

Installing guidelines

To fully achieve the natural beauty effect of Bergland-Parkett flooring, it is important that you follow these few instructions with regard to its proper laying. Bergland-Parkett comes with a 7-times Bären-quality-sealing or with an oil | wax surface. The non-toxic glues, lacquers and oils | waxes, which are used during production, allow an immediate healthy habitation after first care. Due to its unique 3-layered solid hardwood construction, Bergland-Parkett is designed for both floating and glued laying. For the full adhesion of the floor, we recommend SIKA BOND® -54 Parquet. **Due to the tendency of warping, it is essentially to not use one or two component solvent-based adhesives.** Bergland-Parkett should only be nailed on subfloors. The direction of laying mostly orients itself to the main light source of the room (balcony door, windows, etc.), whereas the individual parquet elements should be laid along the incident light. In some cases, the proportions of the room can certainly be influenced effectively due to a different laying direction. As an alternative to PVC floors or carpets, Bergland-Parkett can be laid without any problems when renovating old buildings. **Important note for laying over underfloor heating:** with the exception of one wood type (beech natural), all Bergland-Parkett floorings are suitable for installation on radiant floor heating, given that the specific laying instructions of the manufacturer are observed. Further information on this topic you will find in chapter 5 "laying over an underfloor heating system". The special 3-layer-construction considerably improves the thermal conductivity of floor heating systems.

Important note

Before laying, the parquet boards need to be inspected for obvious defects. Layed or glued flooring is excluded from claims.

Important laying requirements

The basis for the impeccably laying of parquet floorings is the substructure of the floor, whether in dry or screed construction. Against residual moisture, a PE-film (0,2 mm in thickness) should be laid, so that the edges overlap for approx. 15 cm. If the residual moisture of the subfloor exceeds the indications of the factory (1-strip 1,8 %, 1-strip beech natural 1,5 %, 2-strip 1,8 %, 2-strip beech natural 1,5 %), the floor should not be laid. For rooms, which do not have a cellar, a moisture barrier must be installed according to Ö-standard (EN-standard).

Subfloor options

Cement and anhydrite screed, mastic asphalt, slabs, floor coverings, tiles and short pile carpets without foam backing and using proper intermediate covering (due to the instability of foam backed velour carpets, Bergland-Parkett does not recommend these for floating installing). In case of carpets, neither the foam backing nor the pile should be too high, otherwise this can cause instability for floating installing and can also cause problems for gluing tongue and groove. In any case, we recommend to use a PE-film (0,2 mm) or paper to neutralise eventually texture variations of the carpet.



Dry construction

Normally, the dry construction can be described as problem-free. On wooden pole-construction with insulating material und subfloor (residual wood moisture max. 15 %) or filling (perlite) with insulating boards and tongue and groove chipboard panels (residual wood moisture max. 13 %) or other solutions, the following points should essentially be noted: dryness, wood protection, load capacity of the construction (bouncing or creaking), sound insulation, diffusion and evenness of the substructure.

Screed subfloor

Due to its water content, the screed underlies different laying criteria, which, according to the standard, have to be inspected in particular for dryness, evenness and firmness. If necessary, please request our factory standard (screed testing protocol) from your Bergland-Parkett retailer or directly from our factory.

Floating installation

Preparation

An acclimatisation of Bergland-Parkett prior to laying should not be carried out. A temperature compensation of the material is required in the room, where it should be laid (unopened for 2-3 days). Every Bergland-Parkett flooring is unique in its naturalness. Especially when it comes to country house flooring, you should always open a few packages before laying and, depending on optical knots and colour differences, combine more intensive boards with less intensive ones.

Underlay material

For floating installation, we recommend natural corc, elastilon strong or fleece. These are suitable for insulation and for the potentially balance of low irregularities of the subfloor. When laying the first row, the boards should be laid with the groove to the wall and one should pay attention to a straight run.

