

Steel wire and wire products - Non-ferrous metallic coatings on steel wire - Part 2: Zinc or zinc alloy coatings

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

|   |  |
|---|--|
| See Eesti standard EVS-EN 10244-2:2023 sisaldab Euroopa standardi EN 10244-2:2023 ingliskeelset teksti.             | This Estonian standard EVS-EN 10244-2:2023 consists of the English text of the European standard EN 10244-2:2023.                                    |
| Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.  | This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation. |
| Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 28.06.2023. | Date of Availability of the European standard is 28.06.2023.   |
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English Version

Steel wire and wire products - Non-ferrous metallic  
coatings on steel wire - Part 2: Zinc or zinc alloy coatings

Fils et produits tréfilés en acier - Revêtements  
métalliques non ferreux sur fils d'acier - Partie 2 :  
Revêtement de zinc ou d'alliage de zinc

Stahldraht und Drahterzeugnisse - Überzüge aus  
Nichteisenmetall auf Stahldraht - Teil 2: Überzüge aus  
Zink oder Zinklegierungen

This European Standard was approved by CEN on 26 May 2023.

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## European foreword

This document (EN 10244-2:2023) has been prepared by Technical Committee CEN/TC 459 “ECISS – European Committee for Iron and Steel Standardization”<sup>1</sup>, 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of an identical text or by endorsement, at the latest by December 2023, and conflicting national standards shall be withdrawn at the latest by December 2023.

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

This document supersedes EN 10244-2:2009.

In comparison with the previous edition, the following technical modifications have been made:

- the reference towards ASTM B750 for Zn-Alu alloys has been changed to ASTM B997;
- dipping test better specified for Zinc-Alu alloy coatings (see Table 3).

This European Standard series for non-ferrous metallic coating on steel wire is made up of the following parts:

- *Part 1: General principles*
- *Part 2: Zinc or zinc alloy coatings*
- *Part 3: Aluminium coatings*
- *Part 4: Tin coatings*
- *Part 5: Nickel coatings*
- *Part 6: Copper, bronze or brass coatings*

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<sup>1</sup> Through its sub-committee SC 6 “Wire rod and wires” (secretariat: AFNOR).

## 1 Scope

This document specifies the requirement for coating mass, other properties and testing of zinc and zinc alloy coatings on steel wire and steel wire products of circular or other section.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1179, *Zinc and zinc alloys — Primary zinc*

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*

## 3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp/>

### 3.1

#### **wire with zinc or zinc alloy coating**

wire to which zinc or zinc alloy coating has first been applied to protect it against corrosion

Note 1 to entry: The coating method may be hot dipping in a bath of molten zinc or by means of an aqueous solution of suitable electrolyte. In the hot dipping process wiping media may be used to modify the mass of coating.

### 3.2

#### **zinc or zinc alloy coating**

zinc to which other elements are deliberately added in order to obtain particular characteristics

Note 1 to entry: In all cases, the quantity of zinc in the alloy shall be minimum 50 %. The most common alloy elements are aluminium, tin and nickel, but other elements may also be considered.

### 3.3

#### **mass of coating**

mass of zinc per unit of surface area expressed in grams per square metre of surface of bare wire

## 4 Coating requirements

### 4.1 Requirements for the coatings material

The zinc or zinc alloy used for the coating shall comply with the standard EN 1179. For zinc-alloy grades not mentioned in the EN, the alloy shall be specified at the time of enquiry and order. For Zn-Al alloys, reference is made to ASTM B997.

The ingot of the material used for the zinc coating shall be of minimum 99,95 % purity (according to Z3 of EN 1179) unless otherwise stated in the relevant product standard or other specification in the order. Coatings applied by electrolysis shall contain a minimum of 99 % zinc.