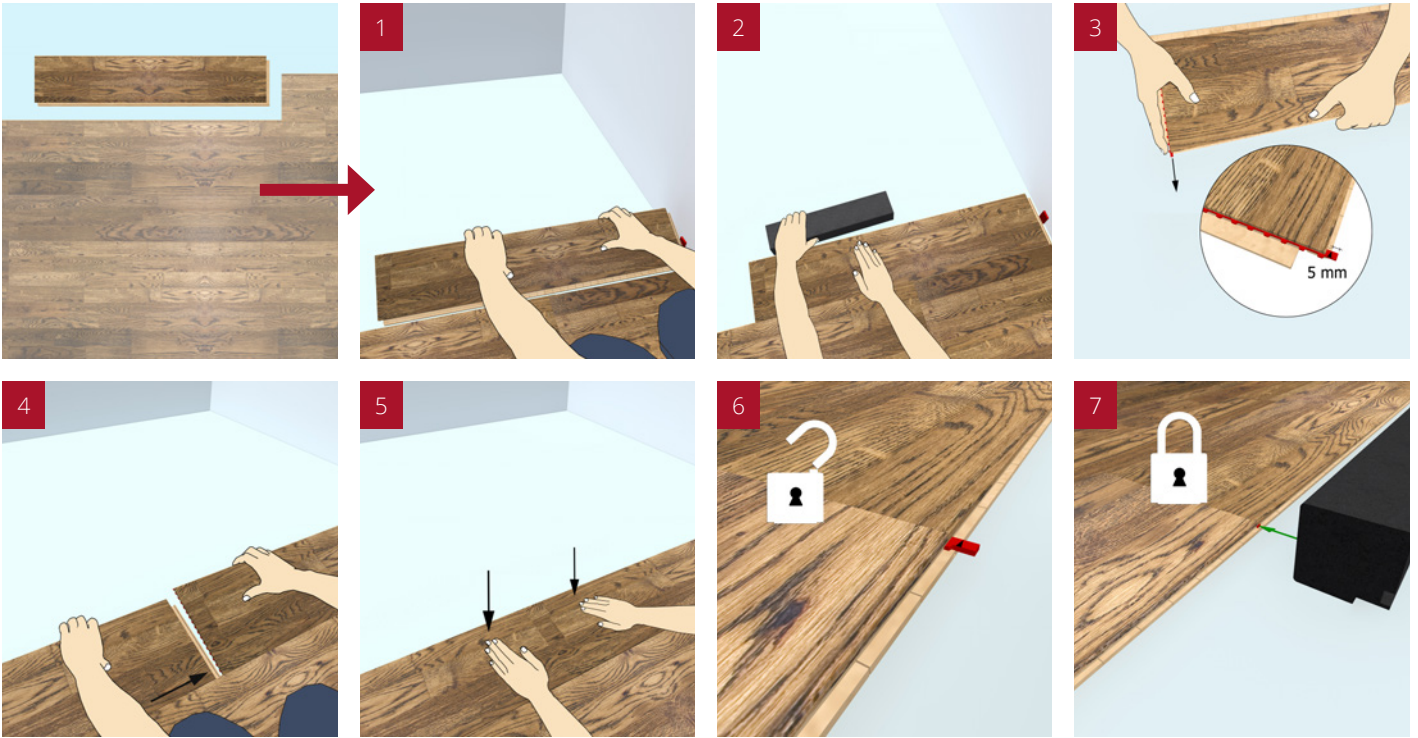
Normal Installation, reversed direction



Backward installation

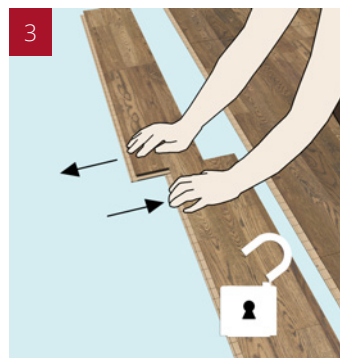
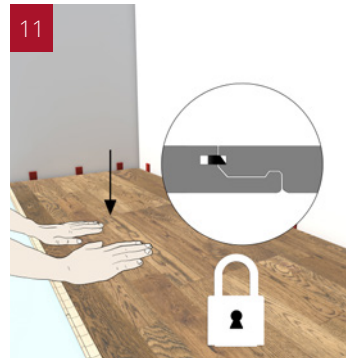
