# Guide Laminate flooring

## PARADOR

living performance

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You will find important information about installation on the pack leaflets or product packaging. For special applications, additional information is also available through Parador Application Technology.

Please also pay attention to the technical data sheets, declarations of performance, certificates, and installation videos, which you will find on the Parador website www.parador.de/en.

The following standards are also relevant for the use of Parador laminate flooring:

DIN 18202	Tolerances in building construction
DIN 18299	General conditions for construction work of any kind
DIN 18365	Flooring work
BEB publication	Evaluation and preparation of substrates; heated and unheated floor constructions

## Useful information

Laminate flooring is durable, healthy, and extremely easy to care for – ideal for use in various living areas. The large selection of decors, formats, and surface textures allows a highly customised room design with temporary looks and an authentic feel for a comfortable and pleasant atmosphere.

The Basic, Classic, Trendtime, Hydron, Selected and Edition product lines offer a variety of decors for every requirement, turning individual living dreams into reality. With the intelligent click system, you can quickly and effortlessly benefit from this true allrounder "Made in Germany".

#### Wear class/exposure class

Features, requirements, and test methods are specified within the European standard for laminate flooring and are clearly and transparently illustrated across use classes. Depending on the achieved results – according to the requirements and intensity of exposure/use – of a floor covering, it is allocated to areas for residential use (number range 20) and areas for commercial/public use (number range 30).

Wear class	Pictogram	Intensity of exposure	Application (e.g.)
Wear classes in the	residential area		
21		moderate use	Bedroom, Storage room
22		normal use	Living room, Dining room
23		heavy use	Kitchen, hallway
Wear classes in the	commercial area		
31		moderate use	Hotel rooms, small offices
32		normal use	Offices, hotel lounges
33		heavy use	Classrooms, open-plan offices, boutiques

Additional features are listed in the technical data sheets.

You can download them at www.parador.de/en. An overview of the basic features of the varied Parador collections is also available in all current product catalogues.

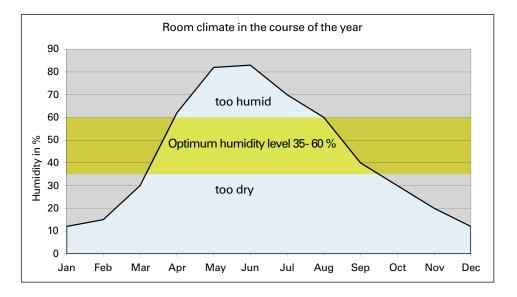
## Flooring and room climate

The main element of laminate flooring is its HDF core board, which is a so-called hygroscopic material. This means that the material can absorb moisture and can emit moisture.

On the one hand this can have a regulating effect on the room's climate, but it can also lead to the disadvantage that the material swells (gets bigger) when it absorbs moisture or shrinks (gets smaller) when it emits moisture. Whether it swells or shrinks depends directly on the room climate.

If the climate is too dry, then hygroscopic material shrinks (gets smaller); (here: HDF core board); if the indoor climate is too damp, then it swells (gets bigger).

Particularly in the winter months, when the room humidity is often much too low (see illustration), the natural shrinkage of the material can lead to gaps forming. Conversely, when it is too damp, if the wall clearance is not adequate or expansion joints are missing, the floor area may start to bulge upwards.



Please make sure not to exceed or fall below the ideal humidity figure shown in the diagram for a long time over the course of the year.

### Product structure

(1)

2

### 1 Overlay

(4

The highly abrasion-resistant, water-impermeable top layer made of melamine resin protects against normal everyday stresses, microscratches, and falling objects. The high corundum content is responsible for this, as its hardness is only exceeded by diamond.

#### 2 Decor paper

The elaborately reproduced decors are fascinating with amazingly genuine imitations of many natural materials. The decor print impresses with extraordinary brilliance using solvent-free paints. Impregnation with melamine resin additionally protects against moisture.

#### 3 HDF core board

The highly compressed, swell protected core board provides high dimensional stability and thus minimizes the influences caused by climate fluctuations or unusual loads. The all-round edge impregnation provides additional, excellent edge swell protection.

#### (4) Balancing layer paper

The reverse side of the laminate flooring is formed by the balancing layer paper, which compensates against tension and prevents the plank from warping. The impregnated balancing layer paper also protects the core board from moisture from below.

#### 5 Safe-Lock<sup>®</sup> PRO

The improved patented Safe-Lock® PRO click mechanism is milled directly in the special core board and is characterised by several benefits: > high fitting accuracy for invisible plank transitions and totally even surfaces,

- » extremely high connection stability for permanent fitting accuracy,
- precisely, safely and quickly installed,
- effortless handling

#### 5 Allround-Click System (applies only to Trendtime 3)

The patented Allround-Click click geometry allows the installation of herringbone patterns without right and left strips and simplifies application in particular through easy installation.

#### 5 Tongue and groove joint (only for Edition)

Easy installation in many design variations (e.g. herringbone, block, ladder pattern, ...) is easily possible with the universal, 4-sided tongue and groove joint.

## Accessories

#### Underlays

Comprehensive information about underlays can be found in our catalogues and online under www.parador.de/en.

When installing laminate flooring, we recommend using an underlay, as this compensates for slight bumps in the substrate and has a positive effect on the flooring's acoustics.

#### Akustik-Protect 50 integrated vapour barrier

Akustik-Protect 80 • without integrated moisture protection, e.g. for installation on wooden substrates

#### Akustik-Protect 100

- > integrated vapour barrier
- good impact noise and ambient noise insulation\*
- no additional moisture protection required (PE film)

#### Akustik-Protect 500

- integrated vapour barrier
- even better characteristics than Akustik-Protect 50, 80 and 100
- » kno additional moisture protection required (PE film)

#### PE film

- > to create a smooth support surface
- » used as moisture protection on mineral substrates

When installing on mineral substrates, additional moisture protection by means of a PE film is absolutely necessary in order to avoid, among other things, the risk of mould formation (exception: Akustik-Protect 50, 100 and 500).

