

SLOVENSKI STANDARD

SIST EN 1533:2011

01-februar-2011

Nadomešča:
SIST EN 1533:2003

Lesene in parketne talne obloge - Ugotavljanje upogibnih lastnosti pri statičnih obremenitvah - Preskusne metode

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

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

Parquets et planchers en bois - Détermination de la flexion sous charges statiques - Méthodes d'essais
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Ta slovenski standard je istoveten z: EN 1533:2010

ICS:

79.080	Polizdelki iz lesa	Semi-manufactures of timber
97.150	Netekstilne talne obloge	Non-textile floor coverings

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1533

August 2010

ICS 79.080

English Version

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

Planchers en bois - Détermination de la flexion sous charge
statique - Méthodes d'essai

Holzfußböden - Bestimmung der Biegefestigkeit unter
statischer Beanspruchung - Prüfmethode

This European Standard was approved by CEN on 26 June 2010.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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Foreword

This document (EN 1533:2010) has been prepared by Technical Committee CEN/TC 175 “Round and sawn timber”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2011, and conflicting national standards shall be withdrawn at the latest by February 2011.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 1533:2000.

Compared with EN 1533:2000, the following modifications have been made:

- a) modification of accuracy in 5.1;
- b) modification of loading equipment for static load (5.2.3);
- c) modification and improvement of Figures 1, 2 and 3;
- d) simplification and new presentation of Clause 6 regarding test assembly;
- e) simplification and new presentation of Clause 7 regarding procedure;
- f) simplification and new presentation of Clause 8 regarding expression of results.

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

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

EN 1533:2010 (E)

1 Scope

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

The methods apply to wood 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*

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

3.2
element
smallest individual part (strip or board) of wood flooring

3.3
maximum load
maximum force leading to the failure of the test assembly

3.4
bending strength
result of various values of maximum load expressed as a mean value or a characteristic value, in newton

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

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 across the mid span of some test assemblies.

5 Apparatus

5.1 Measuring instrument for dimensions and deflection

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

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

5.2 Loading equipment

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5.2.1 Accuracy

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

5.2.2 Static line load

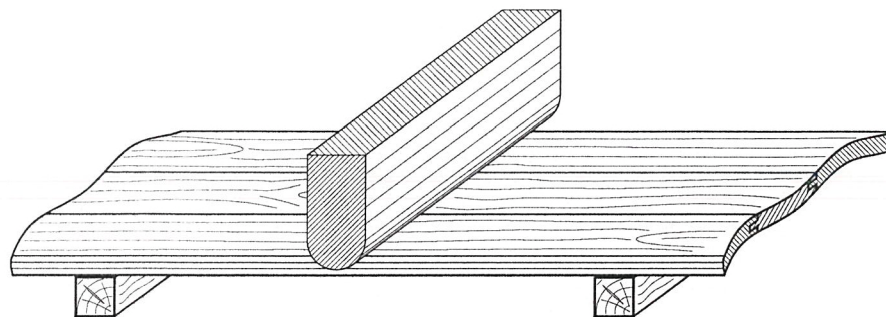
The load shall be applied by a steel loading head, with a contact surface rounded to a radius of $(15 \pm 0,05)$ mm, whose length l exceeds the width of the test assembly (see Figure 1a)). Its axis shall be parallel to the surface of the test assembly and perpendicular to the length of the elements making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

5.2.3 Static load

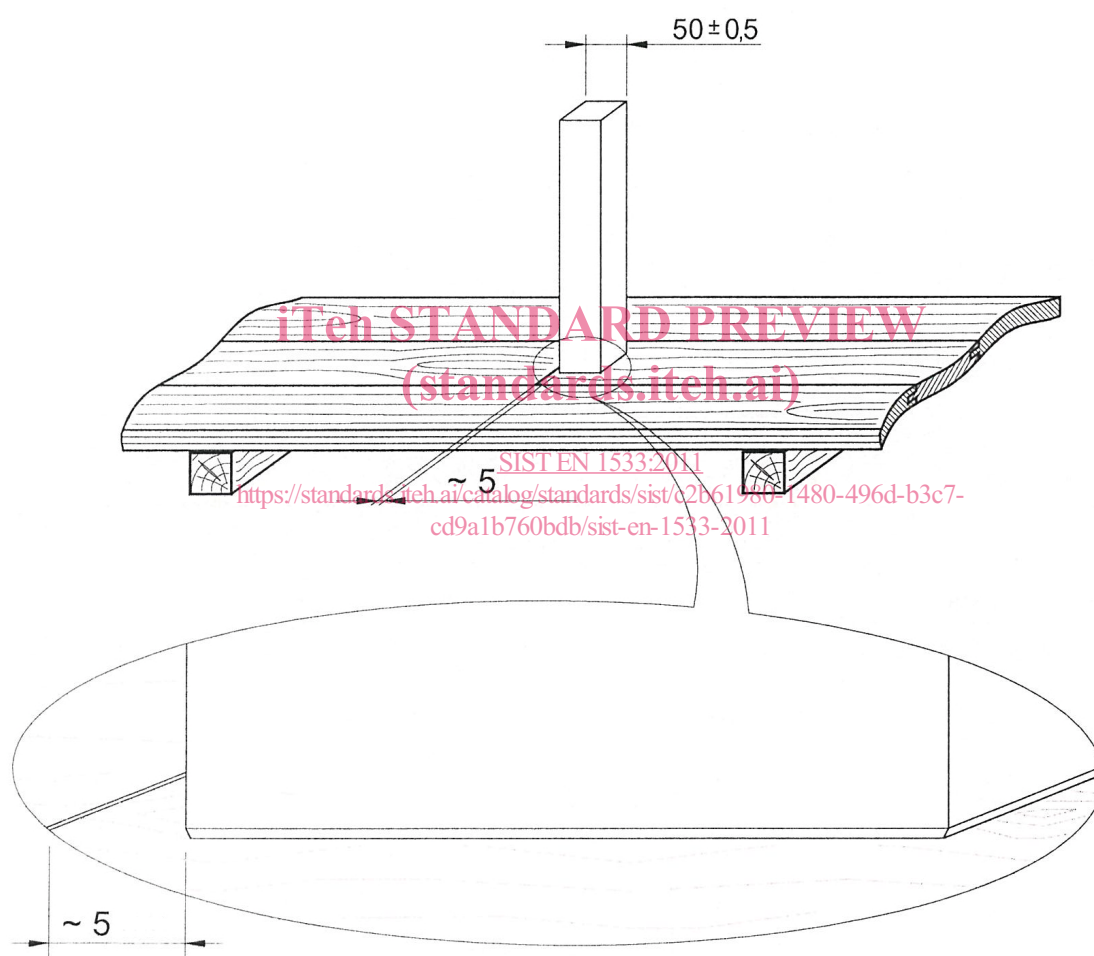
The load shall be applied by a steel loading head with a squared contact face of (50×50) mm; the edge of the contact surface shall be rounded or bevelled. Its axis shall be perpendicular to the face of the test assembly. (see Figure 1b)).

NOTE The loading head described above is according to EN 1991-1-1 where it is defined.

Dimensions in millimetres



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.

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