



NSAI
Standards

Irish Standard
I.S. EN 10257-1:2011

Zinc or zinc alloy coated non-alloy steel wire for armouring either power cables or telecommunication cables - Part 1: Land cables

I.S. EN 10257-1:2011

Incorporating amendments/corrigenda/National Annexes issued since publication:

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I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

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NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

English Version

Zinc or zinc alloy coated non-alloy steel wire for armouring either power cables or telecommunication cables - Part 1: Land cables

Fils en acier non allié revêtus de zinc ou d'alliage de zinc pour l'armure des câbles destinés au transport d'énergie ou aux télécommunications - Partie 1: Câbles terrestres

Mit Zink oder Zinklegierung überzogener unlegierter Stahldraht zur Bewehrung von Strom- und Fernmeldekabeln - Teil 1: Erdverlegte Kabel

This European Standard was approved by CEN on 10 September 2011.

CEN 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 CEN-CENELEC Management Centre or to any CEN 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 CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



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Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 10257-1:2011) has been prepared by Technical Committee ECISS/TC 106 “Wire rod and wires”, 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 2012, and conflicting national standards shall be withdrawn at the latest by April 2012.

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 10257-1:1998.

The European Standard will comprise the following parts:

- *Part 1: Land cables;*
- *Part 2: Submarine cables.*

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.

1 Scope

This European Standard specifies requirements for the properties of non-alloy carbon zinc or zinc alloy coated steel wire used primarily for the armouring of either subterranean land power or telecommunication cables.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 10021, *General technical delivery conditions for steel products*

EN 10204, *Metallic products — Types of inspection documents*

EN 10218-1, *Steel wire and wire products — General — Part 1: Test methods*

EN 10244-1, *Steel wire and wire products — Non-ferrous metallic coatings on steel wire — Part 1: General principles*

EN 10244-2:2009, *Steel wire and wire products — Non-ferrous metallic coatings on steel wire — Part 2: Zinc or zinc alloy coatings*

EN ISO 16120-1, *Non-alloy steel wire rod for conversion to wire - Part 1: General requirements (ISO 16120-1:2011)*

EN ISO 16120-2, *Non-alloy steel wire rod for conversion to wire - Part 2: Specific requirements for general-purpose wire rod (ISO 16120-2:2011)*

EN ISO 16120-3, *Non-alloy steel wire rod for conversion to wire - Part 3: Specific requirements for rimmed and rimmed substitute, low-carbon steel wire rod (ISO 16120-3:2011)*

IEC 60468, *Method of measurement of resistivity of metallic materials*

3 Terms and definitions

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

3.1

coil

reel

spool

continuous length of wire wound in approximately concentric rings

3.2

batch

quantity of finished wire presented for examination and tested at any one time

4 Information to be supplied by the purchaser

When ordering wire to this European Standard, the purchaser shall specify:

- a) designation (see Clause 5);

- b) quantity in appropriate units;
- c) unit weight of coils (kg);
- d) instructions for strapping and packaging;
- e) surface condition (see Clause 7.3);
- f) agreed quality characteristics (see Clause 8);
- g) inspection document requirements.

And if required:

- h) coating uniformity;
- i) electrical resistance;
- j) identity for traceability.

5 Designation

The steel wire for land cable shall be designated by:

- a) number of this European Standard i.e. EN 10257-1;
- b) nominal wire diameter;
- c) wire coating type to EN 10244-2.

EXAMPLE Steel wire for land cable to EN 10257-1, of nominal wire diameter of 0,45 mm, zinc coated to EN 10244-2:2009, class A:

EN 10257-1-0,45 - Zn - EN 10244-2:2009, class A.

6 Manufacture

6.1 Non-alloy steel

The steel wire shall be cold drawn from plain carbon steel rod produced to EN 10016-1, EN 10016-2 or EN 10016-3 and capable of achieving the physical properties required by this standard. The steel rod shall be capable of being satisfactorily butt welded.

6.2 Welds in coils

The coils as delivered, shall contain no joints other than properly dressed welds, i.e. the original wire diameter shall be retained.

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