

## Parquet is wood — wood lives and breathes

### Parquet — the most natural flooring

For centuries, parquet has proven itself to be a reliable material in a wide range of applications, from living areas to individual objects. Its unique beauty, warmth and aesthetics are attracting more and more people. That's why parquet has never been as popular as it is today. Parquet becomes even more beautiful and refined with age. Renovations can be done relatively easily as required. All in all, no other flooring offers as many advantages in terms of design, structure, hygiene and well-being.

#### Room climate

Wood is a natural material that breathes. This means that wood absorbs or releases moisture depending on the room climate and then adapts its wood moisture based on prevailing humidity (equilibrium moisture content), which results in a swelling or shrinking of the floor. In principle, this should not be regarded negatively, but considered a natural property of a hygroscopic material. To minimise the inevitable changes in dimensions, we recommend maintaining a room climate of 20°C and 50% relative humidity throughout the year. Our products are designed for optimal use within that temperature range upon delivery.

For a healthy indoor climate, EN 15251:2012 recommends a seasonal relative humidity of 30% to 65%. Within this range, the natural phenomena typically found in wood—such as grooves, cracks, proud edges or transverse warping—become moderately visible. Deviations in the longer term can have a negative impact on health and can lead to excessive changes in the dimensions of wooden floors, such as severe deformations, sustained cracks and irreversible damage. Having a balanced room climate is especially important when heating the room, as drying the parquet with ambient air that is too dry can create gaps, drying cracks and warping. Using a humidifier when the heating is on can be very beneficial. Furthermore, it is best to select a wood type that has a low degree of shrinkage and that adjusts its moisture content as slowly as possible (*see page 2, table 2*).

#### Colour properties

Variations in colour are another typical characteristic of wood, which can vary from tree to tree or differ depending on the area of growth. For this reason, differences in colour and gloss can occur both between different production batches and within the same production batch. This also applies in particular to colour surfaces, as staining and colour pigmentation can create different colours due to distinct wood structures and different absorption qualities. After installation, sunlight and oxidation processes will cause typical changes in the colour of the wood, depending on the intensity of exposure and the composition of the wood. Different types of wood react differently in terms of the severity, speed and type of change (yellowing, darkening or fading).

#### Selecting a material

Weitzer Parkett is committed to procuring the majority of the wood required to produce parquet flooring and stairs by logging in winter. The raw material is then gently air-dried for a few months. The correct wood moisture is finally achieved using state-of-the-art, automated drying systems. A total of three independent control mechanisms for compliance with standards of wood moisture content and logging the entire process provide our customers with the necessary level of safety.

### Important information

#### Storage

The storage climate of Weitzer Parkett products should not be too different from the ideal room climate for long. The targeted bandwidth would be about 40-60% relative moisture content in the room air and temperatures of approx. 20°C. Temperature tolerance is way higher than moisture tolerance. Do not store outdoor. Protect the parquet floor from the effects of moisture and direct sunlight. Never store the packages in upright position (standing vertically), but horizontally and properly supported to remain perfectly flat. In new construction, do not store packages on screeds or concrete substrates with high residual moisture. Do not damage packaging and open only after acclimatization right before installation.

#### Before installation

Weitzer Parkett products may only be installed in residential rooms. Reduce excessive humidity by heating and ventilating the room as necessary (ideal room temperature of 20°C and relative humidity of 50%). Check the surface for dryness, flatness, strength, cleanliness etc. Only open the foil wrapping immediately before installation (acclimatisation of the sealed packages after 1 to 2 days in the room). The time of laying the parquet flooring should be planned so that the room is inhabited as soon after the completion of the installation as possible to ensure a regulated room climate.

Creaking noises are more likely to be heard when stepping on the parquet flooring if it is a floating installation.

