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Instruction of Installation

Adler[®]
Parkett

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Introduction

The following pages contain all the information and tips required for laying your Adler parquet. Please observe the following instructions for the best results when laying and to maintain the warranty.

Please carefully study the installation instructions before starting to lay your floor.

Preparations

Proper preparation of the substrate will be an important part of the professional installation of an Adler parquet. Uneven substrates may result in an unattractive appearance and even in clearly visible gaps. Special attention should be paid to the permissible residual moisture in the substrate and to adherence to climatic conditions for the room.

Measuring the room and determining direction of laying

The room should first be measured to determine the laying directions that will minimise offcuts. It is advisable in principle to lay the elements in the room longitudinally and, in square rooms, to lay aligned with the main source of light (terrace window etc.). Clever selection of the direction of laying may, however, also be used to accentuate the dimensions of the room. Use wood types with lighter colours to increase the apparent size of smaller rooms.

Calculation of offcuts

To ensure that you will not run out of material whilst laying, please remember to make adequate provision for offcuts.

The values below are experiential values for square, average sized rooms (approx. 30 m²). Please take into account that smaller rooms and projecting walls or alcoves will produce more offcuts. Diagonal laying will furthermore increase offcuts by 1.5 to 2.0%:

Laying methods:	Offcuts approximate figures
Irregular laying pattern	3 %
Regular (English) pattern	3 – 6 %
Herringbone pattern (small strip)	10 %
Laying of Château by adler irregular	5%

Measurement of residual moisture in the screed

The following residual moisture is allowed in the screed:

Screed	Permissible residual moisture in CM-% without underfloor hot water heating	Permissible residual moisture in CM-% with underfloor hot water heating
Calcium sulfate and Calcium sulfate self-levelling screeds	≤ 0,5	≤ 0,3
Cement screed	≤ 2,0	≤ 1,8

If permanent moisture is likely (e.g. screed with CM value > 1.8 mm and especially in new buildings), a functional vapour barrier must be in place before laying.

!! The CM must absolutely be measured before laying!!

Product tests prior to laying

Since production will remain subject to human error, occasional errors are always possible or defects may be overlooked even after passing our quality control steps. Damage may also occur in transport. Please therefore, before laying, check the elements for visible material and transport damages in daylight. Should you detect any defects, also during laying, further installation should be stopped immediately to arrange for inspection and exchange of the product, as necessary.

Claims will not be accepted at a later stage.

Storage and acclimatisation

Our Adler parquet is delivered in high-grade packaging to ensure optimal protection. The edges and sides are protected by cardboard and shrink wrap will largely exclude soiling and provide short-term moisture protection when in transport and storage. The wrapping will not provide long-term protection from moisture, however, and dry storage remains a requirement. Our “Chateau by adler” floorboards are packaged in specially manufactured wooden transportation boxes.

Before laying your Adler parquet, the delivered packages must be stored in the same ambient conditions in the rooms where it will be laid for at least 48 hours, to allow the material to acclimatise.

Substrate temperature:	Minimum 16°C – maximum 25°C
Ambient temperature:	Minimum 18°C – maximum 27°C
Room humidity	40% bis 65% relative humidity

Wallpapering and painting as well as freshly plastered adjacent rooms and draughts at high ambient humidity will upset acclimatisation and should be completed before laying starts. Rooms with less than 20 – 30% humidity are also unsuitable!

Testing the substrate

The substrate must remain dry, firm, load-bearing and even. The surface must be free of dust. Pertinent national standards and guidelines, technical notes and the standard rules of the trade apply to the installation of parquet floors. The following guidelines must be observed: DIN18356 “Laying of parquet flooring” and DIN18202 “Tolerances in building construction”.

The substrate must comply with the DIN 18262, Line 3, specifications for evenness, irrespective whether laid floating or glued full spread:

On a substrate length of	1,0 m	2,0 m
Max. evenness tolerance	4 mm	6 mm

Level out possible unevenness using an intermediate layer or a suitable filling or levelling compound in accordance with manufacturer’s instructions. The screed insulating edge strips may only be removed after pre-painting and filling work is complete.

