SLOVENSKI STANDARD
SIST EN 1533:2003

01-oktober-2003

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

Wood and parquet flooring - Determination of bending properties - Test methods

Parkett und andere Holzfußböden - Bestimmung der Biegeeigenschaften - Prüfmethoden

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

Ta slovenski standard je istoveten z: **EN 1533:2000**

ICS:

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

SIST EN 1533:2003 **en**

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1533

March 2000

ICS 79.080

English version

Wood and parquet flooring - Determination of bending properties - Test methods

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

Parkett und andere Holzfußböden - Bestimmung der Biegeeigenschaften - Prüfmethoden

This European Standard was approved by CEN on 2 May 1999.

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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 Central Secretariat has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Contents

Foreword

This European Standard 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of an identical text or by endorsement, at the latest by September 2000, and conflicting national standards shall be withdrawn at the latest by September 2000.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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

1. Scope

This European Standard specifies two methods of determining the bending properties of wood and parquet flooring: 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.

In this standard, the following properties are dealt with:

- bending stiffness,
- bending capacity,
- maximum load.

2. Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

prEN 13756 Wood floor covering – Terminology

3. Definitions

For the purposes of this European Standard, the definitions given in prEN 13756 apply together with the following:

3.1
bending properties of a test assembly
Various characteristics of a test assembly borne by discontinuous supports under loads applied between the supports.

3.2
test assembly
Set of wood flooring elements (including parquet) assembled according to the instructions of the manufacturer for the purpose of being tested.

3.3
element
The smallest individual part (e.g. a finger, a strip) of wood flooring (including parquet).

3.4
bending stiffness
Per unit of its width, the ratio of the variation of load upon the corresponding variation of deflection of the test assembly.

3.5
bending capacity
Per unit of its width, the maximum moment leading to the failure of the test assembly.

3.6
maximum load
Maximum force leading to the failure of the test assembly.

3.7
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.

3.8
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.

3.9
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 the manufacturer's instructions.

4.2 Static line load

The bending stiffness and bending capacity are determined by applying a static line load across the mid span of a test assembly. The bending stiffness is calculated from the slope of the load-deflection curve.

4.3 Static point load

The bending stiffness and maximum load of a test assembly are determined by the application of a static point load at the most vulnerable point of the test assembly.

NOTE: The present test method on static point loading is based on EN 1195.

5. Apparatus

5.1 Measuring instruments for dimensions and deflection

For length, width and span, use a measuring instrument accurate to ± 0,5 mm.

For thickness, use a measuring instrument accurate to ± 0,1 mm.

For measuring deflections, use a gauge accurate to ± 0,1 mm either independent or, if consistent with the above accuracy and the hardness of the materials of the test assembly, built into the loading head.

