SLOVENSKI STANDARD
oSIST prEN 10346:2025

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Kontinuirno vroče prevlečeni jekleni ploščati izdelki za hladno preoblikovanje - Tehnični dobavni pogoji

Continuously hot-dip coated steel flat products for cold forming - Technical delivery conditions

Kaltgewalzte kontinuierlich schmelztauchveredelte Flacherzeugnisse aus Stahl - Technische Lieferbedingungen

Produits plats en acier revêtus en continu par immersion à chaud pour formage à froid - Conditions techniques de livraison

Ta slovenski standard je istoveten z: **prEN 10346**

ICS:

77.140.50	Ploščati jekleni izdelki in polizdelki	Flat steel products and semi-products

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EUROPEAN STANDARD

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English Version

Continuously hot-dip coated steel flat products for cold forming - Technical delivery conditions

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This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 459/SC 9.

If this draft becomes a European Standard, 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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European foreword

This document (prEN 10346:2025) has been prepared by Technical Committee CEN/TC 459/SC 9 “Coated and uncoated flat products to be used for cold forming”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 10346:2015.

prEN 10346:2025 includes the following significant technical changes with respect to EN 10346:2015:

— scope and normative references have been updated;

— addition of normative reference to:

  o EN 10373, Determination of the physical and mechanical properties of steels using models;

  o EN 1090-4, *Execution of steel structures and aluminium structures - Part 4: Technical requirements for cold-formed structural steel elements and cold-formed structures for roof, ceiling, floor and wall applications*

  o EN 1993-1-1, *Eurocode 3 - Design of steel structures - Part 1-1: General rules and rules for buildings*

  o EN 1993-1-3, *Eurocode 3 - Design of steel structures - Part 1-3: General rules - Supplementary rules for cold-formed members and sheeting*

— definitions have been added in Clause 3;

— addition of hot-dip aluminium coating and deletion of hot-dip aluminium-zinc alloy coating;

— addition of three new steel families: dual-phase steels with improved formability (XH), complex-phase steels with improved formability (CH) and multi-phase steels with improved formability (AH);

— addition of options referring to new steel grades S550GDR and S650GDR in Clause 5.2;

— addition of three new steel grades for construction: S500GD, S550GDR and S650GDR;

— addition of two new micro-alloyed steel grades: HX600LAD and HX700LAD;

— addition of minimum requirements regarding proportional elongation of steel grades for construction and micro-alloyed steel grades with thickness ≥ 3,0 mm;

— addition of cold-rolled multiphase steels for cold forming: HCT780XG, HCT1180X, HCT1180XG, HCT590XH, HCT780XH, HCT980XH, HCT1180XH, HCT1180C, HCT980CH, HCT1180CH, HCT1370CH, HCT980AH and HCT1180AH;

— addition of hot-rolled multiphase steels for cold forming: HDT760C and HDT950C;

— addition of an informative Annex about tensile tests results and coating impact;

— addition of an informative Annex about steel designations for multiphase steels for cold forming.

1 Scope

This document specifies requirements for continuously hot-dip coated products made of low carbon steels for cold forming, of steels for construction and of steels with high proof strength for cold forming coated with zinc (Z), zinc-iron alloy (ZF), zinc-aluminium alloy (ZA), zinc-magnesium alloy (ZM), aluminium-silicon alloy (AS) or aluminium (A) and for continuously hot-dip coated products made of multiphase steels for cold forming coated with zinc (Z), zinc-iron alloy (ZF), zinc-aluminium alloy (ZA) or zinc-magnesium alloy (ZM) in thicknesses of 0,20 mm ≤ t ≤ 6,5 mm.

By agreement at the time of enquiry and order, this document is applicable to continuously hot-dip coated flat products of an expanded validity range defined for thicknesses t < 0,20 mm with agreed mechanical properties and test specimens, adhesion of coating and surface condition requirements. This document applies to strip of all widths and to sheets cut from it (≥600 mm width) and cut lengths (<600 mm width).

NOTE The products covered by this document are used where cold formability, high strength, a defined minimum yield strength and/or corrosion resistance are the most important factors. Corrosion resistance of the product is depending on coating type and coating thickness, hence to its mass (see also 7.3.2). The products covered by this document can be used as substrates for organic coated flat products specified in EN 10169 for building and general engineering applications.

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.

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

EN 10021, *General technical delivery conditions for steel products*

EN 10027-1, *Designation systems for steels — Part 1: Steel names*

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

EN 10049, *Measurement of roughness average Ra and peak count RPc on metallic flat products*

EN 10079, *Definition of steel products*

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

EN 10204, *Metallic products — Types of inspection documents*

EN 10325, *Steel — Determination of yield strength increase by the effect of heat treatment [Bake-Hardening-Index]*

EN ISO 6892-1, *Metallic materials — Tensile testing — Part 1: Method of test at room temperature (ISO 6892-1)*

EN ISO 10113, *Metallic materials — Sheet and strip — Determination of plastic strain ratio (ISO 10113)*

EN ISO 10275, *Metallic materials — Sheet and strip — Determination of tensile strain hardening exponent (ISO 10275)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 10020, EN 10021, EN 10079, EN 10204 and the following apply.