

BS EN 336:2013



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Structural timber — Sizes, permitted deviations

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National foreword

This British Standard is the UK implementation of EN 336:2013. It supersedes BS EN 336:2003 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/518, Structural timber.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Amendments issued since publication

Date	Text affected
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English Version

Structural timber - Sizes, permitted deviations

Bois de structure - Dimensions, écarts admissibles

Bauholz für tragende Zwecke - Maße, zulässige
Abweichungen

This European Standard was approved by CEN on 24 August 2013.

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Foreword

This document (EN 336:2013) has been prepared by Technical Committee CEN/TC 124 “Timber structures”, 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of an identical text or by endorsement, at the latest by April 2014, and conflicting national standards shall be withdrawn at the latest by April 2014.

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 will supersede EN 336:2003.

Compared to EN 336:2003, the following modifications have been made:

- a) in the scope, the limit to 300 mm is deleted so the standard is available for large cross section;
- b) minimum size changed from 22 mm to 6 mm;
- c) in subclause 4.2, the changes in size due to changes in moisture content are given for hardwoods;
- d) in subclause 4.3, the permitted cross sectional deviations are given for thicknesses and widths above 300 mm;
- e) in Clause 5, moisture content measurement in accordance with the three parts of EN 13183.

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Introduction

Target size is the basis for the standard.

A method of calculating sizes at other moisture levels is provided.

The standard also stipulates a method for the measurement of moisture content.

1 Scope

This European Standard specifies two classes of permitted deviations from target sizes for structural timber of softwood and hardwood species.

It also specifies the moisture content to be used as a reference point for the measurement of sizes, and gives average values for changes in size due to changes in moisture content.

It is applicable to sawn and prepared square-edged structural timber with parallel edges having sawn thicknesses or widths greater than 6 mm.

2 Normative references

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

EN 1309-1, *Round and sawn timber — Method of measurement of dimensions — Part 1: Sawn timber*

EN 13183-1, *Moisture content of a piece of sawn timber — Part 1: Determination by oven dry method*

EN 13183-2, *Moisture content of a piece of sawn timber — Part 2: Estimation by electrical resistance method*

EN 13183-3, *Moisture content of a piece of sawn timber — Part 3: Estimation by capacitance method*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

target size

size specified (at the reference moisture content), and to which the deviations, which would ideally be zero, are to be related

3.2

deviation

difference between actual size and the corresponding target size, making allowance for the difference in size due to difference in moisture content (see Clause 5)

3.3

moisture content

amount of water present in timber, expressed as a percentage of the oven-dry mass

4 Sizes for structural timber

4.1 General

Sizes shall be measured in accordance with EN 1309-1.

For the purposes of this European Standard, the reference moisture content is 20 %.

NOTE The reference moisture content is the moisture content at which sizes are given. It is different from target moisture contents which are defined in EN 14298.

4.2 Changes in size due to changes in moisture content

Unless there is evidence to the contrary, it shall be assumed that:

- for softwoods and poplar, the thickness and width of a piece of timber increase by 0,25 % for every 1,0 % of moisture content higher than 20 % up to 30 %, and decrease by 0,25 % for every 1,0 % of moisture content lower than 20 %;
- for hardwoods, the thickness and width of a piece of timber increase by 0,35 % for every 1,0 % of moisture content higher than 20 % up to 30 %, and decrease by 0,35 % for every 1,0 % of moisture content lower than 20 %.

The above values are typical, without regard to species.

4.3 Permitted cross-sectional deviations

In any cross section of each piece of timber, the actual thickness and actual width (corrected for changes due to changes in moisture content) may not deviate from the target size by more than the values given in Table 1 for tolerance class 1 or in Table 2 for tolerance class 2:

a) Tolerance class 1

Table 1 — Values for tolerance class 1

For thicknesses and widths ≤ 100 mm:	(-1 +3) mm
For thicknesses and widths >100 mm and ≤ 300 mm:	(-2 +4) mm
For thicknesses and widths > 300 mm	(-3 +5) mm

b) Tolerance class 2

Table 2 — Values for tolerance class 2

For thicknesses and widths ≤ 100 mm:	(-1 +1) mm
For thicknesses and widths >100 mm and ≤ 300 mm:	(-1,5 +1,5) mm
For thicknesses and widths > 300 mm	(-2,0 +2,0) mm

For large cross sections, deviations from squareness may be given as part of the specifications.

The average actual thickness and the average actual width of square-edged timber shall not be less than the target sizes, making allowance for changes in size due to changes in moisture content.

4.4 Permitted length deviations

Negative deviations are not permitted.

If overlength is likely to be a problem, a limit should be placed in the contract at the time of purchase.

5 Moisture content measurement

Moisture content shall be measured in accordance with EN 13183 (part 1 or 2 or 3).

Bibliography

- [1] EN 14298, *Sawn timber – Assessment of drying quality*

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