Laying

The installation happens due to gluing of tongue and groove. Glue the parquet elements together on the long and the narrow side, whereas you should apply the glue continuously and evenly in the groove (bottom of the useful layer). After consolidation of the first row (stabilisation of the glue), the next rows can be laid. When the glue is applied on the respective upperside of the groove, the single parquet elements should be laid next to each other with their front sides and, beginning on the opposite side, joined together with an approx. 400 mm long bat and a hammer.

IMPORTANT

Position the front side of the board obliquely (see fig. 2) and hammer the board from back to front to the already installed area. In this way, the single boards are easily and accurately set together. A new row should be started with the incidental board sections.

The front sides of two adjoining board rows must be staggered by at least 235 mm. Along the wall, there should be an expansion joint of 1,5 to 2 mm (beech) per each laid meter. **With a laying width of 8 m, one should provide for a corresponding expansion joint.**

The last row next the wall mostly requires trimming and can be inserted accurately with the help of a crow bar which is available at a specialist shop (see fig. 3). At doorways, a flat floor cover joint has to be screwed down on the subfloor to keep the edge distance constant. Please note, that a separation joint is necessary in case of a "continuously laying" in additional rooms. This passage will be provided with a transition profile. In the flat floor cover joint, an expansion distance of 5 mm is considered. Basically, wooden doorframes must be trimmed with a fine saw to the thickness of the parquet, so that the parquet has the possibility to extend. As soon as the glue of the laid boards dried, tools as e.g. wooden wedges can be removed. Afterwards, the suitable Bergland-Parkett borders have to be installed to cover up the expansion joint. The room air humidity should remain as constant as possible with a relative humidity of 50 - 60 % at a room temperature of 20 - 22 °C.

Floating installation example



Glued installation

Preparation

An acclimatisation of Bergland-Parkett prior to laying should not be carried out. A temperature compensation of the material is required in the room, where it should be laid (unopened for 2 - 3 days). Every Bergland-Parkett flooring is unique in its naturalness. Especially when it comes to country house flooring, you should always open a few packages before laying and, depending on optical knots and colour differences, combine more intensive boards with less intensive ones.

General information

Basically, the gluing of wooden floors on suitable subfloors as for example screed or chipboards is possible in any case. Prerequisite is, that the corresponding requirements according to the standard are met. This affects in particular the moisture of the wood, the moisture and adhesion of the subfloor as well as the suitability of the used glue.

Due to the 3-layer-construction of Bergland-Parkett, a substantially lower extent of swelling and shrinking is achieved in comparison to solid parquet. Occuring stress in the glued joint is substantially lower due to the smaller extent of swelling and shrinking, which affects the gluing in a positive way.

Every woodtype offered by Bergland-Parkett is suitable for gluing on subfloors. The gluing installation of Bergland-Parkett floors on heated screeds is required by the factory (use recommended solvent-free adhesives). This should be done for two reasons: first, the thermal mass is able to rotate better compared to floating installation and second, the butt joints between the laid boards can be largely avoided. See leaflet "wooden floors on underfloor heating" for more information about installation on underfloor heating.

Observe the following points prior to the glued installation of Bergland-Parkett wooden flooring:

Inspection of the subfloor (standard)

When inspecting the subfloor, attention should be paid to the following:

- Larger unevenness
- Cracks in the subfloor
- Subfloor not dry enough
- Surface of the subfloor is too porous or too rough
- Required friction locking of dummy joints
- Polluted surface of the subfloor should be cleaned
- Inaccurate height of the screed surface
- Unsuitable temperature of the subfloor, air, indoor climate

Evenness

Usually, the intended national standards are sufficient in this matter. Due to the technical specifications of Bergland-Parkett, the following factory requirements are important:

- The maximal height difference should not be more than 2 mm for a length of 1,2 m.
For 4 m it should not be more than 4 mm.
- Short (e.g. length of 500 mm), wavy unevennesses from 2 - 3 mm can also produce unwanted cavities when processing, which can be a handicap especially when laying on underfloor heating.

