# Douro planks with integrated underlay

installation instructions

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Thank you for choosing us! If you lay your new floor carefully and look after it, it will look perfect for years on end.
Douro planks are suitable for indoor residential and commercial use. Please read all the instructions before laying the floor. An incorrectly laid floor will invalidate the guarantee.

Scan the QR code and watch the installation video.

## PREPARATION

### Existing floor

Only install the product indoors, in all rooms except:

- rooms with a drain (such as showers and garages)
- wet spaces such as saunas or around swimming pools
- unheated rooms where the temperature falls below 10°C
- hairdressing salons (due to chemicals)
- rooms where frequent contact with rubber is unavoidable: bicycle showrooms, tyre storage, use of wheelchairs, etc.

In case of a newly constructed underfloor heating system in new screed, operate the system at maximum capacity before installation, in order to force any residual moisture from the screed. Check with the supplier of the heating system on performing this operation safely. Switch your underfloor heating or cooling off 24hours before, during and after your installation.

The end result greatly depends on the preparation of the existing floor.

The floor must be clean, flat, dry and stable. Remove all residues of plaster, paint, adhesive, grease, solvent, wax etc. All forms of soft and floating flooring must also be removed: carpet, needle-punched felt, linoleum, balata, non-glued vinyl, loose-lay, peel&stick, floating laminate or parquet flooring, etc. Douro may be installed on screed floors, concrete and other hard floor coverings.

Take extra precautions when laying on a wooden floor. Do not lay Douro on a wooden floor that is directly installed on concrete. Do not install the flooring over sleeper construction subfloors. Plank floors laid on wooden beams must be sufficiently flat and firmly fixed. Loose planks must be nailed or screwed down. Broken boards must be replaced and larger holes or cracks filled. Check that there is no woodworm or other insect infestations in the floor. Make sure that the wooden floor will remain ventilated so it does not rot. Make sure that the moisture content of the wooden subfloor is no more than 12%. It is also recommended to install the floor crosswise to the direction of the original wooden floor.

The maximum deviation from flatness of the floor is 5 mm over a length of 3 metres, 3 mm over a length of 2 metres and 1 mm over a length of 20 cm. Pits and gaps must be filled, bumps must be removed. If you are installing on top of a tiled floor, the joints may be no wider than 5 mm and no deeper than 4 mm. Fill with levelling compound if required.

The subfloor must meet the following criteria:

- floor temperature minimum 12°C
- according to the CM method (carbide measurement) a maximum of 2.5% (cement-bonded screed floors) and 0.7% (anhydrite screed floors) in rooms without underfloor heating
- according to the CM method a maximum of 1.5% (cement-bonded screed floors) and 0.5% (anhydrite screed floors) in rooms with underfloor heating

Should the subfloor / site conditions not meet the above-mentioned conditions, avoid installing the floor. Make the necessary corrections, or contact your supplier.

Douro is water resistant but is not itself a moisture barrier. If your floor is not vapour-tight, lay a vapour-tight foil (0.15 mm poly-film) across the whole room, pulling the foil up to the walls and above the level of the finished floor. It is also recommended to lay such foil in damp rooms such as a bathroom.

### Measuring

Measure your spaces carefully and add 5 to 10% extra for cutting waste. The more complex the shape of the space (projections, columns, etc.) the more material you will need.

Are you going to install your floor in a room with a length or width greater than 20 metres? Make sure you also use the profiles needed for the expansion joints. If you lay the planks in rooms with extreme temperature fluctuations, provide expansion joints every 10 metres.

“Extreme” rooms are places where the temperature at floor level can rise to 50°C. Such temperatures are far from the exception near large south-facing windows. Sun shading is therefore a worthwhile investment, even if just to keep the indoor climate comfortable.

Are there rooms in the house that have underfloor heating and others that do not? Then also provide the necessary transition profiles to separate these rooms from each other. Rooms that are heated differently (such as bathrooms) can also be separated from adjoining rooms with profiles.

It is a good idea to now decide on the flooring direction and see how you can best spread the boards across the width of the room.

