

SLOVENSKI STANDARD

SIST EN 50307:2004

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Lead and lead alloys - Lead and lead alloy sheaths and sleeves of electric cables

Lead and lead alloys - Lead and lead alloy sheaths and sleeves of electric cables

Blei und Bleilegierungen - Mäntel und Metallgehäuse von Kabeln aus Blei und Bleilegierungen

Plomb et alliages de plomb - Gâines et manchons en plomb et alliage de plomb des câbles électriques

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Ta slovenski standard je istoveten z: **EN 50307:2002**

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ICS:

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EUROPEAN STANDARD

EN 50307

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2002

ICS 77.150.60

English version

**Lead and lead alloys –
Lead and lead alloy sheaths and sleeves
of electric cables**

Plomb et alliages de plomb –
Gaines et manchons en plomb et alliage
de plomb des câbles électriques

Blei und Bleilegierungen –
Mäntel und Metallgehäuse von Kabeln
aus Blei und Bleilegierungen

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This European Standard was approved by CENELEC on 2002-10-01. CENELEC 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 Central Secretariat or to any CENELEC 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 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and 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 European Standard was prepared by the Technical Committee CENELEC TC 20, Electric cables.

The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50307 on 2002-10-01.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2003-10-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2005-10-01

Users of this European Standard should note that it covers the chemical composition of lead and lead alloy cable sheaths or sleeves after application or forming. CEN has issued a European Standard (EN 12548) to cover lead and lead alloy ingots for use in the manufacture of cable sheaths or sleeves. The compositional requirements therein apply to the material prior to manufacture of the cable sheaths or sleeves and melting loss of some of the alloying elements may occur during processing.

Annexes designated "normative" are part of the body of the standard.

Annexes designated "informative" are given for information only.

In this standard, Annex A and Annex B are informative.

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1 Scope

This European Standard specifies the designations, chemical compositions and other requirements for lead and lead alloy electric cable sheaths and sleeves.

2 Normative references

This European Standard incorporates by dated and undated references, 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 CENELEC Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 12548 Lead and lead alloys - Lead alloy ingots for electric cable sheathing and for sleeves

3 Definitions

For the purpose of this standard the following definitions apply.

3.1

electric cable sheath

uniform and continuous tubular metallic covering, generally extruded and generally of a circular cross section, encasing one or more insulated electrical conductors in order to contain an impregnant if present, mechanically protect the insulation, to prevent the ingress of moisture and to act as an electrical screen

3.2

sleeve

short length of sheath which may be used in the jointing of some types of electric cables

4 Designation

Lead and lead alloys to this standard are designated by an alphanumeric system, see Table 1.

The first letter P signifies lead and lead alloys, the second letter K signifies cables. The three numbers indicate a specific and unique composition for cable sheaths and sleeves, the third letter S signifies sheath (or sleeve).

5 Ordering information for sheaths and sleeves

In order to facilitate the enquiry, order and confirmation of order procedures between the purchaser and supplier for the supply of lead and lead alloy cable sheaths or sleeves, the purchaser shall state on the enquiry and order the following information:

- a) the denomination (e.g. sheath or sleeves);
- b) the number of this European Standard;
- c) the material designation (see Table 1);

- d) whether chemical analysis tests are required;
- e) whether a certificate of analysis tests or a declaration of conformity is required (see Clause 11);
- f) whether some form of identifier is required for sleeves (see Clause 11);
- g) in the case of sleeves, the number, length and dimensions.

NOTE The tolerances on length, and other dimensions are to be agreed between the purchaser and the supplier at the time of enquiry or ordering.

6 Requirements

6.1 Chemical composition of sheaths and sleeves

The chemical composition of the sheaths or sleeves shall conform to the requirements given in Table 1.

6.2 Freedom from defects

The sheaths and sleeves shall be free of any defects, damage or contamination liable to adversely affect their intended purpose or service life.

7 Sampling

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Sampling of sheaths or sleeves for chemical analysis shall be in accordance with the requirements of the product specification.

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8 Analysis methods

When analysis is carried out to verify conformity of sheaths and sleeves to this standard the analytical methods used shall be at the discretion of the supplier.

In cases of dispute concerning the results of analysis and pending the publication of a suitable European Standard containing analytical methods (in preparation by CEN), the methods of analysis shall be agreed between the disputing parties.

For expression of the results of chemical analysis the rounding rules given in Clause 10 shall be used.

9 Re-test procedure

Should any sample fail to meet the specified requirements in 6.1, two further samples shall be taken from the same sheath or batch of sleeves and subjected to the same test or tests in which the original sample failed. Should both additional test samples pass the test, all the cables or sleeves in the batch from which they were taken shall be regarded as complying with the requirements of this specification. Should either of them fail, the batch from which the samples were representative shall be regarded as failing to comply. Further re-sampling and testing shall be subject to agreement between the supplier and customer.

10 Rounding of analysis results

For the purposes of determining conformity to the compositional requirements of this standard, an observed or a calculated value obtained during analysis shall be rounded in accordance with the following procedure. It shall be rounded in one step to the same number of figures used to express the specified limit in Table 1.

The following rules shall be used for rounding:

- a) if the figure immediately after the last figure to be retained is less than five, the last figure to be retained shall be kept unchanged;
- b) if the figure immediately after the last figure to be retained is equal to or greater than five, the last figure to be retained shall be increased by one.

11 Inspection documentation for electric cable sheathing and sleeves

If requested by the purchaser at the time of ordering, the supplier shall provide inspection documents with each consignment of cables or sleeves. The documentation shall be as chosen by the purchaser and shall be in accordance with either a) or b) as follows:

- a) a **certificate of analysis**, giving the results obtained on the specific batches in the consignment. This certificate shall also include the following information:
 - 1) name and address of supplier;
 - 2) date of certificate of analysis;
 - 3) name and address of purchaser;
 - 4) purchaser's contract, or order, number;
 - 5) a description of the goods and the quantity supplied;
 - 6) details of the specification and alloy designation of the sheathing supplied;
 - 7) signature of suppliers authorised representative.
- b) a **declaration of conformity** of the consignment with the order requirements. This declaration shall include the following information:
 - 1) name and address of supplier;
 - 2) date of declaration of conformity;
 - 3) name and address of purchaser;
 - 4) purchaser's contract, or order, number;
 - 5) a description of the goods and the quantity supplied;
 - 6) details of the specification and alloy designation of the sheathing supplied; and

7) the following declaration:

The goods detailed hereon have been manufactured to conform to the requirements of the purchaser's order and to the description, quantity and specification detailed thereon.

Signed:
(Supplier's authorised representative)

12 Marking and labelling of sheathing and sleeves

12.1 Cable sheathing

The identification of electric cable sheathing is not a requirement of this specification but shall be in accordance with the requirements of the product standard.

12.2 Sleeves

If requested at the time of enquiry or order, the sleeves shall be identified in a manner agreed between the supplier and the purchaser. The identification shall provide the following minimum information:

- a) the manufacturer's name, trade or identification mark;
- b) the number and year of this European Standard : EN 50307:2002;
- c) the material designation.

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