5.2 Loading equipment

5.2.1 Accuracy

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

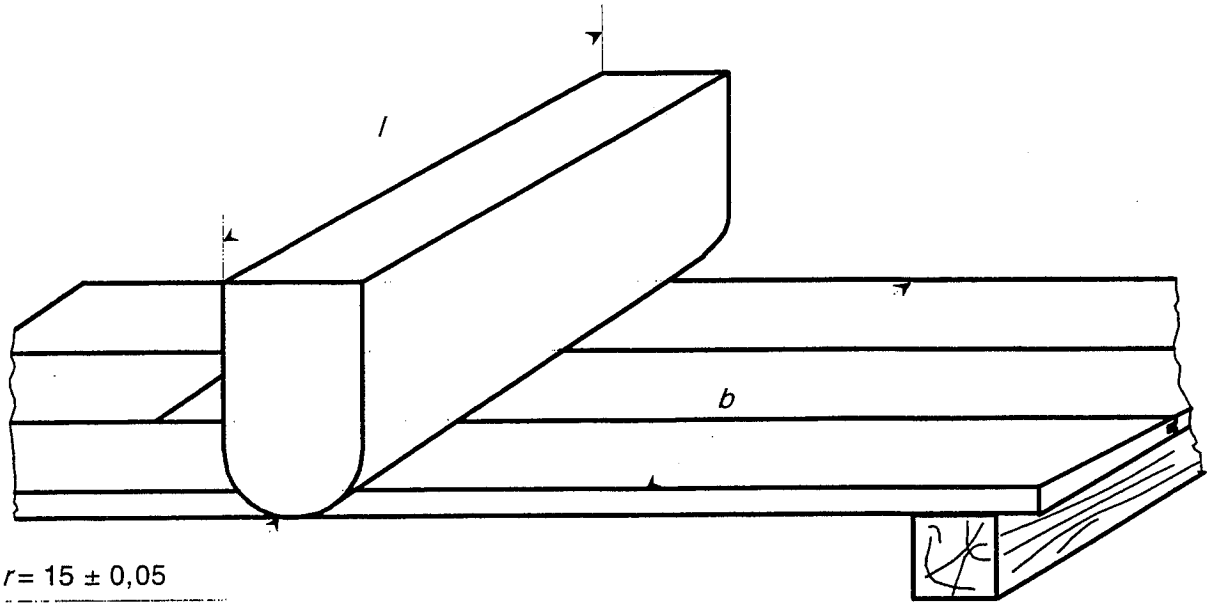
5.2.2 Static line load

The load shall be applied by a steel loading head, with a contact face rounded to a radius of (15 ± 0,05) mm, whose length *l* exceeds the width *b* 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

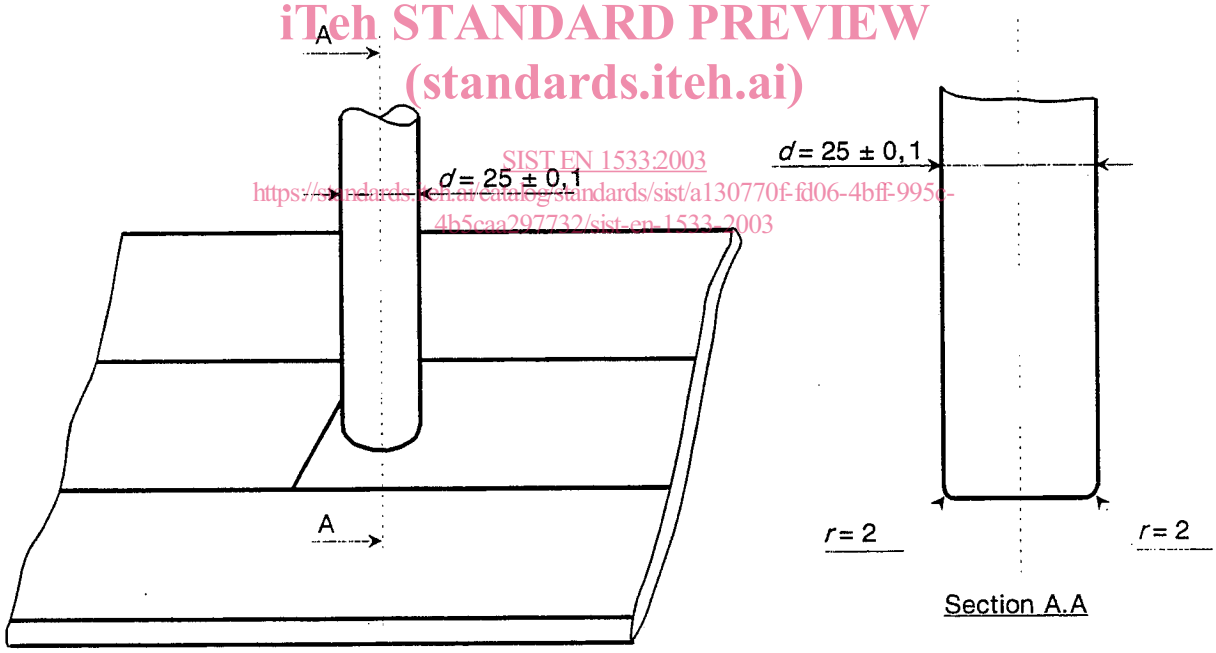
The load shall be applied by a steel cylindrical loading head with a diameter of (25 ± 0,1) mm; the edge of the contact surface shall be rounded to a radius *r* of 2 mm (see figure 1b). Its axis shall be perpendicular to the face of the test assembly.

Dimensions in millimetres.



a) Static line loading head

$l > b$



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.