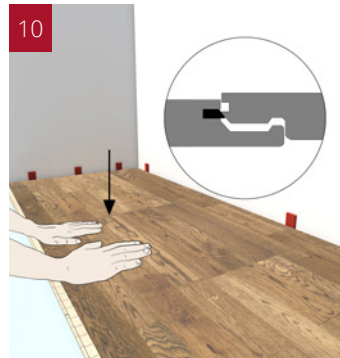
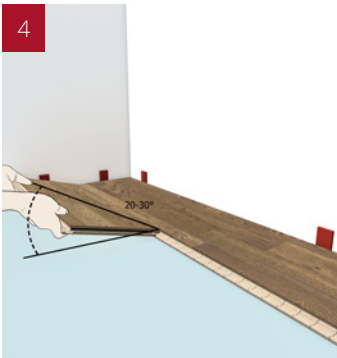
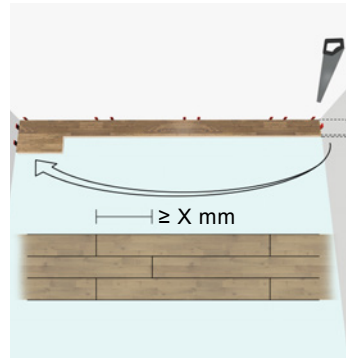
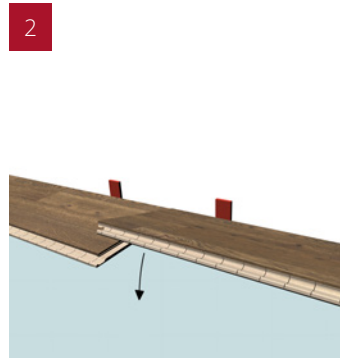
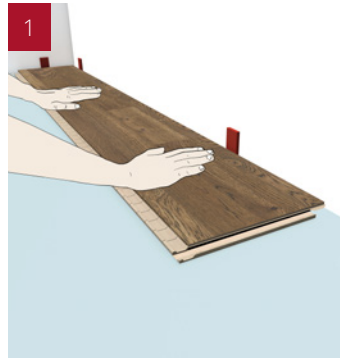


