

norm

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leveringsvoorwaarden

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Continuously hot-dip coated structural steels strip and sheet - Technical
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ICS



English version

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

Bandes et tôles en aciers de construction revêtues par immersion à chaud en continu - Conditions techniques de livraison

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Orbital
Preview

Foreword

This document (prEN 10326) 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 document is currently submitted to the CEN Enquiry.

1 Scope

1.1 This European Standard specifies requirements for continuously hot-dip coated products made of structural steels coated with zinc (Z), zinc-iron alloy (ZF), zinc-aluminium alloy (ZA), aluminium-zinc alloy (AZ) and aluminium-silicon alloy (AS) (see Table 1) with thicknesses from 0,35 up to 3,0 mm unless otherwise agreed. The thickness is the final thickness of the delivered product after coating.

This European Standard applies to strip of all widths and to sheets cut from it (Δ 600 mm width) and cut lengths (< 600 mm width).

This European Standard replaces the former standards EN 10147, 10154, 10214 and 10215.

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 mainly used where minimum yield strength and corrosion resistance are the most important factors. Corrosion resistance of the alloy is proportional to the coating mass (see also 7.2.2)

1.4 This European Standard is not applicable to

- continuously hot-dip coated flat products of low-carbon steel strip and sheet for cold forming (see EN 10xyz)
- electrolytic galvanized cold rolled steel flat products (see EN 10152)
- continuously organic coated (coil coated) flat steel products (see EN 10169 – 1, ENV 10169 – 2 and prEN 10169 – 3)
- 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).

prEN 10002-1, *Metallic materials - Tensile testing - Part 1: Method of testing (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 systems for steels - 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*.

ENV 606, *Bar coded transport and handling labels for steel products*.

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

ISO 14284, *Steel and iron - Sampling and preparation of samples for the determination of chemical composition*.

3 Terms and definitions

In the present cases, the wide strip is continuously hot-dip coated in a bath the composition of which is given in 3.1 to 3.4.

For the purposes of this European Standard the following terms and definitions apply in addition to the definitions in EN 10020, EN 10021, EN 10079 and EN 10204.

3.1

hot-dip zinc coating (Z, ZF)

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

3.2

hot-dip zinc-aluminium alloy coating (ZA)

application of a zinc-aluminium coating by immersing the prepared products in a molten bath which is composed of zinc, approximately 5% Aluminium and small amounts of mischmetal

3.3

hot-dip aluminium-zinc alloy coating (AZ)

prEN 10326:2002 (E)

application of an aluminium-zinc coating by immersing the prepared products in a molten bath which is composed of 55% Aluminium, 1,6% silicon and the balance zinc

3.4 hot-dip aluminium-silicon alloy coating (AS)

application of an aluminium-silicon coating by immersing the prepared products in a molten bath which is composed of aluminium and 8 % to 11 % silicon.

3.5 coating mass

total mass of coating including both surfaces of the product (expressed in grams per square metre)

4 Classification and designation

4.1 Classification

The steel grades of this standard are classified in accordance with their increasing minimum yield strength (R_{eH}) (see Table 1).

4.2 Designation

4.2.1 Steel names

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

4.2.2 Steel numbers

For the steel grades covered by this standard, the steel numbers as given in Table 1 are allocated in accordance with EN 10027-2 and CR 10260.

5 Information to be supplied by the purchaser

5.1 Mandatory information

The following information shall be supplied by the purchaser at the time of enquiry and order:

- a) the quantity to be delivered,
- b) the type of product (strip, sheet, cut length),
- c) the number of the dimensional standard (EN 10143),
- d) the nominal dimensions and the tolerances on dimensions and shape and, if applicable, letters denoting relevant special tolerances,
- e) the term "steel",

- f) number of this European Standard (EN 10XXX),
- g) steel name or steel number and symbol for the type of hot-dip coating as given in Table 1,
- h) number designating the nominal mass of coating (e.g. 275 = 275 g/m² including both surfaces, see Tables 2 to 5),
- i) letter denoting the coating finish (N, M or R, see 7.3 and Tables 2 to 5),
- j) letter denoting the surface quality (A, B or C, see 7.4),
- k) letter denoting the surface treatment (C, O, CO, S, P or U, see 7.5).

Example: 1 sheet, delivered with dimensional tolerances in accordance with EN 10143 with nominal thickness of 0,80 mm, ordered with special thickness tolerances (S), nominal width 1200 mm, ordered with special width tolerances (S), nominal length 2500 mm, ordered with special flatness tolerances (FS), made of steel S320GD+ZF (1,0250+ZF) in accordance with EN 10XXX, coating mass 100 g/m² (100), coating finish R, surface quality B, surface treatment oiled (O):

1 sheet EN 10143-0,80Sx1200Sx2500FS
steel EN 10XXX-S320GD+ZF100-R-B-O

or:

1 sheet EN 10143-0,80Sx1200Sx2500FS
steel EN 10XXX-1,0250+ZF100-R-B-O

5.2 Options

A number of options are specified in this standard and listed below. If the purchaser does not indicate his wish to implement one of these options, the supplier shall supply in accordance with the basis specification of this standard (see 5.4).

- a) any coating masses different from those of Tables 2 to 5 (see 7.2.2),
- b) any special requirements for different coating masses on each surface (see 7.2.3),
- c) any products with pronounced spangle (see 7.3.1),
- d) any products supplied free from coil breaks (see 7.6)
- e) any special requirements for a maximum or minimum value for the coating mass per product surface (see 7.8.2),
- f) notification of which surface has been inspected (see 7.9.1),
- g) any testing for compliance with the requirements of this standard (see 8.1.1 and 8.1.2),
- h) any supply of an inspection document and type of document (see 8.7),
- i) any marking desired by branding of the products (see 9.2),

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