Guide Design flooring Vinyl flooring Modular ONE

PARADOR

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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.eu.

The following standards are also relevant for the use of design 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

Information sheet TKB-7 Gluing PVC floor coverings

Useful information

Vinyl flooring

As a modern and innovative material, vinyl flooring is the first choice for aesthetic and functional high-quality room concepts. Vinyl flooring shines in both private and commercial contexts when it comes to maximum durability. With vinyl flooring, the authentic reproduction of near-natural materials succeeds in astonishing perfection. In the four product ranges with an HDF core board, SPC core board, as a solid material, and for gluing, vinyl flooring from Parador offers the optimal solution for every usage scenario.

Modular ONE

This is living today: Modular ONE is the top-performing and advanced multi-layer flooring in authentic and contemporary designs. As versatile design flooring, Modular ONE is able to withstand the challenges of everyday life – it is suitable for damp areas, is durable, promotes healthy living and easy to maintain. In addition to exclusive decors and robust surfaces with a characteristic look and feel, it inspires as a softener-free and quiet floor from head to toe. Ecologically ground-breaking, Modular ONE "Made in Germany" meets the highest standards of sustainable living. As Modular ONE Hydron, the design flooring is also available as a 100 % waterproof and particularly thin version.

Application possibilities of Parador design flooring

With Paradors Design Flooring, you have opted for a new generation of floorcovering. The exceptionally robust Parador vinyl floorings and Modular One floorings have a resistant surface which is also easy to maintain, is very quiet and warm underfoot, and ideally suited for the renovation of rooms due to their thickness and installation friendly options. Our products with a click profile are designed to be installed floating. Our vinyl for glueing products (Dry Back) are designed to be fully adhered to the subfloor. Modular One can also be installed fully adhered to the subfloor, for small areas up to maximum 20sqm in size.

These floor coverings are suitable for use in living and in commercial areas (in accordance with the wear classes of the respective product).

Wear class/exposure class

Within the European standardisation for design flooring, properties, requirements and test methods are defined and presented simply and transparently by the wear class classification. 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 starting from 20), areas for commercial/public use (number range starting from 30), and areas for industrial use (number range starting from 40).

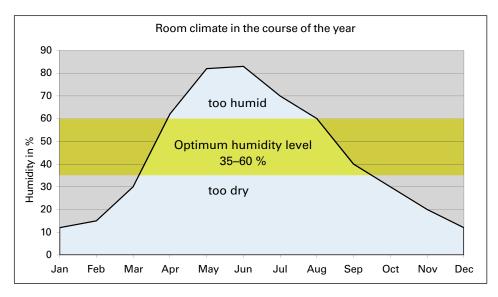
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Wear class	Pictogram	Intensity of exposure	Application (e.g.)	Wear class	Pictogram	Intensity of exposure	Application (e.g.)	
Wear classe	Wear classes in the residential area				Wear classes in the Industrial area			
21		moderate use	bedroom, storage room	41		moderate use	Precision engineering/	
22		normal use	living room, dining room				electronic workshops with light vehicular	
22+		normal use	like 22 but more intensive use				traffic	
23		heavy use	kitchen, hallway	42		normal use	Storage areas or workshop areas with moderate use	
Wear classes in the commercial area				43	(Tay (22)	heavy use	Storage areas or	
31		moderate use	hotel rooms, small offices				production halls	
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.eu. You will also find an overview of the basic properties of the different Parador collections in the current product catalogues.				
34		intensive use	like 33 with higher exposure					

Flooring and room climate

As long as the product has an HDF core board, the core board is a hygroscopic material. That means that the material can absorb moisture and release it again. 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 indoor climate. If the climate is too dry, then hygroscopic material shrinks (here: HDF core board). If the indoor climate is too damp, then it swells. The HDF core board in design flooring also shrinks and swells. 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 gap to the wall is not adequate or expansion joints are missing, the flooring area may start to bulge upwards.

In contrast, Solid Vinyl – like all plastics – has the physical property of expanding with temperature changes, which must be taken into consideration with severe heat spots, e.g. in particular in case of sun exposure also in combination with floor to ceiling windows /doors. Humidity changes, which must be taken into consideration for hygroscopic materials, are irrelevant here. Vinyl with SPC core board and Modular ONE Hydron behave similarly. The humidity-based changes as well as the temperature-based changes in the expansion properties are minimal.



Product structure

Vinyl flooring with an HDF core board

1
2
3
4
5

6

- 1 Transparent, durable UV coating layer antibacterial and easy-care
- 2 Transparent vinyl wear layer abrasion-resistant and texture embossed
- 3 Printed decor layer brilliant, authentic look
- 4 Stabilising vinyl core layer high shape and dimensional stability

- (5) Swell-reduced HDF core board high connection and dimensional stability
- 6 Cork layer for footfall sound insulation improved room acoustics
- 7 Safe Lock® PRO quick installation and high connection stability

Vinyl with SPC core board



- 1 Transparent, durable
 UV coating layer
 antibacterial and easy-care
- 2 Transparent vinyl wear layer abrasion-resistant and texture embossed
- (3) Printed decor layer brilliant, authentic look
- (4) SPC core layer (SPC=Solid Polymer Core) water-resistant and highly dimensionally stable

- (5) Acoustic backing high-quality backing, minimises noise and optimises room acoustics
- 6 Comfort-Click system high pull-out resistance and connection stability

Vinyl flooring from solid material



- 1 Transparent, durable UV coating layer antibacterial and easy-care
- 4 Vinyl core board with integrated glass fibre high shape and dimensional stability
- 2 Transparent vinyl wear layer abrasion-resistant and texture embossed
- (5) Comfort-Click system high pull-out resistance and connection stability
- (3) Printed decor layer brilliant, authentic look

Vinyl flooring for gluing



1 Transparent, durable UV coating layer antibacterial and easy-care

stability

- 4 Stabilising vinyl core layer high shape and dimensional
- 2 Transparent vinyl wear layer abrasion-resistant and texture embossed
- (3) Printed decor layer brilliant, authentic look

Modular ONE



- 1 High quality, highly abrasion-resistant polypropylene decor surface
- 2 Dimensionally stable special core board suitable for use in wet rooms
- 3 Cork acoustic backing

4 Safe-Lock®PRO click connection

Modular ONE Hydron



- High quality, highly abrasion-resistant polypropylene decor surface
- 2) Waterproof, dimensionally stable polymer core board
- 3 Polymer acoustic backing

4 Comfort-Click click connection

Accessories

Underlays

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

When installing design flooring, we recommend using an underlay, as this compensates for any slight irregularities in the subfloor and has a positive effect on the flooring's acoustics.