Aluminium adhesive tape

> for sealing the butt joints between the underlays for improved moisture protection

When installing on mineral substrates, moisture protection is absolutely necessary.

Akustik-Protect 50
Akustik-Protect 80
)
Akustik-Protect 100
,
Akustik-Protect 500
,0000000000000000000000000000000000000
PE-film

#### Skirting boards

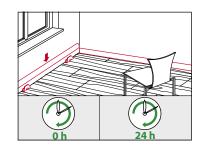
For a perfect finish, the Parador assortment includes the right decor skirting board to match every floor design. It is attached to the wall with the Parador construction adhesive or the special plastic clips with integrated cable conduit. Caps and corners complete the product range.

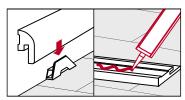
#### Skirting board assembly instructions

The flooring is ready to walk on immediately after floating installation or only after hardening of the glue for Edition (about 24 hours). Remove spacers and attach the Parador skirting board using the patented clip technology or Parador construction adhesive. For installation in wet rooms, e.g. bathrooms and for floors from the Hydron 600 product line, we recommend using the waterproof Parador skirting SL 5 WF.

#### Installation video - Fitting Parador skirtings:

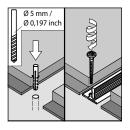


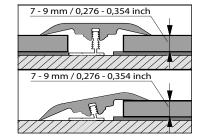




#### Flooring profiles

Parador profiles combine, bridge and adjust. The basic profiles are screwed onto the subfloor or – in particular with an underfloor heating system – are glued to the subfloor. Insert cover profiles or screw down aluminium profiles – done.





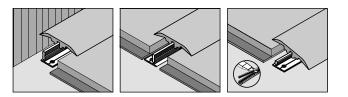


- Same texture and decor
- 48 mm width
- Installation height ca. 3.5 mm
- Area of use for flooring: thickness 7 to 9 mm
- For heights from 9 to 11 mm (including underlay)

#### Installation video - Fitting Parador 3-in-1 HDF profile:







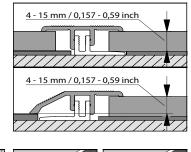
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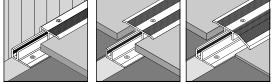
When using as a transition profile, only an adjustment of the base profile is necessary. In certain cases, when using it as an end profile, depending on exposure, underpinning may be sensible (e.g. with a narrow strip of laminate flooring).

#### Aluminium profiles

Aluminium profiles are suited for a use with floor coverings with a thickness of 7 to up to 15 mm.

Please note the following cover dimensions:Transition profile:34 mmEnd profile:22 mmAdapting profile:44 mm





Tool

You will need the following tools and aids for installing Parador laminate flooring:

Tape measure or folding ruler, cutter knife, pencil, handsaw, Parador plastic spacer wedges, Parador MultiTool, hammer, drill and jigsaw, crosscut saw or circular saw.

Other tools and materials may be required, depending on the application: "Gun" for construction adhesive, metal saw for aluminium profiles; Edition: Parador glue D3.

## Basic rules for installation

These installation rules and the assembly process shown below are generally applicable. Additional special or different rules or notes may be listed in the pack leaflet of the relevant products. These must be complied with as they are binding.

Installation video of Parador laminate flooring:



#### Inspect planks for material defects

The laminate planks should be checked thoroughly for material defects before and during installation. Planks with visible defects or damage must not be installed. Assembly should only take place under daylight or with adequate lighting, as otherwise any damage or faulty planks cannot be detected in some circumstances.

#### Acclimatisation before installation

The laminate flooring elements must be acclimatised over a period of at least 48 hours at a room temperature of 17–24°C and a relative humidity of 35–60% in the room where they are being installed. If there are major climate differences between the storage area and the room of installation, the acclimatisation period should be longer preferably. If the climate conditions are almost the same, the period can also be shorter.

Please store the packages on an even base without opening them. It is essential that you comply with these points, especially in new builds where the humidity is usually very high.

#### Maintain expansion joints/wall clearance

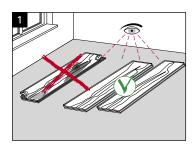
The core board on the laminate flooring is a wood-based material, which, like natural wood, is also subject to swelling or shrinking depending on climate conditions.

The installed laminate flooring therefore needs to be kept a suitable distance away from all heavy objects (e.g. kitchens) and fixed components, in other words walls, supports, radiators etc., which is known as the wall clearance or expansion joint. Furthermore, expansion joints must be maintained when a defined installation area is exceeded.

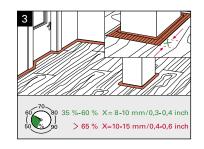
Insufficient wall clearance is the most common installation error. This often only becomes noticeable in summer, as the increased humidity and temperature in the summer months makes the laminate flooring expand.

The expansion joint or wall clearance should be at least 8-9 mm<sup>\*</sup>, more on larger areas. The rule of thumb is: per metre of flooring keep at least a 1.5 mm expansion joint at both sides of the room. (Example: room width 5 m = min. 8 mm wall clearance on each side) (Fig. 3).Plank thickness = wall clearance (example: laminate flooring is 8 mm thick = min. 8 mm wall clearance / laminate flooring is 9 mm thick = min. 9 mm wall clearance on each side)

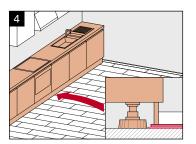
Even if the installed material contacts only one spot in the room, material installed in a floating manner can warp. "Arbitrary" weak points are always door frames, staircase connections, radiator connections, and edge strips.







