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სტრუქტურული მერქნი - ხის ბოძები საჰაერო ხაზები

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Structural timber - Wood poles for overhead lines

Bois de structure - Poteaux en bois pour lignes aériennes

Holzbauwerke - Holzmaste für Freileitungen

This European Standard was approved by CEN on 28 August 2010.

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Foreword

This document (EN 14229:2010) has been prepared by 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of an identical text or by endorsement, at the latest by April 2011, and conflicting national standards shall be withdrawn at the latest by April 2011.

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.

This document supersedes EN 12465:2001, EN 12479:2001, EN 12509:2001, EN 12510:2001, EN 12511:2001.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

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

Introduction

Poles for overhead lines are not covered by EN 1995-1-1 (i.e. Eurocode 5), which is for the design of buildings and civil engineering structures. The supplier is always responsible that all products supplied are in conformity with the requirements of this European Standard and any other specification he is provided with. This European Standard is for the initial determination of the characteristic values for a given population of wood poles (i.e. initial type testing), and additional determination when there is a reason to suspect that the characteristic values for a population have reduced. As far as empirical characteristic values are existing they can be used. Annex E presents some typical minimum characteristic values for wood poles. Furthermore, this standard provides also for requirements on the factory production control with production tolerances to enable the manufacturer of this population of wood poles to be in conformity with the declared characteristic values, derived from the initial type testing.

This European Standard recognises that 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 Member States it is currently impossible to lay down a single set of acceptable visual grading rules for all Member States.

This European Standard therefore gives the basic principles to 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 are relevant:

— they clearly define and limit the additional characteristics in poles so that there is a very high confidence that poles supplied meet the required characteristic strength value;

— the rules and the text can be easily understood and be suitable for implementation by grading personnel.

This European Standard is also concerned with the durability characteristics of wood poles for overhead power and telecommunication lines. It assumes that all such poles are constructed from round timber in which the finished product comprises either a central core of heartwood surrounded by a zone of sapwood or the heartwood only.

NOTE Some timber (e.g. abies alba and picea abies) do not allow differentiation between heartwood and sapwood. EN 351-1 specifies how such timber should be treated when preservation is required. For such species there may be different requirements for the incised zone and other parts of the pole.