INTERNATIONAL STANDARD

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

Part 1: Determination of moisture content for physical and mechanical tests

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

Partie 1: Détermination de la teneur en humidité en vue des essais physiques et mécaniques

Reference number
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Contents

Page

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. www.iso.org/directives

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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 WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 218, *Timber*.

This first edition of ISO 13061-1 cancels and replaces ISO 3130:1975, which has been technically revised by specifying various levels of precision of measurements and allowing larger sizes of test pieces.

ISO 13061 consists of the following parts, under the general title *Physical and mechanical properties of wood — Test methods for small clear wood specimens*:

— Part 1: *Determination of moisture content for physical and mechanical tests*

— Part 2: *Determination of density for physical and mechanical tests*

— Part 3: *Determination of ultimate strength in static bending*

— Part 4: *Determination of modulus of elasticity in static bending*

— Part 6: *Determination of ultimate tensile stress parallel to grain*

— Part 7: *Determination of ultimate tensile stress perpendicular to grain*

The following parts are under preparation:

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

— Part 10: *Determination of impact bending strength*

— Part 11: *Determination of resistance to impact*

— Part 12: *Determination of static hardness*

— Part 13: *Determination of radial and tangential shrinkage*

— Part 14: *Determination of volumetric shrinkage*

— Part 15: *Determination of radial and tangential swelling*

— Part 16: *Determination of volumetric swelling*

— Part 17: *Determination of ultimate stress in compression parallel to grain*

Introduction

The main purpose of ISO 13061 is to establish test 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 1: Determination of moisture content for physical and mechanical tests

1 Scope

This part of ISO 13061 specifies oven-drying methods for determining the moisture content of wood for physical and mechanical tests on small clear wood specimens.

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 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 and the following apply.

3.1
moisture content
amount of moisture contained in wood, expressed as a percentage of its oven-dry mass

4 Principle

Moisture content is one of the most important variables affecting the physical and mechanical properties of wood. The procedures described in this part of ISO 13061 are designed for obtaining the values of moisture content consistent with the needs of the user at different levels of precision (see 5.1).

Moisture content is determined by weighing the test piece before and after drying to a constant mass. The moisture content is calculated as the loss in mass as a percentage of the mass of the test piece after drying.

NOTE The moisture content of wood is expressed as a percentage of oven-dry mass of the test piece (oven-dry basis); thus the moisture content values may exceed 100 %.

5 Apparatus

5.1 Balance - Based on a 10-g oven-dry mass of test piece, minimum readability of the balance shall be determined by the desired reporting level of precision: