

**Külmvormitavad külmvaltsitud
madalsüsinikterasest lehttooted. 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 10130:2007 sisaldab Euroopa standardi EN 10130:2006 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 29.01.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 10130:2007 consists of the English text of the European standard EN 10130:2006.</p> <p>This document is endorsed on 29.01.2007 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>
--	---

<p>Käsitlusala:</p> <p>This European Standard applies to cold rolled uncoated 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 inquiry and order, equal to or less than 3 mm, delivered in sheet, coil, slit coil, or cut lengths obtained from slit coil or sheet.</p>	<p>Scope:</p> <p>This European Standard applies to cold rolled uncoated 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 inquiry and order, equal to or less than 3 mm, delivered in sheet, coil, slit coil, or cut lengths obtained from slit coil or sheet.</p>
---	---

ICS 77.140.50

Võtmesõnad:

English Version

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

Produits plats laminés à froid, en acier à bas carbone pour
formage à froid - Conditions techniques de livraison

Kaltgewalzte Flacherzeugnisse aus weichen Stählen zum
Kaltumformen - Technische Lieferbedingungen

This European Standard was approved by CEN on 28 October 2006.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

Page

Foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	5
4 Designation	5
5 Requirements	5
5.1 Steelmaking and manufacturing processes	5
5.2 Deoxidation	5
5.3 Chemical composition	5
5.4 Delivery conditions.....	6
5.5 Mechanical properties.....	6
5.6 Surface characteristics	6
5.6.1 General.....	6
5.6.2 Surface quality	6
5.6.3 Surface finish	7
5.7 Stretcher strain marks.....	7
5.7.1 General.....	7
5.7.2 Skin-passed products	8
5.7.3 Non-skin-passed products	8
5.8 Suitability for surface coating	8
5.9 Weldability	8
5.10 Tolerances on dimensions and shape	8
6 Tests.....	8
6.1 General.....	8
6.2 Inspection units	8
6.3 Number of tests.....	8
6.4 Sampling	8
6.5 Test methods.....	9
6.6 Re-tests.....	9
6.7 Inspection document.....	9
7 Marking	9
8 Packing	9
9 Disputes	9
10 Information to be provided by the purchaser at the time of enquiry and order.....	10
Bibliography	12

Foreword

This document (EN 10130:2006) 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/BIN.

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 June 2007, and conflicting national standards shall be withdrawn at the latest by June 2007.

This document supersedes EN 10130:1991 + A1:1998.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

1 Scope

This European Standard applies to cold rolled uncoated 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 inquiry and order, equal to or less than 3 mm, delivered in 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);
- cold rolled flat products in high yield strength steels for cold forming (EN 10268);
- cold rolled uncoated non-alloy mild steel narrow strip for cold forming (EN 10139);
- cold rolled low carbon steel flat products for vitreous enamelling (EN 10209).

2 Normative references

The following referenced documents are indispensable for the application 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 10002-1, *Metallic materials – Tensile testing – Part 1: Method of test at ambient temperature*

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*

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 10079:1992, *Definition of steel products*

EN 10131, *Cold rolled uncoated and zinc or zinc-nickel electrolytically coated low carbon and high yield strength steel flat products for cold forming – Tolerances on dimensions and shape*

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

EN ISO 377, *Steel and steel products – Location and preparation of samples and test pieces for mechanical testing (ISO 377:1997)*

EN ISO 14284, *Steel and iron – Sampling and preparation of samples for the determination of chemical composition (ISO 14284:1996)*

ISO 10113, *Metallic materials – Sheet and strip – Determination of plastic strain ratio*

ISO 10275, *Metallic materials – Sheet and strip – Determination of tensile strain hardening exponent*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions of the cold rolled flat products listed in clause 1 are those given in EN 10079:1992.

4 Designation

The steel names are in compliance with EN 10027-1; the steel numbers, with EN 10027-2.

The designation consists of the word "sheet", "coil", "slit coil" or "cut length", followed in order by:

- reference of this European Standard (EN 10130);
- steel name or the steel number (see Table 2);
- symbol concerning the surface quality (A for surface quality A or B for surface quality B);
- if applicable, the symbol relating to the surface finish (see Table 1).

EXAMPLE 1 Designation of sheet made of steel grade DC01 (1.0330), surface quality A, surface finish normal (m):

Sheet EN 10130–DC01–A–m
or
Sheet EN 10130–1.0330–A–m

EXAMPLE 2 Designation of coil made of steel grade DC06 (1.0873), surface quality B, surface finish semi-bright (g):

Coil EN 10130–DC06–B–g
or
Coil EN 10130–1.0873–B–g

5 Requirements

5.1 Steelmaking and manufacturing processes

Unless otherwise agreed at the time of enquiry and order the steelmaking and manufacturing processes are left to the discretion of the manufacturer.

The purchaser shall be informed of these processes if he or she specifies.

5.2 Deoxidation

For grade DC01, the method of deoxidation shall be at the manufacturer's discretion. Grades DC03, DC04, DC05, DC06 and DC07 shall be aluminium fully killed.

5.3 Chemical composition

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