
**Zinc coatings — Guidelines and
recommendations for the protection
against corrosion of iron and steel in
structures —**

**Part 2:
Hot dip galvanizing**

*Revêtements de zinc — Lignes directrices et recommandations
pour la protection contre la corrosion du fer et de l'acier dans les
constructions —*

Partie 2: Galvanisation à chaud





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Published in Switzerland

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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).

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).

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.

This document was prepared by Technical Committee ISO/TC 107, *Metallic and other inorganic coatings*, Subcommittee SC 4, *Hot dip coatings (galvanized, etc.)*.

This second edition cancels and replaces the first edition (ISO 14713-2:2009), which has been technically revised. The main changes compared with the previous edition are as follows:

- minor technical changes have been made and two new notes have been added to [Table 1](#);
- improvements have been made to the clarity of recommendations throughout [Clause 6](#);
- extensive revisions have been made to the figures in [Annex A](#);
- [Tables A.1, A.2 and A.3](#) have been added in [Annex A](#).

A list of all parts in the ISO 14713 series can be found on the ISO website.

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.

Introduction

The protection afforded by the hot dip galvanized coating to the article will depend upon the method of application of the coating, the design of the article and the specific environment to which the article is exposed. The hot dip galvanized article can be further protected by the application of additional coatings (outside the scope of this document), such as organic coatings (paints or powder coatings). When applied to hot dip galvanized articles, this combination of coatings is often known as a “duplex system”.

Specific product-related requirements, for which specific standards could exist (e.g. for hot dip galvanized coatings on tubes or fasteners), take precedence over these general recommendations.

Zinc coatings — Guidelines and recommendations for the protection against corrosion of iron and steel in structures —

Part 2: Hot dip galvanizing

1 Scope

This document gives guidelines and recommendations for the general principles of design appropriate to articles to be hot dip galvanized after fabrication (e.g. in accordance with ISO 1461) for the corrosion protection of, for example, articles that have been manufactured in accordance with EN 1090-2.

This document does not apply to hot dip galvanized coatings applied to continuous wire or sheet (e.g. to EN 10346).

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 8044, *Corrosion of metals and alloys — Basic terms and definitions*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 8044 and the following 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

hot dip galvanizing

formation of a coating of zinc and/or zinc-iron alloys on iron and steel products by dipping prepared steel or cast irons in the zinc melt

3.2

hot dip galvanized coating

coating obtained by *hot dip galvanizing* (3.1)

Note 1 to entry: The term “hot dip galvanized coating” is subsequently referred to as the “coating”.

3.3

duplex system

hot dip galvanized coating (3.2) with an additional paint or powder coating