These instructions are
important for your new
Moku Engineered Oak Floor

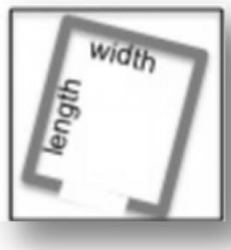
installation instructions

These are instructions for how to install your Moku engineered oak floorboards as a floating floor or glued down floor.

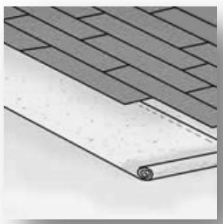
All that is required is a sound flat subfloor to lay on. Moku engineered floorboards are easy to install and will be ready to walk on in no time!

Order everything you need

Ensure you order everything you need for your new floor. It will be more cost effective to order all required materials together:



Coverage – measure the total area of your new floor in square metres. Ensure you include the space in doorways and on steps. It is prudent to add up to 10% to the total area to allow for wastage.



Underlay – underlay is required for floating floors. Moku recommends underlay that includes a moisture barrier, otherwise a polyethylene film will be required. Order the same as your floor coverage.

Scotia– measure all the floor edges that will require Moku solid oak scotia edging in linear metres. Consider walls, skirts, and fixed cabinets. It is prudent to add up to 10% to the total length to allow for wastage.

Stair nosing – Are you installing over split levels or onto stairs? Moku offers solid European oak stair nosing in the matching finish of your chosen floor boards.

Selecting your installation technique

Moku European Oak Engineered Floorboards can be installed over any clean, structurally sound and level subfloor. Suitable subfloors include concrete slab, particle board/plywood, existing tiles or floorboards.

You can install in one of two methods:

1. ***Floating floor*** – the new floor is not attached to the sub-floor. Each plank is secured to the adjoining planks so the whole new floor becomes a single unit that "floats" on top of the sub-floor. As the floor functions as a single unit, rather than a series of individual planks, visible signs of expansion and shrinking (normal for any timber product), are greatly reduced. A floating floor requires an underlay with a moisture barrier.

1. ***Glued down (or direct stick)*** – each plank of the new floor is adhered to and/or "secret nailed" to the sub-floor. Subfloors must be properly prepared and moisture sealed. Professional installation is recommended for this method.

It is always important to seek the advice of a professional as to what method is best for your situation as every situation is different. The floating floor method is generally the simpler, cheaper and preferred approach. A glued down floor may be necessary if the room space is very large.

Responsibility to check boards

Moku European Oak Engineered Floorboards are selected and manufactured to accurate standards to ensure a trouble-free installation.

The boards are guaranteed against any manufacturing defects. This guarantee is limited to the replacement of the product only and does not include costs of installation or transportation. It is the sole responsibility of the installer not to install any material thought to be defective. No claim shall be valid for any materials installed which have visible defects or damage prior to installation. The warrantor will not be responsible for damage due to poor installation, transportation or storage. All products must be stored indoors, at room temperature and protected from the elements.

It is the responsibility of the purchaser and installer to inspect each plank before installation.

The colour, finish, grade, tongues and grooves, and manufacturing quality should all be checked.

Any plank that is not acceptable should NOT BE INSTALLED, and the seller should be contacted in accordance with the Warranty

Tools you will need for installation

- Pencil
- Duct tape
- Tape Measure
- Chalkline and/or string
- Saw (hand, jig or skill)
- Cross-linked PVA glue (for floating floor installation)
- Tapping Block and hammer
- Pull tool (for pulling boards tightly together)
- Wooden spacing wedges
- Carpenter's square
- Polyeurethan glue and notched trowel (for direct stick installation)
- All safety equipment

Plank acclimatisation

It is advisable to unpack and store your flooring in the room where it is to be installed for 24 to 48 hours prior to the start of installation.

Stack the cartons on a flat smooth surface no higher than 5 high. Allow at least 10cm between stacks to allow natural air ventilation. If the room is permanently or normally air-conditioned or heated ensure these units are operated as per normal.

This will allow the planks to acclimatise to the room's temperature and humidity conditions. Floor temperature should be at least 15°C, while ideal relative humidity is 55%.

Room preparation

Cleaning

- Sweep, vacuum or dust the subfloor.
- Make sure all grease, foreign particles, protruding nails are removed
- The surface should clear, dry, flat and smooth.

