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**Timber structures — Finger-jointed  
timber — Manufacturing and  
production requirements**

*Structures en bois — Bois assemblé par entures multiples —  
Exigences de fabrication et de production*



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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by ISO/TC 165, *Timber structures*.

## Introduction

Finger-jointed timber is viewed as an alternative and substitute for sawn timber. Finger-jointed timber makes use of timber of various lengths and enables localized defects, particularly knots, to be docked out of otherwise high-quality sawn timber.

Qualification (initial type testing) and compliance (factory production control) testing are specified to assess if the components and manufacturing procedures used (finger joint profile, end pressure and other production variables) are appropriate for the characteristic values being claimed. A representative sample of the potential production is evaluated for tension and bending strength and finger joints are assessed for bond quality using delamination or wood fibre failure tests.



# Timber structures — Finger-jointed timber — Manufacturing and production requirements

## 1 Scope

This document specifies the product and performance requirements for finger-jointed structural timber made from sawn timber elements.

The document does not cover products made using impressed (die-formed) joints or finger-jointed laminations for glued laminated timber, which is covered in ISO 12578.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 9709, *Structural timber — Visual strength grading — Basic principles*

ISO 10983, *Timber — Finger joints — Minimum production requirements and testing methods*

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

ISO 13910, *Timber structures — Strength graded timber — Test methods for structural properties*

ISO 13912, *Structural timber — Machine strength grading — Basic principles*

ISO 20152-1, *Timber structures — Bond performance of structural adhesives — Basic requirements*

## 3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

### 3.1

#### **finger joint**

end joint formed by machining a number of similar, tapered, symmetrical fingers in the ends of timber pieces that are then bonded together

### 3.2

#### **finger-jointed timber**

timber that contains two or more component pieces end-joined by *finger joints* (3.1)

Note 1 to entry: All pieces are of a single species or recognized species group, have the same nominal cross-section and the finger joints are formed using a common adhesive and production method.

### 3.3

#### **production batch**

*finger-jointed timber* (3.2) made during a continuous run on one production line