Vinyl flooring with HDF core board and Modular ONE already have integrated footfall sound insulation due to the cork layer on the back, while vinyl flooring with SPC core board and Modular ONE Hydron already have this thanks to the Akustik counter layer. Please note that the Parador PE film must be used with HDF backed and SPC core board Vinyl flooring and Modular One products if not using an underlay. These products cannot be installed directly to a subfloor without the PE Film, this ensures the uniform expansion property (unlimited "movement" of the flooring).

Akustik-Protect 100

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

Akustik-Protect 200

improved ambient noise insulation over Akustik-Protect 100

Akustik-Protect 300

- integrated vapour barrier
- even better characteristics than Akustik-Protect 100 and 200
- an additional aluminium adhesive tape for sealing the joints
- no additional moisture protection required (PE film)

Solid-Protect

- specifically for floating installation of vinyl from solid material
- > convenient folding underlay
- pressure-resistant polystyrene foam core

Stick-Protect

- > self-adhesive underlay for vinyl flooring for gluing
- no gluing with screed (subfloor)

When installing on mineral subfloors, an additional form of moisture protection using a PE film is essential (exception: Akustik-Protect 100 and 300). In the case of subfloors and underlays made of wood-based materials (e.g. OSB or chipboard), using a PE film is also essential (risk of mould formation in the subfloor).

Attention: the underlays Plan-Protect, Uno-Protect and Duo-Protect are unsuitable for vinyl flooring made of solid material! Please only use the underlays from the Akustik-Protect range, Solid-Protect or the Parador Stick-Protect underlay for vinyl flooring for gluing.

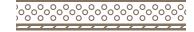
Akustik-Protect 100



Akustik-Protect 200



Akustik-Protect 300



Solid-Protect



Stick-Protect



^{*}Impact noise is focused downward, i.e. it is noticed in lower floors. Ambient noise is focused upward and is noticed in the room in which it is created.

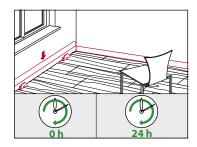
Skirting boards

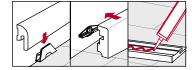
For a perfect finish, the Parador assortment includes the right decorative skirting board to match every floor design. It is attached to the wall with the Parador construction adhesive or the special plastic clips with integrated cable conduit. Caps and corners round off the assortment. For installation in wet rooms, e.g. bathrooms, we recommend using the waterproof Parador skirting, SL 5 WF.

Skirting board assembly instructions

The flooring is ready to walk on immediately after floating installation (whole area gluing after max. 24 hours). Remove the Parador plastic spacer wedges and attach the Parador skirting board using the patented clip technology or Parador construction adhesive.

Note: For floating installation, the skirtings must not be glued to the design flooring or sealed!



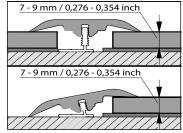


Profiles

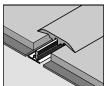
Parador profiles are suited for finishing, transitions, and adjustments. The basic profiles are screwed onto the subfloor or – in particular with an underfloor heating system – are glued to the subfloor. Insert cover profiles or screw down aluminium profiles –done.

3-in-1 HDF profile vinyl flooring

- identical texture and decor
- 48 mm width
- installation height approx. 3.5 mm
- area of use for flooring: thickness 7 to 9 mm









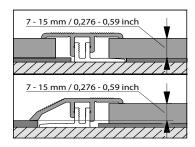
Note: When using as a transition profile, only an adjustment of the base profile is necessary. In certain cases, when using it as an end profile, depending on exposure, underpinning may be adviseable.

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 mm
End profile: 22 mm
Adapting profile: 44 mm









Tool

You will need the following tools and aids for installing Parador design flooring and using accessory products:

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

Other tools and materials may be required, depending on the application:

Vinyl for gluing: spatula to apply glue (spatula size A1 - A2); Pressure roller (approx. 50 kg); "gun" for installation glue; Metal saw for aluminium profiles

Basic rules for installation

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.

Video installation – Parador vinyl flooring with HDF core board: Video installation – Parador vinyl flooring made of solid material and vinyl flooring with SPC core board:

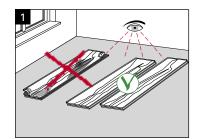






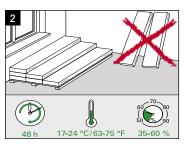
Inspect planks for material defects

The planks should be checked thoroughly for material defects before and during installation (Figure 1). Claims cannot be made on installed goods. 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 flooring elements must be acclimatised over a period of at least 48 hours at a room temperature of at least 17–24 °C and a relative humidity of 35–60 % in the room where they are being installed. (Figure 2). That means that the sealed packages must adjust to the climate conditions in the room. If there are major climate differences between the storage and installation area, the acclimatisation period should be extended. If the climate conditions are almost the same, the period can also be shorter. Please store the packages flat 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. It also makes sense to store the packages on storage timbers or a pallet. In any case, please take care that the flooring elements lay flat and do not bend.



	Expansion joints / wall clearance (mm)	Installation in shower areas ^{1.)}	Floating installation	Full-surface gluing	Underfloor heating (hot water / electrical)	
Vinyl flooring with HDF core board	8	Yes, with safety clearance	Yes	No		
Vinyl flooring with SPC core board	5 (10²-)	Yes	Yes	SikaBondT54 (construction joints must be adopted), trowel notch size B3		
Vinyl flooring from solid material	5	Yes	Yes (see notes: e.g. wall to ceiling windows)	SikaBond 130 Design Floor with appropriate substrate preparation, trowel notch size A1 or A2	es/see notes: Installation options	
Vinyl flooring for gluing	3	Yes	With Parador Stick-Protect	SikaBond 130 Design Floor with appropriate substrate preparation, trowel notch size A1 or A2; or Parador Stick-Protect	Item 3	
Modular ONE	8 (10²-)	Yes, standing water max. 4 hours	Yes	SikaBondT54 (small rooms up to 20 m²), trowel notch size B3		
Modular ONE Hydron	8 (10²-)	Yes	Yes	SikaBondT54 (construction joints must be adopted), trowel notch size B3		

^{1.)} Standing water between the flooring product and the substrate must be avoided.

