



Installation Instructions

Bjelin European Hardened Timber Floors

Our hardened timber floors feature unique designs for you to explore and are available right up to luxurious XL formats. Our entire range features the incredible patented Woodura™ surface technology and 5G™ Dry™ fold down system – making our real wood floors 3 - 5 times stronger than traditional hardwood floors and a breeze to install – all at a great price.



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BJELIN

Floating installation of European Hardened Timber flooring with mechanical joint

Before commencing with installation of the floating floor, familiarise yourself with the New Zealand building code requirements, and specifically the current version of Acceptable Solution E3/AS1. Bjelin European Hardened Timber flooring is considered a suitable Alternative Solution.

Disclaimer: Failure to adhere to these installation instructions may void the warranty, especially if such failure leads to product damage or performance issues. Please refer to the official warranty document for detailed terms and conditions.

Preparations

The room and the boards must have a temperature of at least 18° C. Keep in mind to spread the bundles out so that they quickly acclimatise to the ambient room temperature. Be sure to inspect each board before laying. If you have hired a professional, they must also read the entire instructions before laying. Bjelin doesn't take responsibility for obvious defects or losses that could have been discovered prior to installation.

Bjelin boards are normally laid floating but can also be glued down (see separate instructions).

In the case of gluing down, we recommend that you contact a specialist.

Open 2 - 3 bundles at a time and mix the boards as you install the flooring. This will help you to get an idea of the colour and grain pattern variation before laying.

Hardened Timber Flooring can be laid floating, i.e. joined together without being attached to the subfloor.

- The subfloor must be structurally sound, dry, flat, firm and clean.
- Carpet coverings should be removed.
- When installing on expanded polystyrene, see special instructions.
- Hardened wood flooring can be laid on underfloor heating and the heating system must provide an efficient and even heat distribution over the entire floor. Surface temperature of the floor must never exceed 27° C (also applies to radiator pipes and under carpets etc.).
- Subfloor flatness over 2 metres should not exceed ± 3 mm (2 mm over 1 metre is acceptable). Over 250 mm, it should not exceed 1.2 mm. If over, the subfloor must be levelled.
- The relative humidity of the room must not exceed 60% RH. If RH is less than 30%, there is an increased risk of concave boards and gaps between boards. In low RH climate a humidifier may be employed to add moisture.
- Hardened Timber Floors should be protected against moisture from the subfloor. We recommend Belgotex Aqua Elite foam underlay with integrated vapour barrier. If using alternative underlays, they must at minimum, have a compression Strength (CS) of ≥ 60 kPa and a vapour transmission rate (SD) ≥ 75 m. Belgotex underlay should be installed vapour barrier face up for optimal low friction surface and vapour barrier protection from subfloor.
- Please note that on subfloors of newly cast concrete, lightweight concrete, concrete floors directly on the ground, crawl space foundations, on joists over hot or humid rooms (e.g. boiler room or laundry room) or underfloor heating systems, damp proofing is mandatory. For floating installations, a 150 μ m clear polyethylene builders' plastic, with 300 mm joint overlaps, fully taped with watertight tape and covered 5cm up the wall.

- **Note:** Never assume subfloors are dry, if moisture testing is not performed it should be assumed to have an RH above 75% and a moisture barrier should be installed.
- The boards must be laid lengthwise in the room. The floor moves with varying humidity and should therefore have a minimum expansion gap of 10 mm against vertical surfaces like walls and fixed objects (stairs, columns, door frames, etc.).
- The expansion gap must be continuous and consistent around the entire perimeter. The expansion gap is only as good as the narrowest gap.
- Maximum raft size should be no more than 13 metres x 13 metres, if the floor is larger than this it should be compartmentalised into smaller rafts. Expansion gaps can be covered with cover strip moldings.
- When laying in L, T or U-shaped rooms and when transitions to corridors, an expansion gap must be installed.

Compliance E3/AS1

In general, the floor does not need to be sealed. Although your Bjelin flooring is equipped with excellent moisture resistant surface properties, additional precautions are recommended in areas prone to water splashes, such as laundries and toilets.