The quality of your new floating floor installation will be dependent on the quality of the preparation of the subfloor

Existing timber/plywood sub-floor preparation

Where the subfloor is timber, plywood or particleboard (with or without existing floor covering such as cork or vinyl) it must be carefully prepared and secure. Check surface is level and repair if necessary by sanding or filling. Make sure no wax, delamination of old flooring, or unsound areas are left unattended. All existing subfloor pieces must be securely affixed to battens or the support surface. Nails and screws should not protrude. Any loose, uneven, or creaking subfloor will result in a poor result and continued creaking.

Floorboards CANNOT be installed over existing carpet or carpet tiles or soft floor coverings.

Ensure your floor is flat

Your subfloor must be perfectly flat and sound to provide a professional installation of your new floor. Ensure that deformations of the floor level amount to no more than 3mm in any 3 metre line. Any deviations of the level greater than this need to be fixed prior to installation.

Existing concrete sub-floor preparation

If installation is to be onto a concrete subfloor make sure the concrete is fully cured and ready for floorboard installation. You should procure professional testing and advice on the moisture content and how to rectify it – typically a moisture content of <3% in Australia is compliant with the relevant standard. Also make sure to seal the concrete slab with an appropriate sealer. You should consult with an expert on what would be the most appropriate dust and moisture concrete sealer in your situation.

Preparing floor perimeter

Base mouldings and skirting boards are best removed and replaced after planks are installed. Where it is not possible to remove existing skirting boards plan to install matching scotia along the edge over the planks to hide the expansion gap where your floorboards meet the skirting boards.

Preparing doorways

Door casing/jambs should be undercut (trimmed) to allow the planks to fit underneath. Alternatively, you will need to scribe cut the plank around the door openings.

Dealing with fluid pressure and moisture

Fluid pressure might be present in below grade or basement areas where a high water table or poor drainage is present. Such issues need to be solved before the installation of your new floating floor. Any fluid pressure, moisture, or moisture ingress issues must be permanently remedied prior to installation.

Minimum temperature

The surface temperature of the subfloor at the time of installation should be at least 15°C with an ideal relative humidity of 55%.

Choosing plank direction

Normally, floor boards are laid in the direction of the longest wall. The lineal look is typically best when the primary lines/edges of the plank run parallel with the room's length.

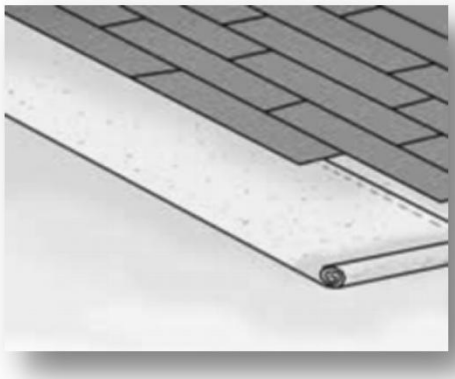
If you are installing over existing wooden floorboards the new floorboards should be laid in a different direction to the existing sub-floor baords.

Underlay/Moisture Barrier Installation

If you are installing as a floating floor then you will require underlay. Moku recommends a premium underlay that includes a built-in moisture barrier.

If it does not have a built in moisture barrier then a moisture film (polyethylene plastic) will need to be laid below the underlay.

① *Laying polyethylene sheet as moisture barrier*
Lay the polyethylene plastic sheet over the entire floor in the same longitude direction as the plank is to be laid. Overlap the seams by at least 100mm. Fasten the seams with duct tape. Run the outside edges of the film 50mm up the perimeter walls (trim after floor installation is complete).



② *Position foam underlay*
Loose lay the foam underlay sheet. If it does not include a moisture barrier and is therefore being laid on top of polyethylene sheet then roll it out on top of the polyethylene sheet at a 90 degree angle (ie. perpendicular to) the polyethylene sheeting. **Ensure you butt the edges of the foam sheet and do not overlap them.**

③ *Finish installation of foam underlay*
Some foam underlays have adhering edges. Others need to be taped. Once the foam is laid in place carefully seal or tapes the edges (do not overlap).

Planning

Planning is essential before you start to install your new floor. You should have already determined your installation method (*floating floor* or *direct stick* method), your underlay and moisture barrier methods, and your plank direction/pattern. It is now important to plan for expansion gaps and how to address any 'out of square' spaces.

Plan for expansion gaps

Timber is hygroscopic – which means it will absorb and expel moisture as relative humidity and temperature changes. This causes the timber to expand and contract. Other factors like direct sunlight and air conditioning can also cause timber floors to expand and contract. Therefore "expansion gaps" are required so your floor can expand and contract freely due to these environmental factors. Without sufficient expansion gaps timber flooring might buckle or deform as it expands and contracts.

