

**Puittarindid. Mehaaniliste kinnitusdetailidega liidete
katsetamine. Puidu tihedusnõuded**

Timber structures - Testing of joints made with mechanical
fasteners - Requirements for wood density

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 8970:2010 sisaldab Euroopa standardi EN ISO 8970:2010 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 30.09.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 15.06.2010.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN ISO 8970:2010 consists of the English text of the European standard EN ISO 8970:2010.

This standard is ratified with the order of Estonian Centre for Standardisation dated 30.09.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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English Version

Timber structures - Testing of joints made with mechanical fasteners - Requirements for wood density (ISO 8970:2010)

Structures en bois - Essai des assemblages réalisés par organes mécaniques - Exigences concernant la masse volumique du bois (ISO 8970:2010)

Holzbauwerke - Prüfung von mechanischen Verbindungen - Anforderungen an die Rohdichte des Holzes (ISO 8970:2010)

This European Standard was approved by CEN on 12 June 2010.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document (EN ISO 8970:2010) has been prepared by Technical Committee ISO/TC 165 “Timber structures” in collaboration with Technical Committee CEN/TC 124 “Timber structures” 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of an identical text or by endorsement, at the latest by December 2010, and conflicting national standards shall be withdrawn at the latest by December 2010.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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Endorsement notice

The text of ISO 8970:2010 has been approved by CEN as a EN ISO 8970:2010 without any modification.

Introduction

The need to prescribe restriction of density for timber connection tests dates back many decades. In using the standard density, the boundaries set are considered too restrictive. This leads to difficulties in sampling timber elements and increased laboratory testing costs. Moreover, evidence has surfaced that the effect of density on the load-bearing capacity of connections is in many cases less significant than expected, and that many other parameters influence it.

Timber structures — Testing of joints made with mechanical fasteners — Requirements for wood density

1 Scope

This International Standard specifies a method, based on density, for the selection of pieces of wood used in determining the strength and stiffness properties of connections made with mechanical fasteners.

It is assumed the wood density is normally distributed and that any deviations are reported.

This International Standard is applicable only to specimens of wood.

NOTE It is emphasized that the wood density is only one of the properties that can influence the strength of a joint. Other relevant properties are, for example, growth-ring size, slope of grain, toughness and hardness.

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.

ISO 3131, *Wood — Determination of density for physical and mechanical tests*

3 Symbols and units

k	factor
σ	is the standard deviation, expressed in kilograms per cubic metre
ρ	is the density of the wood to which the test results should be applied, expressed in kilograms per cubic metre
ρ_m	is the mean wood density to which the test results should be applied, expressed in kilograms per cubic metre
$\rho_{m,sel}$	is the mean wood density of all selected pieces to which the test results should be applied, expressed in kilograms per cubic metre

4 Timber sampling method and requirements

4.1 General

This International Standard specifies a method for the selection of wood of the required density.

The density shall be determined in accordance with ISO 3131, with mass and volume corresponding to equilibrium at a temperature of $(20 \pm 2)^\circ\text{C}$ and relative humidity of $(65 \pm 5)\%$.