²) See installation options- location of expansion joints: room size greater than 8 x 12 m

Maintain expansion joints/wall clearance

The core board used for vinyl with an HDF core board as well as the special Modular ONE core board is a wood-based product, which, like natural wood, is also subject to swelling or shrinking depending on climate conditions. Heavy components i.e. kitchen units and other fixed components such as walls and radiators etc. should not be placed on top of these type of floor-coverings. It is essential to leave the recommended wall clearance or expansion gap. Furthermore, equally sized expansion joints must be maintained when a defined installation area is exceeded. Too small a 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 flooring expand. The expansion joint and the wall clearance should be at least 8 mm* (Fig. 3) for vinyl flooring with an HDF core board and also for Modular ONE (special core board), more on larger areas. (see Section: Location of expansion joints: room size greater than 8 \times 12 m).

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 per side)

Based on the special features of the SPC core board (minor changes in the expansion property), room sizes of 20x20m can be installed without expansion joints. Clearance to walls, fixed components, and expansion joints is 5 mm all around or on every side (Fig. 4). This also applies to Modular ONE Hydron with its polymer core board. Bear in mind here a maximum room size of 12 x 12 m and expansion joints with a size of 8 mm.

Expansion joints or wall clearances should also be maintained with vinyl made of solid material. These should be at least 5 mm (Figure 4, Figure 6), and the same for vinyl for gluing, but here at least 3 mm.

When installing in conservatories, a clearance of at least 8 mm to walls and fixed components must always be maintained.

Even if the installed material only abuts a single point in the room, the floating material may start to push up and warp. Frequent weak points in this case are door frames, joints to stairs, radiators and end rails. If heavy objects over 350 kg such as kitchen and cabinets are installed over these floor-coverings and the floorcovering can only move freely on one side, it is necessary to ensure that the wall clearance opposite is left twice as large as normal. We recommend assembling heavy objects and fitted furniture (kitchens, fitted units, aquariums etc.) before the floor-covering installation and only installing the flooring just underneath the base (Figure 5). This makes it easy to take the flooring back up at any time. The edge clearance all around is covered by skirting boards at the walls and in other areas by special floor profiles. It may be reasonable to include the position of heavy objects already in the installation planning (tip: avoid open joints by gluing the ends in the stress areas).

*Note: min. 15 mm at a relative humidity of >60 %

Position of expansion joints: room size smaller than 8 x 12 m

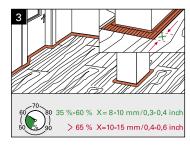
As design flooring will swell or shrink depending on climate conditions, further expansion and movement joints of at least 8 mm (for vinyl flooring with HDF core board), at least 5 mm (for vinyl flooring made of solid material) (Figure 6), and at least 3 mm for vinyl for gluing (vinyl flooring with SPC core board) are necessary under the following conditions:

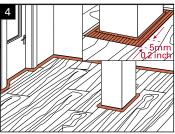
- larger installation lengths and widths (over 8 x 12 m room width or 12 m in length)
- irregular shaped areas
- installation from room to room in door passages

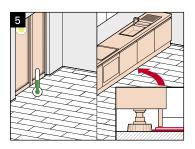
Note on Modular ONE and Modular ONE Hydron

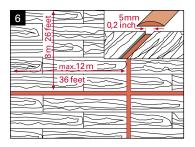
A room transition without expansion joint is possible if all rooms have the same room climate. In areas with a variety of conditions, e.g. due to a fireplace, convectors, conservatories (floor to ceiling windows), large overhead glazing, or differently designed and functioning heating circuits (floor heating/wall heating), corresponding expansion joints must be provided for. Continuous room transitions are not permitted if heavy static floor loads exist in some areas.

These expansion joints are covered with appropriate expansion joint profiles (see Section: Accessories).





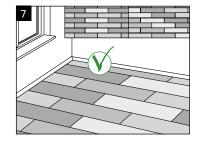




Position of expansion joints: room size greater than 8 x 12 m

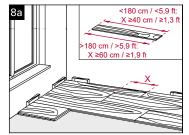
Starting at a room size of 8 x 12 m, expansion joints must be provided in addition to the above stated requirements. Expansion joints are only required for a room size larger than, 12×20 m for Modular ONE, 12×12 m for Modular ONE Hydron and 20×20 m for vinyl flooring with SPC core board. Here, it must however be noted that the expansion of movement joint clearance must be increased to at least 10 mm. In such applications, please note the following: Static load on floor surface and attachments

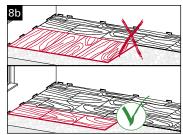
Note: The installer is always liable if expansion or movement joints are omitted.



Installation pattern

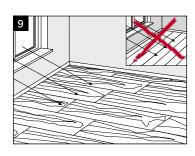
Flooring elements can either be laid in a regular or random fashion (Figure 7). In any case, make sure that the head joints from row to row are offset by at least 40 cm. For planks with a length of > 1.8 m by at least 60 cm, and for tile formats by half the length of the tile (Fig. 8a). Please note that you always click or glue long sides into long sides, and head joint into head joint. It is not possible to install the material alternating at 90 degrees (Fig. 8b).





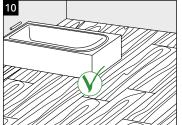
Installation direction (incidence of light and room floor plan)

For optical reasons, the planks should be laid parallel to the incidence of light (away from the incidence of light), i.e. the long side runs in the same direction as the light entering the room (Figure 9). If there is more than one window, please go by the largest window. If the floor plan of the rooms is very unusual, the direction of installation should also be judged according to how the room is divided. 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".



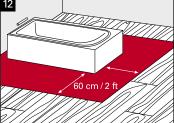
Installation in wet areas

For installation in wet areas, certain design floors are suitable. A distinction is made here between waterproof and water resistant flooring. The waterproof floors include vinyl with SPC core board, solid vinyl, vinyl for gluing and Modular ONE Hydron. These floors can be installed in wet rooms without any time restrictions (Fig. 10). The water-resistant floors include Modular ONE. The waterproof surface and Modular ONE's special core board suitable for damp



max. 4 Std 14 h)

areas allow the use of this flooring in wet rooms with up to four hours of protection in the case of standing water (Figure 11). Care should generally be taken to remove standing water as soon as possible. The edge area must be sealed, for example with silicone (Fig. 13). Alternatively, sealing profiles with flexible sealing lips (available on the market) can be used. In these wet room areas for best results we recommend whole-area gluing (a suitable glue is available in the Parador product range). Please observe the information and notes on whole-area gluing listed separately. For hygienic reasons, water must always be prevented from getting between the flooring and the substrate.