Backward installation, reversed direction



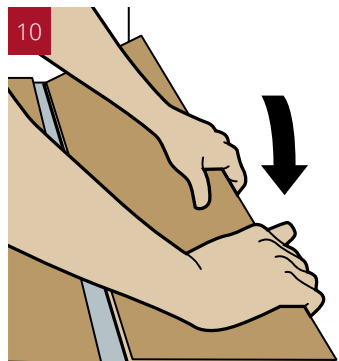
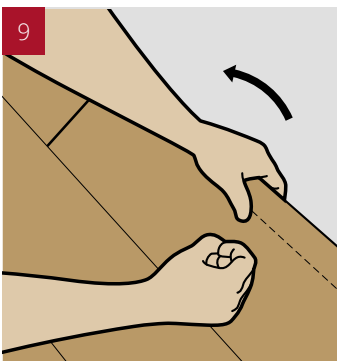
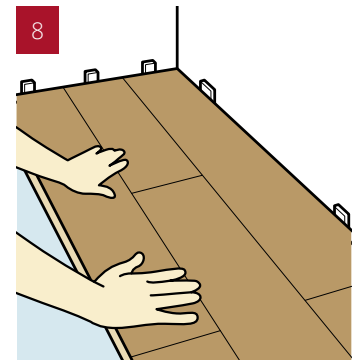
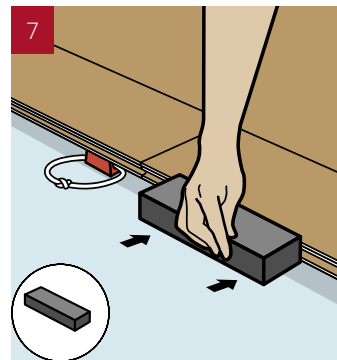
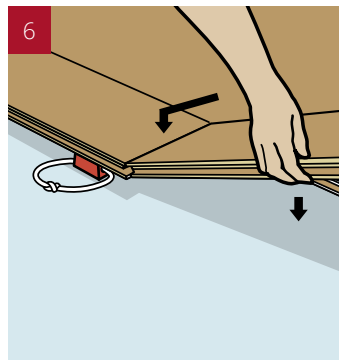
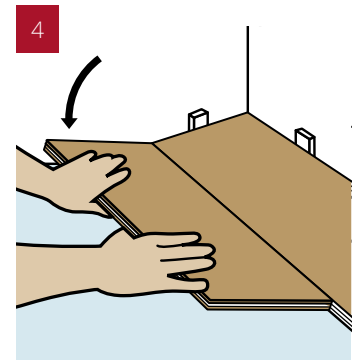
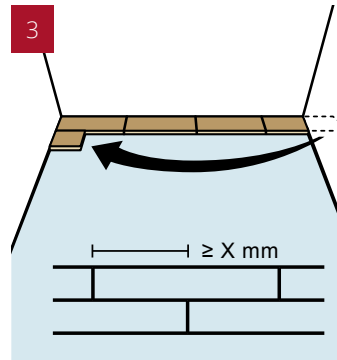
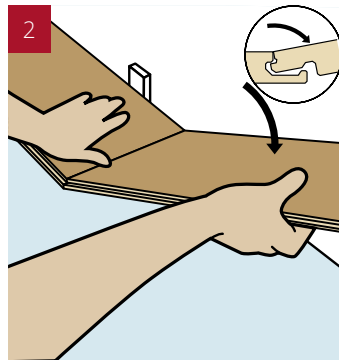
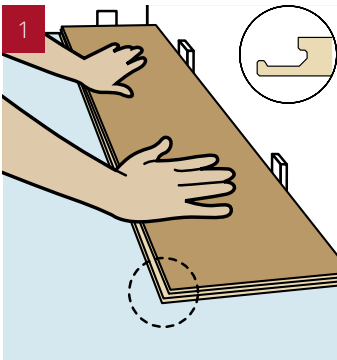
INSTALLATION

Woodloc 5G



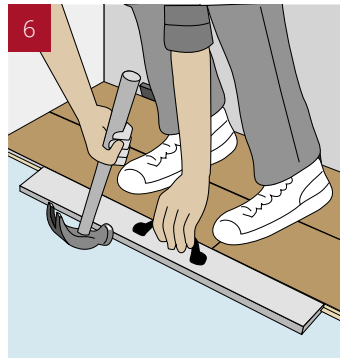
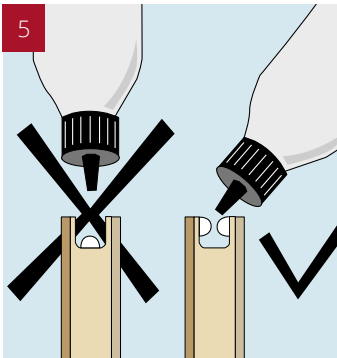
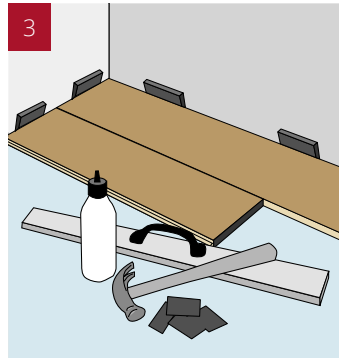
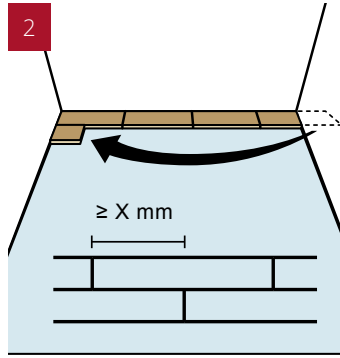
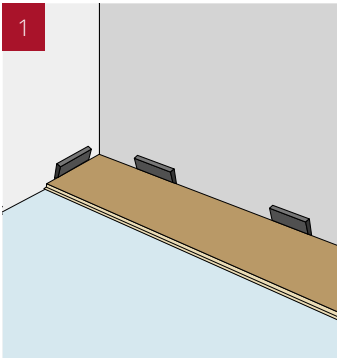
INSTALLATION