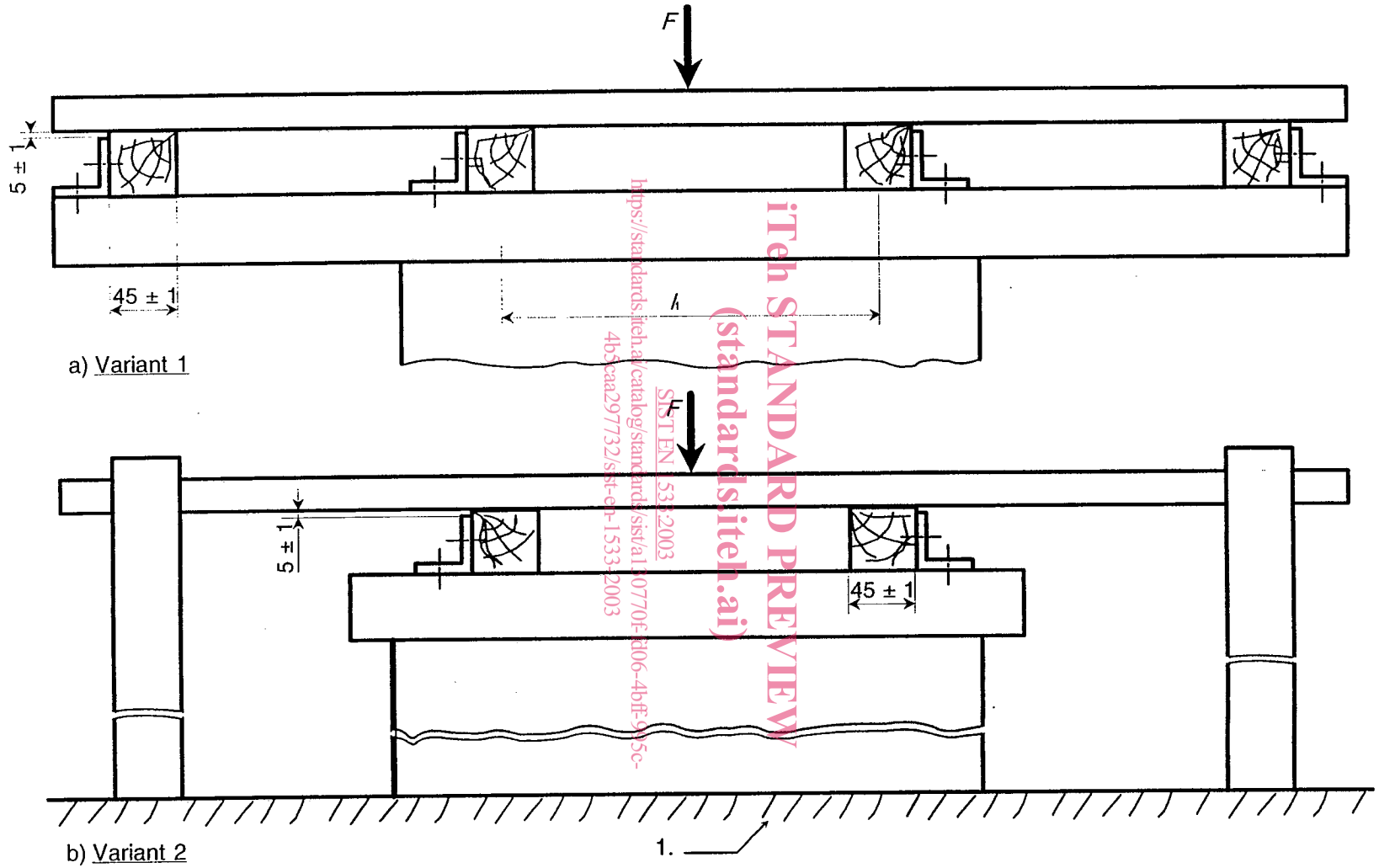
The clearance between the back of the test assembly and the support shall be consistent with the deflection under failure load. The depth of the battens or their supports shall be suitable for that purpose.

The length of the table shall be consistent with the length of the test assembly.

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.

Dimensions in millimetres.



1. Ground

Figure 2: Support