Wood poles for overhead lines - Strength grading criteria

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12510:2002 sisaldab Euroopa standardi EN 12510:2001 + AC:2002 ingliskeelset teksti. Käesolev dokument on jõustatud 19.06.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 12510:2002 consists of the English text of the European standard EN 12510:2001 + AC:2002. This document is endorsed on 19.06.2002 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 standard specifies the requirements for the handling and storage and the characteristics for inclusion in regional/national/local/buyer standards of visual strenght grading of softwood and hardwood poles. It also specifies the marking requirements.	**Scope:** This standard specifies the requirements for the handling and storage and the characteristics for inclusion in regional/national/local/buyer standards of visual strenght grading of softwood and hardwood poles. It also specifies the marking requirements.

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Võtmesõnad: ele, electric power transmiss, overhead power line, overhead power lines, specification (approval), specifications, standards, strength class, strength of materials, telecommunication pole lines, testing, wood technology, wooden poles, woodworking industry

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English version

Wood poles for overhead lines - Strength grading criteria

Poteaux en bois pour lignes aériennes - Critères de classement de la résistance

Holzmaste für Freileitungen - Kriterien zur Festigkeitssortierung

This European Standard was approved by CEN on 18 October 2001.

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 Management Centre 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 124 "Structural timber", the secretariat of which is held by DS.

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 June 2002, and conflicting national standards shall be withdrawn at the latest by June 2002.

This standard includes an informative annex A.

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

Introduction

This standard is one of five standards covering requirements for visual or machine grading, test methods, determination of characteristic values, methods of specifying durability and sizes.

There are many different visual strength grading rules for timber in use in Europe. These have come into existence to allow for:

- different species or groups of species;
- geographic origin;
- different dimensional requirements;
- varying requirements for different uses;
- the quality of material available;
- historic influences or traditions.

Because of the diversity of existing standards for wood poles for overhead lines in use in different countries it is currently impossible to lay down a single set of acceptable visual grading rules for all member states.

This standard on visual grading rules therefore gives basic principles which shall be followed when drawing up regional, national, local or buyer requirements for some characteristics and sets limits for others.

In laying down visual grading rules two main factors should be borne in mind:

- they should clearly define and limit the strength affecting characteristics in poles so that buyers shall have a very high confidence that poles supplied meet the required characteristic strength value;
- the rules and the text should be easily understood and be capable of implementation by grading personnel.

Examples of standards currently in use and which meet these principles are listed in annex A (informative).

1 Scope

This European Standard specifies the requirements for the handling and storage and the characteristics for inclusion in regional/national/local/buyer standards of visual strength grading of softwood and hardwood poles. It also specifies the marking requirements.

This standard identifies the characteristics for which, as a minimum, limits shall be given in visual grading standards or specifications.

This standard applies to both softwood and hardwood poles.

This standard covers only single poles under cantilever and/or compression loading. For example, this standard does not cover poles used as beams.

The provision of poles for use in any overhead line or cable infrastructure shall take into account a range of factors not covered by this standard which will necessitate the specification by the end user of complementary and synonymous attributes to those defined in this standard. This refers to requirements for a number of factors including safety, overhead plant, handling, fittings, installation machinery and working practices including climbing.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

prEN 12509, *Wood poles for overhead lines - Test methods - Determination of modulus of elasticity, bending strength, density and moisture content.*

ISO 3166-1, *Codes for the representation of names of countries and their subdivisions - Part 1: Country codes.*

3 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply.

3.1
compression wood
reaction wood formed typically on lower sides of branches and of leaning or crooked stems of softwood trees

3.2
cracks
separation of wood fibres across the grain. Such breaks may be due to internal strains resulting from unequal longitudinal shrinkage, fibres being crinkled by compression or other external forces

3.3
decay
decomposition of wood by fungi or other micro-organisms resulting in softening, progressive loss of mass and strength, and often a change of texture and colour