



SLOVENSKI STANDARD
SIST EN 10029:1996
01-avgust-1996

Jfc Yj U'UbU'Y_`YbUd`c Yj]bUžXYVYU' `a a `U]j Y `!`Hc`YfUbW'a YfžcV`_Y]b
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Hot rolled steel plates 3 mm thick or above - Tolerances on dimensions, shape and mass

Warmgewalztes Stahlblech von 3 mm Dicke an - Grenzabmaße, Formtoleranzen,
 zulässige Gewichtsabweichungen

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Tôles en acier laminées a chaud, d'épaisseur égale ou supérieure a 3 mm - Tolérances
 sur les dimensions, la forme et la masse

[SIST EN 10029:1996](https://standards.iteh.ai/catalog/standards/sist/3183de67-4b24-4e30-b256-529876228d20/sist-en-10029-1996)

Ta slovenski standard je istoveten z: **EN 10029:1991**

ICS:

77.140.50	Ú[[z æz\ ^} æ å^ æ][ã å^ ã	Flat steel products and semi-products
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SIST EN 10029:1996 **en**

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UDC : 669.14-122.4-41:621.753.14:620.1

Descriptors : Iron and steel products, hot rolled products, metal plates, alloy steel, unalloyed steels, stainless steels, designation, dimensional tolerances, form tolerances, weight tolerances

English version

Hot rolled steel plates 3 mm thick or above - Tolerances on dimensions, shape and mass

Tôles en acier laminées à chaud, d'épaisseur égale ou supérieure à 3 mm - Tolérances sur les dimensions, la forme et la masse	Warmgewalztes Stahlblech von 3 mm Dicke an - Grenzabmaße, Formtoleranzen, zulässige Gewichtsabweichungen
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This European Standard was approved by CEN on 1991-04-17
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.

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

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

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Foreword

This draft European Standard has been drawn up by ECISS/TC 12 "Structural steel and steels for pressure purposes, flat products - Dimensions and tolerances" whose Secretariat is held by NNI.

This document was originally drawn up as an EURONORM under the European Coal and Steel Community. With the formation of ECISS and the establishment of the ECISS work programme TC 12 was asked to prepare this document for eventual publication as an European Standard.

This European standard replaces:
EURONORM 29 (1981) Hot-rolled plates 3 mm thick or above - Tolerances on dimensions, shape and mass.

ECISS/TC 12 met in February 1990 in Brussels and agreed on the text for circulation for formal vote within CEN. The following countries were represented in that meeting: Austria, Belgium, France, Germany, Italy, Netherlands and UK.

The Coordinating Commission (COCOR) of ECISS agreed on 1990-12-04/05 to submit this draft European Standard to the CEN formal vote.

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

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherland, Norway, Protugal, Spain, Sweden, Switzerland and United Kingdom.

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1 Scope

This European Standard specifies requirements for tolerances for hot-rolled non-alloy and alloy steel plates including stainless steels with the following characteristics:

- a) nominal thickness $\geq 3 \text{ mm} \leq 250 \text{ mm}$;
- b) nominal width $\geq 600 \text{ mm}$;
- c) specified minimum yield strength $< 700 \text{ N/mm}^2$.

Tolerances for products of width $< 600 \text{ mm}$ cut or slit from plate should be agreed between manufacturer and purchaser at the time of enquiry and order.

This European Standard does not apply to round plates, sketch plates, chequer or raised-droplet pattern floor plates and wide flats for which other EURONORMS exist or European Standards dealing with tolerances on products of steel are being prepared:

- tolerances on dimensions, shape and mass for hot-rolled wide flats of steel (see EURONORM 91) ¹⁾.

2 Normative References

- EN 10 079 Definition of steel products
EN 10 163 Delivery requirements for surface condition of hot-rolled plates, wide flats and sections of steel; parts 1 - 3

3 Definition

For the purpose of this European standard the following definition applies:
plate, see EN 10 079.

4 Information to be supplied by the purchaser

4.1 General

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

- a) description of the product (plate);
- b) number of this European standard (EN 10 029);
- c) nominal thickness in millimetres;
- d) the tolerance class required (A, B, C, or D) (see 6.2 and 7.1);
- e) nominal width in millimetres;
- f) the letters NK if plate with mill edges is required (see 7.2.2);
Option 1.
- g) nominal length in millimetres;
- h) the letter G if plate with limited edge camber and out-of-squareness is required (see 8.1);
Option 2.

1) Until this EURONORM is transformed into an European Standard, it can either be implemented or reference made to the corresponding national standard, the list of which is given in Annex A to this European Standard.

- i) the letter S if plate with special flatness tolerances is required (see 8.2).
Option 3.