### Transport and storage

The packages must always be transported and stored horizontally and on a flat surface. To avoid damage to the click system, never place the packages upright. Also, do not store the packages in a very cold (lower than 10°C), very hot (higher than 40°C) or very damp area.

If the packages have been exposed to these extreme temperatures for 12 hours before installation, you must let them acclimatise in the room where they are to be installed for at least 12 hours. For optimal acclimatisation, do not place the packages against each other, and ensure a room temperature between 20 and 25°C.

## INSTALLING

### Integrated underlay

Douro already has an integrated underlay. This means you can start the installation immediately. Never use any kind of underlay: the floor will then be installed on an excessively soft surface that can result in damage to the click system. Should you nevertheless have to raise the existing floor for some reason, do this with hard panels or levelling material. If there is no vapour barrier in the supporting floor, place one under the Douro planks. The foil must be continuous and raised above the level of the finished floor. To make sure you are using suitable products or systems: ask your distributor, floor layer or contractor.

### Underfloor heating (water, electricity and infrared) and underfloor cooling

Douro can be laid on floors with underfloor heating or cooling, as long as the temperature on the surface of the floor is never above 28°C, and the underfloor cooling is not set below the dewpoint temperature. Never cover the floor with carpet. Separate zones with and without underfloor heating from each other with expansion profiles.

For systems incorporated in the screed floor:

- Only systems working at low temperature, both electric and hot water.
- There must be at least 4 cm between the Douro and the heating elements.

For systems with underfloor cooling:

- Underfloor cooling must have a control and safety system that prevents the temperature from falling below the dewpoint. That is the temperature at which condensation forms between the screed floor and the Douro.
  The dewpoint temperature is not always the same, but varies according to the room temperature and relative humidity. A rule of thumb for the dew point is 18°C in normal air humidity (50-60%) and a room temperature of 20-22°C. With very high air humidity the dewpoint can easily rise to 22 °C. You should certainly not use underfloor cooling to actively cool a room by setting the temperature very low!

For systems on the screed floor (electric and infrared):

- These systems in mats must not overlap, and the power must be limited to 60 W/m². Systems with a high capacity can develop warmth too quickly and thus damage the floor.

The underfloor heating must have been installed in accordance with the supplier's instructions and in accordance with general requirements and regulations. For additional information please refer to the underfloor heating or cooling manufacturer's recommendations.

Switch the system off at least 24 hours before installation. Make sure that the room temperature is between 20 and 25°C while installing the floor. 24 hours after installation, you must gradually start the system with a maximum of 5°C a day until the room temperature has been reached. If you start the system at full power straight away, rapid heat increases can damage your floor.

### Inspection

Before laying the floor, check if all the supplied flooring has the same batch number (this is stated on the packaging). It is recommended that you use boxes with the same batch number for each room to avoid differences in colour or sheen on the same floor.

Only open the packages when you start installing. Ensure that the room temperature during the installation is between 20 and 25°C.

On opening the packaging, the planks may give off a strong odour typical of a new product. These odours will disappear after a few hours.

Check each plank in daylight for defects or differences in colour and sheen. Check the click system for damage. Complaints regarding surface faults will not be accepted after installation.

Complaints regarding colour differences between the samples viewed at a distributor and the floor that was actually delivered must be made prior to the installation. When the floor has been installed, it means that you have approved the appearance of the planks.

### Basic rules for installation

Douro should only be installed indoors and not in garages, rooms with concealed drains or continuously wet areas such as showers, saunas and at the edge of swimming pools.

Relativity humidity in the room where you install your floor must be no more than 65% at 20°C.

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Douro is installed as a floating floor. This means that the floor must always be able to freely move, and that installing the floor is very last phase in a building project.

Kitchens, cooking islands and fixed furniture is installed before you start laying Douro. By 'fixed' furniture, we mean furniture that is built-in and not intended to be moved at any time. This also applies to fireplaces and stoves. An object placed on the floor may weigh a maximum of 200 kg/m². The point load of the legs is limited to 50 kg/cm².

There must always be an expansion joint of 8 mm around such furnishings.