Mineral substrates

New mineral substrates must be adequately dry and primed. The installer will be responsible for this. Moisture-retarding base coats will retain moisture for longer in the screed, preventing escape via the surface. The residual moisture will then escape via the boundaries, potentially causing damage. Calcium sulphate screeds may not be sealed.

Holes, cracks and other damages must be sealed prior to laying, using suitable materials.

Heating screeds with hot water underfloor heating are suitable up to 29°C surface temperatures. The maximum surface temperature for our Château by adler floorboard is 26°C. Please read the information provided on Preparatory Measures for Underfloor Heating (from Page 5).

Wood substrates

All wooden and mixed boards without surface treatment are suitable for the use of Adler parquet, provided they are even and not structured, such as plywood or OSB boards. Durably fasten all loose components beforehand. To prevent mould formation and the like, wood moisture content should not exceed 10%. The area on which the parquet will be laid may not give way or vibrate under load.

Previous coverings

Parquet floors may be laid on most hard coverings, such as tiles. Please in this regard request your building chemistry supplier to provide the relevant structural recommendations. Textiles and other soft coverings must be removed before laying parquet floors. Old floating coverings must always be removed.

Laying using full spread gluing

All 2-layer parquet types must strictly be glued down full spread. We also recommend gluing down elements wider than 240 mm and longer than 2 200 mm. In the case of underfloor heating, we also recommend full spread gluing to ensure that heating will be optimal and shrinkage and expansion of the floor minimised.

Check the substrate for unevenness. Uneven areas > 3 mm per meter must be levelled using a suitable levelling compound. Any dummy gaps or predetermined breaking lines in the screed must be solidly joined and trowelled before starting to lay. Never close structural expansion gaps.

Also ensure, with full spread gluing, that the substrate will resist pressure and tensile stress and is without cracks. This must be tested using a grid scratch test. Oils, greases, waxes, paints, hard plaster, dust and other substances impairing adhesion must be removed from soiled areas.

For a harmonious appearance, the product from at least three packages should be mixed. Make sure that the overall appearance of the wood will be uniform and harmonious.

Start laying from the left-hand corner of the longest wall in the room or, depending on the laying pattern, from the centre. Start laying the tongue side facing the wall after removing the tongue. Prepare the first three rows for laying. Lay on a dry substrate to allow for adjustments towards the adjacent wall.

Mark the area to be glued with chalk line to indicate where to coat the substrate with adhesive after removing the elements again. To ensure adequate wetting of the parquet elements, please observe the producer's instructions for his adhesive, also concerning the notched trowel size to use.

Start by laying the first three parquet rows, glue them down adequately spaced from the wall.

Space at least 10 mm from all upright building elements (walls, pillars, heater pipes, etc.). Ignoring this will stress the construction and potentially bulge the flooring.

Continue by applying more adhesive in sections as specified by the manufacturer and accurately join the new elements by gently positioning them on the glued surface and pushing them into the tongue and groove joint. A wooden block and pull bar may be useful here. The offcut at the end of a row may be used to start off the next row.

Please note that, depending on the pattern, the offset should be at least twice the width of the floorboard.

Please remove any excess adhesive on the surface of the parquet with a cleaning agent recommended by the adhesive manufacturer. Be sure that this cleaning agent will not damage the parquet surface.

Also check the elements for material flaws as you lay them. Installed elements with visible material flaws will not be considered under warranty!

Floating installation

Our 3-layer floorboards Profi by adler and Villa by adler are also suited for floating installation. Please note, however, that we always recommend full spread gluing if laid over underfloor hot water heating.

Floating installation means there is no solid connection between parquet and the floor underneath. Parquet floorboard tongues are glued into the grooves throughout, using waterproof adhesive. The adhesive is applied into the top groove and onto the tongue with a bottle with nozzle, along both the longitudinal and front end sides.

Check the substrate for unevenness. Unevenness > 3 mm per meter must be levelled using a suitable levelling compound. Footfall sound insulation will be required under floating installation parquet floors, possibly also a vapour barrier. Roll out and secure suitable footfall sound insulation as specified by the manufacturer.

For a harmonious appearance, the product from at least three packages should be mixed. Make sure that the overall appearance of the wood will be uniform and harmonious.

Start laying in the left corner of the longest wall of the room. Start with the groove side facing the wall. Prepare the first three rows for laying. Lay on a dry substrate to allow for adjustments towards the adjacent wall.