In such cases, the floor must be sealed around the perimeter to prevent moisture gaining access under the flooring raft. To comply with E3/AS1, a low modulus silicone must be applied between all vertical surfaces (skirtings, kickers, end panels, etc.) and the Bjelin flooring 1.5 metres from sanitary appliances and fixtures, otherwise the remaining perimeter of kitchens typically do not require this perimeter treatment.

Free and unrestricted movement must be provided around the entire perimeter, where possible. In the case of E3/AS1 requirements, additional control joints may be necessary to allow for adequate expansion. Failure to use a low modulus may void your warranty.

Wet areas – expansion GAP waterproof sealing

The expansion gap around the perimeter should be filled with a low-density foam backer rod.

Silicone Application:

Apply a layer of clear, low-modulus silicone over the foam around the perimeter, ensuring that it creates a watertight barrier. This will prevent water from seeping underneath or along the sides of the flooring.

This treatment will help safeguard your flooring from potential water damage in high-risk areas.

Installation

First calculate how many board rows you need on the width of your room. If the last board is narrower than 40 mm, also the first row should be sawn so that the starting and finishing boards are the same width. This makes for a neater more professional installation. Keep in mind that it is easiest to start at the long wall with the most doors. If there are doors on the short side, start the row there. The boards can be installed from the left and from the right, but also backwards.

When installing wood floors, it's important to stagger the short ends of the planks. Make sure that in every second row, at least one plank's short end is offset, by 300mm or more, from the row next to it. This is especially important in narrow spaces like hallways or smaller rooms. Doing this helps create a stronger floor and a more natural-looking pattern. Do not install the boards in a full board half board (brick bond) pattern. A random stagger will give you a professional appearance. An even distribution of short ends allows the floor to remain level in case of temperature changes.

Use wedges to create the right distance between floor and wall. These allow for a movement gap of at least 10 mm

towards the wall and other solid objects. Boards should be laid in the length of the room. Finally, remove the wedges and cover the gap between the wall and the floor with a skirting board or cover strip. A finishing strip or T-moulding is used to join wood floors and other flooring materials. Install mouldings so that the floor can move with seasonal variations.

If you come across a damaged board, put it aside. It may be left over or can be used at the finish. If the damage is the result of a manufactured fault, you can also exchange it where you bought it. The installer is responsible for ensuring that boards with obvious defects are not installed.

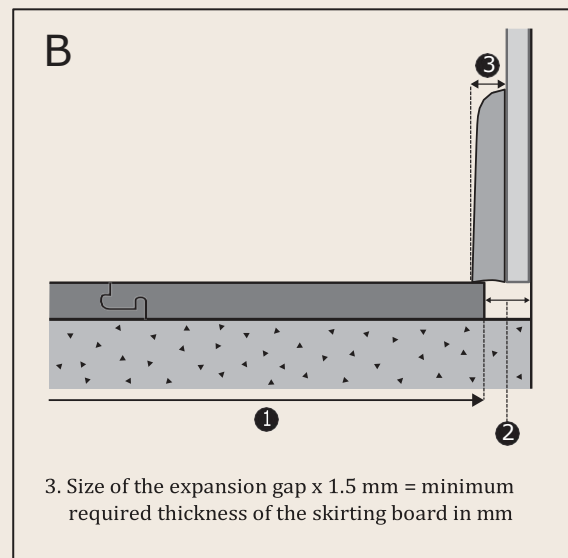
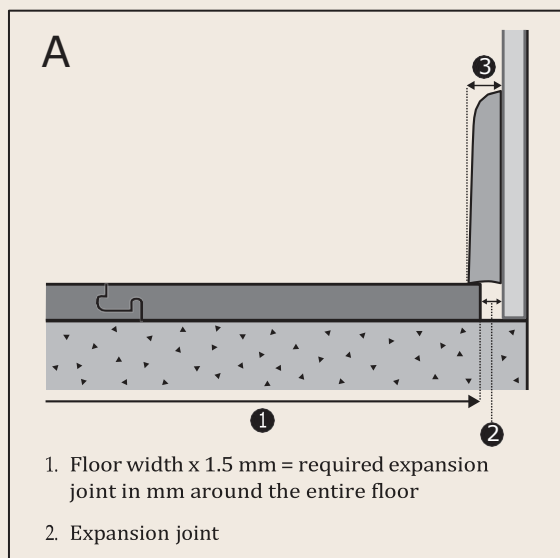
Thickness of skirting board

Remember that it is the movement of the floor that determines the thickness of the skirting board and not the other way round.

