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Lesene in parketne talne obloge - Ugotavljanje upogibnih lastnosti - Preskusne metode

Wood and parquet flooring - Determination of bending strength under static load - Test methods

Parkett und Holzfußböden - Bestimmung der Biegefestigkeit unter statischer Beanspruchung - Prüfmethode

Parquets et planchers en bois - Détermination de la flexion sous charges statiques - Méthodes d'essais

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Semi-manufactures of timber

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English Version

Wood and parquet flooring - Determination of bending strength under static load - Test methods

Parquets et planchers en bois - Détermination des
propriétés de flexion - Méthodes d'essai

Parkett und Holzfußböden - Bestimmung der
Biegefestigkeit unter statischer Beanspruchung -
Prüfmethoden

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 175.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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Foreword

This document (prEN 1533:2008) has been prepared by Technical Committee CEN/TC 175 “Round and sawn timber”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 1533:2000.

This standard is one of a series of standards concerning wood and parquet flooring and wood panelling and cladding.

iTeh STANDARD PREVIEW
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SIST EN 1533:2011

<https://standards.iteh.ai/catalog/standards/sist/c2b61980-1480-496d-b3c7-cd9a1b760bdb/sist-en-1533-2011>

prEN 1533:2008 (E)**1 Scope**

This European Standard specifies methods of determining the bending strength of wood and parquet flooring under static loads : a method with a static line load and a method with a static point load.

The methods apply to wood and parquet flooring installed on a non-continuous support and thus assuming static load-bearing conditions.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 13756 :2002, *Wood flooring - Terminology*.

EN 1991-1-1, *Eurocode 1 – Actions on structures – Part 1-1 : General actions – Densities, self weight, imposed loads for buildings*.

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13756:2002 and the following apply.

**3.1
test assembly**

set of wood or parquet flooring elements assembled according to a defined type or to the instructions of the manufacturer, for the purpose of being tested.

**3.2
element**

the smallest individual part (e.g. a strip, a board) of wood or parquet flooring.

**3.3
maximum load**

maximum force leading to the failure of the test assembly.

**3.4
bending strength**

expressed in Newton, result of various values of maximum load. It can be a mean value or a characteristic value.

**3.5
static line load**

bending force applied to the test assembly by means of a bar whose axis is parallel to the axis of the supports.

NOTE it is used to simulate the action of dividing walls.

**3.6
static point load**

bending force applied to the test assembly by means of a bar whose axis is perpendicular to the plane of the test assembly.

3.7

span

distance between the axes of supporting battens or joists.

4 Principle

4.1 General

The tests are carried out on a test assembly made up with several elements jointed according to a defined type or in special applications to the manufacturer's instructions.

4.2 Static line load

The bending strength is determined by applying a static line load across the mid span of some test assemblies.

4.3 Static point load

The bending strength is determined by the application of a static point load accross the mid span of some test assemblies .

5 Apparatus

5.1 Measuring instruments for dimensions and deflection

For the length of wood or parquet flooring elements and for the span, use a measuring instrument with a minimum accuracy of ± 1 mm.

For the width and thickness of wood or parquet flooring elements and battens or joists, use a measuring instrument with a minimum accuracy of $\pm 0,5$ mm.

5.2 Loading equipment

5.2.1 Accuracy

It shall be able to measure the load to an accuracy of ± 1 %.

5.2.2 Static line load

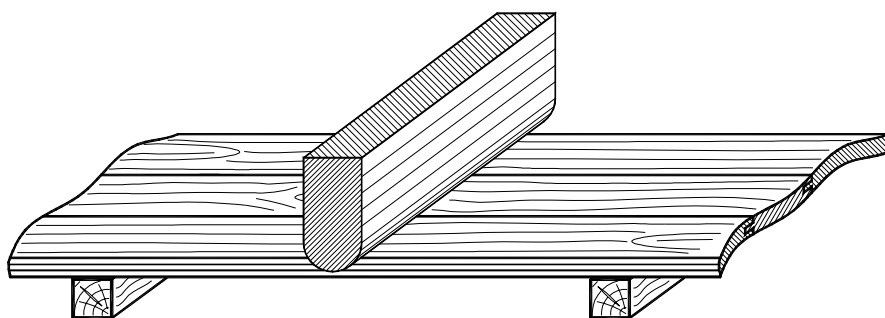
The load shall be applied by a steel loading head, with a contact face rounded to a radius of $(15 \pm 0,05)$ mm, whose length l exceeds the width of the test assembly (see figure 1a). Its axis shall be parallel to the face of the test assembly and perpendicular to the length of the elements making it up.