Positioning expansion gaps

All perimeter walls and obstructions should have a minimum expansion gap of 14mm. If your floor expanse is greater than 7 metres then perimeter expansion gaps should be 2mm for each metre of expanse. This can usually be accommodated with thicker skirting boards or a scotia edging. Very large expanses (over 7 metres) might be best served by expansion joints within the flooring. Professional advice should be sought in these situations – please contact us or your seller for more assistance.

It is recommended to include expansion gaps under doorways. If the subfloor has an expansion joint then the new timber floor should also have a matching expansion joint at the same location.

Checking for out-of-square spaces

Determine if the space is square or out-of-square. This can be done by measuring the distance between parallel walls to see if it changes. The floating floor has to be square when completed so if the room is not square the expansion gap on one side may have to be uneven, or boards may need to be cut to deal with the uneven lines. For example, it is possible to allow an expansion gap to change along its length so that the first row of planks is square to the room. For example, if the room width changes by 7mm from one end to the other, at one end of the wall the expansion gap might be 14mm and at the other end of the wall it might be 21mm.

Guide line

Once this "guide line" for your first row of planks is defined mark it or run a taut string line to mark it. You will be laying your first row of planks along this line.

If you are planning a plank pattern that includes borders or other designs that might require you to ensure you line up to the centre of the room then ensure you have marked your centre point and centre lines to work to. With some basic planning for such layouts you can ensure your pattern is properly centred, and any borders are uniform.

Planning the layout

It is advisable to open at least 5 cartons of planks and layout your planks for the room. This will assist you in planning how to mix up the natural grain variations and colours to ensure the variation is inter-mingled across the floor space.

Installing planks

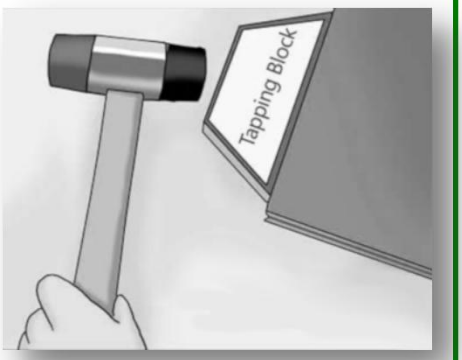
The following steps are based on the typical choice of installing planks in the same direction as the longest wall of the room. You will need to consider these instructions in light of your situation if it differs.

Laying the first row of planks

The first row of planks is typically laid along the longest wall. The GROOVED edge of the planks must face the wall. Start with a full length plank. Use wedges between the wall and the first row of planks to ensure the planks align with the guide line.

Note that it is normal for an individual plank to be slightly bowed along its length when unpacked. This is simply due to the high density top layer of timber expanding or contracting at a different rate to the sub layers of plywood. It can simply be pushed flat when being adjoined to neighboring planks during installation.

Affixing planks



Floating floor method

Adhere each plank to to its adjoining planks by applying an unbroken bead of PVA adhesive to the topside of the groove of the plank before engaging the tongue of the adjoinging plank. Be sure to apply adhesive into both the long side and end of the plank. Clean excess glue off with damp rag from time to time during installation. Gently tap adjoining boards together using the tapping block and a hammer.

Glue down / Direct stick method

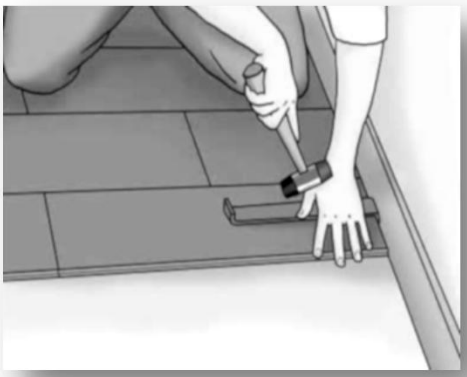
Each plank is adhered to the subfloor with a polyurethane timber flooring adhesive. The adhesive must be applied in accordance with manufacturier's instructions. Use a notched trowel to achieve a full bond between the subfloor and the timber plank, and ensure at least 85% transfer of adhesive to board is achieved. Failure to follow the adhesive instructions can result in a "drummy" sounding floor.

If you are also secret nailing planks to the floor ensure each plank it tightly adjoined to neighboring planks and correctly positioned before nailing to the subfloor.

If you are not secret nailing the boards to the subfloor then it is important to weigh down the newly laid floorboards so that the adhesive has constant firm contact with the boards and subfloor for the curing period of the adhesive. The use of remaining cartons of floorboards can be useful to assist with this. Ensure you take care not to damage the finish of the newly laid boards when applying weights.