- Larger floors need larger movement joints which means thicker skirtings.

Tip: If you are renovating or building a new house, an easy way to avoid thick skirtings is to put the wall panelling a little higher up, allowing the floor to move underneath. See picture B

How to calculate the thickness of the skirting board



Minimum thickness of the expansion gap and skirting board at different floor widths

FLOOR WIDTH 1	EXPANSION GAP 2	SKIRTING BOARD WIDTH 3
4 m	6 mm	15 mm
6 m	9 mm	15 mm
8 m	12 mm	18 mm
10 m	15 mm	22 mm
12 m	18 mm	27 mm
15 m	22 mm	33 mm
18 m	27 mm	40 mm

*For easy installation, the minimum recommended expansion gap is 8 - 10 mm

Floor cover

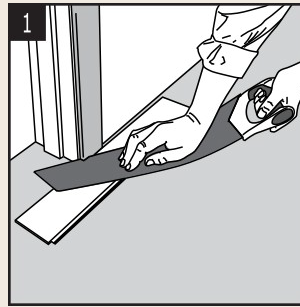
The basic rule is that the wooden floor should be laid last in the construction to avoid damage. If further work is to be done in the room where the floor has been laid, the floor must be protected with a material that allows moisture to pass through (e.g. hard paper/ram board). Also check that the cover does not discolour the floor or leave residues such as

wax. Do not tape against the wood floor but only against each sheet of protective covering. Many tapes adhere so hard to the floor surface that the coating detaches when the tape is removed. The longer the tape is left in place, the greater the risk that it will stick harder to the finish.

Instructions

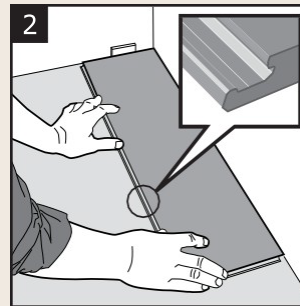
1

Start by removing/undercutting architraves, frame, jambs so that the floor can be pushed underneath which gives a neat and professional result. The easiest way is to use a multi-tool, aka renovator or a hand saw, chisel and hammer. Use a board turned upside down with underlay as a template to get the right height. Remember not to lock the floor against or under the door frame.



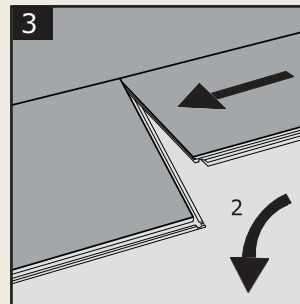
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Start in a left corner and place the first boards groove out towards the room on both the long and short side. The long side distance to the wall can be adjusted later when 3 rows have been laid.



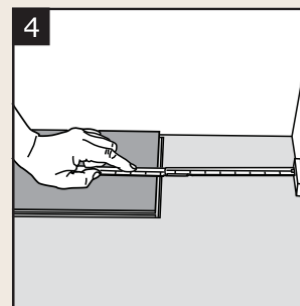
3

The next board is placed with the short end against the first board's short end. Press the short end down so that it clicks into place. Continue in the same way along the entire first row.



4

Cut the last board in the first row to the correct length. Do not forget the expansion gap around the floor.

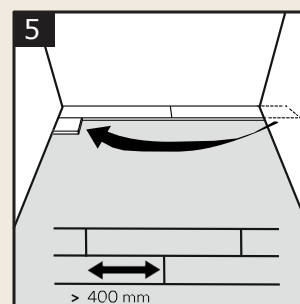


5

Start the next row with the piece left over from the previous row.

For the best appearance, the short ends in adjacent rows must be separated with at least 400 mm on boards above 1500 mm long.