5.2.3 Static point load

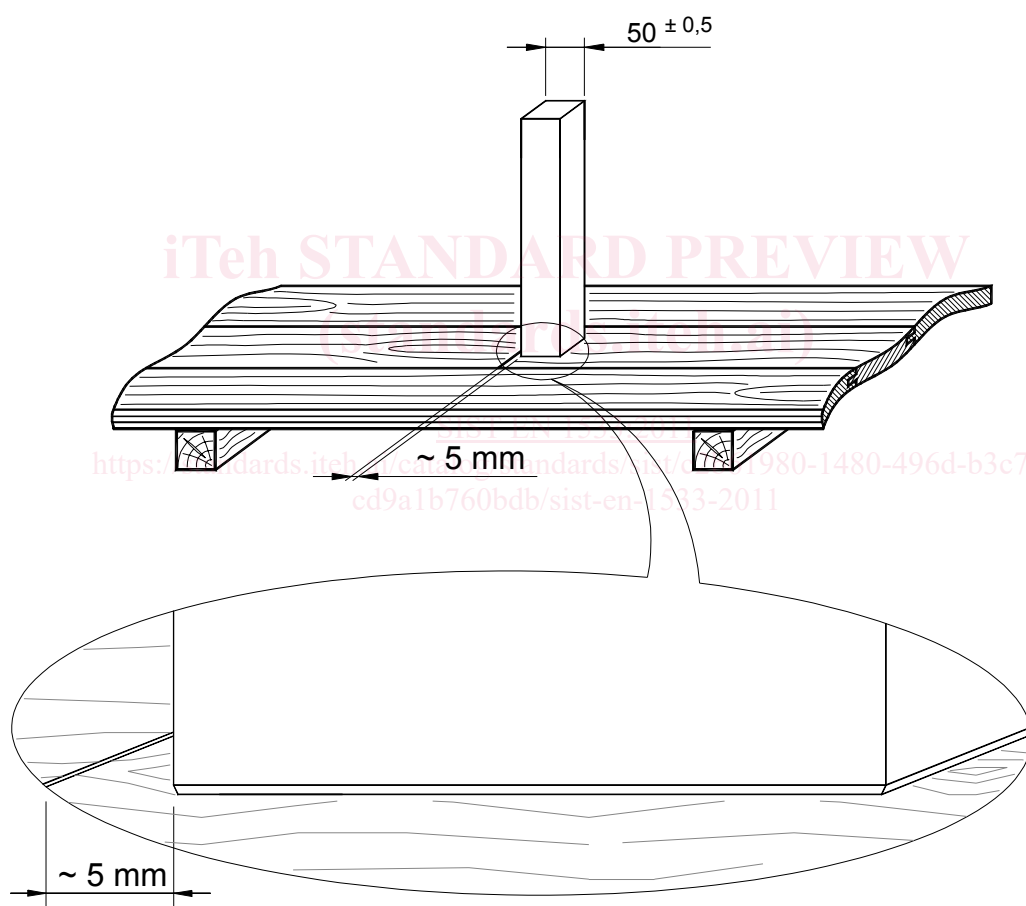
The load shall be applied by a steel loading head with a squared contact face of 50×50 mm; the edge of the contact surface shall be rounded or bevelled). Its axis shall be perpendicular to the face of the test assembly.(see figure 1b).

NOTE the loading head described above is from EN 1991 where it is defined.