Heavy objects (over 350 kg) e.g. kitchens and cabinets (the floor can move on one side only) require that the wall clearance on the opposite wall is twice as large. We recommend that heavy objects or built-in furniture, kitchens, built-in cabinets, aquariums, etc. are positioned prior to installation and that the flooring is installed only to the skirting (Figure 4). This ensures a simple and uncomplicated removal of the flooring at any time. The expansion joints in the wall area will be covered with skirting boards, in other areas with special flooring profiles. It may be reasonable to include installation planning already into the positioning of heavy objects (tip: avoid open joints by gluing the ends in the stress areas).



#### Layout of expansion joints

As the laminate flooring will swell or shrink as just described depending on climate conditions, further expansion and movement joints of at least 8 mm are necessary under the following circumstances (Figure 5):

- Iarger areas (over 8 x 12 m)- (Fig 5a)
- for Hydron 600 (12 x 20 m) (Fig. 5b)
- irregular shaped areas
- installation from room to room
- Hydron 600 can be installed from room to room without expansion/movement joint

These movement joints are covered with appropriate expansion joint profiles (see section Accessories). The installer is always liable if expansion or movement joints are omitted.



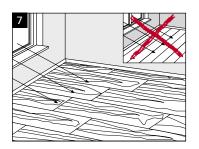
#### Installation pattern

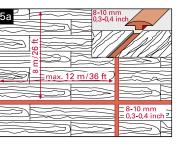
Laminate flooring elements can either be installed in a regular or random fashion (Figure 6). In any case, make sure that the offset of the end joints from row to row is min. 40 cm, for Edition min. 15 cm, for tile format half the length, for products with a plank length of more than 150 cm, a plank offset of min. 60 cm must be observed. See section "Assembly: Edition Open Frameworks" for additional special installation patterns.

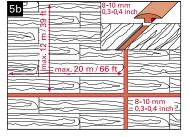
#### Installation direction (incidence of light and room floor plan)

For optical reasons, the planks should be laid parallel to the incidence of light, i.e. the long side runs in the same direction as the light entering the room. If there is more than one window, please go by the largest window. If the floor plan of the room is very unusual, the direction of installation should also be judged according to how the room is divided (Figure 7).

Also for optical reasons, the long sides of the floor should be at right angles to the long side of the room. This makes the room appear squarer and bigger instead of long and "tube-like".





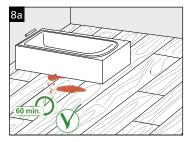


#### Installation in wet rooms

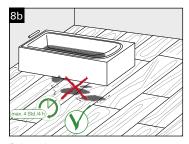
Ordinary laminate flooring must not be installed in areas where water can splash on the floor. Standing water penetrates the HDF core board via the edges and damages it permanently (Fig. 9). Laminate flooring from the Classic, Trendtime and Edition collections enables use in wet rooms with up to one hour of protection in standing water (Fig. 8a). Laminate flooring from the Selected collection enables use in wet rooms with up to 4 hours of protection in standing water (Fig. 8b). Laminate flooring from the Hydron collection enables use in wet rooms with up to 24 hours of protection in standing water (Fig. 8c). Laminate flooring should not be installed in permanently wet rooms or damp environments (sauna areas, small bathrooms, etc.) as the risk of moisture penetration cannot be excluded.

If laminate flooring is expected to be installed in larger bathrooms, care must be taken that it is not installed in areas with close proximity to areas where water might lodge (shower, bathtub, toilet, washbasin) and that the relative humidity of the room is kept within the recommended range of 35 - 60 %.

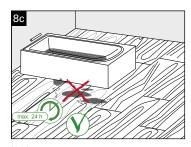
For installation in permanently damp rooms and environments, we recommend using the waterproof Parador skirting SL 5 WF.



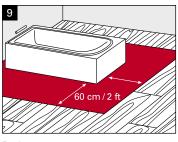
Classic, Trendtime, and Edition



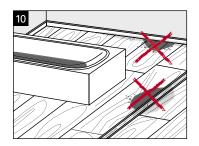


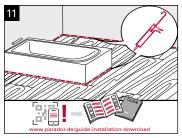


Hydron



Basic





Note

The installation of laminate flooring in showers is not permitted (temperature effects).

The formation of puddles and the effects of damp must be prevented at all costs at the edges and in the joint areas – including expansion joints (Figure 10). Also seal these areas carefully (Fig. 11). Water penetrating underneath the flooring may cause the formation of mould for example.

### Subfloor requirements

The basic requirement for laying laminate flooring is a firm, clean, dry and even subfloor.

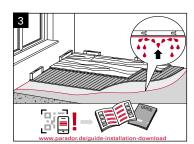
- <sup>3</sup> Uneven areas of more than 3 mm across 1 m must be evened out with a suitable filler (Figure 1).
- <sup>3</sup> When installing on old wood planks and particle boards, loose planks must be screwed to the substructure to reduce any creaking. The floor should be laid at right angles to the lengthways direction of the wood planks.
- For reasons of strength and from a hygienic point of view, carpets are not suitable as a subfloor and must be removed (Figure 2).
- We only recommend installation over older PVC, cushioned vinyl or linoleum floorcoverings if these floors are glued in place, have no loose areas and there is no underfloor heating. A suitable underlay must be installed to compensate for uneven areas.
- In case mobile appliances such as office chairs or containers are expected to be moved on the floor area, the subfloor must be appropriately pressure-resistant. The maximum weight per wheel must not cause the floor to be deformed, as this will damage the plank locking mechanism and the plank surface. Protective underlays are necessary depending on the type of rollers. Only objects with soft rubber rollers should be used.
- Screeds must not exceed the following moisture level:

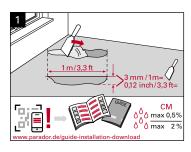
#### Anhydrite screed Cement screed

without underfloor heating	max. 0.5 CM %	max. 2.0 CM %
with underfloor heating	max. 0.3 CM %	max. 1.8 CM %

Generally speaking, the screed moisture must be checked using a suitable test measuring device. A test sample must be taken from the bottom third of the screed composition, whereby the thickness of the screed must be measured and documented at each test point. The figures only apply to screeds without additives. For screeds with additives, or quick-drying screeds, the figures specified by the manufacturer should be observed.