Start by laying the first three parquet rows, glue them down spaced adequately from the wall. Space at least 10 mm from all upright building elements (walls, pillars, heater pipes, etc.). Ignoring this will stress the construction and potentially bulge the flooring.

Continue to accurately join the next row of elements by gently pushing the tongue and groove together after applying adhesive to the top side of the tongue of the element already in place and to the top lip of the groove in the next element. A wooden block and pull bar may be useful here.

Please note that, depending on the pattern, the offset should be at least twice the width of the floorboard.

Please immediately remove excess glue with a moist cotton cloth. The offcut at the end of a row may be used to start off the next row.

Also check the elements for material flaws as you lay them. Installed elements with visible material flaws will not be considered under warranty!

For floating installation, do not lay lengths longer than 12 m and / or in widths wider than 6 m in one piece. If these dimensions must be exceeded, it is imperative to include an expansion gap or alternatively to opt for full spread gluing. Also ensure that floating installations will include expansion gaps in doorways between rooms. The expansion gaps may be closed with transition profiles (please observe the manufacturer's installation instructions here). Ignoring this will stress the construction and potentially bulge the flooring.

Underfloor heating

Apart from the natural beauty and warmth of the wood – especially with oiled surfaces – the thermal resistance of Adler parkets is also low. These properties and the multi-layered structure render the parkets well suited for installation over underfloor hot water heating systems. Installation over electric underfloor heating is not recommended in principle. Laying prefabricated parquet flooring on underfloor heating of over 70 W/m² is also not advisable.

We also advise against laying 3-layer floorboards, such as our wide floorboard Profi by adler and our Villa by adler, on underfloor heated floors unless glued full spread. We advise against floating installation. Should you ignore our advice and install using the floating method, then the warranty on our products shall be null and void. Please also take note that the thermal resistance will then increase by the amount of the insulating layer underneath.

Your Adler parquet is suited for hot water underfloor heating, provided you strictly comply with the following:

1. Newly applied screeds must dry normally, without heating. The screed must be allowed drying time (applied according to DIN 18353) before activating the heater. The waiting period is approx. 28 days.
2. Rooms without basements underneath, or basements, must be insulated from moisture in accordance with the DIN standard.
3. You should for your own surety insist on a fully completed and signed report by the heating contractor. Such a heating report is available for download at www.adlerparkett.com/Infothek.
4. This temperature must not change for 3 days after laying the floor or after its surface treatment. The temperature may thereafter be increased by 5°C daily, up to the full design temperature.
5. The screed must be tested (CM moisture meter) before laying the floorboards. The cement screed moisture content must not exceed 1.8%, or < 0.3% for anhydride screeds.
6. The parquet must be glued full spread.
7. The surface temperature must not exceed 29°C after laying. The maximum surface temperature for our Deluxe floorboard Château by adler is 26°C. The ambient temperature and relative humidity of the room should be 19 - 22°C and 50 – 60%.
8. To prevent heat pockets during the heating period, it is recommended to position furniture with closed bases away from the wall and to provide ventilation holes at the back. Refrain from laying thick, airtight carpets.
9. Due to the technical and hygroscopic properties of the natural wood product, gaps may appear in the Instructions for Installation Version 06.02.2017 7 Printing errors and technical changes reserved surface of the prefabricated parquet floor, especially with excessive surface temperatures or inadequate atmospheric humidity. Cracks in the grain or drying cracks may already occur should the atmospheric humidity drop below 50% just once. This is not a quality defect. This may be minimised or prevented by maintaining the room ambient temperature and humidity virtually constant at approx. 19 - 22°C and 50 - 60%. Especially beech wood reacts easily in this respect. The ambient conditions should therefore be closely maintained in the room. Canadian maple, Jatoba and Larch also count among risky timber, especially when ambient humidity is too low.

Underfloor cooling

From a building physics point of view, installing a room cooling system in the floor is not ideal because, firstly, physically speaking, the cool air is always at the bottom and does not rise upwards and, secondly,

the cooling of warm air creates large amounts of free moisture. Therefore, it is preferable to install room cooling in the wall and ceiling area in order not to expose the parquet floor to too much moisture development.

