Moisture content of a piece of sawn timber - Part 3: Estimation by capacitance method

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EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 13183-3:2005 sisaldab Euroopa standardi EN 13183-3:2005 ingliskeelset teksti. Käesolev dokument on jõustatud 30.05.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 13183-3:2005 consists of the English text of the European standard EN 13183-3:2005. This document is endorsed on 30.05.2005 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This document specifies a non destructive method for estimating the moisture content of a piece of sawn timber. The standard describes the conditions which shall be met by a capacitance measuring system to derive a moisture content estimate for individual pieces of timber. The standard applies to sawn timber and timber which has been planed or surfaced by other means.	**Scope:** This document specifies a non destructive method for estimating the moisture content of a piece of sawn timber. The standard describes the conditions which shall be met by a capacitance measuring system to derive a moisture content estimate for individual pieces of timber. The standard applies to sawn timber and timber which has been planed or surfaced by other means.

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Moisture content of a piece of sawn timber - Part 3: Estimation by capacitance method

Teneur en humidité d'une pièce de bois scié - Partie 3: Estimation par méthode capacitive

Feuchtegehalt eines Stückes Schnittholz - Teil 3: Schätzung durch kapazitives Messverfahren

This European Standard was approved by CEN on 3 February 2005.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (EN 13183-3:2005) has been prepared by Technical Committee CEN/TC 175 “Round and sawn timber”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2005, and conflicting national standards shall be withdrawn at the latest by September 2005.

This document is one of a series, dealing with methods of measurement for round timber and sawn timber.

Other standards in this series are:

EN 13183-1, *Moisture content of a piece of sawn timber - Part 1: Determination by oven dry method*

EN 13183-2, *Moisture content of a piece of sawn timber - Part 2: Estimation by electrical resistance method*

EN 1309-1, *Round and sawn timber - Method of measurement of dimensions - Part 1: Sawn timber*

EN 1310, *Round and sawn timber - Method of measurement of features*

EN 1311, *Round and sawn timber - Method of measurement of biological degrade*

This document includes a Bibliography.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

1 Scope

This document specifies a non destructive method for estimating the moisture content of a piece of sawn timber. The standard describes the conditions which shall be met by a capacitance measuring system to derive a moisture content estimate for individual pieces of timber.

The standard applies to sawn timber and timber which has been planed or surfaced by other means.

2 Normative references

The following referenced documents are indispensable for the application 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.

EN 844-1:1995, *Round and sawn timber - Terminology - Part 1: General terms common to round timber and sawn timber*

EN 844-3:1995, *Round and sawn timber - Terminology - Part 3: General terms relating to sawn timber*

EN 844-4:1997, *Round and sawn timber –Terminology - Part 4: Terms relating to moisture content*

EN 844-6:1997, *Round and sawn timber - Terminology - Part 6: Terms relating to dimensions of sawn timber*

EN 844-7:1997, *Round and sawn timber - Terminology - Part 7: Terms relating to anatomical structure of timber*

EN 844-9:1997, *Round and sawn timber - Terminology - Part 9: Terms relating to features of sawn timber*

EN 844-12:2000, *Round and sawn timber - Terminology - Part 12: Additional terms and general index*

EN 13183-1, *Moisture content of a piece of sawn timber - Part 1: Determination by oven dry method*

EN ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories (ISO/IEC 17025:1999)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 844-1:1995, EN 844-3:1995, EN 844-4:1997, EN 844-6:1997, EN 844-7:1997, EN 844-9:1997 and EN 844-12:2000 apply.

4 Moisture content estimation with hand-held capacitance moisture meters

4.1 Limits of application

This method is suitable for estimating the average moisture content of a piece of timber having a moisture content between approximately 7 % and 30 %.

NOTE Any type of bipolar preservative, flame retardant, chemical or surface treatment may affect the accuracy of the measurement and requires special calibration of the instrument for each type of treatment.

The estimated moisture content can be strongly affected by the type and reach of the moisture sensing system, the moisture content distribution and the wood density under the sensor, the operating modus, the dimensions of the piece of timber to be measured and the operator skills.