

Parquet for use with hot water under floor heating systems

General Informations

The parquet designed for use with hot water under floor heating systems has established itself as a successful product over the decades, providing satisfaction to customers. The flooring specialist guarantees proper assistance and installation of the parquet floor. A schedule of operations must be drawn up and strictly observed and implemented.

Technical Information about the product

Wood is a 100% natural material with specific technical features and characteristics. By selecting the proper material and grading for the installation on subfloor heating, the parquet's lifespan is prolonged and thus joy in the floor is heightened. Moreover, a wooden floor is a flooring that is warm for your feet, even when the subfloor heating is not in operation.

Product

2-layer constructions like WIP 5100, WIP 4100, WIP 550, WIP 450, WP Trend 25 or WP Strip have more favorable features than solid floors due to their layer construction. For our 3-layer product, we recommend complete adhesion to optimize the heat conductivity.

Species

Selecting a wood with a favorable swell and shrink behavior (like oak) is beneficial. Types of woods like beech, sycamore or Canadian maple are suitable only to a limited extent.

Grade

Simple gradings with a predominant portion of vertical grain also reduce the swell and shrink behavior.

Laying pattern

Laying patterns as herringbone, twin herringbone, plait or dice have certain advantages compared to the lamella pattern.

Room Air

In the context of subfloor heating, what is crucial is the proper indoor climate during the heating period, yet at any other time of the year as well, since the natural material wood breathes. Unavoidable changes in dimensions can be reduced to a minimum by the user of the dwelling. We recommend maintaining an ideal indoor climate of 20°C and a relative humidity of 50% throughout the year and avoid extreme fluctuations of the indoor climate (for more detailed information, see **Data sheet DS 010 – Parquet is Wood**).

Demands on the screed

Max. CM residual moisture for cement screeds: standard 1.8%; for anhydrite (flowing) screeds or calcium sulfate (flowing) screeds, max. 0.3% CM.

Attention has to be paid that a reasonable ratio exists between the heat conductivity resistances, the layers above the heating component (screed or flooring) and the heating screed (heat insulation). The heat emission downward should not exceed 20 W/m² or 25% of the heating output. This necessitates that the thickness of solid wood flooring should not be more than 21mm. Before the heating is started up, the cement screed has to harden for at least 21 days; for the anhydrite screed, at least 7 days.

The protocol of measures for heating screeds according to the sample draft has to be presented to and approved by the client. The protocol of measures has to be comprehended as a heating protocol for readiness for laying. Heating for readiness for laying is carried out by the layer so as to achieve the requisite readiness for laying of the screed.

A protocol of the functional heating on the part of the heating installer only serves as confirmation that the heating system is in good working order. It does not confirm, however, that the screed's readiness for laying has been achieved!

A copy of the protocol of measures should always be enclosed with the order documents. Should such a heating protocol be missing or there be reasons to doubt its correctness subsequent to a more detailed examination, concerns have to be raised with the client in written form.

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Within the framework of due diligence, a moisture test will be conducted at certain test points determined by the screed layer. Should such test points not exist, concerns in written form have to be raised immediately. An exemption from liability for possible damages being given, such test points should be determined after the fact; or at least it should be determined that the significance of the heating protocol in such a case is solely decisive.

Important requirements regarding the screed

Only low-temperature under floor heating is recommended. In hot-water under floor heating systems, the flow temperature should not exceed 55° C. The heating pipes will be placed under the screed of at least 40 mm.

In A3 type heated screeds (according to DIN 18560) the heating pipes are mounted approximately in the middle of the screed.

Therefore, it will be assumed that humidity is not immediately eliminated from the lower parts of the floor on the first heating operation. This is why a two-step heating / cooling process is required, with an intermediate cooling phase (see the schedule of operations). For an electrical subfloor heating system, the manufacturer in each case has to confirm that the installation of a parquet floor is feasible without drawbacks. The clearance in this regard and the assumption of liability on the part of the heating system manufacturer has to be effected in written form.

Demands on the parquet and installation

Maintaining the proper wood humidity is decisive for reducing to as great an extent as possible general changes in dimensions and caulking (especially in the heating period; see demands on the user of the dwelling). The surface temperature of the parquet floor should not exceed 26°C.

Heat conductivity resistance

The critical value for the heat conductivity resistance of the entire flooring construction may not exceed 0.15m² K/W (heat conductivity resistances of Weitzer Parkett products, see Data sheet DS 021 – Heat Conductivity Resistance).

Floating installation

A floating installation of parquet is suitable only within certain limits, since this laying technique results in an increased heat conductivity resistance. This is caused by the resistance of the leveling underlay and an almost unavoidable thin layer of air formed by slight local bulging of the floor (by heavy furniture, swell and shrink behavior and so on).

Adhesion

Please use the adhesives recommended by Weitzer Parkett. Pay heed to the proper amount of adhesive while laying the floor and press the parquet strips carefully into the adhesive bed. Holehedral adhesion presents the ideal solution in terms of heat conductivity.

A priming of screeds with subfloor heating depends on the adhesive system deployed and other factors (such as increased residual humidity). As a rule, however, treatment with an undercoat is to be recommended (see ÖNORM B2242-7). You can find more detailed information in the relevant technical product information. During installation, the surface temperature of the screed should be from 15°C to 18°C until the hardening of the adhesive has been completed (around 48 hours). Three days after polishing and treating the surface of raw parquet at the earliest, the outgoing temperature may be slowly increased by about 5°C a day.

Demands on the user of the dwelling

Avoid long stretches of airing in winter, since it will lead to a further decrease in air humidity. Create as many sources of humidity in the room as possible during the heating period, for instance by deploying a humidifier (vaporizer), indoor plants and so on at the onset of the heating period. Thus an overly extensive drying-out of the parquet floor is averted. All unnecessary sources of humidity should be avoided in the summer months.

Should carpets be used during the heating period, caulking has to be anticipated in the carpeted areas (heat accumulation).

The surface temperature should be lowered prior to each basic cleaning of the parquet floor.

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Closing instructions

This technical datasheet is based on an extensive experience and is meant to offer you comprehensive information. It also includes various restrictions and warnings to minimize the risk of mistakes. By their nature, these datasheets cannot consider complete all the possible uses and all the current and future characteristics, partly due to the great diversity of wood as a material. Therefore, the floor specialist must request information whenever in doubt, perform on-site tests on his own responsibility and perform all operations with extreme care. Obviously, the datasheet does not provide information assumed to be known by specialists. The content of the datasheet is not legally binding and therefore cannot be taken as a basis for warranty and liability claims.

Please, feel free to contact the Team of WEITZER PARKETT for any additional questions.