Vinyl flooring with HDF core board must not be installed in areas where water can splash on the floor (Figure 12). Standing water penetrates the HDF core board via the edges and causes permanent damage.



In permanent wet areas and environments, we recommend the use of the waterproof skirting, SL 5 WF, from the Parador product range.

Note: The installation of design flooring in specific wet areas such as saunas, pool areas and rooms with built-in drains such as showers is not recommended.

The formation of puddles and the effects of damp must be prevented at all costs at the edges and in the joint areas as well as on the surface. Water penetrating underneath the flooring may cause the formation of mould (Figure 13).

Subfloor requirements

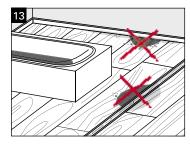
- The basic requirement for the installation of design flooring is a firm, clean, dry and level substrate.
- uneven areas of more than 3 mm across 1 m (Figure 14) must be evened out with a suitable filler (1mm across 1 m for vinyl made of solid material) (also see the special requirements in the Section substrate conditions for vinyl for gluing).
- Old wooden floorboards, particle boards, loose boards etc must be screwed to the substructure to reduce any creaking. The flooring should be laid at right angles to the lengthways direction of the wood floorboards.
- For reasons of strength and from a hygienic point of view, carpets are not suitable as a subfloor and must be removed (Figure 15).
- We only recommend an installation on older PVC, CV or linoleum coverings if these are fully glued to the subfloor already and have no loose areas with no underfloor heating. A suitable underlay must be installed to compensate for unevenness.
- When installing on tiled floors, please bear in mind the required evenness of the subfloor. If the height differences in the joint area are small enough, a design floor with HDF core board can be installed combined with an underlay from the Akustik-Protect range. We generally recommend levelling out the tiled floor with a suitable filler. This method should be selected particularly when installing vinyl made of solid material, otherwise the joints of the tiled floor may push through the solid material. Although this does not have a technical impact on the floor in case of just slight uneven areas, it can have an impact on its look. In contrast with other design flooring, vinyl with SPC core board, Modular ONE and Modular ONE Hydron can bridge concrete joints with a width of 8 mm and a depth of 2 mm without prior levelling. Aesthetic impairments must be expected in case of larger joints without levelling.
- Screeds must not exceed the following moisture level:

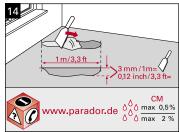
Anhydrite screed Cement screed

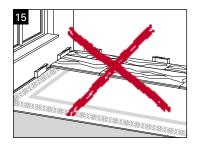
without underfloor heating max. 0,5 CM % max. 2,0 CM % with underfloor heating max. 0,3 CM % max. 1,8 CM %

Generally speaking, the screed moisture must be checked using a suitable test measuring device. With a flowing screed, please keep to the manufacturer's specifications about drying time.

For all design flooring with HDF core board or special core board, 0.2 mm thick PE film must be placed underneath as a moisture barrier and also to allow freedom of movement (Figure 16) (allow strips to overlap by at least 20 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). It is also possible to use Parador underlays with footfall sound insulation and integrated moisture protection. If moisture keeps on rising from the subfloor, please seal the floor area with a suitable liquid sealer.









^{*} Mineral substrates include concrete, screed, stone.

Installation options

Floating installation

If the design flooring is installed without a fixed connection to the substrate i.e. only the planks are connected to each other, we call this a "floating installation". Thanks to simple click technology, Parador flooring is suitable for floating installation. This installation type is the most popular installation method.

Full-surface gluing

Vinyl for gluing is designed for this type of installation. In special cases (e.g. at the request of the user) it may be necessary to completely glue other floors, although in principle the flooring elements are designed for a floating installation. Vinyl made of solid material needs to be completely glued e.g. on continuous areas larger than 8 x 12 m as well as in bathrooms (for hygiene – not technical reasons) and in areas with strong sunshine, such as conservatories, shop windows, large window areas and in areas where an indoor air temperature of $18-30~{\rm ^{\circ}C}$ or an underlay temperature of min. $15~{\rm ^{\circ}C}$ cannot be permanently guaranteed.

For this purpose, please also see the additional information in the adviser on whole-area gluing. The vinyl floors with HDF core board are not suitable for whole-area gluing.

Although Modular ONE is generally designed for floating installation, Modular ONE is suitable for whole-area gluing in small rooms up to a maximum size of 20 m². Floating installation must be used in larger rooms.

Installation on underfloor heating

Parador vinyl flooring and Modular ONE are suitable for floating installation on hot water underfloor heating systems.

Vinyl flooring made of solid material should be glued on the whole area when using on underfloor heating, in areas with severe sun exposure, and in areas with floor to ceiling windows.

Vinyl flooring for gluing can be used on underfloor heating.

Please note the following for installation on electronic underfloor heating systems:

- 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 design flooring.

The maximum surface temperature of 29 °C should 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 and the installation and fitting instructions are complied with.

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

Assembly

Preparation and centring

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 design flooring.

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 ½ plank width) (Figure 1).

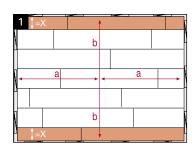
Install elements mixed from at least three packs so that you get an even decorative appearance across the area.

The last element of each row is cut to length and the remaining piece, which should not be shorter than 20 cm, is used to start the next row.

The cross joints should be offset from row to row by at least 40 cm, for formats with a length > 1.8 m by at least 60 cm ("random pattern", for tile formats by half a plank length).

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.



Assembling vinyl flooring with HDF core board and Modular ONE

For assembly purposes, please also take note of the instructions on the pack leaflet in particular. Also see the Section Basic installation rules. The Parador installation video vinyl flooring with HDF core board (QR code and internet link) is available in this section.

Note: Please contact Parador Application Technology if whole-area gluing of Modular ONE is necessary in small rooms (<20 m²).

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 2).

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 3).

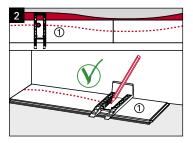
Start in the left-hand corner of the room. The required wall clearance is at least 8 mm and is achieved using the Parador plastic spacer wedges.

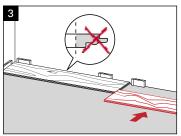
Start by pushing together the end joints of the first row of planks. Align the long sides of the planks.

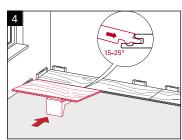
Please insert the first plank of each subsequent row diagonally into the long edge of the installed row (angle 15–25°) and position the Parador MultiTool (Figure 4).

