



SLOVENSKI STANDARD
SIST EN 10205:1997

01-december-1997

Hladno valjana črna pločevina v svitkih za izdelavo pokositrene ali elektrolizno kromane pločevine s prevleko krom/kromov oksid

Cold reduced blackplate in coil form for the production of tinplate or electrolytic chromium/chromium oxide coated steel

Kaltgewalztes Feinstblech in Rollen zur Herstellung von Weißblech oder von elektrolytisch spezialverchromtem Stahl

Fer noir laminé a froid, en bobine destiné a la fabrication de fer blanc ou de fer chromé électrolytique

[SIST EN 10205:1997](https://standards.iteh.ai/catalog/standards/sist/4b6661c6-2b75-4596-8d6d-4ba29f8a4665/sist-en-10205-1997)

[https://standards.iteh.ai/catalog/standards/sist/4b6661c6-2b75-4596-](https://standards.iteh.ai/catalog/standards/sist/4b6661c6-2b75-4596-8d6d-4ba29f8a4665/sist-en-10205-1997)

[8d6d-4ba29f8a4665/sist-en-10205-1997](https://standards.iteh.ai/catalog/standards/sist/4b6661c6-2b75-4596-8d6d-4ba29f8a4665/sist-en-10205-1997)

Ta slovenski standard je istoveten z: EN 10205:1991

ICS:

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

SIST EN 10205:1997

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 10205:1997

<https://standards.iteh.ai/catalog/standards/sist/4b6661c6-2b75-4596-8d6d-4ba29f8a4665/sist-en-10205-1997>

EUROPEAN STANDARD

EN 10205:1991

NORME EUROPEENNE

EUROPAISCHE NORM

November 1991

UDC 669.146.99-41-122.2:669.268.7:620.1

Descriptors : Iron and steel products, cold rolled products, blackplate, tinsplate, chromium plating, electrodeposited coatings, mechanical properties, dimensional tolerances, form tolerances, sampling, tests

English version

Cold reduced blackplate in coil form for the production of tinsplate or electrolytic chromium/chromium oxide coated steel

Fer noir laminé à froid, en bobine destiné à la fabrication de fer blanc ou de fer chromé électrolytique

Kaltgewalztes Feinstblech in Rollen zur Herstellung von Weißblech oder von elektrolytisch spezialverchromtem Stahl

iTeh STANDARD PREVIEW

This European Standard was approved by CEN on 1991-11-30. 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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

(c) CEN 1991 Copyright reserved to all CEN members

Ref. No. EN 10205:1991 E

Page 2
EN 10205:1991

Contents	Page
1 Scope	4
2 Normative references	4
3 Definitions	4
4 Information to be supplied by the purchaser	6
5 Designation	7
6 Manufacturing features	8
7 Specific requirements	9
8 Mechanical properties	9
9 Tolerances on dimensions and shape	10
10 Joints within a coil (standards.iteh.ai)	12
11 Sampling	13
12 Test methods	14
13 Retests	16
14 Dispatch and packaging	16
<u>Annex</u>	
A. The springback test for routine determination of proof stress for double reduced material. (normative)	17

Foreword

This European Standard was prepared by Technical Committee ECISS/TC 26 "Blackplate and tinplate". It was agreed by ECISS/TC 26 at its meeting in November 1989 where the following countries were represented : Belgium, France, Germany, Italy, Netherlands, Norway and Spain.

This European Standard EN 10205 was approved by CEN on 1991-10-07.

According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard :

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 10205:1997

<https://standards.iteh.ai/catalog/standards/sist/4b6661c6-2b75-4596-8d6d-4ba29f8a4665/sist-en-10205-1997>

1 Scope

This draft European Standard specifies requirements for single and double cold reduced blackplate in the form of coils which are intended for manufacturing tinsplate or ECCS in accordance with EN 10 203 or EN 10 202.

Single reduced blackplate is specified in nominal thicknesses that are multiples of 0,005 mm from 0,17 mm up to and including 0,49 mm. Double reduced blackplate is specified in nominal thicknesses that are multiples of 0,005 from 0,14 mm up to and including 0,29 mm.

This standard applies to coils in nominal minimum widths of 600 mm either with trimmed or untrimmed edges.

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 undated references the latest edition of the publication referred to applies.

- EN 10 109** Metallic materials - hardness test - Part 1 Rockwell superficial (scales 15 N, 30 N, 45 N, 15 T, 30 T and 45 T)
- EN 10 002-1** Metallic materials - Tensile testing Part 1: Methods of test (at ambient temperature)
- EN 10 202** Cold reduced electrolytic chromium/chromium oxide coated steel
- EN 10 203** Cold reduced electrolytic tinsplate

3 Definitions

For the purposes of this European Standard the following definitions apply:

- 3.1 **blackplate**. Cold reduced low carbon mild steel, normally oiled, for the production of tinsplate or ECCS in accordance with EN 10 202 or EN 10 203.
- 3.2 **single cold reduced**. A term used to describe blackplate which has been reduced to the desired thickness in a cold reduction mill and subsequently annealed and temper rolled.
- 3.3 **double cold reduced**. A term used to describe blackplate which has had a second major reduction after annealing.
- 3.4 **batch (box) annealed (BA)**. Annealed by the process in which the cold reduced strip is annealed in tight coil form, within a protective atmosphere, for a predetermined time-temperature cycle.

