

INTERNATIONAL STANDARD

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Non-structural timber grading requirements

Exigences pour le classement des bois non structurels



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 16415 was prepared by Technical Committee ISO/TC 218, *Timber*.

Introduction

This International Standard describes the essential requirements of non-structural timber grading rules. These requirements have been kept to the essential minimum to ensure maximum scope and flexibility in the application of this International Standard. The notes listed throughout this International Standard are intended to clarify the meaning of a requirement and/or to assist in the implementation of the requirement.

The general idea is for any non-structural timber grading rule to be acceptable, provided it is accurately defined and contains the minimum requirements set forth in this International Standard. It is expected that each region, country or industry sector will write its own non-structural timber grading rules that will comply with the normative requirements stated herein, but which will have features that are specific to its own production, technology infrastructure and market conditions.

Non-structural timber can be produced from non-coniferous and coniferous species of trees that grow throughout the northern and southern hemispheres. Non-coniferous species are botanically Angiosperms, where the seeds are enclosed in the flower of the ovary; the wood of non-coniferous species contains vessels, and is therefore porous. Coniferous species are botanically Gymnosperms, where the seeds are not enclosed in the ovary of the flower; the wood of coniferous species contains no vessels, and is therefore nonporous. Possessing unique natural characteristics that affect machining, durability and usability, sawn non-structural timber produced from non-coniferous and coniferous species has an extensive history of satisfactory use by consumers everywhere.

Globally, non-structural timber has numerous classifications, uses, and standards. Recognizing the complexities of an assortment of grading rules that are applicable to non-coniferous and coniferous species, this International Standard is not specifically based on any one grading rule or grading standard. This International Standard delineates and illustrates broad grade categories that specify essential features typically found in the broad categories based on commonalities of numerous grading rules used for sawn non-structural timber of non-coniferous and coniferous species in international commerce.

Sawn non-structural timber produced from non-coniferous and coniferous species contains natural characteristics that are inherently different in quality, thus the resultant products have a variety of end uses. Because of this, the grading systems used to classify the sawn non-structural timber are numerous but can generally be separated into two basic systems that use a visual assessment of the timber.

One visual grading system uses a classification scheme based on the usable content of the piece of sawn non-structural timber aside from any parts which can be considered undesirable for use. This type of grading system determines usable content of the piece by using “cuttings” or similar units between undesirable defects to determine the usable content of the piece. Sawn non-structural timber products produced under this type of grading system are generally intended to be further manufactured to obtain products that can be used in interior or exterior applications, often with exposed surfaces and having clear or light finishes.

The second visual grading system uses a classification scheme based on the usability of the full length of the piece. Sawn non-structural timber products produced under this type of grading system are used in many building applications and are generally not intended to be further manufactured.

Sawn non-structural timber produced from non-coniferous and coniferous species can be graded using either grading system. Generally, sawn non-structural timber produced from non-coniferous species is graded using a classification scheme based on the usable content of the piece, whereas, sawn non-structural timber produced from coniferous species is graded using a classification scheme based on the usability of the full length of the piece.