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**Timber structures — Laminated veneer  
lumber — Structural properties**

*Structures en bois — Lamibois — Propriétés structurelles*



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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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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 22390 was prepared by Technical Committee ISO/TC 165, *Timber structures*.

## Introduction

Laminated veneer lumber (LVL) is being produced in many countries under different national standards and these products are being exported from one country to another. While the national standards have many similarities, there are also many areas of dissimilarity. Thus, there is a need for the development of this International Standard to establish consistency between these standards in order to ensure the suitability of LVL for structural end-use applications, regardless of country of manufacture or country of end use. It is intended for this to have value to industry, consumers, governments and distributors.

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# Timber structures — Laminated veneer lumber — Structural properties

## 1 Scope

This International Standard specifies requirements for establishing the characteristic properties of structural laminated veneer lumber (LVL), including 5th percentile strength values, stiffness characteristics and other performance characteristics related to its end use as a structural product for dry use (bonding class 1). It is applicable to members used in flatwise or edgewise bending orientations.

It does not cover the assessment of formaldehyde requirements, biological durability, fire performance or manufacturing, such as quality control and marking.

## 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.

ISO 10033-1, *Laminated veneer lumber — Bonding quality — Part 1: Test methods*

ISO 10033-2, *Laminated veneer lumber — Bonding quality — Part 2: Requirements*

ISO 13910, *Structural timber — Characteristic values of strength-graded timber — Sampling, full-size testing and evaluation*

ISO 16572, *Timber structures — Wood-based panels — Test methods for structural properties*

ISO 16979, *Wood-based panels — Determination of moisture content*

EN 408-03, *Timber structures — Structural timber and glued laminated timber — Determination of some physical and mechanical properties*

ASTM D143-09, *Standard Test Methods for Small Clear Specimens of Timber*

ASTM D198-09, *Standard Test Methods of Static Tests of Lumber in Structural Sizes*

ASTM D4761-05, *Standard Test Methods for Mechanical Properties of Lumber and Wood-Base Structural Material*

ASTM D5456-06, *Standard Specification for Evaluation of Structural Composite Lumber Products*

ASTM D6815-09, *Standard Specification for Evaluation of Duration of Load and Creep Effects of Wood and Wood-Based Products*

MAFF Notification No. 701, *Japanese Agricultural Standard for Laminated Veneer Lumber*