3.5 continuously annealed (CA). Annealed by the process in which cold reduced coils are unwound and annealed in strip form within a protective atmosphere.

3.6 finish. The appearance of the surface of blackplate, resulting from controlled preparation of the work rolls used for final stages of rolling.

3.6.1 shot blast finish. A finish resulting from the use of temper mill work rolls that have been shot blasted.

3.6.2 smooth finish. A finish resulting from the use of temper mill work rolls that have been ground to a high degree of polish. This finish is used for the production of bright finish tinplate.

3.6.3 stone finish. A finish characterized by a directional pattern, resulting from the use of final mill work rolls that have been ground to a lower degree of polish than those used for the smooth finish.

3.7 coil. A rolled flat strip product which is wound into regularly superimposed laps so as to form a coil with almost flat sides.

3.8 bow

iTeh STANDARD PREVIEW

3.8.1 longitudinal (line) bow. Residual curvature in the strip remaining along the direction of rolling.

3.8.2 transverse (cross) bow. A mode of curvature in the strip such that the distances between its edges parallel to the rolling direction is less than the strip width.

3.9 centre buckle (full centre). An intermittent vertical displacement or wave in the strip occurring other than at the edges.

3.10 edge wave. An intermittent vertical displacement occurring at the strip edge when the strip is laid on a flat surface. This parameter is only applicable to material supplied with trimmed edges.

3.11 feather edge (transverse thickness profile). The variation in thickness, characterized by a reduction of thickness close to the edges, at right angles to the rolling direction. This parameter is only applicable to material supplied with trimmed edges.

3.12 burr. Metal displaced beyond the plane of the surface of the strip by shearing action.

3.13 rolling width. The width of the strip perpendicular to the rolling direction.

3.14 consignment. A quantity of material of the same specification made available for despatch at the same time.

3.15 pallet. Base platform on which a coil is placed to facilitate ready transportation.

3.16 anvil effect. The effect which a hard anvil can produce on the numerical hardness value obtained when a hardness test is performed on very thin material supported on such an anvil.

4 Information to be supplied by the purchaser

4.1 General

The following information shall be given on the enquiry and order to assist the manufacturer in supplying the correct material:

- a) the designation as given in clause 5;
- b) the quantity expressed as a mass basis;
- c) for single reduced blackplate the finish required, see 6.2.1;
- d) the orientation of the coils at delivery i.e. with the cores vertical or horizontal, see clause 14;
- e) whether the coil shall be supplied with the edges trimmed or not.

NOTE. Appropriate classifications are suitable for shaping operations such as stamping, drawing, folding, heading and bending and assembly work such as joint forming and welding. The end use should be borne in mind when the classification is selected.

4.2 Options

In the event that the purchaser does not indicate his wish to implement any of the options included in this standard and does not specify his requirements at the time of the enquiry and order, the product shall be supplied on the following basis:

- a) for double reduced blackplate - with a stone surface finish (see 6.2.2);
- b) the location of each joint shall be indicated by a piece of non-rigid material and punched holes (see 10.3);
- c) coated with a suitable oil (see 6.3);
- d) with an internal diameter of 420 (+ 10, - 15) mm (see clause 14).

4.3 Additional information

When ordering, the user shall supply all the necessary information concerning:

- (a) his production facilities which he anticipates will be appropriate to the ordered blackplate;
- (b) the intended end use.

5 Designation

5.1 Single reduced blackplate

For the purposes of this standard single reduced blackplate is designated in terms of a temper classification based on the Rockwell HR 30 Tm hardness values as given in table 1.

Single reduced material covered by this standard shall be designated by the following characteristics in the given sequence:

- a) a description of the material (i.e. blackplate coil);
- b) the number of this European Standard (EN 10 205);
- c) the temper designation in accordance with table 1;
- d) the type of annealing if required by the user (see 8.1);
- e) the type of finish (see 3.6);
- f) the dimensions of the thickness and width in mm;
- g) whether mill edge or trimmed.

Example - blackplate EN 10 205 - T61 - CA - stone - 0,20 x 800, trimmed.

[https://standards.iteh.ai/catalog/standards/sist/4b6661c6-2b75-4596-](https://standards.iteh.ai/catalog/standards/sist/4b6661c6-2b75-4596-816d-4ba29f8a4665/sist-en-10205-1997)

5.2 Double reduced blackplate

For the purposes of this standard double reduced blackplate is designated in terms of a system of mechanical property classifications based on the 0.2 % proof stress as given in table 2.

Double reduced material covered by this standard shall be designated by the following characteristics in the given order:

- a) a description of the material (i.e. blackplate coil);
- b) the number of this European Standard (EN 10 205);
- c) the mechanical property designation (see table 2);
- d) the type of annealing, if required by the user (see 8.1);
- e) the dimensions of the thickness and width in mm;
- f) whether mill edge or trimmed.

Example - blackplate EN 10 205 - DR 620 - CA - 0,18 x 750, mill edge.