At walls the joint is covered by a skirting board, and dilation joints are finished with a T-profile just like the connection to other floor coverings. If there is a height difference, use a transition profile. An expansion joint must also be provided at windows that go down to the floor. At these places, you hide the joint with an end profile.

You must also keep an 8 mm expansion joint around columns, pipes and conduits, etc. Do not fill in the expansion joints with silicone.

Door frames may also have to be shortened. Use a leftover piece of plank to saw the door frame off at the correct height. The thickness of the saw blade ensures the necessary space between floor and door frame. You may also have to shorten the door itself, so keep this in mind.

Skirting is always fixed to the wall and never to the floor. Do not grout or use sealant in the seam between the skirting and the floor.

Mix planks from different boxes to avoid darker, lighter or identical planks being installed near to each other.

Floors in damp rooms must be physically separated from adjacent rooms (expansion joint at the door).

Finally, decide the flooring direction and bear in mind the widths of your first and last rows. Boards in these rows should not be less than 50 mm wide. Adjust the width of the first row accordingly if needed. In narrow hallways, it is recommended to install the floor parallel to the length of the hall.

## Tools & supplies required

- Spacers
- Tapping block
- Rubber mallet
- T-slat or set square
- Pencil
- Tape measure and folding ruler
- High quality utility knife and/or jig-saw
- Metal crowbar
- Possibly an aluminium slat to cut boards to size lengthwise
- Protection (knee pads, etc.)

## Starting and finishing

Thoroughly clean the floor and open different packages.

Check the planks for damage or other faults.

The first action is installing profiles. You will need to install end profiles at window frames or fixed furniture, T-profiles where the floor meets a different kind of floor of the same thickness, or transition profiles where the floor meets another floor of a different thickness. Install the rails of the profiles first by screwing or glueing them in. Always leave an expansion gap between the rail and the floor. The actual profile that is clicked or screwed in at the end of the installation will close the gap.

1 Start installing in the left corner of the room and work from left to right. Install the first board 8 mm from the wall using the spacer blocks.

2 Align the second plank perfectly with the first. Make sure that the click system on the end of the second plank lies neatly on top of that of the first plank. Tap tightly, directly above the short edge with the rubber mallet. Check if the planks have correctly clicked in and are lined-up and without height differences. Should you still notice a difference, follow the steps for disassembling that are given later in this manual.

**NOTE**: Do not force clicking-in when the ends are not perfectly aligned. Do not tap the mallet right above the short edge. You risk permanently damaging the click system on the short side.

3 For the last plank in the first row: measure the distance from the edge of the decor (not the click system) to the wall, minus the 8 mm expansion joint.

4 Cut the plank to size, measured from the left-hand side of a full plank.

Alternatively: take a full plank, turn it horizontally 180° and lay it against the spacer block. Mark the meeting point with the last full plank and cut the plank to size. If you turn the cut plank 180° again you can align it and click it tight.

**Cutting planks**: place a set square on the plank, decor upwards, and cut a number of times over the plank along the set square. You do not cut the plank in two, but instead make a deep cut in the surface. You can then simply break the plank along the cut. Then cut through the integrated underlay.

5 For the next row, it is best to start with a new plank that you cut to a length of at least 30 cm or 30 cm shorter or longer than the adjacent plank of the first row.

6 Hold this plank at an angle of 20-30° in the click system on the long side of the last row, and slide it leftwards up to the spacer block. Lower the plank gently and check if it has correctly clicked in. If necessary, you can still gently tap with a block or a piece of plank and the mallet.

7 **TIP**: after installing each row use a block or piece of plank to firmly knock in the planks on the long side. You are then certain that the planks have properly clicked into each other. You must hear a click! If you notice that there is still a gap or height difference, disassemble the plank.

Make sure that you don't break the click system. If this does happen, replace the plank. If the click system has broken, a gap may eventually appear between the planks.

You can use the remaining piece from the first row to start the next row, or again cut a piece to size at least 30 cm long, and certainly 20 cm longer or shorter than the first plank in the last row.

**TIP**: do not immediately use the remaining piece from the last row as the first plank in the next row. If you do that, you will have a "stepped pattern" in your floor. Use remaining parts from previous rows randomly as a first plank to obtain a natural-looking floor.