A floor cooling system should not operate for more than a maximum of 21 days per year. Longer cooling phases than two weeks at a time should generally be avoided. If longer cooling phases are necessary, separate air-conditioning units should be operated which not only cool but also dehumidify the air.

Adler parquet is generally suitable for installation over floor cooling systems if it can be ensured and proven by control technology that a daily average of 65% relative humidity is not exceeded directly on the parquet and that the dew point is not even approximately reached at any time. This also means that in normal cooling mode the floor temperature must not be more than 2 to 3°C below the room temperature. In any case, a dew point measurement on the supply pipe alone is not sufficient. Full-surface elastic bonding is always absolutely necessary.

In the case of floor cooling, as in heating mode, the natural wood-typical phenomena such as joints, cracks or cupping can also only be expected to a moderate extent.

Other important notes

Movement gaps / expansion gaps

Movement gaps should be created for installations over several rooms or passages and for large areas of 10 x 8 meters and more. In the case of connected areas, for instance with several heating circuits, the existing structural movement gaps should be continued into the top surface layer – your parquet floor. These may be closed with gap profiles or with elastic sealants.

Wood is a living material, changing dimensions as the humidity changes. Increasing ambient humidity will cause the wood to swell (summer) and decreasing humidity will contract the floorboards (winter). It is therefore extremely important to maintain a gap (movement/expansion gap) between the edges and any adjoining constructions protruding above the floor (walls, door jambs, balcony doors, pipes, stair railings, pillars) and to adjoining transitions (tiles, carpet floors, other flooring). The spacing to these should be at least 10 mm. Rule of thumb is: 2 mm expansion gap per meter of width or length of the room.

Structural expansion gaps must never be closed when preparing the substrate and must be continued through the parquet flooring.

Proper use of your parquet

Please wait for 48 to 72 hours after installation before placing furniture or other heavy objects on the flooring. Please observe the instructions of the adhesive manufacturer in this respect.

Please ensure that suitable castors are used for office chairs or other objects on castors. Fit all (movable) furniture with suitable felt pads to prevent scratching the floor.

To preserve the value of your Adler parquet flooring, we recommend the use of suitable doormats at entrances and terrace doors.

Repairs

Damaged Adler parquet floors glued full spread can be repaired. The damaged area may be removed with a circular hand saw, chisel or other suitable tool. Please work carefully at the edges to avoid damaging adjacent elements.

Ensure that no adhesive residues remain in recesses.

Now cut off the tongue on the narrow side and the bottom lip of the groove on the long side. Check the fit of the element in the recess in dry condition. Then glue the new element into the recess using suitable adhesive.

Please note that colour variations may occur between the new element and the existing parquet floor.

It is advisable to carry out such work during months with low humidity.

Proper care of your parquet

Adler parquet surfaces are given a protective layer over the fine wood top layer, both subject to normal wear and tear. Should surface sealing display signs of wear and tear, adequate protection must be ensured through prompt full or partial restoration.

Please refer to the applicable Instructions for Cleaning and Care for notes on finishing treatment and care. These are available on our website under www.adlerparkett.com.

Healthy ambient conditions on the room

It is particularly important with parquet floors to maintain proper ambient conditions all year round. This is because your Adler parquet is made of wood and wood is a living material that immediately reacts to environmental change.

A healthy ambient temperature of 19 - 22°C at a relative humidity of approx. 50 – 60% will be required in the room to maintain the parquet's quality and human well-being. Should the humidity drop significantly during heating periods, extreme drying out may be expected, even cracking and bulging of the top layers and the appearance of gaps in the parquet floor.

The glued layers may experience shrinkage stress if the floorboards are subjected to sudden moisture change. This may in extreme cases cause irreparable damage, for which we cannot accept liability.

Wood is a natural product

And, last but not least, your Adler parquet is made fully of wood. Wood is a natural product. Colour variations may occur, depending on substances in the wood and its grain. Because wood is a natural "raw material", colours may differ between production batches and even within a batch. This applies especially also to coloured surfaces, since smoking, staining and colour pigments may produce different hues depending on the texture of the wood.

Solar radiation and UV rays in particular will cause natural colour changes in the wood. Your parquet floor may darken or become lighter, depending on the type of wood or its treatment.

This may also occur with intense exposure to light, such as through windows reaching down to the floor.