Where no specific choice is made by the purchaser concerning points c, d, e and g the supplier shall refer back to the purchaser.

4.2 Options

A number of options are specified in clause 11. In the event that the purchaser does not indicate his wish to implement any of these options, the supplier shall supply in accordance with the basic specification (see 6.2).

5 Designation

The designation of products in accordance with 4.1 shall also include the exact designation of the ordered steel grade.

Examples of designation:

- a) plate according to this European standard with nominal thickness of 20 mm, class A thickness tolerance, nominal width 2000 mm, with trimmed edges, nominal length 4500 mm, with normal flatness tolerances of steel Fe 360 B, as specified in EN 10 025:

plate EN 10 029 - 20A × 2000 × 4500
steel EN 10 025 - Fe 360 B

- b) plate according to this European standard with nominal thickness of 4,5 mm, class B thickness tolerance, nominal width 1500 mm, with mill edges (NK), nominal length 2800 mm, with special flatness tolerances (S) and an edge camber limited to 0,2 % of the actual length and an out-of-squareness limited to 1 % of the actual width (G) of steel X 10 CrNi 18 9, as specified in EURONORM 88:

plate EN 10 029 - 4,5B × 1500NK × 2800 S G
steel EURONORM 88 - X 10 CrNi 18 9

6 Form of supply

6.1 Plate shall be supplied:

- a) with thickness tolerances of class A, B, C or D (see 7.1.1);
b) with trimmed edges or with mill edges (NK) (see 7.2.2);
c) with normal (N) or with special (S) flatness tolerances (see 8.2).

6.2 In the absence of information in the order or of code letters for the supply, plate shall be supplied as follows:

- sheared or flame cut edges;
- normal tolerances for flatness, class N (see table 4).

7 Tolerances on dimensions

7.1 Thickness

7.1.1 Tolerances on thickness are given in table 1. Plates may be supplied with either:

- class A: for minus thickness tolerances depending on the nominal thickness;
- class B: for a fixed minus tolerance of 0,3 mm;
- class C: for all plus tolerances depending on the nominal thickness;
- class D: for symmetrical tolerances depending on the nominal thickness.

At the time of enquiry and order the purchaser shall indicate if class A, B, C or D tolerances are required (see 4.1).

Additionally and within the tolerance limits on nominal thickness, the tolerances between minimum and maximum thickness of an individual plate given in table 1 shall apply to class A, B, C and D tolerances.

7.1.2 For permissible limits concerning surface imperfections and requirements for repair EN 10 163 parts 1 and 2 apply.

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Table 1 -- Tolerances on thickness

Dimensions in mm

Nominal thickness	Tolerances on the nominal thickness (see 7.1.1) 1)										Maximum thickness difference within a plate				
	Class A		Class B		Class C		Class D		Nominal plate width						
	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	≥ 600 < 2000	≥ 2000 < 2500	≥ 2500 < 3000	≥ 3000 < 3500	≥ 3500 < 4000	≥ 4000	
3 < 5	- 0,4	+ 0,8	- 0,3	+ 0,9	- 0	+ 1,2	- 0,6	+ 0,6	0,8	0,9	0,9	-	-	-	
5 < 8	- 0,4	+ 1,1	- 0,3	+ 1,2	- 0	+ 1,5	- 0,75	+ 0,75	0,9	0,9	1,0	1,0	1,0	-	
8 < 15	- 0,5	+ 1,2	- 0,3	+ 1,4	- 0	+ 1,7	- 0,85	+ 0,85	0,9	1,0	1,0	1,1	1,1	1,1	
15 < 25	- 0,6	+ 1,3	- 0,3	+ 1,6	- 0	+ 1,9	- 0,95	+ 0,95	1,0	1,1	1,2	1,2	1,2	1,2	
25 < 40	- 0,8	+ 1,4	- 0,3	+ 1,9	- 0	+ 2,2	- 1,1	+ 1,1	1,1	1,2	1,2	1,2	1,3	1,3	
40 < 80	- 1,0	+ 1,8	- 0,3	+ 2,5	- 0	+ 2,8	- 1,4	+ 1,4	1,2	1,3	1,4	1,4	1,4	1,4	
80 < 150	- 1,0	+ 2,2	- 0,3	+ 2,9	- 0	+ 3,2	- 1,6	+ 1,6	1,3	1,4	1,5	1,5	1,5	1,6	
150 ≤ 250	- 1,2	+ 2,4	- 0,3	+ 3,3	- 0	+ 3,6	- 1,8	+ 1,8	1,4	1,5	1,6	1,6	1,6	1,7	

1) These thickness tolerances apply outside ground areas (see 7.1.2).