

This is a preview of "ISO 15206:2010". [Click here to purchase the full version from the ANSI store.](#)

First edition  
2010-04-01

---

---

## Timber poles — Basic requirements and test methods

*Poteaux en bois — Exigences de base et méthodes d'essai*



Reference number  
ISO 15206:2010(E)

© ISO 2010

This is a preview of "ISO 15206:2010". [Click here to purchase the full version from the ANSI store.](#)

**PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2010

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

This is a preview of "ISO 15206:2010". [Click here to purchase the full version from the ANSI store.](#)

## Contents

Page

|   |    |
|---|----|
| Foreword .....  | iv |
| Introduction.....   | v  |
| 1 Scope .....   | 1  |
| 2 Normative references .....  | 1  |
| 3 Terms and definitions .....   | 2  |
| 4 Symbols and abbreviated terms .....   | 6  |
| 5 General requirements .....  | 7  |
| 5.1 Marking.....  | 7  |
| 5.2 Tree felling and wood preparation.....  | 7  |
| 5.3 Requirements for pole sizes, tolerances, permissible deviations and damage .....            | 7  |
| 5.4 Characteristic values .....   | 7  |
| 5.5 Strength-reducing characteristics.....  | 8  |
| 5.6 Other characteristics.....  | 10 |
| 5.7 Untreated wood poles.....   | 10 |
| 5.8 Preservative-treated wood poles .....   | 10 |
| 6 Test methods .....  | 11 |
| 6.1 Length and diameter .....   | 11 |
| 6.2 Knots and knot clusters.....  | 11 |
| 6.3 Slope of grain.....   | 11 |
| 6.4 Rate of growth .....  | 11 |
| 6.5 Bark pockets and rind galls .....   | 12 |
| 6.6 Mechanical damage.....  | 12 |
| 6.7 Fissures, splits and checks.....  | 12 |
| 6.8 Determination of moisture content.....  | 12 |
| 7 Evaluation of conformity .....  | 12 |
| 7.1 General .....   | 12 |
| 7.2 Initial type testing.....   | 12 |
| 7.3 Product assessment .....  | 13 |
| 8 Marking and declarations .....  | 13 |
| 8.1 Marking (mandatory).....  | 13 |
| 8.2 Specific marking and declarations .....   | 13 |
| 8.3 Marking (optional) .....  | 14 |
| Annex A (informative) Commonly used sizes for wood poles .....                                  | 15 |
| Annex B (normative) Scheme for sampling preservative-treated wood poles by taking borings ..... | 16 |
| Annex C (normative) Test method for bending properties — Cantilever method .....                | 17 |
| Annex D (normative) Test method for bending properties — Four-point method.....                 | 22 |
| Annex E (normative) Test method for bending properties — Three-point method proof test .....    | 28 |
| Annex F (normative) Determination of characteristic values.....                                 | 33 |
| Bibliography.....   | 37 |

This is a preview of "ISO 15206:2010". [Click here to purchase the full version from the ANSI store.](#)

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 15206 was prepared by Technical Committee ISO/TC 165, *Timber structures*.

This is a preview of "ISO 15206:2010". [Click here to purchase the full version from the ANSI store.](#)

## Introduction

This International Standard covers the requirements for grading and assignment of characteristic values that can be used for the design of timber poles used as cantilevers and/or in compression.

It is the responsibility of the supplier to always ensure that all products supplied are in conformity with the requirements of this International Standard and any other specification with which they are provided. This International Standard is intended for the initial determination of the characteristic values for a given population of poles and additional determination when there is a reason to suspect that the characteristics of a population have changed.

This International Standard recognizes that there are many different visual strength-grading rules for timber in use internationally. 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, and
- historical influences or traditions.

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

This International 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 shall clearly define and limit the strength-affecting characteristics in poles, such that there is very high confidence that poles supplied meet the required characteristic strength value;
- the rules and the text are such that they can be easily understood and be suitable for implementation by grading personnel.

This International 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. Such assumptions dictate that where sapwood is present, preservative treatment is normally required in order to provide the poles with sufficient enhanced durability, unless the amount of sapwood present is such that its loss would not compromise the integrity of the pole during its service life and the heartwood has sufficient natural durability as required by this International Standard.

Some timber species do not allow an easy differentiation between heartwood and sapwood. Various standards provide recommendations to address this problem; for example, EN 351-1 and AS 2209:1994 (Appendix D) specify the method of treatment of such timber when preservation is required.