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**Steel wire and wire products — Non-ferrous metallic coatings on steel wire —**

Part 2:  
**Zinc or zinc-alloy coating**

*Fils et produits tréfilés en acier — Revêtements métalliques non ferreux sur fils d'acier —*

*Partie 2: Revêtements de zinc ou d'alliages de zinc*





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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 17, *Steel*, Subcommittee SC 17, *Steel wire rod and wire products*.

This second edition cancels and replaces the first edition (ISO 7989-2:2007), which has been technically revised.

The main changes compared to the previous edition are as follows:

- reference is also made to ASTM B997 for Zn-Al alloy coatings (see [4.1](#));
- coating mass Class E is introduced for zinc-aluminium coatings (see [Table 1](#));
- coating requirements to salt-spray test is added, see [4.2.2](#);
- dipping test better specified for Zinc-Alu alloy coatings (see [Table 3](#));
- correction of formulae in [5.2.3.6](#).

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

# Steel wire and wire products — Non-ferrous metallic coatings on steel wire —

## Part 2: Zinc or zinc-alloy coating

### 1 Scope

This document specifies the requirements for the coating mass per unit area, for other properties and also for testing of zinc or 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.

ISO 7802, *Metallic materials — Wire — Wrapping test*

ISO 7989-1:2006, *Steel wire and wire products — Non-ferrous metallic coatings on steel wire — Part 1: General principles*

ISO 9227, *Corrosion tests in artificial atmospheres — Salt spray tests*

### 3 Terms and definitions

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

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

— ISO Online browsing platform: available at <https://www.iso.org/obp>

— IEC Electropedia: available at <http://www.electropedia.org/>

#### 3.1

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

wire where the coating has first been applied to protect it against corrosion

Note 1 to entry: Steel wire and steel wire products of circular or other sections are produced in a continuously hot dip coated/galvanized or continuously electro galvanized process. 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 coating mass per unit area.

#### 3.2

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

coating composed of zinc or zinc alloy, where the zinc alloy is zinc to which other elements have been deliberately added in order to obtain particular characteristics, and in which the quantity of zinc is at least 50 %

Note 1 to entry: The most common alloy elements are aluminium, tin and nickel, but other elements may also be considered.