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a) static line loading head



b) static point loading head

Figure 1 — Loading equipment

5.3 Support

A flat rigid table with devices, adjustable in span, to fix the battens of the test assembly (see figure 2).

The support is stiff enough if, under the load applied in the test, its deflection is less than 0,1 mm in the direction of the applied force.

The clearance between the back of the test assembly and the support shall be consistent with the deflection under failure load. The thickness of the battens or joists shall be suitable for that purpose.

The length of the table shall be consistent with the length of the test assembly (about 1,50 m).

The end-supports can be independent of the two supports of the central span, but they shall not move relative to the central supports.

The load can be applied by movement of either the loading head or of the supporting table.

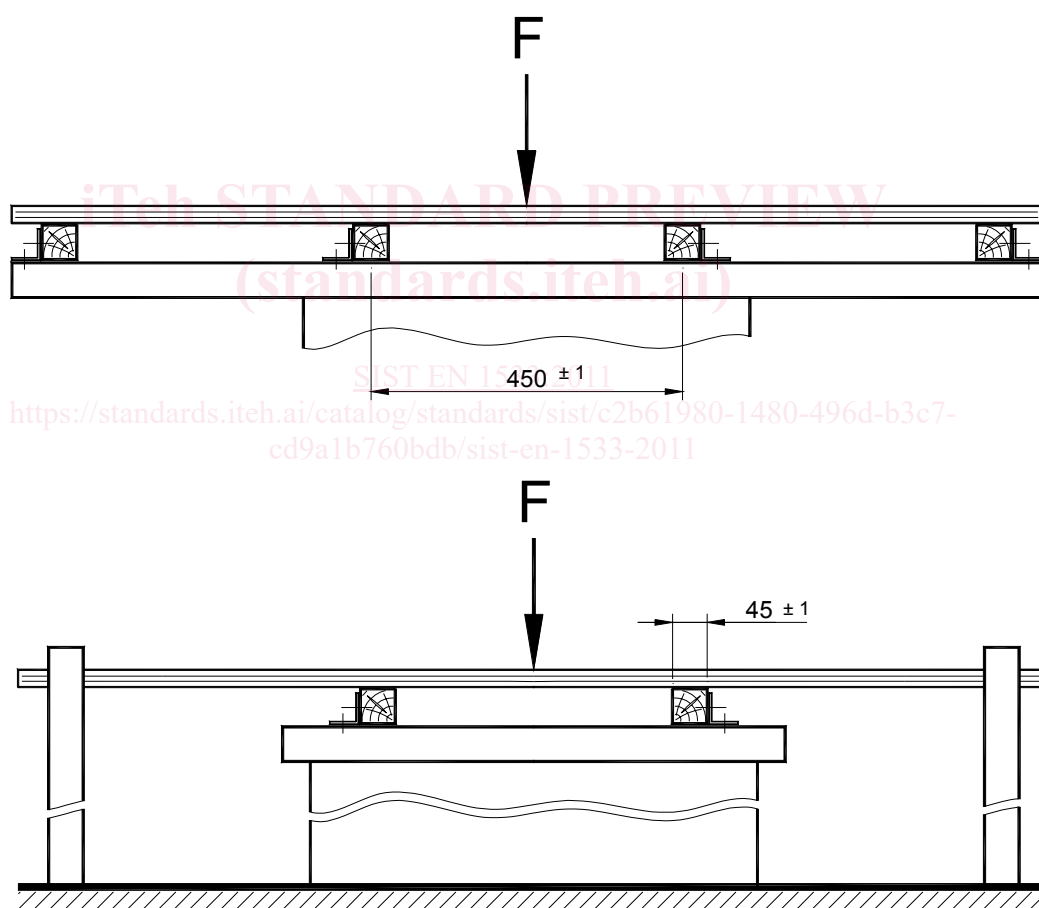


Figure 2 — Support

Distance "x" to be determine by the manufacturer installation guide line

6 Test assembly

6.1 Preparation of a test assembly

See figure 3

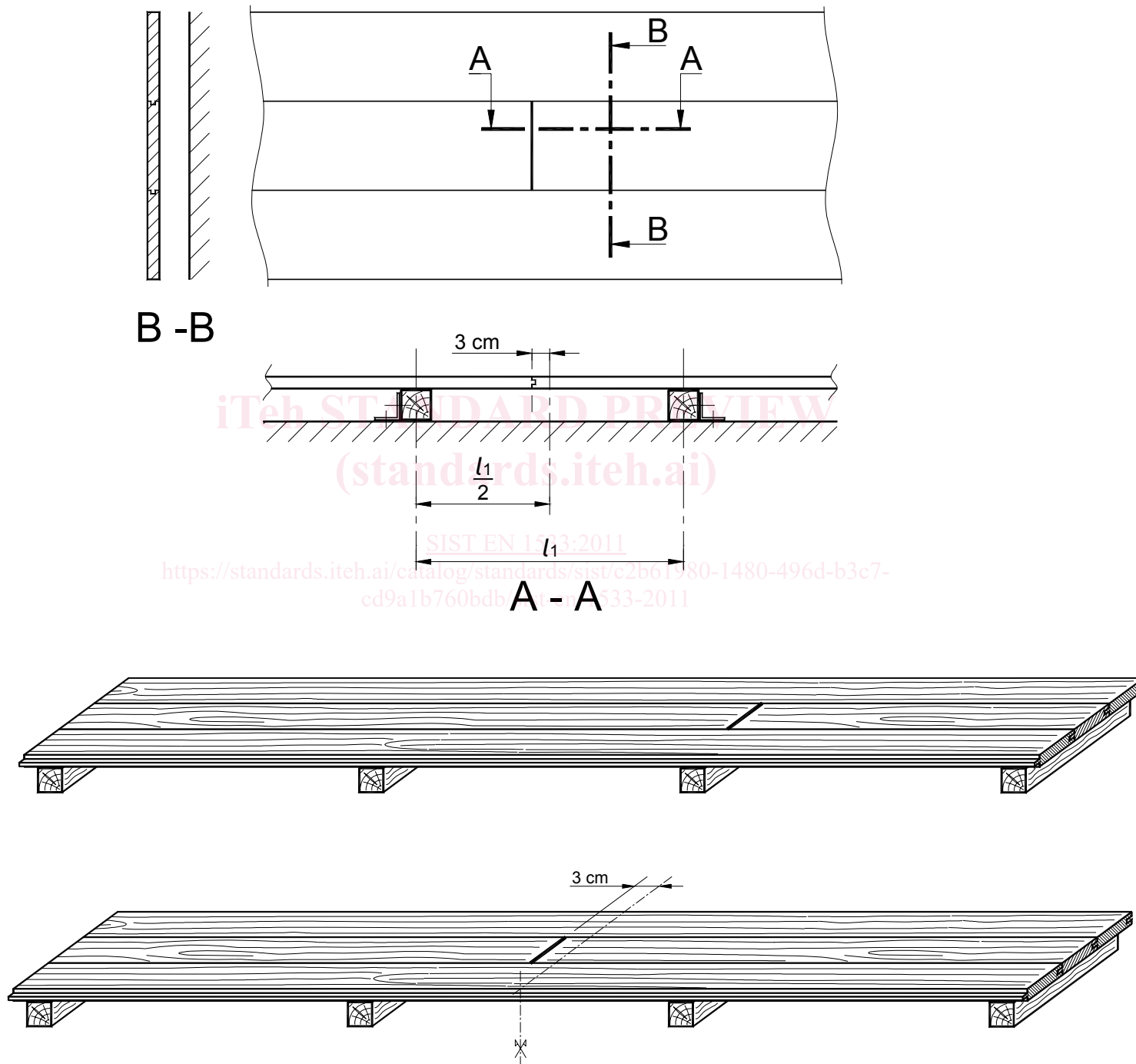


Figure 3 — Preparation of a test assembly