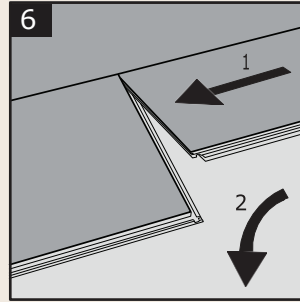
Boards shorter than 1500 mm shall have a short end separation of at least 300 mm.



6

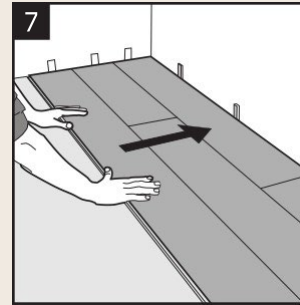
Press the long side of the new board into the already laid board so that the joint is tight. Then lightly press the board downwards at the same time as you gently tap with your hand so the board will easily fall into place. Be careful when tapping them together so that nothing is damaged. Make sure you do not have any debris such as sawdust in the joint, as this can prevent or damage the board if it is forced together.

Continue laying the remaining rows in the same way.



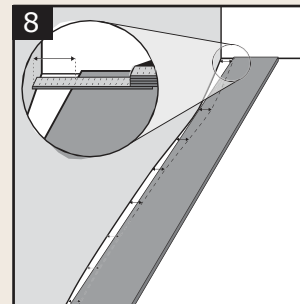
7

Once three rows have been laid, the distance between the floor and the walls can be adjusted. Place wedges between the floor and the wall. When the floor is finished remove the wedges.



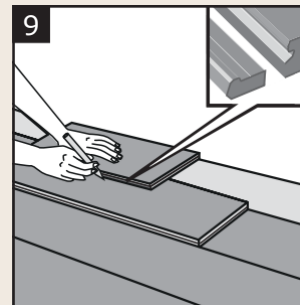
8

The first row of boards must sometimes be adapted to a crooked wall. Draw the contour of the wall on the boards. Then loosen the boards in the first row by grabbing the long side, pulling upwards and at the same time hitting the joint lightly. Saw after your line. For best results it is sometimes necessary to split the first board so that the first and last board get the same width to avoid the last board being too narrow.



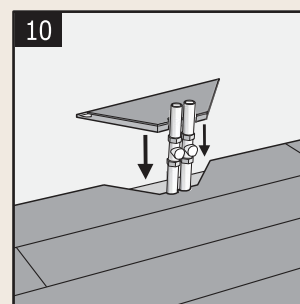
9

The last row: measure the exact width of the last row. Do this: Place the last board on top of the second to last board row with about 7 mm offset to the wall. Mark the saw cut using a piece of board without a bottom lip. Lay the last board. Sometimes you may have to gently help the last board with a last board puller or crowbar to get it into place.



10

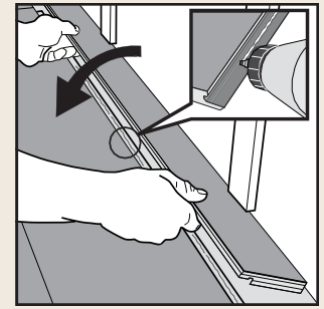
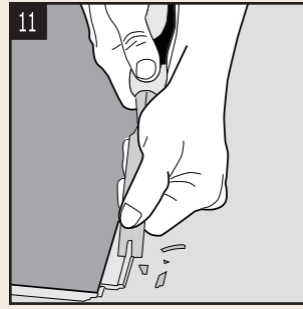
For pipes, holes are drilled in the board which must be at least 20 mm larger in diameter than the pipe. Saw as shown in the pictures. Glue the cut piece again. Remove excess glue immediately. Cover the holes with pipe sleeves.



