
**Physical and mechanical properties of
wood — Test methods for small clear
wood specimens —**

**Part 5:
Determination of strength in
compression perpendicular to grain**

*Propriétés physiques et mécaniques du bois — Méthodes d'essais sur
petites éprouvettes de bois sans défauts —*

*Partie 5: Détermination de la résistance en compression
perpendiculaire au fil*



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Foreword

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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).

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For an explanation of 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 www.iso.org/iso/foreword.html.

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

This first edition of ISO 13061-5 cancels and replaces ISO 3132:1975, which has been technically revised. The main changes are as follows:

- sizes, moisture content of test pieces and adjustment for moisture content have been technically revised;
- some sentences were reconstructed for clarity.

A list of all parts in the ISO 13061 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

The main purpose of this document is to establish the common standard concerning testing methods for small clear wood specimens and general requirements for determining physical and mechanical properties of wood.

Physical and mechanical properties of wood — Test methods for small clear wood specimens —

Part 5:

Determination of strength in compression perpendicular to grain

1 Scope

This document specifies a method for determining the strength in compression perpendicular to grain of wood.

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 3129, *Wood — Sampling methods and general requirements for physical and mechanical tests*

ISO 13061-1, *Physical and mechanical properties of wood — Test methods for small clear wood specimens — Part 1: Determination of moisture content for physical and mechanical tests*

ISO 13061-2, *Physical and mechanical properties of wood — Test methods for small clear wood specimens — Part 2: Determination of density for physical and mechanical tests*

ISO 24294, *Timber — Round and sawn timber — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 24294 apply.

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

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

4 Principle

The strength in compression perpendicular to grain is determined by the application of a gradually increasing load to the whole surface of the test piece in the radial or tangential direction or at an angle of 45° with the direction of the growth rings and estimating the stress at the proportional limit from the load-deformation diagram.

5 Apparatus

5.1 Testing machine, capable of ensuring a constant rate of loading of the test piece or of movement of the loading head and allowing the measurement of the load to a precision of 1 %.