8 You have various options for installing the last row:
- Measure the space between the last row (from the decor) to the wall minus 8 mm. Transfer this measurement to the plank and cut it to size.
- Turn the plank horizontally by 180° and place it up to the spacer block and on top of the last row. Mark the meeting point and saw the plank to size.

**TIP**: If the wall is not completely straight – so there is the risk that the floor is either less than 8 mm away or at a distance that is too large to be covered by a skirting board – measure in different places. You can then cut the plank neatly to size and the joint will still be 8 mm. This also applies for first row.

9 If you have to work around pipes, ideally make sure that the pipe is at the meeting point between two planks. You can then work neatly around the pipe while keeping the 8 mm expansion space all around. If the pipe falls unavoidably in the middle of a plank, you will have to saw a piece out of the plank. Trim this piece to allow space for the pipe then replace it.

10 You may have to shorten door frames as described above. If you have to fit a profile in the doorway, cut the planks to size to leave room for this profile. Fit any profile so it fits just under the door leaf such that it is not visible when the door is closed.

You must place an end profile at windows that come down to the floor. Keep this in mind when you saw the relevant planks to size.

Remove the spacer blocks when you have finished the room. You can now start on the skirting and finishing profiles.

## MAINTENANCE

Always make sure you keep an extra package in case you need to make a repair somewhere.

You can walk on the floor immediately after the installation. No special treatment is required. The floor already has a coating that makes your floor easy to maintain.

Finally, vacuum the floor and, if necessary, mop it to remove any dust. Use a vacuum cleaner with a soft brush. Choose a neutral cleaning agent recommended for vinyl flooring (no bleach, no abrasive material, no ingredients containing wax or oil). For stubborn spills, please contact your supplier.

Place a floor mat at the entrances to protect against dirt, water, sand, small stones and the scratches they can cause. Make sure the mat does not have a rubber backing because rubber and PVC unavoidably and irreversibly react with each other.

When you arrange the room again after installation, use felt protectors under furniture legs (certainly not rubber pads). You then prevent any scratching. Office chairs must have soft wheels (type W) or you must put a protective mat on the floor. Never drag heavy objects across the floor.

Immediately clean up any spilt water, liquids and marks.

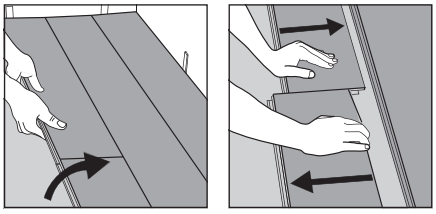
## REPAIRS

Should a plank become seriously damaged, you can remove it and replace it with a new one. To do this, proceed as follows:

- Tape off the surrounding plank with masking tape to protect them during the repairs.
- Mark where the plank has to be cut.
- Set a circular saw to the thickness of the planks, or use a multitool with saw blade for metal to saw the plank along the lines you drew.
- Make sure that you do not saw into the surrounding planks.
- When you have finished, the plank must now be sawed into four parts. You can use a screwdriver to lift a first part upwards and remove it. You can then lift and remove the other three parts. You can do this without damaging the click joint in the surrounding planks.
- Make sure that no residues are left behind – vacuum it if required.
- Take a new plank and remove the groove on the long and short side. Do this with a utility knife so you do not damage the surface of the plank itself.
- Apply “superglue” in a thin bead on the edges of the planks surrounding the plank to be replaced.
- Immediately remove any excess glue from the surface of the planks following the instructions of the glue manufacturer.
- Hold the new board at a 45-degree angle. Slip the tongue that is still present into the groove of the existing adjoining board. Gently lower the board in place. Use a rubber mallet and tapping block to tap the new plank fully in place.
- Place a weight on the plank until the glue has fully dried.

## DISASSEMBLING

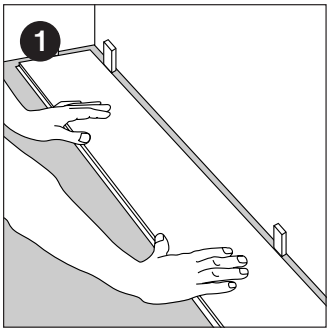
Separate the whole row by lifting it up delicately at an angle. To separate the boards, leave them flat on the ground and slide them apart. If boards do not separate easy, you can slightly lift up the planks (5°) when sliding them apart.

