

Continuously hot-dip zinc coated structural steels strip and sheet — Technical delivery conditions

The European Standard EN 10147:2000 has the status of a
British Standard

ICS 77.140.50

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

BSI
Documents



Document Sharing Hub

National foreword

This British Standard is the official English language version of EN 10147:2000. It supersedes BS EN 10147:1992 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee ISE/10, Flat rolled steel products, to Subcommittee ISE/10/8, Coated steel flat rolled products, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 21 and a back cover.

The BSI copyright notice displayed in this document indicates when the document was last issued.

This British Standard, having been prepared under the direction of the Engineering Sector Committee, was published under the authority of the Standards Committee and comes into effect on 15 July 2000

© BSI 07-2000

ISBN 0 580 34793 1

Amendments issued since publication

Amd. No.	Date	Comments

English version

Continuously hot-dip zinc coated structural steels strip and sheet – Technical delivery conditions

Bandes et tôles en aciers de construction galvanisées à
chaud en continu – Conditions techniques de livraison

Kontinuierlich Feuerverzinktes Band und Blech aus
Baustählen – Technische Lieferbedingungen

This European Standard was approved by CEN on 1 April 2000.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

Contents

	Page
Foreword	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Classification and designation	6
4.1 Classification	6
4.2 Designation	6
5 Information to be supplied by the purchaser	7
5.1 Mandatory information	7
5.2 Options	8
6 Manufacturing process	8
7 Requirements	8
7.1 Mechanical properties	8
7.2 Coatings	9
7.3 Coating finish	10
7.4 Surface quality	10
7.5 Surface treatment (surface protection)	11
7.6 Freedom from coil breaks	12
7.7 Coating mass	12
7.8 Adhesion of coating	13
7.9 Surface condition	13
7.10 Tolerances on dimensions and shape	14
7.11 Suitability for further processing	14
8 Testing	14
8.1 General	14
8.2 Test units	14
8.3 Number of tests	14
8.4 Sampling	15
8.5 Test methods	15
8.6 Retests	16
8.7 Inspection documents	16
9 Marking	17
10 Packing	17
11 Storage and transportation	17

12	Disputes	17
Annex A	(normative) Reference method for determination of the zinc coating mass	18
Annex B	(informative) List of corresponding former designations	20
Bibliography		21

Foreword

This European Standard has been prepared by Technical Committee ECISS/TC 27, Surface coated flat products - Qualities, dimensions, tolerances and specific tests, the Secretariat of which is held by DIN.

This European Standard supersedes EN 10147:1991.

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 October 2000, and conflicting national standards shall be withdrawn at the latest by October 2000.

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

1.1 This European Standard specifies requirements for continuously hot-dip zinc coated flat products in thicknesses $\leq 3,0$ mm made of the steels given in Table 1. The thickness is the final thickness of the delivered product after zinc coating. This European Standard applies to strip of all widths and to sheets cut from it (≥ 600 mm width) and cut lengths (< 600 mm width).

The types of coating, coating masses and coating finishes available, and surface qualities are given in Tables 2 to 4 (see also 7.2 to 7.4).

1.2 If agreed at the time of ordering, this European Standard may also be applied to continuously hot-dip zinc coated flat products in thicknesses $> 3,0$ mm. In this case, the mechanical property, adhesion of coating and surface condition requirements shall also be agreed at the time of ordering.

1.3 The products covered by this European Standard are suitable for applications where the minimum yield strength values and resistance to corrosion are of prime importance. Corrosion protection afforded by the coating is directly proportional to the mass of coating (see also 7.2.2).

1.4 This European Standard is not applicable to:

- continuously hot-dip zinc coated low carbon steel strip and sheet for cold forming (see EN 10142);
- electrolytically zinc coated cold rolled steel flat products (see EN 10152);
- continuously organic coated (coil coated) flat steel products (see EN 10169-1 and ENV 10169-2);
- continuously hot-dip coated strip and sheet of steels with higher yield strength for cold forming (see EN 10292).

2 Normative references

This European 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 European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 10002-1, *Metallic materials – Tensile testing – Part 1: Method of test (at ambient temperature)*.

EN 10020, *Definition and classification of grades of steel*.

EN 10021, *General technical delivery requirements for steel and steel products*.

EN 10027-1, *Designation system for steel – Part 1: Steel names, principal symbols*.

EN 10027-2, *Designation systems for steels – Part 2: Numerical system*.

EN 10079, *Definition of steel products*.

EN 10143, *Continuously hot-dip metal coated steel sheet and strip – Tolerances on dimensions and shape*.

EN 10204, *Metallic products – Types of inspection documents*.

CR 10260, *Designation systems for steel – Additional symbols*.

EURONORM 12¹⁾, *Bend test for steel sheet and strip less than 3 mm thick*.

3 Terms and definitions

For the purposes of this Standard the following terms and definitions apply in addition to the terms and definitions in EN 10020, EN 10021, EN 10079 and EN 10204 (see clause 2).

3.1

hot-dip zinc coating

application of zinc coating by immersing the prepared products in a molten bath containing a zinc content of at least 99 %

In this case, the wide strip of steel is continuously hot-dip coated.

3.2

coating mass

total mass including both surfaces (expressed in grams per square metre)

4 Classification and designation

4.1 Classification

The steel grades according to this European Standard given in Table 1 are classified according to their increasing minimum yield strength (R_{eH}).

4.2 Designation

4.2.1 Steel names

For the steel grades covered by this European Standard, the steel names as given in Table 1 are allocated in accordance with EN 10027-1 and CR 10260.

¹⁾ Until it is transformed into European Standard, either EURONORM 12 or the corresponding national standard may be applied.