Firmness

Testing takes place with a so-called "grid scratch test".



Dryness

Humidity measuring: CM-measuring. Heated screeds have to show measuring points. Only having a standard heating-protocol is not enough to ensure an adequate dryness of the subfloor. For drying the heated screeds, a technical, proper heating procedure is recommended, see heating protocol Bergland-Parkett.

Anhydrite floating screed

Anhydrite screed is made out of anhydrite binder (anhydrous plaster), sand and water.

Advantages

- Can be inserted fast and without joints (even for bigger areas)
- Self-levelling

Important

- Sinter layer on the surface always has to be sanded (K16)
- Anhydrite may be softened by water and therefore loses its firmness
- Yellowish, plaster-white colour
- Be careful with dispersion adhesives
- Standard, residual moisture of 0,3 % or according to the specifications of the screed manufacturer (standard)

Subsurface - preparation

All subsurfaces have to be primed (except "SikaBond® -54 parquet"), so that a good connection is given between subfloor and glue.

- The subfloor has to be free of dust and any other dirt (plaster residues, paints, etc.) has to be removed.
- Cracks and joints (except design related ones) have to be properly closed.

Special remarks

- If the cement screed exhibits too large unevennesses, either a filling with primer or sanding of the screed itself has to take place.
- Heated screeds need priming.
- Anhydrite floating screeds have to be sanded (K16), brushed, vacuumed and primed.
- Mastic asphalt, double edge strips and loose sand have to be removed. Mastic asphalt of poor condition must be primed.
- To obtain a vibration-free construction, the wooden clipboards must be thick enough and two-ply, according to the expected load. The subconstruction must be prepared accordingly, with enough squared timber. Based on ÖNORM ÖN page 13
- Other installation plates are only with reservations suitable for the installation of parquet. Information on the suitability of the manufacturer should be noted.



Gluing instructions

1. While processing, it should be ensured that the specifications of the manufacturer of the glue is observed and that the glue is suitable for the parquet. Furthermore, of course, the subsurface needs to be properly prepared.
2. At the beginning of the laying, 2 - 3 rows of boards should be firmly glued together according to the usual laying instructions (offset of the rows etc.) at tongue and groove. Subsequently, the rows of boards should be laid into a previously prepared adhesive bed, set up with the help of a suitable toothed spatula (toothing B3). (Some parquet layers apply the glue to the back side of the parquet). It has to be ensured that these prepared and glued rows of boards are exactly laid in the desired laying direction. The complete connection of the whole area between the subfloor and the boards should be weighed down considering the adequate distance to the wall. Considering the proper indoor climate (see installation instructions and maintenance guide) and the use of Bergland-Parkett borders, a distance of 5 to 10 mm between the parquet flooring and the masonry can be chosen. In doing so, please pay attention to room sizes, expansion joints, wood types and substructures (see installation instructions).
3. For a correct gluing, it is necessary to fully wet the boards and parquet elements over the whole area with glue. An additional gluing at tongue and groove is only required on the front side of the boards.
4. For laying additional boards, ensure that the glue of the laid rows has dried (over night) or fix the laid rows on the wallside by using wedges, so that joining the additional boards will not displace the already laid (2 - 3) rows of boards.
5. To obtain the best result, we recommend **SikaBond® -54 parquet**, which is fully tested by Bergland-Parkett and offered in the pricelist. **Due to the tendency of warping, it is essentially to not use one or two component solvent-based adhesives.**
6. After gluing, we recommend to suitably weigh down the laid parquet surface. This helps to avoid swelling pressure, edge stress and the therefore resulting mis-gluing (cavities).
7. Pollutions of the parquet surface with glue have to be removed immediately with suitable agents.
8. Afterwards, install the Bergland-Parkett skirting borders and carry out Bergland-Parkett first care.