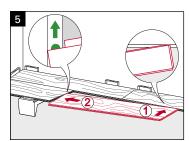
To install the subsequent planks, please proceed as follows:

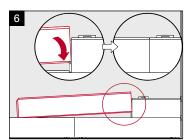
- Place tongue on the end side into the groove on the long side
- Place groove on the end side up to the level of the black dot on the tongue on the end side (Figure 5)
- Pull/push plank up to the installed row in one movement (Figure 6)
- Check whether all joints are closed (Figure 7)
- The continuous use of the Parador MultiTool ensures an optimal angle setting

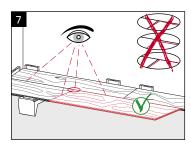












Alternatively, from the second row onwards you can use the following installation technique:

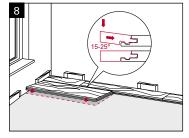
- push the plank on the floor up to the first row
- tilt the plank slightly (15-25°) up to the click-in point (Figure 8)
- the plank clicks in when lowered, resulting in a tight fit with no play
- set in place, i.e. by hitting with a hammering block (Figure 9 and 10)
- after measuring and cutting the piece on the end of the row to length, this is inserted carefully (bear wall clearance in mind) (Figure 11)

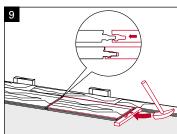
If you are using a jigsaw to cut the elements, it is best to guide the saw along the bottom of the plank. If using a bench saw, place the plank on the bench with the decor side facing up. In this way you will get the best quality cut (Figure 12).

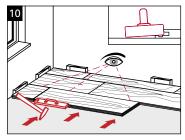
If, when fitting the piece on the end of the row, it is no longer possible to place it at the level of the green dot, push this end piece on the tongue of the end edge into the long edge (Figure 13), remove the Parador MultiTool and lock the long edge in place (Figure 14). Check that all joints are closed and use the Parador MultiTool as a hammering block if necessary (Figure 15).

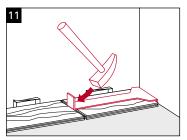
Cut the last row of planks to the required size by using e.g. the Parador MultiTool or a leftover piece of plank to transfer the width. Please also bear in mind the required wall clearance of at least 8 mm in doing so.

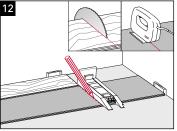
The floor is ready to walk on as soon as it has been installed. You must only remove the Parador plastic spacer wedges and attach the Parador skirting board using the clip technology or Parador construction adhesive.

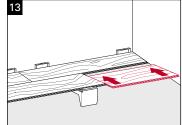


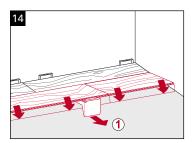


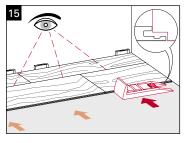


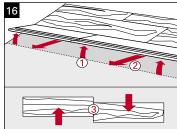












Disassembly instructions for vinyl flooring with HDF core board and Modular ONE

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 (Figure 16).

Assembling vinyl flooring with SPC core board, vinyl made of solid material and Modular ONE Hydron

For assembly purposes, please also take note of the instructions on the pack leaflet in particular. Also see the Section Basic installation rules (page 11). The Parador installation video vinyl flooring made of solid material and vinyl flooring with SPC core baord – also for using the vinyl installation aid – (QR code and internet link) is available in this section. A Parador

installation video for vinyl flooring made of solid material (large format) is available on the Internet.

The first row of planks is installed so that the tongues of the end and long sides face the wall. Start in the left-hand corner of the room. The required wall clearance for vinyl flooring made of solid material and vinyl flooring with SPC core board is 5 mm, for Modular ONE Hydron 8 mm, and is achieved using the Parador plastic spacer wedges. If the wall is not straight, adopt the contours of the wall and trim the first row of planks accordingly (Figure 1). Start by joining together the end joints of the first row of planks. Align the long sides of the planks (Figure 2).

Please measure the end piece of a row of planks accordingly with a square and use a craft knife to score the decor surface bearing in mind the required wall clearance (Figure 3). The plank can now be simply broken over an edge along the cut.

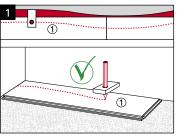
The first plank of the second row is then joined on the long side as follows

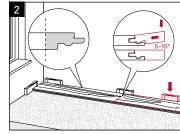
- push the plank on the floor up to the first row
- tilt the plank slightly (5–10°) up to the click-in point. (Figure 4a and 4b).
- the plank clicks in when lowered, resulting in a tight fit with no play.
- set in place, i.e. by hitting with a hammering block, Parador vinyl installation aid, or Parador MultiTool
- position the vinyl installation aid (Figure 4a) or when using large format vinyl planks made of solid material a strip (approx. height 6 cm) (Figure 4b) under the installed plank (Figure 5 (1)). This already defines the optimum angle for the long edge.

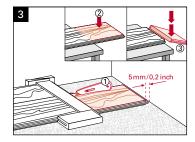
Insert the end edge at an angle of $5-10^{\circ}$ (Figure 5 (2 and 3).

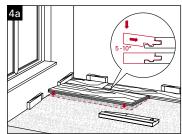
Important: When clicking in planks on the end side, make sure that the gap to the long side of the previous row of planks is as small as possible.

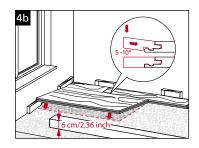
Then tilt the planks slightly on the long side (5–10°) and at the same time push towards the long edge of the previous row of planks (Figure 6).

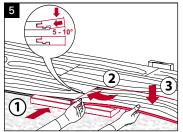


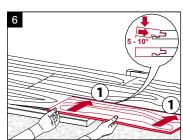




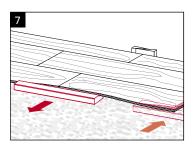




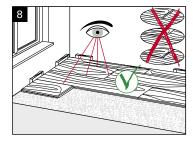




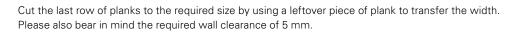
Pull the vinyl installation aid out (Figure 7) and position it or, when installing large formats with a strip, pull it forward to install the following plank. It, like all the rest, is then clicked in place in the same way on the end side



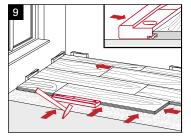
Make sure that the planks fit flush and are actually clicked in (Figure 8).



Use a hammering block, the Parador vinyl installation aid, or the Parador MultiTool to lock the end and long edge for good (set in place) (Figure 9).



