



**SLOVENSKI STANDARD**  
**SIST EN 10140:1998**  
**01-avgust-1998**

**Hladno valjani ozki jekleni trakovi - Mejni odstopki mer in tolerance oblik**

Cold rolled narrow steel strip - Tolerances on dimensions and shape

Kaltband - Grenzabmaße und Formtoleranzen

Feuillards laminés a froid - Tolérances de dimensions et de forme

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**Ta slovenski standard je istoveten z: EN 10140:1996**

SIST EN 10140:1998

<https://standards.iteh.ai/catalog/standards/sist/04eabea2-9b42-451b-b237-975018339a38/sist-en-10140-1998>

**ICS:**

77.140.50	Ú[[ z aak \   ^ } áa á ^ \ áa ][  ã á ^ \ á	Flat steel products and semi-products
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**SIST EN 10140:1998** **en**

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EUROPEAN STANDARD

EN 10140

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 1996

ICS 77.140.50

Descriptors: cold rolled products, strips, unalloyed steels, designation, dimensional tolerances, form tolerances

English version

**Cold rolled narrow steel strip - Tolerances on  
dimensions and shape**Feuillards laminés à froid - Tolérances de  
dimensions et de forme

Kaltband - Grenzabmaße und Formtoleranzen

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This European Standard was approved by CEN on 1996-06-30. 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.

The European Standards exist 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

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## Foreword

This European Standard has been prepared by Technical Committee ECISS/TC 13 "Flat products for cold working - Qualities, dimensions, tolerances and specific tests", the secretariat of which is held by IBN.

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 February 1997, and conflicting national standards shall be withdrawn at the latest by February 1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of 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 and the United Kingdom.

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## 1 Scope

1.1 This European Standard applies to cold rolled narrow strip in coils and cut length in thicknesses up to 10 mm and of widths less than 600 mm, made from unalloyed and alloyed steels with the exception of stainless and heat-resisting steels and the products given in 1.2.

The application of this European Standard to products with other dimensions shall be agreed separately.

1.2 This European Standard does not cover cold rolled flat products for which a separate standard already exists, particularly the following products:

- cold rolled non-oriented magnetic steel sheet and strip (EN 10106)
- grain-oriented magnetic steel sheet and strip (EN 10107)
- semi-processed steel strip for the construction of magnetic circuits (EN 10126 and EN 10165)
- cold rolled uncoated low carbon and high yield strength steel flat products for cold forming (EN 10131)
- cold reduced blackplate (EN 10205)

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## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate place 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.

EN 10079 - Definition of steel products

## 3 Definitions

For the purposes of this European Standard, the definitions of cold rolled flat products given in clause 1 are identical to those given in EN 10079.

NOTE: In the case of narrow widths, strip complying with this standard may also be wound in layers and supplied in the form of a bobbin wound coil.

## 4 Form and conditions of delivery

### 4.1 Form of delivery

Cold rolled narrow strip according to this European Standard may be supplied:

- in coils, the dimensions and weight of which shall be agreed at the time of ordering;
- or
- in cut lengths (when coils have been unwound and cut into lengths).

By agreement at the time of ordering, the preferred internal coil diameter is equal to approximately 500 mm or 400 mm.

For narrow strip in thicknesses of less than 0.5 mm, smaller internal diameters (e.g. 300 mm or 250 mm) may be agreed separately.

### 4.2 Condition of delivery

Unless the edge condition and tolerances on dimensions and shape are specified in the order, products shall be supplied with slit edges (GK) and normal tolerances (A); cut lengths shall be supplied in as-produced lengths.

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## 5 Information to be supplied by the purchaser

The following information shall be supplied by the purchaser at the time of ordering:

- a) description of the product (coils or cut lengths);
- b) references number of this European Standard (EN 10140);
- c) nominal thickness and width in millimetres;
- d) the symbol GK if slit edges have been ordered;
- e) nominal length in millimetres (for cut lengths);
- f) required tolerances:
  - 1) on thickness;
  - 2) on width;
  - 3) on length;
  - 4) on edge camber;
- g) type of coil and coil internal diameter.