With mineral subfloors\*, as a precautionary measure a 0.2 mm thick PE film must be placed underneath as a moisture barrier (allow strips to overlap by at least 30 cm, apply adhesive tape, allow to protrude at the edges to form a trough and cut off the excess with a knife after attaching the skirting board). Or you can use Parador underlays with impact noise insulation and integrated moisture protection if moisture keeps on rising from the subfloor. Under no circumstances use a moisture barrier on wooden installation subfloors (Figure 3).







## Installation options

#### Floating installation

If the laminate flooring is installed without a fixed connection with the subfloor, i.e. only the planks are joined to one another, we call that a "floating installation". Parador laminate flooring is easy and fast to install thanks to the secure click mechanisms or the fast tongue and groove push-in connection and ideal for floating installation. This installation option is the most popular installation method.

#### Full-surface gluing

Based on the principle that the laminate flooring elements are designed for a floating installation, Parador advises against gluing the whole area.

Laminate flooring Hydron 600 technically meets the requirements for gluing an area of up to 20 m<sup>2</sup>. However, removing the glued surface is extremely time-consuming. We therefore advise against whole-area gluing and accept no responsibility for any consequential damage.

#### Installation on underfloor heating

Parador laminate floors are suitable for floating installation on hot water underfloor heating systems. For installation on electric underfloor heating, please consult the following information:

- installation only with systems that have temperature sensors and controllers
- no installation on older design electric underfloor heating systems (installed before 2000)
- > no installation on night storage heaters

On the technical data sheets you will find further information, for example about the heat transmission resistances of our laminate floors.

When it comes to installation/application, please also bear in mind the "Checklist for installation on hot water underfloor heating" in the appendix.

The maximum surface temperature of 29 °C must not be exceeded and a very fast heating process must be avoided.

#### Use of floor cooling

According to prevalent expert opinions, cooling a room by maximum 5 °C is easily possible at a maximum relative humidity of 65% (According to the workplace directive, the lower floor temperature limit of 19 °C should also be maintained in "normal" housing. People are more prone to ill health in areas with cold floors).

The Parador floor coverings can be used without restrictions if these specified conditions are complied with (whilst bearing in mind the main Parador installation and fitting instructions).

When installing on underfloor heating or cooling systems, it is essential to seek approval from the system manufacturer. The specified parameters for installation on such systems must be complied with. Installation on heating systems with a night storage function is out of the question.

Note: Please note the effect of a possibly used installation underlay on the underfloor heating or floor cooling system.

## Assembly

For assembly purposes, please also take note of the instructions on the pack leaflet in particular.

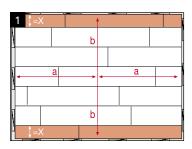
Once you have taken note of the basic rules and the underlay is installed, it is possible to start with the actual installation of the floor covering.

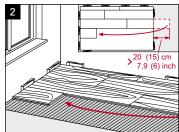
#### Preparation and centring

In order to achieve an even appearance of the first and last row, measure the width of the room at right angles to the direction of installation and work out the width of the first and last row of planks (in each case at least  $\frac{1}{2}$  plank width) (Figure 1).

Install elements mixed from several packs so that you get an even decorative appearance across the area.

The last element of each row is cut to length and the remaining piece, which should not be shorter than 15 cm (20 cm for Edition Open Frameworks), is used to start the next row. (Figure 2).





The cross joints should be offset from row to row by at least 40 cm (half the plank length with tile format and Edition Open Frameworks 15 cm) ("random bond"). For planks longer than 150 cm, an offset of min. 60 cm must be observed.

Please bear in mind when gluing the whole area that any expansion joints (so-called construction joints) in the subfloor must also be adopted in the top layer.

Please check each plank in daylight or adequate lighting for defects before installation and only lay planks that are in perfect condition.

#### Assembly

For assembly purposes, please also take note of the instructions on the pack leaflet in particular. Please also see the section Basic Installation Rules. The Parador installation video correctly installing Parador laminate flooring (page 9: QR code and internet link) is available in this section.

If the wall is not straight, adopt the contours of the wall e.g. with the Parador MultiTool and trim the first row of planks accordingly (Figure 3).

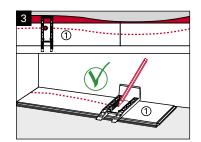
The first row of planks is laid so that the groove of the end side and the long side (former tongue side) face the wall (Figure 4).

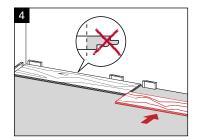
Start in the left-hand corner of the room. The required wall clearance is at least 8 mm and is achieved using the Parador plastic spacer wedges.

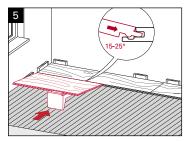
Start by pushing together the end joints of the first row of planks. Align the long sides of the planks. Please insert the first plank of each subsequent row diagonally into the long edge of the installed row at an ideal angle of  $15 - 25^{\circ}$  and use the Parador MultiTool for assistance (Figure 5).