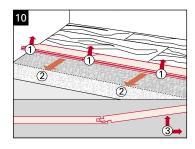
The floor is ready to walk on as soon as it has been installed. You must only remove the plastic spacer wedges and attach the Parador skirting board using the clip technology or Parador construction adhesive



Disassembly instructions for vinyl flooring with SPC core board, vinyl flooring made of solid material and Modular ONE Hydron

To take up the planks without damaging them, proceed as follows:

The row of planks is lifted on the long side of the individual plank past the click-in point and pulled back a few millimetres. The end edge joint is then unlocked in the same way (Figure 10).



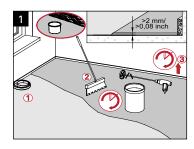
Vinyl flooring for gluing

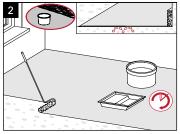
Subfloor preparation

The installation of Parador vinyl for gluing requires an even and absorbent subfloor. Usually, screed is not installed with the necessary evenness (1 mm per metre). We recommend applying a levelling compound at a thickness of at least 2 mm over the complete area to create an optimum subfloor for installation.

An adhesive agent/sealant may be required depending on the floor substance (screed may contain substances that affect the adhesive properties of the levelling compound negatively, highly absorbent screed, rising moisture, etc.). Please review compatibility/effects of the used materials with the relevant manufacturer's information. After preparation, the commercially available levelling compound is poured on the subfloor in a liquid state and distributed or spread with a blade or spiked roller.

Please note the manufacturer's information concerning the adhesive agents and sealants, in particular with regard to the edges (use of an edge sealing strip (clearance – levelling compound/wall, sand down existing levelling compounds, ventilation periods, etc.).

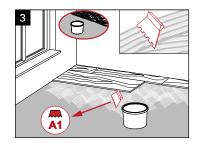




Gluing, whole area on the subfloor

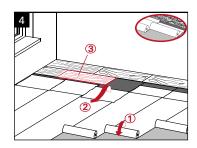
For whole area gluing of Parador vinyl for gluing on the subfloor, Parador recommends a solvent-free, high-quality dispersion adhesive from the Parador product range (SikaBond 130 Design Floor: trowel size: TKB A1 (Figure 3) - A2; Parador recommendation: trowel size TKB B2 insofar as even subfloors (1 mm across 1 m) cannot be levelled/smoothed (consider higher absorption/porosity of older subfloors).

Avoid soiling the floor surface with glue residue. If necessary, remove fresh glue residue from the floor surface and/or e.g. hands using the hand cleansing wipes from the Parador product range.

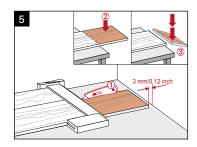


Gluing using self-adhesive underlay (Parador Stick-Protect)

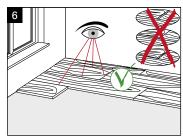
Roll out the self-adhesive underlay at right angles to the direction of installation; do not overlap; the covered adhesive side must face up (Figure 4 (1)). Remove enough of the cover film to install/position the first row (Figure 4 (2)). Proceed in this way for the rest of the installation.



Please measure the end piece of a row of planks accordingly with a square and use a craft knife to score the decor surface bearing in mind the required wall clearance (Figure 16). The plank can now be simply broken over an edge along the cut (Figure 5).

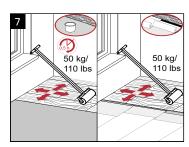


Note: Please precisely check the position (long and short edge, parallelism, perpendicularity) of planks without click geometry during installation (Figure 6). If there are slight gaps during installation, these can simply be pulled together with an adhesive tape. The adhesive tape can be removed once the surface has hardened (Fig 6a).

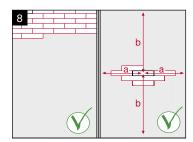




Removal and possible repositioning is possible shortly after installation. Generally, the plank elements must be pressed properly down into the adhesive. Rolling with a pressure roller (weight 50 kg) is necessary for whole-area gluing with the substrate as well as for installation on the self-adhesive underlay (Figure 7). The adhesive has dried completely after approximately 24 hours – in case of Parador Stick-Protect directly after rolling.



Note: depending on the room situation, it might be reasonable to start installation in the centre of the room (Figure 8). In this case, please install the self-adhesive flooring in the complete room (as described above) and separate the cover film using a craft knife in order to expose the adhesive layer and use Parador vinyl for gluing.



Tips

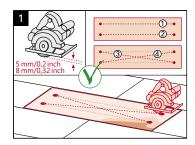
Replacing a damaged plank (for floating installation)

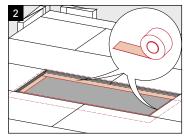
In the event of a damaged plank in the middle of a room, it is possible for you to replace this with some handicraft skill. To do so, please use a saw cut right through the damaged plank (Figure 1) and remove the damaged plank. Use the plank height of your installed design flooring as a guide.

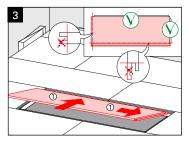
Apply adhesive tape along the cut edge (Figure 2). To do so, please slightly lift the installed area and place a wide adhesive strip with the sticky side facing up half way under the installed area. Remove the parts of the click geometry highlighted in Figure 3 from a new, undamaged plank.

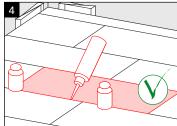
Now insert the adjusted piece of plank into the gap from above and press the planks firmly around the edges onto the adhesive tape. You can achieve additional stability by applying plastic adhesive to the edge beforehand.

Place a weight onto the replaced plank so that it lies flush with the adjacent planks. Place the weight beyond the plank area (Figure 1).



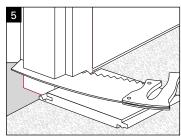






Shorten a door frame

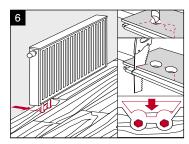
Lay a leftover piece of plank incl. underlay with the decor side facing down against the frame and saw it off along the plank as shown (Figure 5).

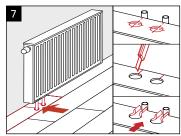


Pipe holes

Make the diameter of the pipe holes 10 mm bigger than the pipe (play/movement joint). Mark the holes, drill out and saw off at an angle of 45° as shown (in case of vinyl flooring with HDF core board and Modular ONE). Glue the sawn out piece in place. Do not forget the wall clearance here (Figure 6).