## 6 Designation

Products complying with this European Standard shall be designated in the following order (see also clause 5):

- a) type of product (narrow strip or cut length);
- b) references to this European Standard (EN 10140);
- c) nominal thickness in millimetres;
- d) the letters B or C for products ordered with fine or precision tolerances on thickness;
- e) nominal width, in millimetres;
- f) symbols for type of edge if not GK;
- g) the letter B for products ordered with fine tolerances on width;
- h) nominal length, in millimetres (only for cut lengths);
- i) the letter B for products ordered with fine tolerances on length;
- j) the letters FS for narrow strip or cut length with fine tolerances on edge camber.

The designation of products specified in clause 5 shall be followed by the precise designation of the steel grade ordered and the surface appearance.

### Examples

- a) The designation for cold rolled narrow strip conforming to this European Standard 1.50 mm thick, having a normal tolerance on the nominal thickness, a width of 200 mm, slit edges (GK) and made from steel grade DC04 + LC MB RM conforming to EN 10139 is:

Narrow strip EN 10140-1.50 × 200 GK  
Steel EN 10139 - DC04 + LC MB RM

- b) The designation for cut length conforming to this European Standard having a nominal thickness of 2 mm, a nominal width of 450 mm, slit edges (GK), a nominal length equal to 4000 mm with fine tolerances (B) on length and made from steel grade DC03 + A MA conforming to EN 10139, is:

Cut length EN 10140 - 2.0 × 450 GK × 4000 B  
Steel EN 10139 - DC03 + A - MA



## 7 Tolerances on dimensions

## 7.1 Thickness

7.1.1 The tolerances on thickness are normal (A), fine (B) or precision (C) and are given in table 1.

Table 1: Tolerances on thickness

Dimensions in millimetres

Nominal thickness mm		Tolerances on thickness for nominal widths								
		< 125			≥ 125 < 250			≥ 250 < 600		
>	≤	A	B	C	A	B	C	A	B	C
	0,10	± 0,008	± 0,006	± 0,004	± 0,010	± 0,008	± 0,005	± 0,015	± 0,012	± 0,008
0,10	0,15	± 0,010	± 0,008	± 0,005	± 0,015	± 0,012	± 0,010	± 0,020	± 0,015	± 0,010
0,15	0,25	± 0,015	± 0,012	± 0,010	± 0,020	± 0,015	± 0,010	± 0,025	± 0,015	± 0,012
0,25	0,40	± 0,020	± 0,015	± 0,010	± 0,025	± 0,020	± 0,015	± 0,030	± 0,020	± 0,015
0,40	0,60	± 0,025	± 0,020	± 0,015	± 0,030	± 0,025	± 0,015	± 0,035	± 0,025	± 0,020
0,60	1,00	± 0,030	± 0,025	± 0,015	± 0,035	± 0,030	± 0,020	± 0,040	± 0,030	± 0,025
1,00	1,50	± 0,035	± 0,030	± 0,020	± 0,040	± 0,035	± 0,025	± 0,050	± 0,040	± 0,030
1,50	2,50	± 0,045	± 0,035	± 0,025	± 0,050	± 0,040	± 0,030	± 0,060	± 0,045	± 0,035
2,50	4,00	± 0,055	± 0,040	± 0,030	± 0,060	± 0,050	± 0,035	± 0,075	± 0,055	± 0,040
4,00	6,00	± 0,070	± 0,050	± 0,035	± 0,075	± 0,060	± 0,040	± 0,090	± 0,065	± 0,045
6,00	8,00	± 0,080	± 0,060	± 0,040	± 0,090	± 0,070	± 0,045	± 0,100	± 0,075	± 0,050
8,00	10,00	± 0,090	± 0,070	± 0,045	± 0,100	± 0,080	± 0,050	± 0,110	± 0,085	± 0,055