Woodloc 2G



INSTALLATION

T&G



WHAT TO CONSIDER 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 humidity (RH) should always be between 30-60% to avoid unwanted climate-related damage and movements in the wooden floor, e.g. cracks, gaps, noise, cupping etc. In summer you may therefore need to dehumidify the air, while in winter it may instead be necessary to increase the humidity in the air. At a too high or too low relative humidity, permanent shape changes of the wooden floor can occur.

It is important that even in empty and uninhabited spaces, ensure that the temperature and humidity are correct. This is especially important when installing in connection with e.g. new constructions or major renovations.

When installing floors in so-called module production, it is important that the above criteria are ensured both immediately after installation, as during storage and assembly of the modules.

It is not only wooden floors that thrive best, but also us humans get a better indoor air with a relative humidity inside this interval.

Skirting

Note that the dimensions of the skirting must never control the size of the movement joints. In the case of large floor areas, therefore, the skirting must be chosen on the basis of the required size of the movement joints and not the other way around.

One solution for a situation that requires a large skirting board: In new buildings, a simple way of permitting additional floor movement is to "stop" wall panels immediately above the floor surface. If the wall panel is 13 mm plasterboard, for example, this provides an additional 13 mm movement allowance. This allows a thinner skirting board to be used than would otherwise be necessary.

To get nice endings and connections, there are skirting and mouldings of various kinds to use (see www.kahrs.com).

Installation of skirting

The skirting must not be pressed down against the wooden floor, as the floor can then be locked. Skirting are suitably

fastened with nails, screws or with Kährs clip system for concealed attachment to the wall.

Treatment of natural oiled wooden floor

When installing a natural oiled wooden floor, a first oiling must be done immediately after finishing, use Kährs Satin Oil and follow the instructions on the packaging. This is important for the floor to better maintain its protective coating for a long time. It is then very important that the maintenance is carried out according to the instructions for your particular floor.

For more detailed information on care and maintenance, see the brochure Maintenance guide which can be downloaded at www.kahrs.com

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 moisture permeable material (e.g. paper). Make sure it does not discolor the floor. Note that some commonly used types of papers do not allow moisture to pass through and have a wax coating that may be transferred to the wood floor. This causes undesirable gloss variations. Kährs Protection Paper is intended for use on all floors, both lacquered and oiled surfaces.

White goods generally do not have large enough "wheels" to avoid damage if they are pulled over the floor. In these cases, a harder board material is usually needed as protection to avoid damage to the parquet surface.

Under wheeled furniture, such as office chairs, permanent protection against point load is needed, for example a transparent plastic mat or the like, which is commonly used for this purpose.

Tape

Never tape to the floor surface, skirting or moldings, but only to the protective cover. Many tapes adhere so tightly to the floor surface that the varnish releases when the tape is removed. The longer the tape is allowed to be attached, the greater the risk that it adheres harder to the varnish.

Color change

Wood is a natural material that gradually matures to its natural color, this change occurs fastest at first. To avoid an uneven color change, carpets should not be laid on the floor during the first months after installation of the parquet floor.