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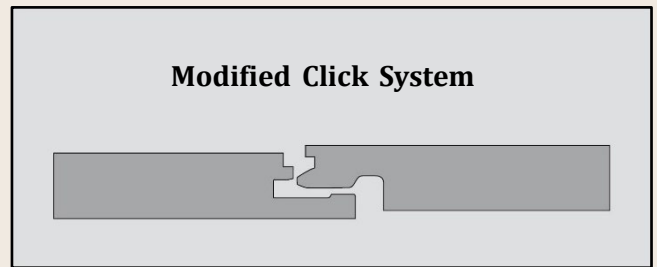
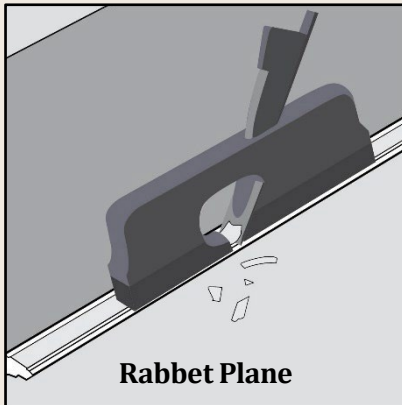
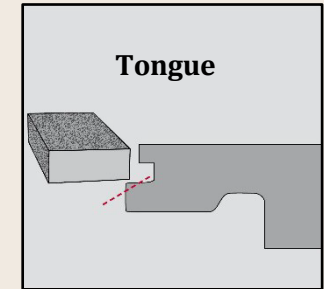
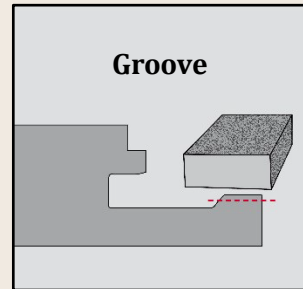
Basic version

If you can't angle in the board underneath e.g. door linings or sills, do like this: Cut/plane away the grooves locking tensioner with a chisel or hand planer. Glue on the bottom lip with a cross-linking (exterior PVA) glue and lay the boards. Use wedges to press the board into place while the glue dries.



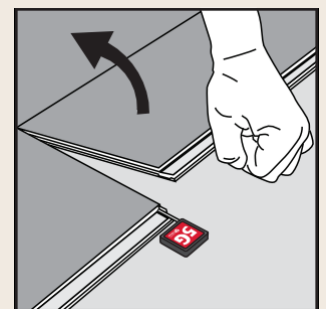
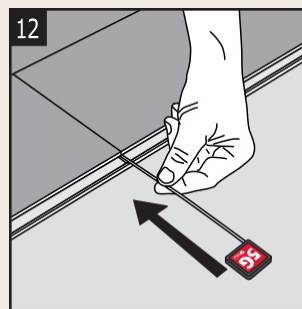
Advanced version

1. Using a rabbet plane or a wood block with coarse grit sand paper attached with double sided tape to re-profile along the length of the tongue with an approximate 30 - 45° angle.
2. Reduce the height of the tensioner by approximately half, along the entire length of it.
3. This will retain the locking system enabling the boards must be applied to ensure joint strength



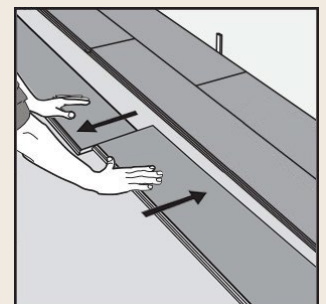
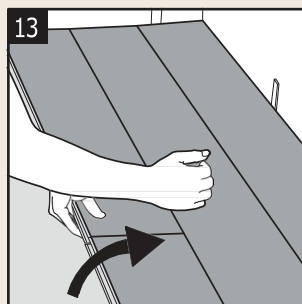
12

If you need to pick up a layed board, the easiest is to use Bjelin's special 5G unlocking tool, which you push into the joint on the short side, so that the locking joint releases. With this tool you can remove single boards without loosening the whole row. Contact your Bjelin flooring retailer for a 5G unlocking tool.



13

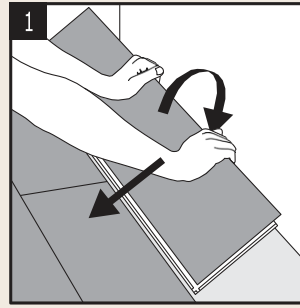
If you do not have this tool and need to remove a board after laying it, you can angle up that last row together disengaging the long side, then while the boards remain flat on the floor, using a hand on either side of the end joint the boards can be slid horizontally apart.



