

Elementi za zaščito pred strelo (LPC) - 2. del: Zahteve za vodnike in ozemljitvene elektrode

Lightning protection components (LPC) - Part 2: Requirements for conductors and earth electrodes

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 50164-2:2002/A1:2006
https://standards.iteh.ai/catalog/standards/sist/96f6d85d-c6db-4fd5-99a6-d3fed5abbcd/sist-en-50164-2-2002-a1-2006](https://standards.iteh.ai/catalog/standards/sist/96f6d85d-c6db-4fd5-99a6-d3fed5abbcd/sist-en-50164-2-2002-a1-2006)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 50164-2:2002/A1:2006](https://standards.iteh.ai/catalog/standards/sist/96fd85d-c6db-4fd5-99a6-d3fed5abbcd/sist-en-50164-2-2002-a1-2006)

<https://standards.iteh.ai/catalog/standards/sist/96fd85d-c6db-4fd5-99a6-d3fed5abbcd/sist-en-50164-2-2002-a1-2006>

**Lightning protection components (LPC)
Part 2: Requirements for conductors and earth electrodes**

Composants de protection
contre la foudre (CPF)
Partie 2: Caractéristiques des
conducteurs et des électrodes de terre

Blitzschutzbauteile
Teil 2: Anforderungen an Leitungen
und Erder

iTeh STANDARD PREVIEW

This amendment A1 modifies the European Standard EN 50164-2:2002; it was approved by CENELEC on 2006-03-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 Central Secretariat or to any CENELEC member.

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

This amendment was prepared by the Technical Committee CENELEC TC 81X, Lightning protection.

The text of the draft was submitted to the formal vote and was approved by CENELEC as amendment A1 to EN 50164-2:2002 on 2006-03-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2007-03-01
 - latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2009-03-01
-

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 50164-2:2002/A1:2006](https://standards.iteh.ai/catalog/standards/sist/96f6d85d-c6db-4fd5-99a6-d3fef5abbcd/sist-en-50164-2-2002-a1-2006)

<https://standards.iteh.ai/catalog/standards/sist/96f6d85d-c6db-4fd5-99a6-d3fef5abbcd/sist-en-50164-2-2002-a1-2006>

2 Normative references

Add:

EN ISO 1460 1994 Metallic coatings - Hot dip galvanized coatings on ferrous materials - Gravimetric determination of the mass per unit area (ISO 1460:1992)

4 Requirements

4.2 Air termination conductors, air termination rods and down conductors

Table 1, replace footnote “C” by:

^c The coating should be smooth continuous and free from flux stains with a minimum weight of 350 g/m² for solid round material and 500 g/m² for solid tape material. The coating can be measured in accordance with EN ISO 1460 with a sample length of approximately 200 mm.

Replace Table 2 by the following table:

Table 2 - Mechanical and electrical characteristics of air termination conductors, air termination rods, earth lead-in rods and down conductors

Material	Configuration	Maximum electrical resistivity μΩm	Tensile strength N/mm ²	Minimum elongation %
Copper and tin plated copper	Solid	0,019	200 - 450	7
	Stranded		N/A	N/A
Aluminium	Solid	0,028	≤ 150	15
	Stranded		N/A	N/A
Aluminium alloy	Solid	0,036	120 - 280	10
	Stranded		N/A	N/A
Hot dip galvanized steel	Solid	0,15	290 - 510	7
	Stranded		N/A	N/A
Stainless steel	Solid	0,80	400 - 730	35
	Stranded		N/A	N/A

N/A=not applicable.

Add a note below the Table 2:

NOTE Minimum length of conductor for testing shall be 250 mm.

4.3 Earth electrodes

Table 3

Replace in line “Copper, Lattice plate” in column “Comments” the information by:
25 mm x 2 mm section for tape and 8 mm diameter for round

Replace in line “Steel, Galvanized lattice plate” in column “Comments” the information by:
30 mm x 3 mm section for tape and 10 mm diameter for round

Replace footnote “^c” by:

^c The coating should be smooth continuous and free from flux stains with a minimum weight of 350 g/m² for solid round material and 500 g/m² for solid tape material. The coating can be measured in accordance with EN ISO 1460 with a sample length of approximately 200 mm.

Add in footnote “^e” as a second sentence:

^e The coating can be measured using an electronic coating measuring thickness instrument.

Add a footnote “^h”:

^h Lattice plate constructed with a minimum total conductor length of 4,8 m.

Replace footnote “^f” by:

^f Shall be embedded in concrete for a minimum depth of 20 mm.

Table 4

Replace in line “Steel, Galvanized solid round” in column “Earth rod” the information by:
350 - 770

Replace in line “Steel, Galvanized pipe” in column “Earth rod” the information by:
350 - 770

Replace in line “Steel, Bare solid” in column “Earth rod” the information by:
350 - 770

Replace the footnote “^a” by:

^a Yield/tensile ratio 0,80 – 0,95.

Replace the footnote “^b” by:

^b Chromium ≥ 16 %, Nickel ≥ 10 %, Molybdenum ≥ 2 %, Carbon ≤ 0,08 %.

5 Tests

5.2.1

Replace the subclause by:

5.2.1 Bend test for coated conductors

Coated conductors each approximately 500 mm long shall be bent through a radius equal to five times its solid round diameter or five times its solid tape thickness up to an angle of 90°.

After the test, the specimens shall show no sharp edges, cracks or peeling.

Figure 3

Delete “dms” from the left side of the figure.