Completing a row of planks

Measure and cut the last plank section to complete the first row (do not forget the required expansion gap of >14mm). Use the "pull tool", if required, to pull the the last plank into place with taps from the hammer.

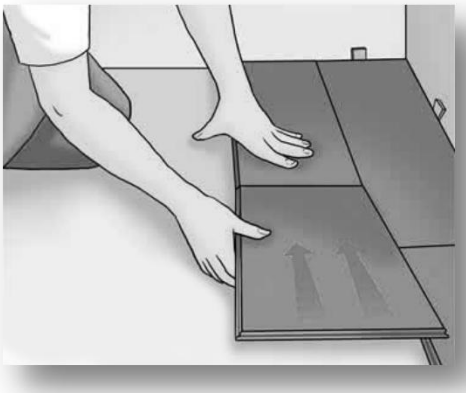


If you are direct stick installing it is recommended you let the first row of planks to set before working against it to minimise any shifting during the installation process.

You are now ready to continue with subsequent rows in the same way. Consider the instructions below for mixing and staggering planks.

Mixing planks

Be sure you mix the planks randomly through the project. Variation of colour is natural and gives character. It is recommended that you work with about 5 open boxes of planks to ensure a variety of finishes are available.

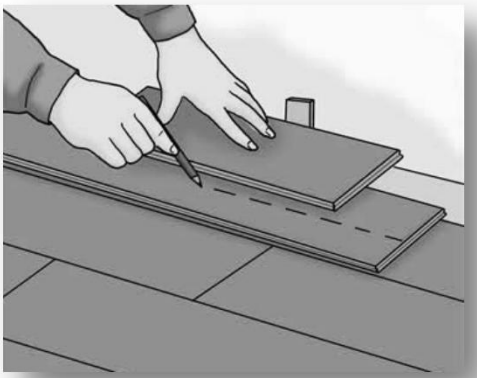


Staggering planks

Start the next row of planks with a trimmed (shorter) plank. This way, the end joint of planks will not be next to one another. Where needed cut special starting pieces for subsequent rows. It is advisable to stagger the joint of planks by about 450mm to 500mm. Moku floor boards include random trimmed planks to assist with staggering planks during installation.

Installing the last row of planks

The last row of planks usually does not fit perfectly (in width) and some ripping/sawing must be done to provide a professional installation. First measure the required width for the planks (allowing for the planned expansion gap minimum of >14mm). Once the plank is cut to size it may be fitted by placing a protective wedge against the wall and then prying with a crowbar or tapped.



Completing the installation

Replace base mountings
Once flooring installation is complete, replace base mountings such as skirting boards. These should be installed over the perimeter expansion gaps and not restrict the expansion and contraction of the floor.

Scotia edging installation
If you are installing scotia edging to any perimeter or fixed cabinetry ensure the scotia is adhered to the vertical edge and not to the floor

Door ways
Where expansion gaps have been included in doorways, or where the floor heights change add transition/reducer strips.

Installations with underfloor heating

There are some minmum requirements to install your Moku Engineered Oak Floorboards over a subfloor with underfloor heating:

- The floorboards CAN ONLY BE LAID AS A FLOATING FLOOR system when laid over a subfloor with underfloor heating
- A high quality moisture barrier must be installed
- The heating system should NOT EXCEED 60 WATT / m^2
- The subfloor surface should NEVER EXCEED 27°C
- The moisture content of a concrete subfloor with underfloor heating cannot exceed 1.5%
- All joins of the floating floor need to be glued as per the installation instructions

Ensure that the system's instructions of heating procedures is obeyed. It is recommended that the heating system is on for at least 3 weeks prior to laying the floor. However, it should be switched off 48 hours before the start of the installation and for 1 week after installation is completed. Ensure the floor heating is set to change temperature very gradually.

Note: Adherance to the above should ensure your flooring will tolerate underfloor heating, however the Warrantor cannot take any responsibility for the underfloor system and therefore the structural warranty will be voided when installed over underfloor heating.

Protecting your new floor

Protection during building phase

Consider what protection is required for your new floor whilst building activity continues. Loose dirt and debris combined with foot traffic can cause scratching and negatively affect your new board finish and appearance. Consider protective MDF or plywood sheets taped to the floor in foot traffic areas, and keep the space as clean as possible.

DO NOT cover your new floor with plastic sheeting as it may cause the timber to sweat leading to expansion of planks and possible damage to the finish.

