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Timber structures — Structural classification for sawn timber

Structures en bois — Classification structurelle pour bois sciés

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ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

Foreword ... **iv**
Introduction ... **v**
1 Scope ... **1**
2 Normative references ... **1**
3 Terms and definitions ... **1**
4 Timber population and structural property data ... **2**
5 Primary properties ... **2**
5.1 Framework ... 2
5.2 Bending or tension property evaluation ... 3
5.2.1 General ... 3
5.2.2 Exception ... 3
5.3 Density evaluation ... 3
5.4 Class boundaries ... 3
6 Derived properties ... **3**
6.1 Framework ... 3
6.2 Evaluation ... 3
6.2.1 General ... 3
6.2.2 Exception ... 3
7 Allocation to a class ... **4**
7.1 Framework ... 4
7.1.1 General ... 4
7.1.2 Normalization of characteristic values ... 4
7.2 Grading systems ... 4
7.2.1 General ... 4
7.2.2 Exception ... 4
7.3 Design values ... 5
8 Reporting ... **5**
Annex A (normative) **Timber population and structural property data** ... **6**
Annex B (informative) **Structural class example table** ... **9**
Annex C (informative) **Commentary** ... **13**
Bibliography ... **19**

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 165, *Timber structures.*

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Introduction

The production of many different combinations of species and grades complicates timber specification and structural design. Structural classification groups together species and grades of similar properties, to make them interchangeable for structural purposes. The development of this International Standard is intended to benefit industry, consumers, governments and distributors, by balancing the principles of simplicity, product utility and structural reliability.

One of the key reasons for developing this International Standard is to provide a framework for understanding and working on compatibility between approaches used in different regions, through standardization of the basic elements of structural classes, including underlying assumptions and the general method for setting up classes. An example table is presented in Annex B for illustration purposes.

This International Standard provides a model or template that may be modified before adoption and it does not present final design values and adjustment factors. The scope includes evaluation of structural properties; it does not cover suitability with regard to durability, fire resistance and other timber properties.

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Timber structures — Structural classification for sawn timber

1 Scope

This International Standard provides a basic international framework for establishing structural classes for sawn timber.

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.

ISO 12122-1, *Timber structures — Determination of characteristic values — Part 1: Basic requirements*

ISO 12122-2, *Timber structures — Determination of characteristic values — Part 2: Sawn timber*

3 Terms and definitions

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

3.1
characteristic value
standard estimate of a structural property of a *timber population* (3.11) corresponding to a fractile, tolerance limit or mean of sample test data after being adjusted to accepted reference conditions

3.2
derived property
structural property for which characteristic values are determined by correlation with one or more primary properties, and not typically used in deciding how to classify a population

3.3
design value
numerical quantity assigned to a timber population for use in structural design, calculated from the characteristic value and modified to suit provisions in the appropriate building code and standards

Note 1 to entry: Design values are not used directly in structural classes.

3.4
full-size specimen
timber test piece that is similar in size and characteristics to typical structural timbers and is prepared and tested in a way similar to use in construction

Note 1 to entry: See also *small clear specimen* (3.7).

3.5
normalization
adjustment of data, beyond basic data breakdown and moisture and size corrections, to be on a compatible basis with other data for evaluation in the same structural class system

3.6
primary property
structural property that is used to set criteria for allocating a timber population to a structural class system, based on the characteristic value for that property

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