

# Wood poles for overhead lines — Sizes — Methods of measurement and permissible deviations

The European Standard EN 12479:2001 has the status of a  
British Standard

ICS 79.080; 29.240.99

## National foreword

This British Standard is the official English language version of EN 12479:2001.

The UK participation in its preparation was entrusted by Technical Committee B/518, Structural timber, to Subcommittee B/518/5, Wood poles for power and telecommunications, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
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This British Standard, having been prepared under the direction of the Sector Policy and Strategy Committee for Building and Civil Engineering, was published under the authority of the Standards Policy and Strategy Committee on 26 February 2002

### Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 8, an inside back cover and a back cover.

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English version

## Wood poles for overhead lines - Sizes - Methods of measurement and permissible deviations

Poteaux en bois pour lignes aériennes - Dimensions -  
Méthodes de mesures et écarts admissibles

Holzmaße für Freileitungen - Maße - Messmethoden und  
zulässige Abweichungen

This European Standard was approved by CEN on 20 October 2001.

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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of an identical text or by endorsement, at the latest by June 2002, and conflicting national standards shall be withdrawn at the latest by June 2002.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 describing commonly used sizes for wood poles.

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.

## 1 Scope

This European Standard specifies methods of measuring the sizes of solid wood poles for overhead transmission and telecommunication lines and limit deviations that are taken into account for the acceptance of the poles. It is applicable to both hardwood and softwood 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).

ISO 8322-2, *Building construction - Measuring instruments - Procedures for determining accuracy in use - Part 2: Measuring tapes.*

## 3 Terms and definitions

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

### 3.1

#### **minimum diameter**

minimum diameter of the pole at the section of measurement

### 3.2

#### **nominal diameter**

a) theoretical diameter for poles with 5 % or less ovality

b) minimum diameter for poles with greater than 5 % ovality

### 3.3

#### **peak**

shape given to the pole at the tip, in order to limit the risks of water penetration in the fibres

### 3.4

#### **pole**

long round timber for use in a free standing application

### 3.5

#### **pole butt**

lowermost point of the thicker end of the pole

### 3.6

#### **pole tip**

uppermost point of the narrow end of the pole

**3.7 theoretical diameter**  
diameter of a circle with the same circumference as the actual circumference at the section of measurement

**3.8 length**  
distance from the pole butt to the pole tip

**3.9 ovality**  
difference between the maximum and minimum diameter at a cross section expressed as a percentage of the minimum diameter

## 4 Symbols and abbreviations

None.

## 5 Requirements for measurement and limit deviations

### 5.1 Specification for pole sizes

The size of a pole shall be specified by the overall length, the nominal diameter at 1,5 m from the butt and the nominal diameter at the tip.

### 5.2 Length and diameter

Length shall be measured using a tape measure complying with ISO 8322-2. Diameters shall be measured using callipers. Alternatively, the theoretical diameter may be calculated from the circumference measured by using a tape measure complying with ISO 8322-2.

NOTE All measurements should be made when poles are at or above fibre saturation point.

Where one or both ends are not cut square, the minimum length shall be recorded.

The nominal diameter at 1,5 m from the butt and at the tip shall be specified by the user.

NOTE The taper of poles covered by prEN 12510 is expected to be between 6 mm/m and 16 mm/m.

### 5.3 Limit deviations

Length:  $0/\pm 1 \%$ ;

Diameter:  $0/+ 40$  mm unless otherwise agreed between supplier and user.

## 6 Pole sizes

A list of commonly used pole sizes (minimum nominal diameter at 1,5 m from the butt, and length) is given in annex A.



## Annex A (informative)

### Commonly used sizes for wood poles

**Table A.1**

Length	Minimum - nominal - diameter (at 1,5 m from butt)													
m	mm													
6	120	130	140	150	160	170								
7	130	140	150	160	170	180	190	200	210					
8	140	150	160	170	180	190	200	210	220					
9	150	160	170	180	190	200	210	220	230	240	250	260	270	280
10	160	170	180	190	200	210	220	230	240	250	260	270	280	290
11	170	180	190	200	210	220	230	240	250	260	270	280	290	300
12	190	200	210	220	230	240	250	260	270	280	290	300	310	320
13	210	220	230	240	250	260	270	280	290	300	310	320	330	340
14		230	240	250	260	270	280	290	300	310	320	330	340	350
15		250	260	270	280	290	300	310	320	330	340	350	360	
16		260	270	280	290	300	310	320	330	340	350	360	370	
17		280	290	300	310	320	330	340	350	360	370	380		
18		300	320	340	360	380	400	420						
19		330	350	370	390	410	430							
20		340	360	380	400	420	440							
21		350	370	390	410	430	450							
22		370	390	410	430	450								
23		400	420	440	460	480								
24		420	440	460	480	500								

## Bibliography

EN 844-2, *Round and sawn timber - Terminology - Part 2: General terms relating to round timber.*

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



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