Important care instructions

Simple maintenance procedures will ensure your floor stays looking beautiful:

- Keep clean - sweep and vacuum as often as possible
- Protect entrances - use protective mats at all exterior entrances
- Protect furniture - use felt protectors under all furniture and quality chair mats under chairs with castors
- Avoid abrasion - never slide or roll furniture or applinaces across your floor
- Avoid impacts - high heeled or spiked shoes will cause damage to the floor
- Avoid water - avoid using excecssive amounts of water – always use a well wrung mop.
- Clean spills - if spills occur remove as quickly as possible.
- NEVER USE STEAM MOPS
- Use appropriate cleansers - do not use soap, wax, oil, or other household products to clean your floor. Use only reputable hardwood floor cleaners specific for your type of floor
- Avoid pet scratching - keep animals nails trimmed

Warranty

This Floorboard Warranty (the Floorboard Warranty or this warranty) is provided by Australian Select Timbers Pty Ltd (the Warrantor) of 35 Downard St, Braeside VIC 3195. Please read it carefully to ensure that you are fully aware of your rights and obligations when seeking to claim under this warranty for Moku floorboard products purchased (Floorboard Products).

By purchasing Moku floorboards you agree to be bound by the Floorboard Warranty terms with the Warrantor. The Floorboard Warranty may be amended at any time.

The Floorboard Warranty is conditional on:

Installation - is installed in strict accordance with current written installation instructions

Wet Areas - is not suitable for installation in bathrooms, saunas, laundries or any other area in which high levels of steam and moisture are present.

Maintenance - care guidelines must be adhered to.

Non-Assignment - the warranty is limited to the original purchaser and may not be assigned or transferred.

Lifetime Structural Warranty:

The manufacturer warrants its product from structural defects, de-lamination, cracking, warping, twisting or any other forms of structural deformation at the time of supply.

Installation instructions must be adhered to so that this warranty applies. These guidelines are available on the Renovator Store website floorboard pages and it is your obligation to find them and adhere to them. Please ask Renovator Store for these guidelines if you cannot find them.

Exposure to excessive moisture caused in any way whatsoever such as flooding, spills, leaks, excessive wet mopping , steam mops, sub-floor moisture or heating may cause distortion within the board and will not be covered by this warranty.

Care should be taken to maintain even indoor humidity and temperature with good ventilation. Excessive heat dryness or exposure to direct sunlight will cause damage to the goods and is considered negligence and is not covered by this warranty.

20 Year Limited Surface Warranty:

From the date of purchase, the manufacturer warrants to the original purchaser only, that under normal domestic conditions of use the surface will not wear through, during this period warranted.

With proper maintenance, the goods will perform under normal household conditions. Scratches, dents, reduction of gloss (appearance reduction), damage caused by negligence, urine, animals or high heeled shoes. These are not considered a defect and therefore not covered by this warranty.

All furniture requires felt to be adhered to the underneath to protect the surface of your floor, from time to time this will need to be maintained and checked for wear.

A written notice must be received by the supplier within 30 days of discovery of any defect to be found, along with proof of purchase (date) the identity of wholesaler or retailer and the location of installation.

The supplier will acknowledge within 30 days the receipt of written notice and must be given the opportunity to inspect the floor prior to any repair or replacement is to take place.

Warranty Exclusions:

The Warrantor for the purpose of this warranty will be referred to as 'the supplier'.

Breach of Warranty Conditions – any breach of warranty conditions will void the warranty

Colour Variation - timber is a natural product and colour variation will occur between samples and what the supplier has delivered and installed. Samples displayed or provided are indicative only and within normal industry standards, and no warranty is given that such samples will match the floor installed. Other variations will naturally occur such as small knots, grain variation, gum marks and mineral marks. These variations normally present in timber, are not considered defects and will not form the basis of any claim under warranty. Timber may also experience some surface checking (hairline cracks) this too is part of all natural products and not covered by warranty.

Sub-Floor Heating - the supplier recommends timber flooring should not be installed over heated sub-floors. No warranty shall be given in relation to such installations.

Extreme Conditions - as timber is a natural product, the humidity level in the home must be in the 40% - 65% range throughout the year, using dehumidifiers or humidifiers as appropriate.

Misuse - the warranty does not extend to damage caused by moisture penetration through the sub-floor, other flooding, leaking, plumbing, overflowing, hydrostatic pressure or any other water damage.

Alterations - where floor or sub-flooring has been altered, repaired, resurfaced or replaced no warranty will apply except to the extent implied by law.

Insect Infestation - the supplier warrants that it sells timber flooring free of insect infestation, this warranty does not cover any insect infestation occurring after the product has been sold.