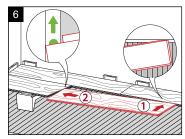
To install the subsequent planks, please proceed as follows:

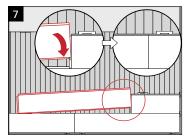
- Place tongue on the end side into the groove on the long side
- Place groove on the end side up to the level of the black dot on the tongue on the end side (Figure 6)
- > Pull/push plank up to the installed row in one movement (Figure 7)
- Check whether all joints are closed (Figure 8)
- > The continuous use of the Parador MultiTool ensures an optimal angle setting

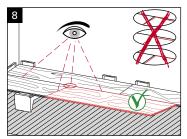












Alternatively, from the second row onwards you can use the following installation technique:

- Push the plank on the floor up to the first row
- > Tilt the plank slightly (15 25°) up to the click-in point (Figure 9)
- The plank clicks in when lowered, resulting in a tight fit with no play
- Set in place, i.e. by hitting with a hammering block (Figure 10 and 11)
- After measuring and cutting the piece on the end of the row to length, this is inserted carefully (bear wall clearance in mind) (Figure 12)

If you are using a jigsaw to cut the elements, it is best to guide the saw along the bottom of the plank. If using a bench saw, place the plank on the bench with the decor side facing up. In this way you will get the best quality (Figure 13).

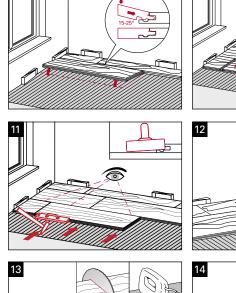
Cut the last row of planks to the required size by using e.g. the Parador MultiTool or a leftover piece of plank to transfer the width (Figure 14). Please also bear in mind the required wall clearance of at least 8 mm in doing so.

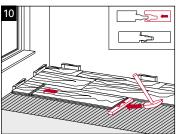
If, when fitting the piece on the end of the row, it is no longer possible to place it at the level of the black dot, push this end piece on the tongue of the end edge into the long edge (Figure 14), remove the Parador MultiTool (Figure 15) and lock the long edge in place. (Figure 3). Check that all joints are closed and use the Parador MultiTool as a hammering block if necessary (Figure 16). Use a hammering block or the Parador MultiTool to permanently lock the end and long edge.

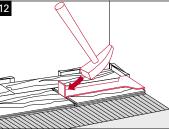
The floor is ready to walk on as soon as it has been installed. You must only remove the Parador plastic spacer wedges and attach the Parador skirting board using the patented clip technology or Parador construction adhesive.

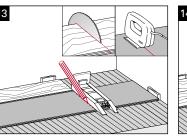
#### **Dismantling tips**

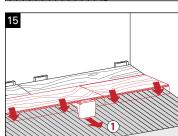
To take up the planks without damaging them, proceed as follows: The complete row of planks is lifted on the groove side past the click-in point and pulled away in one piece. After that, lay the row of planks back on the floor. The end joints are not undone by pulling longways, but by pushing the planks crossways.

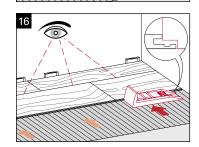


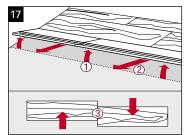












#### 16

Assembling Parador laminate flooring Trendtime 3 (herringbone) with the Allround-Click system

These installation rules and the assembly process shown below are generally applicable. Other special or different rules and instructions, which are advisable and mandatory, may be listed in the pack leaflets inserted with the relevant products.

For assembly purposes, please also take note of the instructions on the pack leaflet in particular.

Installation video – Installing laminate flooring Trendtime 3 with Allround-Click





When selecting the underlay, please ensure that it has sufficient compressive strength. This should not be less than 120 kPA. Soft, less compression-resistant underlays have a negative effect on installation stability. The Parador products Akustik-Protect 80, Akustik-Protect 100 and Akustik-Protect 500 meet this requirement.

Once you have taken note of the basic rules and the underlay is installed, it is possible to start with the actual installation of the floor covering.

#### Preparation

When installing laminate planks (herringbone), the room impression is highly dependent on the installation type. Figure 1 and Figure 2 show a few examples for this. Figure 1 shows the 0° direction parallel to the room walls. Figure 2 shows the so-called 45° direction. You require only the "universal" plank developed by Parador to install herringbone patterns. You do not need left and right planks. With this plank, you can recreate the installation patterns shown above, the installation direction is not prespecified. Image 3 shows the recommended installation direction. Please note that the planks must be installed so that the groove side of the planks is in the direction of installation and that the tongue is clicked into the groove.

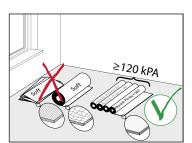
Please check each plank for defects before installation and only lay planks that are in perfect condition.

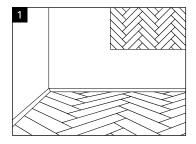
#### Assembly

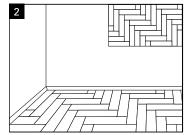
Centre room. a = half room length = centre strip

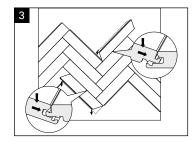
But: based on the  $45^{\circ}$  angle measure 5 cm additional to the half room length and place the centre strip there (a + 5 cm). This axis must be marked with a line (Figure 4).

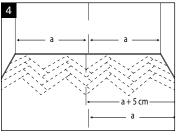
Please first install a whole row of three (installation sequence according to numbering) and push this as shown to the placed spacers (Figure 6).











Tip: To easily install the first planks in the correct angle, please do the following: First place planks A and 1 offset from each other by approx. 120 mm. Plank A serves only as an anchor point and is removed at a later time. Then install planks 3 and 4. You can now remove plank A and install the remaining planks pursuant to the numbering (Figure 5).

