

THE NEW EN STANDARDS FOR PARQUET AND WOOD FLOORING (PK 7)

NEW PARQUET STANDARDS - OVERVIEW OF PARQUET TYPES

The new EN standards have been in force since May/June 2003 and replace the previous national standards DIN 280 parts 1, 2 and 5. In addition, other types of parquet flooring not previously included have now been standardised.

DIN/EN 13226 "Solid parquet elements with grooves and/or tongue" largely replaces DIN 280 Part 1 "Parquet elements, strip parquet and panels for panel parquet". Deviating from DIN 280 Part 1, only minimum dimensions are defined, and strips with surface treatment are also expressly mentioned.

DIN/EN 13488 "Mosaic parquet elements" replaces DIN 280 Part 2 "Parquet - Mosaic parquet elements". In addition, the standard covers installation units and patterns and assembled, finished, sealed mosaic parquet panels with tongue and groove joint (example): Hevea prefabricated parquet, typical DIY product).

DIN/EN 13489 "Multi-layer parquet elements" replaces DIN 280 Part 5 "Parquet - Prefabricated parquet elements". Untreated and factory-finished multi-layer elements are defined here, the dimensions are free, a minimum thickness of 2.5 mm (!) of the wear layer is prescribed. Solid wood is only prescribed for the wear layer, the remaining layers can consist of both wood and wood-based materials (e.g. HDF, MDF). All layers must be glued together.

DIN/EN 13227 "Solid wood lamparquet products" covers the hitherto not standardised lamparquet (10 mm solid parquet), whereby the dimensions in part go far beyond the 250 x 50 mm² that is customary in Germany. In addition, "parquet tapis", a large-format, relatively thin solid wood parquet, which must be glued and nailed, is also dealt with. This type of parquet is a typical Dutch variant. The common feature of these parquet types is a smooth side surface without tongue and groove joints.

DIN/EN 13228 "Wood flooring - solid wood overlay flooring elements including blocks with an interlocking system" covers solid parquet strips with tongue and groove connections with a thickness of 8 (!) to 14 mm, which (up to now) are not usual in Germany, or so-called "blocks" with a thickness from 13 mm, with a lightly milled, rounded groove and corresponding "tongue" whose purpose is merely to align the strips. The standard refers in particular to the non-load-bearing function of this connection;

in the case of overlay elements, it also refers to the necessity of laying them on a continuous load-bearing surface. This standard thus defines elements which, due to their lateral connection, cannot be classified as lamparquet and which, due to their dimensions or type of tongue and groove connection, also do not correspond to the parquet elements covered by EN 13226. So far, these parquet elements have mainly been important in Great Britain.

DIN/EN 13629 "Wood flooring - Solid pre-assembled hardwood board" describes a plank element with profiled front and side surfaces (tongue and groove connection) made of individual elements with dovetail zinc coating and glueing.

COMMON FEATURES OF THE NEW STANDARDS

Grading characteristics are marked with symbols uniformly for all parquet types. The highest grade level is marked by a circle, this corresponds approximately to the former "natural" grade, a triangle corresponds approximately to the "striped" grade, a square of the former "rustic" grade. There is also the possibility of free grades on the part of manufacturers, which must, however, be verifiable by the installer or consumer on the basis of precisely determined definitions.

A requirement for all types of parquet must be able to be renovated at least twice. Since this also applies to finished parquet, which now has to have a 0.5 mm thicker wear layer than before, requirements are also placed on the structural structure of these elements, which must be able to withstand the stresses of two renovations.

In contrast to the previous German standards, the moisture content of wood is no longer clearly regulated. A moisture content of 7-11% is specified for solid parquet. Further details of regional use or more precise delimitation are not included. A measurement of the moisture content of wood is to be carried out electrically, and in the case of a dispute, the exact value is to be determined on an oven-drying test piece.

In the case of multi-layer parquet, the definition of built-in wood moisture (5-9%) applies only to the top layer, i.e. theoretically other moisture levels are possible for the joist or middle layer and counter layer. The only reliable method for moisture determination here is the oven-drying method.

With regard to the different wood moisture contents of multi-layer parquet, it should be noted that the definition of multi-layer parquet as a dimensionally stable element that can be renovated several times certainly limits the possibilities for fluctuations.

TECHNICAL DATA SHEET

Already up to now, the previous regulation of 9% with the indication of a dispersion of $\pm 2\%$ was often misinterpreted. The target of 9% was always to be met on average from several measurements, and individual measured values were allowed to deviate by up to 2%. In the case of multi-layer parquet, an average value of 8% had to be maintained in the top layer. In the past, attempts were often made to describe under-dried parquet with an average wood moisture content of 7% as conforming to standards.

The range of variation of the built-in wood moisture content in the new EN standards is explained by their scope; for example, a significantly lower built-in moisture content is certainly required in Scandinavian countries and a significantly higher built-in moisture content in Southern countries. Unfortunately, the standards do not contain any indication of the need for a built-in wood moisture content adapted to the seasonal climatic average at the place of installation.

Since the climatic conditions in Germany have not fundamentally changed with the appearance of the new standards, the Central Association for Parquet and Flooring Technology still assumes an average installation moisture of 9% for solid parquet and 8% for multi-layer parquet. This also corresponds to the recommendations of the Technical Commission for Construction Adhesives (TKB). However, the Central Association draws attention to the different possibilities for interpretation and to the still to be attained broad consensus of opinion on this subject. It is interesting to note that the problem of not precisely defined installation moisture has not yet been further explained by the Association of the German Parquet Industry, which merely refers to the responsibility of installer to order their parquet with the correct moisture content adapted to the respective installation location. Until a new, generally recognised state of the art is established, this recommendation is followed by the Central Association for Parquet and Flooring Technology and the TKB, so that the installer now has an increased responsibility and duty of care when selecting and ordering the parquet.

We therefore recommend that you either make a basic agreement with the parquet suppliers about the moisture content of the wood to be supplied or that you specify the desired moisture content in addition to the grade, dimensions, types of wood etc. with each order. In the event of a dispute, the installer will certainly be assigned an increased responsibility on the part of the courts, especially since the obligation to check the moisture

content of wood, at least for solid parquet, is clearly to be found in the new standards. It is not entirely clear who is to carry out the test, but for safety reasons, as was previously recommended, the installer should carry out a random check with an electrical measuring instrument. This only applies to a limited extent to multi-layer parquet, which must be measured in an oven-drying test in accordance with the standard. Since the oven-drying method cannot be regarded as a standard measuring method for the trade, the moisture content of multi-layer parquet cannot be checked beyond doubt by the installer. It is therefore important to provide verifiable information on the desired moisture content when ordering the parquet.

The information provided above corresponds to the current state of the art. The information is purely indicative and non-binding, since we have no control over the installation process and because the actual installation conditions on site vary. Thus no claims can be made based on this information. The same is true for the commercial and technical advisory services that are provided without obligation and free of charge. We therefore recommend carrying out sufficient testing of your own in order to determine whether the result is suitable for the intended purpose.