
**Hot dip galvanized coatings on fabricated
iron and steel articles — Specifications and
test methods**

*Revêtements par galvanisation à chaud sur produits finis ferreux —
Spécifications et méthodes d'essai*



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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 1461 was prepared by the European Committee for Standardization (CEN) in collaboration with ISO Technical Committee TC 107, *Metallic and other inorganic coatings*, Subcommittee SC 4, *Hot dip coatings (galvanized, etc.)*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

Throughout the text of this standard, read "...this European Standard..." to mean "...this International Standard...".

This second edition cancels and replaces the first edition (ISO 1461:1973) as well as the first edition of ISO 1459 (ISO 1459:1973), which has been technically revised.

Annexes A and B form an integral part of this International Standard. Annexes C to E are for information only.

For the purposes of this International Standard, the CEN annex regarding fulfilment of European Council Directives has been removed.

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Contents

	Page
1 Scope	1
2 Normative references	1
3 Term(s) and definition(s)	1
4 General requirements	3
4.1 Hot dip galvanizing bath	3
4.2 Information to be supplied by the purchaser	3
4.3 Safety	3
5 Sampling	3
6 Coating properties	3
6.1 Appearance	3
6.2 Thickness	4
6.2.1 General	4
6.2.2 Test methods	4
6.2.3 Reference areas	4
6.3 Renovation	6
6.4 Adhesion	6
6.5 Acceptance criteria	7
7 Certificate of compliance	7
Annex A (normative) Information to be supplied by the purchaser to the hot dip galvanizer	8
Annex B (normative) Safety and process requirements	9
Annex C (informative) Properties of the articles to be coated that affect the results of hot dip galvanizing	10
Annex D (informative) Determination of thickness	13
Annex E (informative) Bibliography	15

Foreword

The text of EN ISO 1461:1999 has been prepared by Technical Committee CEN/TC 262 "Metallic and other inorganic coatings", the secretariat of which is held by BSI, in collaboration with Technical Committee ISO/TC 107 "Metallic and other inorganic coatings".

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 August 1999, and conflicting national standards shall be withdrawn at the latest by August 1999.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This Standard specifies the general properties of and methods of test for coatings applied by hot dipping in zinc (containing not more than 2 % of other metals) on fabricated iron and steel articles. It does not apply to:

- a) sheet and wire that are continuously hot dip galvanized;
- b) tube and pipe that is hot dip galvanized in automatic plants;
- c) hot dip galvanized products for which specific standards exist and which may include additional requirements or requirements different from those of this European Standard.

NOTE Individual product standards can incorporate this standard for the coating by quoting its number, or may incorporate it with modifications specific to the product.

After-treatment/overcoating of hot dip galvanized articles is not covered by this standard.

2 Normative references

This Standard incorporates, by dated or undated reference, 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 International/European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

EN 1179, *Zinc and zinc alloys — Primary zinc*.

EN ISO 1460, *Metallic coatings — Hot dip galvanized coatings on ferrous materials — Gravimetric determination of the mass per unit area (ISO 1460:1992)*.

EN 22063, *Metallic and other inorganic coatings — Thermal spraying — Zinc, aluminium and their alloys (ISO 2063:1991)*.

EN ISO 2064, *Metallic and other inorganic coatings — Definitions and conventions concerning the measurement of thickness (ISO 2064:1980)*.

EN ISO 2178, *Non-magnetic coatings on magnetic substrates — Measurement of coating thickness — Magnetic method (ISO 2178:1982)*.

ISO 752, *Zinc ingots*.

ISO 2859-1, *Sampling procedures for inspection by attributes — Part 1: Sampling plans indexed by acceptable quality level (AQL) for lot-by-lot inspection*.

ISO 2859-3, *Sampling procedures for inspection by attributes — Part 3: Skip-lot sampling procedures*.

ISO 10474, *Steel and steel products — Inspection documents*.

3 Term(s) and definition(s)

For the purposes of this standard, the following definitions apply together with those given in EN ISO 2064.

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 iron in molten zinc.

3.2

hot dip galvanized coating

coating obtained by hot dip galvanizing

NOTE The term 'hot dip galvanized coating' is subsequently referred to as the 'coating'.