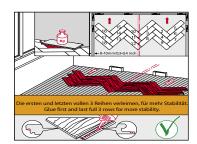
Furthermore, always make sure to place the groove side in the direction of installation and thus click the tongue into the groove.

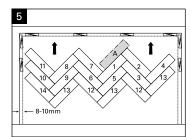
Please glue together the planks of the first and last full three rows. To do this, please apply Parador D3 glue sparingly to the glue areas of the long and end edges. Avoid excessive amounts to prevent glue from leaking into the V-joint. The planks must be clicked together completely tightly. For this purpose, the planks can be pulled together completely tightly with tape (adhesive tape), for example. For fixing in place, please weigh down the glued areas evenly and across the planks. Make sure that the glue has cured.

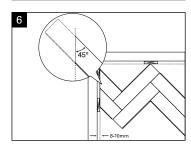
Now align this row along the axis string. If the wall is not straight, you may need to replace the spacers. Please remember the wall distance of 8 to 10 mm. This edge distance all around must also be maintained to built-in objects.

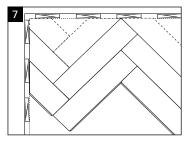
The edge planks must be adjusted. Saw cut under 45° or pursuant to the wall contour (Figure 6).

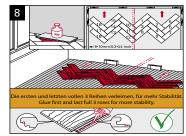
A custom-cut plank must be inserted into triangular free areas (Figure 7).













Please glue these cut or shortened planks together. To do this, proceed in the same way as for the first and last three full rows:

- 1. Apply D3 glue sparingly on the long and end edges;
- 2. Make sure that planks are installed tightly;
- 3. Weigh down evenly, across the planks.
- 4. Allow glue to cure

If the relative humidity in the room is not between 30 % - 65 %, please glue all planks together. The same applies if you are installing the flooring on underfloor heating.

The flooring is ready to walk on immediately after the glue has dried (approx. 1 hour). Remove Parador plastic spacer wedges and attach the Parador skirting board using the patented clip technology or Parador construction adhesive.



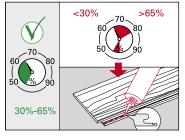
In the areas in which the planks cannot be swivelled into place (door frames, radiator pipes, etc.; also see section "DIY tips"), they must be inserted horizontally and glued in place. To do this, remove the snap-in tongues with a knife (Figs. 10 and 11). Gluing is done as described in Figures 8 and 9.

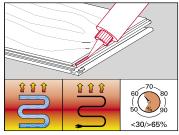
**Dismantling tips** 

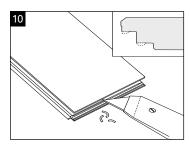
In case of a possible dismantling of the floors, the glued areas must be removed first. Then the planks are easy to remove (Figure 12).

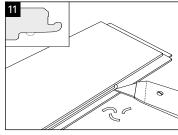
Alternatively, if you want to glue the flooring over the whole area, please contact us in advance.

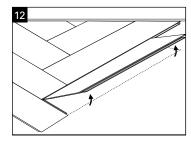
19













Assembly Parador Laminate flooring Edition Open Frameworks with tongue and groove connection

For assembly purposes, please also take note of the instructions on the pack leaflet in particular.

Once you have taken note of the installation rules and the underlay is ready, it is possible to start with the actual installation of the floor covering.

#### Preparation

The laminate flooring Edition Open Frameworks is a module with three-sided groove and one tongue on the long side. In general, this flooring is designed for gluing with Parador glue D3 in tongue and groove connection.

Ensure that you have sufficient free tongues available (1 loose tongue per plank).

#### Installation principle

To connect the individual planks, you must use the Parador tongue in HDF for a secure and stable connection (also: top flush). The HDF tongue is glued in an end-side groove of the universal plank. Right and left planks are thus not required.

To glue the HDF tongue, glue is applied in the same manner as for gluing the long sides on the bottom edge of the groove (Figure 1).

#### Note

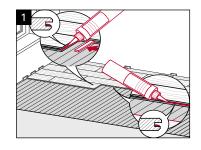
Please note the handling instructions and the use and hardening times for Parador glue D3.

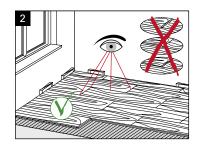
When gluing the planks, it is necessary to continuously ensure that all joints are closed (Figure 2). A possible displacement, for example, by using the hammering block or Parador MultiTool, before the hardening time of the Parador glue D3 is reached must be noted or the above check must be performed and open joints must be closed.

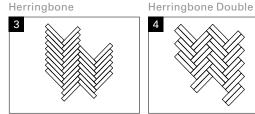
#### Installation pattern

Assembly

Easy installation in many variations is possible with the universal tongue and groove connection joint. Five options are shown as examples (Figures 3 to 7):

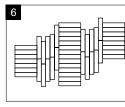


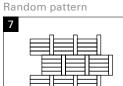






Half offset ladder

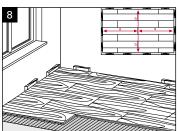




A great variety of other installation options is possible with laminate flooring Edition Open Frameworks.

As an example, we have shown the installation of Edition Open Frameworks laminate flooring in the standard lengthways installation.

Please consider the room situation to receive an even installation, centre the area accordingly, if necessary (Figure 8).

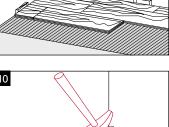


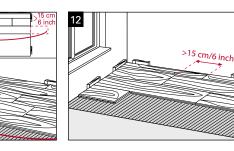
First remove the tongue on the complete first row of planks (Figure 9) using a saw, unless you must cut the first row more narrow. Start in the left-hand corner of the room. The required wall clearance is at least 8 to 10 mm and is achieved using the Parador plastic spacer wedges.