SikaBond® -54 Parquet

SikaBond® -54 is suitable for installing BERGLAND-PARKETT flooring, as well as other solid or strip flooring, to glue the floor fast and secure. An easy to spread, solvent-free, elastic and quick drying parquet glue.

SikaBond® -54 Parquet can be used without a primer on ready-for-laying cement screed, calcium sulfate screed, chipboards and concrete.

Product	Description	Content	Consumption
SikaBond® -54 Parquet	1-component, solvent-free and elastic glue	13 kg	approx. 0,8 - 1,0 kg m ² (per can approx. 15 m ²)
System characteristics:	1-component; ready to use; solvent-free; low-emission EC1 plusR; user-friendly, smooth filling; odourless; elastic, footstep sound-absorbing gluing, suitable for all Bergland-Parkett wood types; especially for problematic wood types such as beech natural; glue is grindable.		
Gluing:	SikaBond® -54 is applied directly from the can on the subfloor with a toothed spatula (TKB 18) and distributed evenly. Working installation time of SikaBond® -54 is about 1 hour. The parquet elements should be set thoroughly into the adhesive bed and afterwards tapped on, so that a wetting of the whole back side of the parquet is achieved. Keep a distance to the wall of at least 5-10 mm. Fresh glue on the top of the parquet should be wiped off immediately with a clean cloth and Sika Remover -208. Hardened glue remains can only be removed mechanically! (Gluing of the parquet boards in tongue and groove is NOT NECESSARY!		
Subfloor characteristics:	The subfloor has to be ready to install, this means it should be even, firm, clean and free of dust. Prerequisites for processing have to be checked according to VOB part C DIN 18 356 >>Parquet works<<. The applying processing conditions have to be met. Room temperature: +15 °C to 35 °C Subflooring temperature: at least +15 °C (in the case of heated screeds max. 20 °C)		

Permitted screed humidity	Cement screed < 2,5 % CM	Calcium sulfate screed < 0,5 % CM	Magnesite screed 3-12 % CM depending on the portion of organic components
Permitted screed humidity for heated screeds	Cement screed < 1,8 % CM	Calcium sulfate screed < 0,3 % CM	Magnesite screed 3-12 % CM depending on the portion of organic components

Technical characteristics	Characteristic values		Note
	Chemical basis	Polyurethane, moisture-curing	
Density	1,30 kg L	DIN 53 479	
Breaking elongation	approx. 500 %	DIN 53 504	
Stability	excellent elastic bonding		
Tensile shearing strength	approx. 1,5 N mm ²	According to DIN 14 293	
Installation time (skin formation)	60 minutes	Standard climate to DIN 50014-23 50-2	
Full curing	4,0 mm 24 h	Standard climate to DIN 50014-23 50-2	
Standability load capacity	after 12 h	depending on temperature and layer thickness	
GISCODE	RU 1	Solvent-free	
EMICODE	EC 1 Plus R	Low emission	
Temperature resistance	+5 °C to +40 °C	suitable for underfloor heating	



Sika Dispenser -1800	Applicator for the application of SikaBond® -54	Dispenser & accessories
SikaBond® -54 Parquet	Tubular bag 1800 ml SikaBond® -54, consumption 3 x 1800 ml = 6 m ²	1800 ml
Sika Top Clean	Cleaning wipes	Can (content 50 pieces)
Sika Primer MB	2-component primer on basis of epoxy-resin, solvent-free, consumption approx. 0,54 kg m ² special primer to form a seal against residual moisture up to 4 % CM	10 kg
Sika Remover -208	Cleaning agent for removing the fresh glue	1000 ml
Toothing spatula TKB	18 cm spatula, toothing "B3"	1 piece