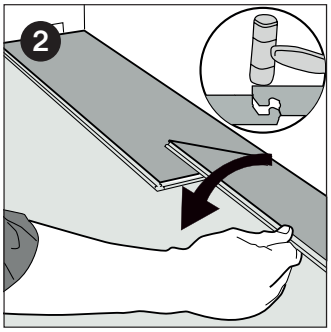


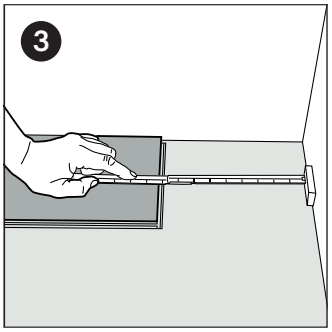
# Douro planks with integrated underlay

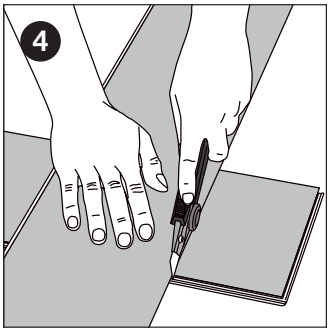
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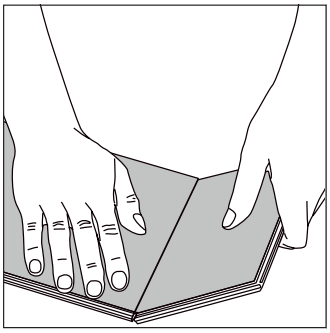
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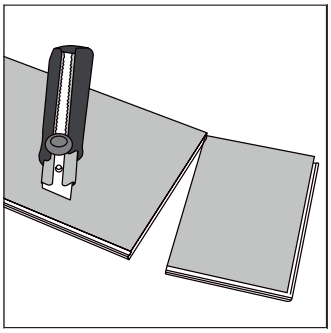


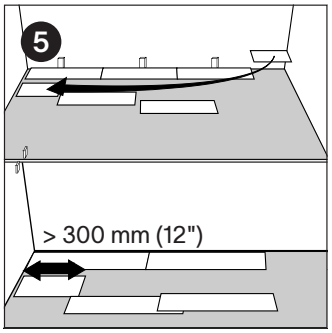



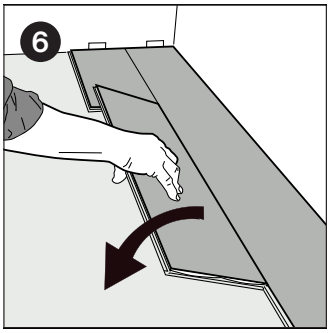









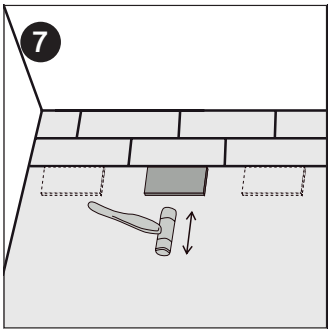

Position of the planks: correct

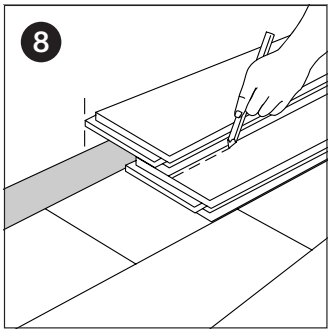


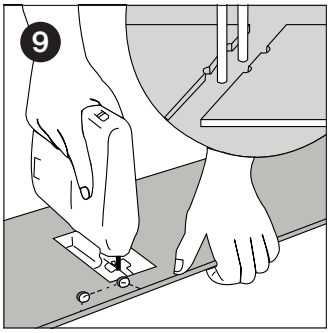
Position of the planks: incorrect



Position of the mallet: incorrect







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