Installation backwards

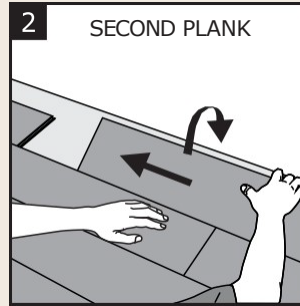
1

When you lay backwards, you lay from left to right. Angle the groove under lip under the previously laid row and fold down.



2

Angle the next board in under the laid row and slide it against the short side of the adjacent board and lay down. Gently press the short end of the board until you hear a click, which means it has locked.



Care and maintenance of our floors

Bjelin wood floors are easy to maintain. Daily maintenance is easiest done by vacuuming and occasionally cleaning it with a well wrung-out cloth. Be careful not to damp mop too often and with too much water as wood is sensitive to water. When you damp mop the floor, it should be dry within 2 - 3 minutes, then you know that you have used the correct amount of water.

WARNING: Never use citrus, eucalyptus oil or other such cleaners that will accumulate residue of oil after each wash. Never wash microfibre cloths or mop heads in washing machines that have ever used fabric softener, as this will contaminate the cloth and spread over the floor making greasy footprints more visible.

If you use too much water, the floor may be damaged.

Do not allow rubber based materials like rubber mats or rubber wheels to be left standing on the floor as all lacquered Timber floors can get permanent staining from the rubber known as tattooing.

If you accidentally spill, it won't leave a mark on your floor if you just wipe it up immediately.

Place a doormat outside and inside the front door so you don't get a lot of dirt and grit that will cause excessive wear and tear on your floors. So be careful not to get it on your Bjelin floor and it will last for many years to come.

Putting soft felt pads on the furniture is recommended, as you avoid unnecessary marks and scratches on the floor.

If you get a stain on the floor, see the table below.

Be careful with strong stain removers. If too much is used and rubbing is done too hard, it can affect the lacquer or oil on your floor.

For more detailed maintenance instructions see belgotex.co.nz.

Factory lacquered surfaces

STAINS OF	REMOVED WITH
Asphalt, rubber, oil, shoe polish, soot and dried residues of chocolate or fat	Bona Kemi Deep Cleaner diluted in water, cleaning spray, benzine or similar
Crayons, lipstick, markers	Cleaning alcohol diluted 50/50 with water
Candle wax, chewing gum	Cool spray or place a bag of ice cubes on the stain, then gently scrape
Blood	Neutral detergent diluted in water

Factory oiled surfaces

STAINS OF	REMOVED WITH
Asphalt, rubber, oil, shoe polish, soot and dried residues of chocolate or fat	Bona Kemi Deep Cleaner diluted in water, cleaning spray, benzine or similar
Crayons, lipstick, markers	Cleaning alcohol diluted 50/50 with water
Candle wax, chewing gum	Cool spray or place a bag of ice cubes on the stain, then gently scrape
Blood	Neutral detergent diluted in water

Oiled surfaces are sensitive to strong detergents and heavy cleaning. After spot cleaning the oiled surface may need touch-up oiling.



Checklist:

- Remove all skirting boards.
- Undercut architraves, door frames and door jambs.
- Leave proper clearance between the floor and all fixtures' objects such as walls, sills, columns or pipes.
- The floor should always be laid in the longitudinal direction of the room. If the room is roughly square, you can choose the direction of the floor.



Recommended tools and equipment:

- Safety glasses
- Approved dust mask
- Vacuum cleaner
- Laying wedges
- Saw
- Pencil
- Measuring tool
- Set square
- Maybe a moisture barrier
- Exterior (Cross-linking) PVA wood glue

Wood dust

Sawing and sanding wood produces wood dust.

Wood dust can be an irritant and preventative and protective measures should be employed:

- Equipment should be equipped with a dust extraction to reduce airborne dust.
- Use appropriately designed protective mask to reduce exposure to airborne wood dust.
- Avoid eye and skin contact.
- In case of irritation, flush eyes and skin with water for at least 15 minutes.
- In case of severe discomfort, seek medical attention immediately.



Glue down

When glue down application is required, please see special instruction at belgotex.co.nz.



woodura™



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