For vinyl flooring with SPC core board, vinyl made of solid material, vinyl for gluing and Modular ONE Hydron, it is sufficient to drill the pipe hole as described above and to cut from the hole to the edge of the plank with a craft knife. You can then bend the plank apart, place it around the pipe and bend it back (Figure 7).





Retain value

General information

General instructions for retaining the value of your design flooring:

- 35 60 % relative humidity is ideal for design 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.
- avoid strong sunlight. Use a suitable light shield if necessary.
- do not use steam cleaners.
- please use care and routine care products from the Parador product range.

Avoid damages

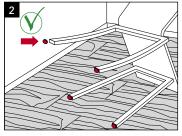
As with all other floor coverings, you should protect your new design flooring from dirt particles by using suitable dirt-trapping zones (mats) (Figure 1).

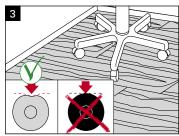
When using such mats, make sure they have a non-colouring rubber or latex backing. To protect the floors from scratches, suitable soft felt pads (light-coloured ones if possible) must always be fitted under chair and table legs and under pieces of furniture (Figure 2).

Rollers on office chairs, file trolleys and roller containers should be fitted with soft treads/rollers (type W, EN 12529) (Figure 3). In these heavily used areas, you can also protect the floor using suitable floor mats (available in office supplies stores). Avoid using tyres or protective covers made of black rubber, as these may lead to discolouration.

We recommend that you clean your design 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.







Final construction cleaning

Remove drilling dust and loose particles with a broom or vacuum cleaner. To finish, wipe damp with a suitable cleaner (wring cloth out well and avoid puddles of standing water). The proper cleaners are available in Parador's accessories range.

Initial treatment

It is not generally necessary to give the flooring an initial treatment. If, however, you want to carry out an initial treatment after cleaning at the end of installation of your vinyl flooring, a polymer dispersion can be used for a simple treatment, or you can seal it with PU sealant for a high quality treatment. We recommend that this initial treatment be applied in installations subject to chemical spillages, e.g. hairdressers. Please note the corresponding gloss level of the care product and its other application instructions. For this we recommend the Design Floor care set from the Parador product range.

Additional/subsequent seal of vinyl flooring and Modular ONE (whole area)

You can change the properties of your Parador vinyl flooring and enhance it by giving it an additional seal. In some cases it may make sense (e.g. in doctors' surgeries and hair salons) to apply additional protection against damage or to increase the anti-slip class. This can easily be done with the aid of a PU sealant. You can also renovate or repair your floor covering with a subsequent seal if there is damage caused by scratches or differences in gloss level. Suitable PU sealants are available in Parador's accessories range. Please take note of the respective application instructions and labels provided by the supplier, as well as the technical information for retaining the value of Parador design flooring.

Routine cleaning

Dust, fluff and loose particles can be removed with a broom or vacuum cleaner (attached brushes). Dirty marks are wiped off with a damp cloth. Floor cleaners, neutral and intensive cleaners make suitable cleaning products. Please do not use any alkaline cleaners or those that contain solvents or glycerine. You will find special cleaners in the Parador product range. In case of stubborn dirt, wipe the floor damp with a PU cleaner. 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 PU cleaner. In this respect, the relevant instructions of use should be observed. Please bear in mind that some skin disinfectants and wound care products may leave stains that cannot be removed. In such cases, a seal over the whole area of your vinyl flooring and Modular ONE is recommended as a preventive measure (see above).

Stain removal and levelling slight scratches

Apply some PU cleaner with a cloth to the area being treated and rub it dry after a few minutes. Repeat this process if necessary. To finish with, wipe with a damp cloth. For superficial scratches, the Parador varnish retouching pen is particularly suitable. In case of serious damage to the decor surface, we recommend repairing it using the Parador premium repair kit. When applying the care product, always keep to the instructions on the packaging.

Frequently asked questions

1. Can I install Parador design flooring on existing tiles?

In principle, a tile subfloor is suitable for installing design flooring. Please remember to lay down a 0.2 mm thick PE film. The tile floor must be even and must not have any protruding tile corners. Otherwise a suitable underlay must be used or the tile area filled. In case of larger joints and when installing vinyl made of solid material, the tile subfloor is to be levelled with a suitable filler. Vinyl flooring with HDF, SPC core board, and Modular ONE are specifically suited for installation on existing tiles. The joints may not exceed a width of 8 mm and a depth of 2 mm. Please observe the notes about this topic in the chapter "Basic rules for installation".

2. Is Parador design flooring harmful to health?

No. Due to its composition, standing and walking on design flooring is particularly kind to the joints. Only harmless raw materials are used in Parador design flooring meaning that there is no risk to your health or the environment. Not only do we ensure the high quality of Parador floors through external and internal tests, but we also have ourselves checked and monitored by renowned institutes. We prove this with the numerous certifications issued for our products, which are listed in the data sheets (available at www.parador.eu).

3. How do I clean a Parador design floor?

For normal maintenance care, a standard floor or universal cleaner is best suited. For further information please read the chapter "Value retention". You will find special cleaners in the Parador product range.

4. What are the benefits for me of Parador design flooring?

Design floors are particularly durable, robust and easy to maintain floor coverings. Design floors can hardly be distinguished from real wood or stone in terms of look and feel. Due to their composition they are soft and quiet to walk over and thus provide an enhanced feeling of comfort in the home. Additional product advantages are listed in our catalogues and at www.parador.eu.

5. How can I renovate a Parador design flooring?

Vinyl flooring is renovated by subsequently sealing the whole area of the floor with a special PU sealant (available in the Parador product range). The Parador varnish retouching pen is particularly suitable for repairing superficial scratches. In case of serious damage to the decor surface, we recommend repairing it using the Parador premium repair kit. You can find further information in the chapter "Value retention".

6. Can I install Parador design flooring in the bathroom?

Certain design floors are suitable for installation in wet rooms, but a distinction needs to be made here between waterproof and water-resistant flooring. The waterproof floors include vinyl with SPC core board, vinyl flooring made of solid material, vinyl flooring for gluing and Modular ONE Hydron. These floors can be installed in wet rooms without any standing water time restrictions. Water-resistant floors include Modular ONE. The waterproof surface and Modular ONE's special core board suitable for damp areas allow the use of this flooring in wet rooms with up to four hours of protection in the case of standing water. In addition, it is essential to observe the further instructions in the section "Basic rules for installation".