Installation on screed

1. Maximum moisture content of the screed

Cement screed	acc. to ÖNORM 2,0 % acc. to DIN 2,0 % Our factory specifications: 1,8 % for all 2-strip products (except Beech natural 1,5 %) 1,8 % for all 1-strip products (except Beech natural 1,5 %)
Anhydrite screed	acc. to ÖNORM 0,6 % acc. to DIN 0,5 % Our factory specification: 0,3 % for all 2-strip products (except Beech natural 0,25 %) 0,3 % for all 2-strip products (except Beech natural 0,25 %)
Cold bitumen	acc. to ÖNORM 2,0 %, magnesite xylolith: acc. to ÖNORM 12,0 % Priming with epoxy resin Sika MB is necessary

Measurements have to be made at several points with the help of the Carbid-method (= CM device). If different measurement methods are used, comparative measurements should be carried out in order to relate the previously obtained results to the values of the CM measurements.

In marginal cases or doubts concerning the moisture content of the screed (e.g. in rooms without cellars or potential diffusion humidity), we recommend laying a 0,2 mm PE film, with 15 cm overlapping edges. Concerning the drying process of cement screed, the rule of thumb states a time period of approx. 2 weeks per cm of screed thickness (given a temperature of approx. 18 - 20 °C and appropriate ventilation).

2. Check (standard) for strength and evenness

For strength

Scratch and scribe method, etc.

For evenness

The check for the evenness can be carried out with a 1,2 m long ruler and distance blocks can be used for the height (in marginal cases or doubts, the permitted deviation comes to 3 mm). The measuring instructions mentioned above do not apply for protruding or detaching building components along a broadness of 20 cm.

Factory specifications

The above mentioned ÖNORM standard represents the legal basis in Austria. of more than ± 2 mm with filling material.

Nevertheless, we recommend measuring the evenness of the screed with the help of a weighing rod and if necessary, level irregularities of more than ± 2 mm with filler.

Conversion table for the CM device			
Gauge pressure in bar	Net weight 100 g	Net weight 50 g	Net weight 20 g
0,2	0,19 %	0,38 %	0,9 %
0,3	0,28 %	0,58 %	1,5 %
0,4	0,38 %	0,78 %	2,0 %
0,5	0,47 %	0,98 %	2,5 %
0,6	0,57 %	1,18 %	3,0 %
0,7	0,66 %	1,37 %	3,5 %
0,8	0,76 %	1,57 %	4,0 %
0,9	0,85 %	1,76 %	4,5 %
1,0	0,95 %	1,96 %	5,0 %
1,1	1,05 %	2,16 %	5,5 %
1,2	1,14 %	2,35 %	6,0 %
1,3	1,23 %	2,55 %	6,5 %
1,4	1,33 %	2,74 %	7,0 %
1,5	1,42 %	2,94 %	7,5 %



Screed testing protocol

Customer _____

Building project _____

Building project _____ Room _____ Floor _____

1. Subfloor type _____

2. Are there any major irregularities? yes no

3. Are there stress or settlement cracks visible? yes no

4. Room climate: Room temperature _____ °Celsius relative humidity _____ %

5. Equilibrium moisture content of the _____ screed: _____ %

6. Moisture content of the screed _____ measured on _____ using the instrument _____ %

7. For 100 m² _____ measuring points on average _____ %

8. Are there rooms without cellars? If so, are they insulated according to DIN standard 18336 | 18337?

yes no

9. How is the firmness? good sufficient bad

10. Are there porous, rough or crumbly spots? yes no

11. Are there any contaminations? yes no

12. Is the height difference to adjacent parts of the building correct? yes no

13. The screed needs to be repaired in the following respects

No. _____

Other _____

14. According to this, parquet | laying work is possible yes no

15. The specified deadline will be met yes no

16. Duplicate Handed over Sent by e-mail | by fax to
 Builder-owner Architect Property developers

Signature (executing firm)

Signature (builder-owner | architect | property developers)

This protocol has document character. For heated screeds, separate heating protocols do apply.