#### During installation

When bonding Weitzer Parkett products, only use products and notched trowels recommended by the respective adhesive manufacturer. Professional, full-surface bonding significantly reduces the swelling and shrinking properties of the entire surface by fixing it to the substrate and prevents any creaking noise as much as possible. For floating surfaces, an additional expansion joint must be installed at a mounting width of at least 8 metres. Expansion joints of 10–15 mm must be installed for any structures that are to be raised. Installation designs such as herringbone, double herringbone, plait or cubic can prove beneficial when the dimensions of the wood begin to change. In these patterns, the swelling and shrinking properties are more evenly distributed among the parquet elements. You will find information about installation in our installation instructions and the corresponding information sheets.

**After installation**

Avoid frequently changing the room temperature. Maintaining an ideal room temperature of 20°C and relative humidity of 50% is ideal for maintaining dimensional stability. After installation, sufficient ventilation must be ensured, especially in new buildings and/or uninhabited homes. Emissions from other building materials or alkaline-heavy humidity in the room can lead to the irreversible discolouration of parquet floors in the absence of air exchange. Unnecessary sources of moisture should also be avoided in the summer months. The parquet flooring should only be cleaned with a damp cloth. Always keep excessive moisture influences away from the parquet or stairs.

Keep shock ventilation and sources of moisture like humidifiers to several short intervals in dry indoor climates — such as when heating the room. Ventilating the room for long periods in winter further reduces humidity. In the case of controlled ventilation for living spaces, the air exchange rates should therefore be kept to a minimum if it is a dry indoor climate and, if available, humidity recovery functions should be activated.

It is recommended to use a hygrometer or electronic data logger to control the indoor climate.

Table 1: Humidity absorption at a room temperature of 20°C

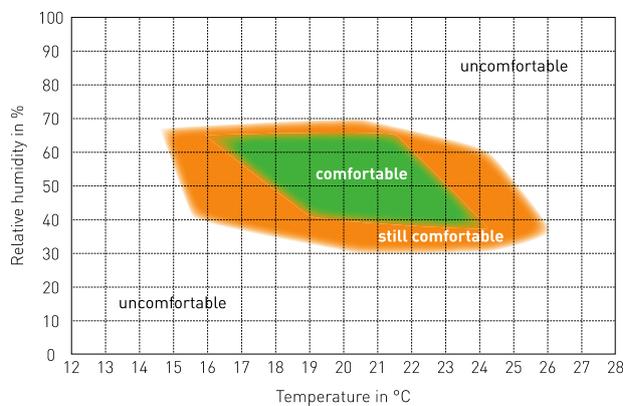


Table 2: Types of wood and index numbers

| Species          | Hardness    | Volume density at normal humidity kg/m <sup>3</sup> | Average shrinkage degree upon humidity modification by 1% | Assimilation speed of wood humidity |
|------------------|-------------|---|---|-------------------------------------|
| Oak              | Strong      | 690   | 0,22%   | Low                                 |
| Beech            | Strong      | 720   | 0,31%   | High                                |
| Maple (European) | Medium      | 630   | 0,25%   | Medium                              |
| Maple (Canadian) | Strong      | 710   | 0,23%   | Medium                              |
| Ash              | Strong      | 690   | 0,27%   | Medium                              |
| Birch            | Medium      | 650   | 0,25%   | Medium                              |
| Acacia           | Very strong | 770   | 0,30%   | Low                                 |
| Pear             | Strong      | 740   | 0,24%   | Very low                            |
| Cherry           | Strong      | 630   | 0,23%   | Medium                              |
| Nut              | Strong      | 680   | 0,24%   | Low                                 |

**Concluding points**

These recommendations are based on extensive experience and are intended to advise you to the best of our knowledge. We have also provided information on restrictions and warnings in the interest of minimising the risk of errors. By definition, information sheets do not cover all possible current and future application scenarios and special features, some of which arise from the versatility of wood as a material. For this reason, this sheet does not exempt the installation specialist from raising queries if they have any doubts, from testing the product on site themselves, or from paying critical attention during the installation process. The leaflet also does not include information that can be assumed to be known by an installation specialist (relevant standards and guidelines as well as field-specific regulations). The contents of this information sheet is not legally binding and therefore it is not possible to derive any warranty or liability claims from it. For more information, please do not hesitate to contact the WEITZER PARKETT team.