International Standard

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

Part 14: Determination of volumetric shrinkage

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

Partie 14: Détermination du retrait volumique

Reference number
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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 document 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 second edition cancels and replaces the first edition (ISO 13061-14:2016), which has been technically revised.

The main changes are as follows:

— changes in the sizes and measurements of test pieces and the calculation of test results.

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.

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Introduction

The main purpose of this document is to establish the common international point of member countries of the International Organization for Standardization (ISO), concerning testing methods for small clear wood specimens and general requirements for determining physical and mechanical properties of wood.

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

Part 14: Determination of volumetric shrinkage

1 Scope

This document specifies methods for the determination of volumetric shrinkage 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 testing of small clear wood specimens*

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 terminology databases for use in standardization at the following addresses:

— IEC Electropedia: available at https://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

4 Principle

This document specifies two methods, stereometric method and immersion method, for determining the volumetric shrinkage by measuring volume of a test piece before and after drying to a constant mass. The volume is calculated as a product of the linear dimensions of the test piece in stereometric method or measured as the mass of the water displaced in immersion method. The volumetric shrinkage is calculated as the change of the volume expressed as a percentage of the original volume. The initial measurements shall be taken on test pieces in green or fully saturated condition. The final measurements shall be taken on test pieces in oven-dry state.

5 Sampling

The selection, preparation and the minimum number of test pieces shall be in accordance with ISO 3129.

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