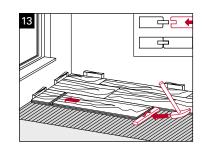
Saw off the respective last element of a row and the remainder, which shall not be shorter than 15 cm (Figure 11) is used to start the next row. The last element is inserted with a drawbar and a hammer (Figure 10). The cross joints should be offset from row to row by at least 15 cm (Figure 12 "random bond").

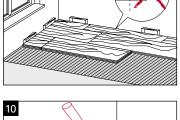
Use the hammering block or the Parador MultiTool and a hammer to fit the planks together on the long and end edge (Figure 13) and push the plank to the previous plank until the joint has closed.

The floor is ready to walk on as soon as it has been installed and the glue has hardened. You must only remove the Parador plastic spacer wedges and attach the Parador skirting board using the patented clip technology or Parador construction adhesive.







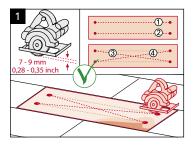


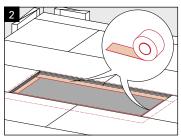
## Tips

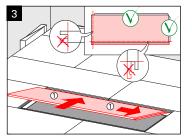
#### Replace a damaged laminate flooring plank with Safe-Lock® PRO

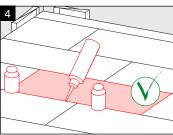
In case of a damaged laminate flooring plank in the centre of the room, you can replace it with some handicraft skills. Use a saw to carefully cut completely through the damaged plank (Figure 1) and remove the damaged plank. Orient yourself towards the plank height of your installed laminate flooring. Apply adhesive tape along the cut edge. (Figure 2). To do so, please slightly lift the installed area and place a wide adhesive strip with the sticky side facing up half way under the installed area. Remove the parts of the click geometry marked from a new, undamaged plank (Figure 3).

Now insert the adjusted piece of plank into the gap from above and press the planks firmly around the edges onto the adhesive tape. You can achieve additional stability by applying adhesive to the edge beforehand (Figure 4). Place a weight onto the replaced plank so that it lies flush with the adjacent planks. Place the weight beyond the plank area.







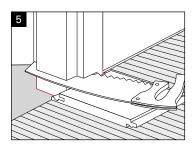


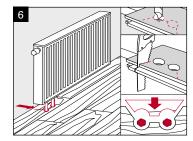
#### How to shorten a door frame

Lay a leftover piece of plank incl. underlay with the decor side facing down against the frame and saw it off along the plank as shown (Figure 5). Please also note the information in the section Assembly Trendtime 3.

#### How to make pipe holes

Make the diameter of the pipe holes 10 mm bigger than the pipe is (play/movement joint). Mark the holes, drill out and saw off at an angle of 45° as shown (Figure 6). Glue the sawn out piece. Do not forget wall clearance here.





## Retain value, cleaning, and care

Parador laminate floors are coated with melamine resin and are extremely durable. In order to enjoy your new floor for a long time, here are a few tips for retaining value, cleaning, and care:

#### Avoid damages

As with all other floor coverings, you should protect your new laminate flooring from dirt particles by using suitable dirt-trapping zones (mats) (Figure 1).

To protect the laminate floors from scratches, suitable soft felt pads must always be fitted under chair and table legs and under pieces of furniture (Figure 2).

Rollers on office chairs, file trolleys and roller containers should be fitted with soft treads/rollers (type W pursuant EN 12529) (Figure 3). There is also the option of protecting the floor in these heavily used areas with suitable mats (available in office supply stores). It is not necessary to wax the laminate flooring or give it an additional seal, as such measures can in no way improve the floor's looks or benefits of use.

We recommend that you clean your laminate flooring regularly with a vacuum cleaner (attached brushes) or broom. Cleaning with a slightly damp cloth should only be done in case of stubborn dirt. It is important in this case that the cloth is well wrung out and that no puddles form with standing water.

#### Retain value

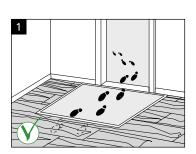
General information on retaining the value of your laminate flooring:

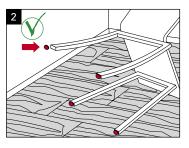
- 35 60% relative humidity is ideal for Parador laminate flooring and also recommended for people's well-being
- Avoid sand and dirt as both act like sandpaper
- Immediately wipe up liquids resting on the floor
- > Only wipe with a slightly damp cloth
- > Do not use any abrasives, floor wax, steam cleaners or polishes. Among other things, they tarnish the floor's appearance
- > Fit chairs and tables with soft felt pads. Office chairs should have soft rollers, otherwise use suitable floor mats in these heavily used areas
- Do not use steam cleaners
- > Please use cleaning and routine care products from the Parador product range

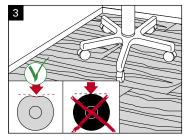
Installation video - Retaining the value of Parador floor coverings:











#### Final construction cleaning

Remove drilling dust and loose particles with a broom or vacuum cleaner. Remove glue smears and residue with the Parador glue remover. To do so, apply some glue remover to a cloth and clean the affected areas. Then wipe with a slightly damp mop with clear water (wring out cloth well and avoid puddles of standing water).

#### Routine cleaning

Remove dust and loose particles with a broom or vacuum cleaner. Wipe off dirty marks with a damp cloth. In the case of stubborn dirt, treat the flooring with a damp cloth using cleaning agents from the Parador range. Make sure that no puddles of water form.

#### Stubborn dirt

Dirty marks caused by substances like shoe cream, varnish, tar, oil, grease, ink and lipstick are best removed using a cloth soaked in solvent.

Acetone, nail varnish remover or white spirit, for example, are suitable for this purpose. Comply with the safety instructions and use these agents only in the affected area with a small amount of solvent.

