

**Külmvaltsitud madalsüsinikterasest
tasapinnalised tooted
külmsurvetöötluks. Tehnilised
tarnetingimused**

Cold rolled low carbon steel flat products for cold
forming - Technical delivery conditions

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 10130:1999 sisaldab Euroopa standardi EN 10130:1991 + A1:1998 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 10130:1999 consists of the English text of the European standard EN 10130:1991 + A1:1998.</p> <p>This document is endorsed on 23.11.1999 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>See Euroopa standard kehtib külmvaltsitud pinnakatteta madalsüsinikterasest tasapinnaliste toodete kohta, mis on valtsitud laiusesse 600 mm või rohkem ning on ette nähtud külmsurvetöötluseks. Tasapinnaliste toodete minimaalne paksus võib olla 3 mm või alla selle ning tooteid tarnitakse lehe, rulli või kitsakslõigatud rulli kujul või kitsakslõigatud rullist või lehest teatud pikkusesse lõigatud toodete kujul.</p>	<p>Scope:</p>
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ICS 77.140.50

Võtmesõnad: külmtöötlemine, külmvaltstooted, madalsüsinikterased, metallplaadid, raud- ja terastooted, rebendite tekkimine, servade ääristamine, tarnetingimus, tehnilistele nõuetele vastavuse katsetamine

Hinnagrupp K

ICS 77.140.50

Supersedes EN 10130 : 1991.

Descriptors: Steel, flat products, cold forming.

English version

**Cold-rolled low carbon steel flat products
for cold forming**

Technical delivery conditions (includes Amendment A1 : 1998)

Produits plats laminés à froid, en acier
doux pour emboutissage au pliage à
froid – Conditions techniques de livrai-
son (amendement A1 : 1998 inclus)

Kaltgewalzte Flacherzeugnisse aus
weichen Stählen zum Kaltumformen –
Technische Lieferbedingungen
(enthält Änderung A1 : 1998)

This European Standard was approved by CEN on 1991-02-20 and Amendment A1 on 1998-05-01.

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, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the 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 to EN 10130 : 1991

This European Standard has been prepared by Technical Committee ECIS/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, and conflicting national standards withdrawn, by February 1991 at the latest.

In accordance with 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, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Foreword to EN 10130 : 1991/A1 : 1998

This Amendment to EN 10130 : 1991 has been prepared by Technical Committee ECIS/TC 13 'Flat products for cold working – Qualities, dimensions, tolerances and specific tests', the Secretariat of which is held by IBN.

This Amendment shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by November 1998 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this Amendment:

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

1 Scope

This European Standard applies to cold-rolled non-coated low carbon steel flat products in rolled widths equal to or over 600 mm for cold forming, with a minimum thickness of 0,35 mm, and unless otherwise agreed at the time of ordering, equal to or less than 3 mm, delivered as sheet, coil, slit coil, or cut lengths obtained from slit coil or sheet.

It does not apply to cold-rolled narrow strip (rolling width < 600 mm) nor to flat cold-rolled products for which there is a specific standard, in particular the following:

- cold-rolled non-grain oriented magnetic steel sheet and strip (EN 10106);
- semi-processed steel strip for the construction of magnetic circuits (EN 10126 and EN 10165);
- blackplate in coils (EN 10205);
- steel sheet and strip for welded gas cylinders (EN 10120);
- hot-rolled flat products in high yield strength steels for cold forming (EN 10149-2-3);
- cold-rolled flat products in high yield strength steels for cold forming (prEN 10268);
- cold-rolled uncoated unalloyed mild steel narrow strip for cold forming (EN 10139);
- cold-rolled low carbon steel flat products for vitreous enamelling (EN 10209);
- cold-rolled structural steels for general purposes.

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.

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| EN 10002-1 | Metallic materials – Tensile test – Part 1: Method of test (at ambient temperature) |
| EN 10002-2 | Part 2: Verification of the force measuring systems of the testing machines |
| EN 10002-4 | Part 4: Verification of the extensometers used in uniaxial testing |
| EN 10020 | Definition and classification of grades of steel |
| EN 10021 | General technical delivery requirements for steel and iron 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 10131 | Cold rolled uncoated low carbon and high yield strength steel flat products for cold forming – Tolerances on dimensions and shape |

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| EN 10204 | Metallic products – Types of inspection documents |
| CR 10260 | Designation systems for steel – Additional symbols for steel names |
| EURONORM 18 | Selection and preparation of samples and test pieces for steel and iron and steel products |
| EURONORM 49 | Roughness measurement of cold-rolled uncoated steel sheet and strip |

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.

4 Designation

The symbolic designation of steel grades in this European Standard is in conformity with EN 10027-1 and CR 10260, the numerical designation is allocated in conformity with EN 10027-2.

The designation consists of the word: 'sheet', 'wide strip', 'slit wide strip' or 'cut lengths', followed by:

- a reference to this European Standard (EN 10130 + A1);
- the symbol DC;
- the grade designation (01, 03, 04, 05, or 06, or the numerical designation);
- the symbol for the surface quality (A for surface quality A or B for surface quality B);
- if applicable, the symbol for the surface finish (see table 1).

Examples of designation:

Designation of sheet made of steel grade DC01, surface quality A (A), surface finish normal (m):

Sheet EN 10130 + A1 – DC01 – A – m

Designation of coil made of steel grade DC06, surface quality B (B), surface finish semi-bright (g):

Coil EN 10130 + A1 – DC06 – B – g

5 Requirements

5.1 Steelmaking and manufacturing processes

Unless otherwise agreed at the time of ordering, the steelmaking and manufacturing processes are at the manufacturer's discretion.

The purchaser shall be informed of these processes, if he so requests.

5.2 Deoxidation

For grade DC01, the method of deoxidation shall be at the manufacturer's discretion. Grades DC03, DC04, DC05 and DC06 shall be fully killed.

5.3 Chemical composition

The chemical composition based on ladle analysis shall be as given in table 2.