7. Do heavy objects cause pressure marks in the Parador design flooring?

The pressure and period of exposure are critical for pressure points developing. Very heavy furniture with a very small contact area, which is left in place for a long period, will leave pressure points behind on design flooring just as much as on other soft floor coverings. Increasing the contact area by placing something suitable underneath can effectively reduce this effect.

8. Can I also install Parador design flooring outdoors?

Parador products are indoor products. They are not suited for outdoor installation.

9. Can I install Parador design flooring in rooms with large window fronts (floor-to-ceiling windows) or in a conservatory with strong sunlight?

In case of a floating installation, Parador recommends the use of vinyl flooring with SPC core board and Modular ONE for the above-stated areas. Due to the product composition, this product reacts less to temperature fluctuations than vinyl flooring made of solid material.

If the installation of vinyl made of solid material or vinyl for gluing is preferred or necessary due to its suitability for damp areas, the floor needs to be glued over the whole area.

The light fastness of design flooring has been tested according to test standard EN ISO 105-B02 and achieves at least level 6 (or higher) on the blue wool scale. Nevertheless, colour changes cannot be ruled out if continually exposed to high levels of sunshine.

Strong sunshine can lead to small joints appearing on the plank transitions.

In all cases, it is important that typical indoor temperatures persist all year round in the installation area.

Parador recommends heating the areas in question during winter and protecting them in summer from direct sunshine by taking appropriate precautions (e.g. roller blinds or shutters).

If the recommendations and conditions are not complied with, any guarantee or warranty claims are excluded on the part of Parador.

Check list for whole area gluing

Parador design flooring is designed for floating installation. On request or even advisable or necessary in certain situations (e.g. in conservatories or bathrooms), vinyl made of solid material can also be glued over the whole area Vinyl with HDF core board is not suitable for whole-area gluing!

While Modular ONE is designed for floating installation, it is suitable for whole-area gluing in small rooms (max. 20 m2) using SikaBond T54 (toothed spatula B3). Vinyl flooring with SPC core board and Modular ONE Hydron are also designed for floating installation. However, whole-area gluing is possible with SikaBond T54 (trowel notch pitch B3). Please note here that construction joints must be adopted.

Please observe the following tips:

- as a surface area adhesive, only water and solvent-free, one or bi-component (1-C or 2-C) polyurethane adhesives recommended for this purpose by the adhesive manufacturer, or solvent-based adhesives in accordance with DIN 281, should be used. The adhesive manufacturer's specifications, particularly with regard to applying the adhesive, ventilation time, rolling, etc., must be observed.
- with vinyl made of solid material, as a matter of principle, a wet bed gluing process (wet adhesion) is preferable to pressure-sensitive (semi-wet stage). Toothed spatula A2 is prescribed. For vinyl made of solid material, Parador recommends the solvent-free dispersion adhesive SikaBond 130 Design Floor. (SikaBond 130 Design Floor is only designed for processing by professional users.) If you have special questions, please contact the adhesive manufacturer and be guided by the relevant technical leaflet.
- the subfloor must be clean, dry, load-bearing, even and free of layers that reduce adhesion such as oil, dust and loose particles. Cement laitance, paint and other layers that reduce adhesion must be removed. Concrete and/or screeds must be sanded and vacuumed with an industrial vacuum cleaner. The usual rules of construction must be observed. The subfloor must meet the requirements of the applicable standards such as DIN 18 365 and DIN 18 202. In order to achieve a sufficiently absorbent and even subfloor, a cement-based filler (e.g. Sika R Level 300 Extra) is to be applied in a thickness of at least 2 mm. If installation is expected to take place on subfloors with underfloor heating, please check whether the measuring points are marked. The room temperature must be >18 °C, the temperature of the subfloor, floor covering and adhesive >15°C. Ideally, care should be taken that the relative humidity is 40 60 %. As already mentioned, the pre-treatment is also done according to the adhesive manufacturer's specifications.
- 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%

- depending on the product, an appropriate minimum gap must be maintained to all fixed objects (see notes about this in the advice section).
- the general notes from the assembly instructions should also be observed when gluing the whole area. In particular, the planks must be acclimatised in the installation rooms.
- you can find further information on the adhesive manufacturer's website (e.g. www.sika.de) or contact the Parador application technology department in case of doubt.

Acceptance protocol for trade

(sample)

Mr./ Mrs.: _		Order numb	er:
Street:		Protocol nur	mber:
Postal code,	/Town:	Date:	
Installed on:			
Pos.	Quantity (target)	Quantity (actual)	Article
1	m ²	m ²	Removing existing floor coverings/m² Basis
2	m²	m²	Flooring installation
3	m	m	Profile insertion
4	m	m	Attaching skirting boards
5	Pcs.	Pcs.	Shorten doors
6	Pcs.	Pcs.	Shorten door frames
7	Pcs.	Pcs.	Swapping planks
Particularitie	s/remarks:		
			ht or other light refraction (e.g. backlight) and without deviations from ag and care instructions for the installed floor were handed over to the
Signature er	nd user and/or orderer		te place

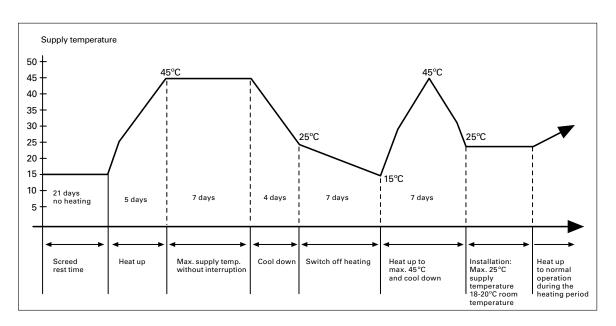
Check list for installation on hot water underfloor heating

As a matter of principle, all mineral substrates must be heated before installing design 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.

Note: Also see Section installation options: Installation on underfloor heating

Heating diagram for a hot water underfloor heating system



Please bear in mind: The surface temperature of the design flooring should ideally not exceed 25 $^{\circ}$ C (max. 28 $^{\circ}$ C).

Heating protocol for hot water underfloor heating

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 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.	
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.	yes
g) During the heating and cooling off period, were the areas ventilated but draughts prevented?	yes
3. The last moisture measurements at the measuring points marked showed% residual moisture. (Permitted values: anhydrite screed max. 0.3 CM %, cement screed max. 1.8 CM %)	
3. The heated floor surface is hereby approved for the installation of wear layers/floor coverings.	
For the builder/client:	

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

www.parador.eu

Vinyl flooring | Modular ONE |
Engineered wood flooring
Laminate flooring | ClickBoard | Panels
Accessories and mouldings

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