#### Touching up minor scratches

Use the Parador Premium repair set to touch up light scratches. When doing so, pay attention to the application description. Repeat this process if necessary. To finish, wipe with a damp cloth.

#### Repairing more serious scratches and damages

When doing so, pay attention to the application description. Our Premium repair set also offers an optimal option for professional touching up.

Installation video - Repairing Parador floor coverings:



## Frequently asked questions

#### 1. What is the reason for the planks warping and cupping?

Warping and cupping occur if the laminate planks are not sufficiently acclimatised before being installed. Please remember to acclimatise the planks! Acclimatise the laminate flooring for at least 48 hrs before installation in sealed packaging on an even surface in the place of installation.

#### 2. What is the reason for open joints?

The cause for open joints in laminate flooring is frequently a room humidity that is (much) too low (material dries out). It is imperative that the necessary room humidity is maintained. During the heating period, a humidity of at least 50 - 65 % at a temperature of 20 to 22 °C is ideal.

#### 3. What is the reason for the floor bulging upwards?

If the floor bulges upwards, this usually means that the floor area is abutting the wall in some place, or the expansion joint is no longer adequate somewhere (radiator pipe, door frame, floor profiles, etc.). Please check everywhere to see whether there is still room for movement. Even minimal contact is enough to make the floor bulge up in another place.

#### 4. What is the reason for the edges swelling?

If floors are cleaned too often with too much moisture, or if liquids are left standing and not removed immediately, this often leads to swelling around the edges. This is because moisture penetrates the joints and makes the wood-based material swell. This can be prevented reducing the frequency of damp-mop cleaning and removing liquid (puddles) immediately.

#### 5. What is the reason for the laminate flooring looking "murky" and obscured?

This problem often occurs due to the wrong cleaning agent. These agents create layers that cover the floor like a foil and tarnish the appearance. Refrain from applying cleaning products that form layers, therefore, such as polishes or floor wax.

#### 6. Laminate flooring in the bathroom?

The Classic, Trendtime, Hydron, Selected and Edition collections are suitable for installation in wet rooms. Laminate flooring Classic, Trendtime and Edition enable use for up to one hour and laminate flooring Selected for up to four hours of protection against standing water. Laminate flooring Hydron is most suitable for wet rooms and provides protection against standing water for up to 24 hours. Please observe the installation instructions.

## Check list for installation on hot water underfloor heating

As a matter of principle, all mineral subfloors must be heated before installing laminate flooring so that damaging moisture can no longer escape. This heating process applies to all times of the year, winter or summer.

The screed must be professionally laid according to the generally acknowledged rules of the trade (DIN). It must dry out for at least 21 days before the heating process can begin. We recommend heating the screed according to the following diagram or using the "heating protocol" template. Please observe additional information given by your screed layer and heating engineer.

Installation on underfloor heating (Excerpt from section Installation options)

Parador laminate floors are suitable for floating installation on hot water underfloor heating systems. For installation on electric underfloor heating, please consult the following information:

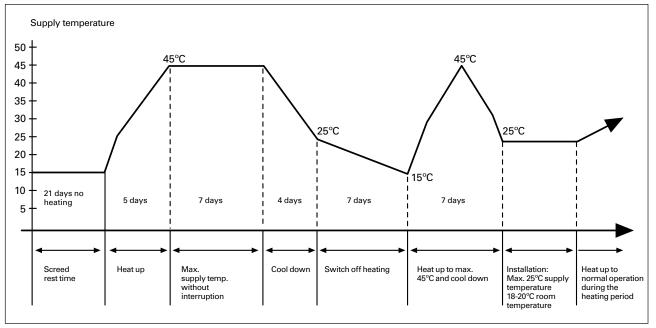
installation only with systems that have temperature sensors and controllers

no installation on older design electric underfloor heating systems (installed before 2000)

no installation on night storage heaters

On the technical data sheets you will find further information, for example about the heat transmission resistances of our laminate floors. The maximum surface temperature of 29 °C must not be exceeded and a very fast heating process must be avoided.

# Heating diagram for a hot water underfloor heating system



Please bear in mind: The surface temperature of the laminate flooring should ideally not exceed 25 °C (max. 29 °C).

# Heating protocol for hot water underfloor heating (template)

It is essential to keep a heating protocol for newly installed hot water underfloor heating systems.

1. a) The screed work was finished on	
b) It is a cement , anhydrite screed.	
c) The thickness of the screed is cm.	
2. a) The heated flooring construction was taken into operation on and heated up to 45 °C with a daily temperature increase of 5 °C (supply temperature).	
b) This maximum temperature was maintained for (target: 7 days) without lowering the temperature at night.	
c) From to to (target: 4 days), the supply temperature was reduced by 5 °C a day.	
c) From to (target: 7 days), the heater was shut off.	
e) The heater was started again on and on the supply temperature of 45 °C was reached.	
<ul> <li>f) After reaching the supply temperature of 45 °C, the supply temperature was reduced in stages of max. 10 °C a day (max. 25 °C) until the room temperature reached approx. 18 – 20 °C for the installation of laminate and engineered wood flooring.</li> </ul>	yes
3. During the heating and cooling off period, were the areas ventilated but draughts prevented?	yes
<ol> <li>The last moisture measurements at the measuring points marked showed % residual moisture.</li> <li>(Permitted values: anhydrite screed max. 0.3 CM %, cement screed max. 1.5 CM %)</li> </ol>	
5. The heated floor surface is hereby approved for the installation of wear layers/floor coverings.	

For the builder/client:

Place/date/signature/stamp

The notes are used to advise the installer/heating engineer and the builder. Warranty claims cannot be derived from this In case of doubt, corresponding regulations stipulated by the screed layer/heating engineer must be followed.

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