
**Timber structures — Glued laminated
timber — Component performance
requirements**

*Structures en bois — Bois lamellé-collé — Performance des
composants et exigences*

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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

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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).

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).

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 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.

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

This second edition cancels and replaces the first edition (ISO 12578:2008), which has been technically revised.

Introduction

Glued laminated timber is obtained by bonding together a number of laminations having their grain essentially parallel. In this way, a member with rectangular solid cross-section can be produced. Other non-rectangular shapes can also be produced.

The purpose of the requirements in this International Standard is to provide minimum performance requirements to ensure the in-service performance of the glued laminated timber. The requirements will need to be supplemented to take into consideration special conditions, materials or functional requirements.

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Timber structures — Glued laminated timber — Component performance requirements

1 Scope

This International Standard specifies requirements for the components of glued laminated timber members for structural use.

This International Standard is applicable to products with a finished lamination thickness of not more than 50 mm.

Although most glued laminated timber is made from coniferous species, this International Standard also applies to broad leaf species if the tests specified in this International Standard show that a satisfactory glue bond can be achieved.

The basic requirements apply to structural members of all service classes; however, special precautions are necessary for service class 3, for example, the use of weather resistant adhesives (see [5.3](#)).

This International Standard does not apply to the determination of strength and stiffness characteristics. [Annex B](#) contains informative materials for formaldehyde emission.

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 9709, *Structural timber — Visual strength grading — Basic principles*

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

ISO 10983:2014, *Timber — Finger joints — Minimum production requirements and testing methods*

ISO 8375:—¹⁾, *Timber structures — Glued laminated timber — Test methods for determination of physical and mechanical properties*

ISO 12579, *Timber structures — Glued laminated timber — Method of test for shear strength of glue lines*

ISO 12580, *Timber structures — Glued laminated timber — Methods of test for glue-line delamination*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 12579, ISO 12580, ISO 20152-1 and the following apply.

3.1

glued laminated timber

glulam

structural member formed by bonding together timber *lamination*s ([3.7](#)) with their grain running essentially parallel to the member's longitudinal axis

1) To be published. (Revision of ISO 8375:2009)