

**Cold reduced tinmill products -
Electrolytic tinplate and electrolytic
chromium/chromium oxide coated steel**

Cold reduced tinmill products - Electrolytic tinplate
and electrolytic chromium/chromium oxide coated
steel

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 10202:2001 sisaldab Euroopa standardi EN 10202:2001 + AC:2003 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 16.11.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 10202:2001 consists of the English text of the European standard EN 10202:2001 + AC:2003.</p> <p>This document is endorsed on 16.11.2001 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>Standard määrab kindlaks nõuded üks või kaks korda külmalta taandatud galvaanilise kroomiga või kroomoksiidiga kaetud terase (electrolytic chromium coated steel, ECCS) kohta. Standard kehtib rullide ja lehtede kohta, mis on lõigatud rullidest, mille minimaalne nimilaius on 600 mm.</p>	<p>Scope:</p>
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Võtmesõnad: measurement, metal coatings, metals, panels, production, properties, semi-finished products, sheet materials, sheets, specification (approval), specifications, steel strips, steels, tape, testing, tolerances, tolerances (measurement)

English version

**Cold reduced tinmill products - Electrolytic tinplate and
electrolytic chromium/chromium oxide coated steel**

Aciers pour emballage laminés à froid - Fer blanc
électrolytique et fer chromé électrolytique

Kaltgewalzte Verpackungsblecherzeugnisse - Elektrolytisch
verzinnter und spezialverchromter Stahl

This European Standard was approved by CEN on 4 February 2001.

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 Management Centre 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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

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Foreword

This European Standard has been prepared by Technical Committee ECISS/TC 26 "Tinmill products - Qualities, dimensions, tolerances and specific tests", the secretariat of which is held by BSI.

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 September 2001, and conflicting national standards shall be withdrawn at the latest by September 2001.

This European Standard replaces EN 10202:1989.

This European Standard revises and combines EN 10202:1989, Cold reduced electrolytic chromium/chromium oxide coated steel and EN 10203:1991, Cold reduced electrolytic tinplate. EN 10203 is withdrawn.

It is intended that the third European Standard in the present series, EN 10205:1992, Cold reduced blackplate in coil form for the production of tinplate or electrolytic chromium/chromium oxide coated steel, will be withdrawn.

COCOR (Coordinating Commission of ECISS) approved the work item to revise EN 10202:1989 at its meeting in November 1996. The following countries agreed to participate: Belgium, France, Germany, Italy, Netherlands, Norway and the United Kingdom.

The annexes A, F, G, H and I are informative; the annexes B, C, D and E are normative. This European Standard also contains a Bibliography.

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

1 Scope

This European Standard specifies requirements for tinmill products in the form of sheets or coils for subsequent cutting into sheets. Tinmill products consist of single and double reduced low carbon mild steel electrolytically coated with either tin (tinplate) or chromium/chromium oxide (ECCS).

Single reduced tinmill products are specified in nominal thicknesses that are multiples of 0,005 mm from 0,17 mm up to and including 0,49 mm. Double reduced tinmill products are specified in nominal thicknesses that are multiples of 0,005 mm from 0,13 mm up to and including 0,29 mm.

This European Standard applies to coils and sheets cut from coils in nominal minimum widths of 600 mm.

NOTE Standard width coils for specific uses, e.g. tabstock, may be slit into narrow strip for supply in coil form.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate points in the text and the publications are listed hereafter. Subsequent amendments to, or revisions of, any of these publications apply to this European Standard only when incorporated in it by amendment or revision. In the case of undated references, the most recent edition of the publications referred to applies (including amendments).

EN 610:1996, *Tin and tin alloys — Ingot tin*

EN 10002-1:1989, *Metallic materials — Tensile testing — Part 1: Methods of test (at ambient temperature)*

EN 10109-1:1996, *Metallic materials — Hardness test — Part 1: Rockwell test (scales A, B, C, D, E, F, G, H, K) and Rockwell superficial test (scales 15N, 30N, 45N, 15T, 30T and 45T)*.

EN ISO 4288, *Geometrical product specifications (GPS) — Surface texture: Profile method — Rules and procedures for the assessment of surface texture (ISO 4288 :1996)*.

3 Terms and definitions

For the purposes of this standard the following terms and definitions apply:

3.1

electrolytic tinplate

cold rolled low carbon mild steel sheet or coil coated on both surfaces with tin that is applied in continuous electrolytic operation

3.2

differentially coated electrolytic tinplate

electrolytic tinplate, one surface of which carries a heavier tin coating than the other. In some cases one surface may have no tin coating

3.3

electrolytic chromium/chromium oxide coated steel (ECCS)

cold rolled low carbon mild steel sheet or coil electrolytically treated to produce on both surfaces a duplex film of metallic chromium adjacent to the steel substrate with a top layer of hydrated chromium oxides or hydroxides

3.4

single cold reduced

a term used to describe those products where the steel substrate has been reduced to the desired thickness in a cold reduction mill and subsequently annealed and temper rolled

3.5

double cold reduced

a term used to describe those products in which the steel substrate, after annealing, has had a second reduction in excess of 5 %, using a lubricant

3.6

temper rolling

a secondary rolling process, in which the reduction is less than or equal to 5 %, normally carried out dry